



INDIAN
INSTITUTE OF
TECHNOLOGY
MADRAS

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Indian Institute of Technology Madras

2023-2024 Annual Report



Indian Institute of Technology Madras
Chennai – 600 036

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President of India

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Department of Computer Science and Engineering
Indian Institute of Technology Madras

Prof. Sethupathi K (from January 1, 2024)

Department of Physics
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Prof. Koshy Varghese

Dean (Administration)
Indian Institute of Technology Madras

Prof. R. G. Robinson (from May 4, 2023)

Dean (Administration)
Indian Institute of Technology Madras

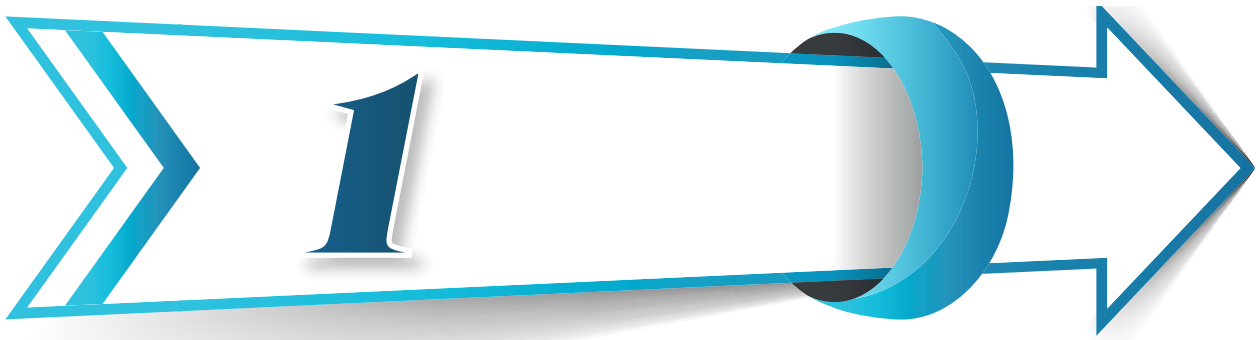
Prof. Murali K

Dean (Faculty)
Indian Institute of Technology Madras

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Director's Report

Presented on the 61st Convocation of IIT Madras on July 19, 2024

Chief Guest, Nobel Laureate Prof. Brian K. Kobilka; Chairperson, Board of Governors, IIT Madras, Dr. Pawan Goenka; Members of the Board of Governors; Members of the Senate; Dearest Graduands; Distinguished Invitees; Colleagues and Dearest Students:

I am happy that this 61st Convocation is being graced by Nobel Laureate Prof. Brian K. Kobilka. I am sure the graduands are lucky to have Prof. Brian Kobilka, the 2012 Nobel Prize Winner for Chemistry, as the Chief Guest. Dr. Kobilka's work on the G-protein-coupled receptor's structure and function has impacted the field of medicine and helped us better understand human health and disease. Thank you very much for accepting our invitation, sir.

IIT Madras has had an eventful year with many major milestones, the top three being: establishment of the Department of Data Science and AI, establishment of the School of Interdisciplinary Studies and launch of the Agnibaan.

The Department of Data Science and AI, housed in the Wadhvani School of Data Science and AI that was generously funded by our Distinguished alumnus Mr. Sunil Wadhvani, will work on impactful problems of direct relevance to the society. The Department, along with the Robert Bosch Centre for Data Science and Artificial Intelligence (RBCDSAI), Centre for Responsible AI (CeRAI), Centre for Integrative Biology and Systems medicine (IBSE), and AI4Bharat, comprises a vibrant research ecosystem that focuses on exciting areas.

The School of Interdisciplinary Studies (SIdIS) has been

launched to foster interdisciplinary research on various emerging areas to enable advanced solutions for cutting-edge technologies and unconventional sustainability solutions towards energy, environment, ecology, and climate systems. SIdIS offers Interdisciplinary Research Programs (IDRP) across various departments, 14 Interdisciplinary Dual Degree (IDDD) programs and 9 International Interdisciplinary Master's Programs (I2MP) on various topics such as Advanced Materials and Nanotechnology, Biomedical Engineering, Computational Engineering, Data Science, Energy Systems, Robotics, Quantum Science and Technology, Complex Systems and Dynamics, Cyber Physical Systems, Electrical Vehicles, Quantitative Finance, Public Policy, and Atmospheric and Climate Sciences.

IIT Madras-incubated startup company Agnikul Cosmos launched its suborbital test demonstrator launch vehicle, called Agnibaan SorTeD Mission 01, from India's only private launch pad that it had developed at Sriharikota on May 30, 2024. The Agnibaan SorTeD rocket was a success in its maiden mission, reaching an altitude of around 6 km after 65 seconds of burn, as intended. The rocket uses the world's most fully integrated 3D printed engine, marking this India's first semi-cryo launch, with fully closed-loop guidance and control for a suborbital flight. The space flight of the orbital class vehicle is expected to be launched in a year's time.

IIT Madras has proved herself by sustaining the top ranks in the NIRF (National Institutional Ranking Framework) - She has retained the #1 position for the fifth year in a row

for overall performance among all universities in India, the #1 position among Engineering Institutes for the eighth year since the inception of NIRF, and ranked #2 in the Research Institutions and Innovation categories.

IIT Madras has also won the CII Industrial Intellectual Property Awards 2023 in the category of academic institution for having the Best Patent Portfolio during the period 2018-23. Thanks to the persistent efforts of the students, faculty, staff, alumni, and industry partners in making this achievable.

IIT Madras, since being granted the 'Institute of Eminence' (IoE) status in 2019, has augmented several of her research initiatives in diverse fields of contemporary relevance and has established 15 interdisciplinary IoE Centres of Excellence and will address new problems with significant potential for breakthroughs in knowledge and application. These Centres of Excellence are expected to evolve into global leaders in their respective domains over the next five years. The Centres of Excellence span diverse research areas including complex systems, industrial asset management, molecular materials, low-carbon construction, healthcare, quantum information, sports science, soft matter studies, and cancer genomics. The IoE mobility program has supported over 200 international faculty, post-doctoral fellows, and graduate students from 30+ different countries to travel to IIT Madras.

At this Convocation, around 2640 graduands will receive their degrees, which includes around 445 Ph.D. students. A total of 7 Ph.D. scholars among them will receive joint degrees with foreign universities - three from Nanyang Technological University in Singapore and one each from the National University of Singapore in Singapore, University of Technology in Australia, Swinburne University of Technology in Australia, and Queensland University of Technology in Australia. This year, the first batch of 16 International Interdisciplinary Master's Program (I2MP) students will receive their degrees at this Convocation, with one student from Ethiopia continuing to pursue a Ph.D. The first set of around 145 students will get degrees from the School of Interdisciplinary Studies.

1. Degree and Outreach Programmes

IIT Madras has undertaken many initiatives that are in congruence with the National Education Policy.

A Curriculum Task Force (CTF) was set up to update the UG curriculum. The CTF has introduced a recreation course, an entrepreneurship course and a semester-long internship with an aim to provide students with an opportunity to showcase their

interests and personalities in their education. The CTF has also introduced an early exit option that students can exercise if they wish to carry on with pursuits such as entrepreneurship. With reduction of credits, the curriculum is more in line with international programs of similar nature and gives greater freedom to students to pursue their interests. It has also enabled repositioning of workshop activity within the semester, thereby providing the first-year students with longer vacation breaks, consistent with those of students in higher semesters.

Following the grand success of the online BS in Data Science and Programming, an online BS Degree in Electronic Systems has been launched last year that is open to persons of varied age groups and diverse backgrounds to pursue at their own pace and with multiple entry and exit options.

The Department of Data Science and AI will offer a B.Tech. in AI & Data Analytics, an M.Tech. in Data Science and AI, and also multiple programmes for international students.

Web-enabled M.Tech. programmes launched to benefit industry personnel for upgrading their technical knowledge and skill at their own pace have been a grand success. Nearly 11 such programs have been conducted so far, that saw nearly 1000 enrolments.

IIT Madras, in a trailblazing initiative, has offered



Prof. V. Kamakoti, Director, IIT Madras

undergraduate seats to students who have excelled in sports. Candidates who have top-notch performance in various sports were required to apply through the 'Sports Excellence Admission' path. It is mandatory that they should have performed at the national or higher level and should have obtained a rank in the Joint Entrance Examination (JEE) (Advanced) 2024 exam. The Institute offered two seats per department – one gender neutral and one female-only – and through such competition, four candidates emerged successful. They are: Vedavachan Reddy (Lawn Tennis). Nandini Jain (Squash), Prabhav Gupta (Table Tennis) and Aryaman Mandal (Swimming). I welcome them to IIT Madras.

IIT Madras has recently launched the world's first Online MBA in Digital Maritime & Supply Chain to equip global professionals with the expertise to navigate the digital transformation of the maritime trade and enable career advancement.

IIT Madras, in consonance with her Strategic Plan, is focusing more on 'local relevance leading to global excellence' to make 'IITM for All'/'Anaivarukkum IITM'. Vidya Shakthi and Kalvi Shakthi are such initiatives, undertaken by IIT Madras through her Section 08 company, IIT Madras Pravartak Technologies Foundation that is housed in the Technology Innovation Hub, funded by the Department of Science and Technology under its National Mission on Cyber Physical Systems.

Vidya Shakthi and Kalvi Shakthi (in Tamil Nadu) schemes take a cue from Swami Vivekananda's quote 'If the poor boy cannot come to education, education must go to him', and cognizant of the fact that 'Local Relevance Leads to Global Recognition', have aimed to reach every kid in every village by providing best quality education in their mother tongue using technology. Starting with 5 villages in October 2021, today Vidya Shakti has its Rural Interaction Centres spread over 504 villages in Bharat and 16 villages in Sri Lanka.

The total beneficiaries so far from this initiative are 50,000 in Varanasi, 6,000 in Tamil Nadu, 500 in Arunachal Pradesh and 1,500 in Sri Lanka. The scheme has enabled the creation of 510 part-time and 20 full time jobs, ~10% increase in new admissions in government schools, and witnessed ~15% increase in student scores. The Vidya Shakti team has trained 3300 schoolteachers (1800 in Varanasi district & 1500 in Andhra Pradesh) in using virtual labs to teach maths and science concepts.

The Vidya Shakti team teaches simulation software as part of experiential learning and virtual reality-based lessons. The STEM tutors in Tamil Nadu give face-to-face demonstrations of science experiments to 3000 middle school students. Apart from students, the team has trained 166 rural women in software testing and data entry programs, 30 each in Tamil Nadu and Telangana and 106 in Uttar Pradesh under the rural empowerment programme, of which 12 have already got formal full-time jobs and 71 part-time jobs. Our digital didis, 5 in

Uttar Pradesh and 3 in Tamil Nadu, have been recognized by the respective governments. The training in software testing and data analytics provided by the Team will benefit around 10,000 college students in Tamil Nadu through the Naan Mudhalvan programme.

The Sony Pravartak Finishing School Programme, aimed to train economically weaker students from Tier II and III engineering colleges with employability skills, had 30 beneficiaries. Out of the Box Thinking (OoBT) through mathematics, that aims to nurture young minds to solve problems through an indirect and creative approach using reasoning that is not immediately obvious and involves ideas that may not be obtainable using only traditional step-by-step logic, has successfully completed one cycle of all 4 levels that had about 2 lakh registrations altogether. This course is conducted every year and the registrations are going on for 2024.

'Science Technology Engineering and Mathematics (STEM)', launched last year, has so far distributed 2,500 electronic kits to 250 schools, and nearly 1 lakh students (studying in 9th to 12th classes) of government schools in rural areas are getting benefitted every year by this Electronics Science program. I would like to thank our alumni, without whose magnanimous donation this would not have been possible.

NPTEL (National Programme on Technology Enhanced Learning) and SWAYAM continue to provide online certificate courses that reach several lakhs of students, and with their text transcripts translated to local languages and a portal dedicated for GATE (Graduate Aptitude Test in Engineering) preparation, they have reached the local rural population. NPTEL has also provided soft skills training to nearly 3918 students from 227 colleges and arranged internship opportunities at the Institute for about 193 students. 'SWAYAM Plus', a landmark initiative to offer employability-focused programmes, was launched by Shri Dharmendra Pradhan, Hon'ble Education Minister, Government of India, on February 27, 2024. Under the scheme, around one lakh learners have benefited from more than 165 courses, of which 33 were aligned to the National Credit Framework across multiple sectors such as IT, Healthcare, Banking, Finance Services & Insurance, and Indian Knowledge Systems, among others.

IIT Madras, in consonance with the UN SDG-3, has launched India's first NABL -accredited medical device calibration facility on wheels, which can calibrate around 45 medical devices in a hospital. Thanks to the Central Electronics Centre, which has made this achievable. Under the QIP (Quality Improvement Programme), IIT Madras continues to offer Ph.D. courses to faculty members of the AICTE-approved technical institutions. This year, 13 candidates have been admitted, taking the total number of such beneficiaries to 744. IIT Madras continues to mentor the Sindhu Central University, the first Central University being set up in Ladakh.

1.1. International Outreach

IIT Madras Zanzibar, the first ever international campus of an IIT, was formally inaugurated by His Excellency Dr. Hussein Ali Mwinyi, President of Zanzibar, on November 6, 2023. The permanent campus will be established in the ~205 acres that have been allotted by the Government of Zanzibar. The IITM Zanzibar campus offered two programs in the academic year 2023-24: the 4-year BS programme and 2-year M.Tech. programme in Data Science and AI. While the former has 27 students (including 11 from India), the latter has 18 students (including 14 from India & 1 from Nepal). 40% of the students are women. A new M.Tech. program in Ocean Structures will be launched in 2024. Growth directions for the institution have already been initiated and are underway.

The International Interdisciplinary Master's degree Programs (I2MP), with innovative curricula to equip students with cutting-edge expertise and skills that transcend traditional engineering domains, was launched in 2022. As mentioned earlier in the report, the first batch will graduate at this Convocation. I2MP receives over 200 applications annually from diverse backgrounds and countries, including Ethiopia, Mauritius, Syria, and Nepal. These students will study several core and elective courses at our campus, in addition to a research project in their area of interest.

The international immersion course launched by the Department of Management Studies for the Executive MBA students at IÉSEG Institute, Paris has benefitted 15 students.

2. Academic research

IIT Madras, as informed earlier in this report, has launched 15 Centres of Excellence to carry out research in emerging and disruptive technologies that create global impact. IIT Madras, in the year under review, has recruited 49 high-quality faculty this year for carrying forward this cutting-edge research.

2.1. Snapshots of Research and Innovations

IIT Madras has constantly been reinforcing measures that will enable the research that is being carried out in her laboratories to be translated to technologies that impact society. Some of which are highlighted here:

Dr. Basavaraj Gurappa's Research Group specializes in Colloids and Interface Science and has significantly contributed to understanding the fundamental role of particle shape in colloidal systems. They collaborate with various industries in the personal care and energy sectors to tackle technological challenges. Notable contributions from his group include fundamental studies and engineering of coatings, devising versatile strategies for developing functional porous materials, and surface engineering of single and double emulsions.

Dr. Tarak Patra's Research Group works on the development of polymer-based material for sustainable humanity. They have recently developed a new process

for recycling immiscible mixed plastic wastes. This may prove to be a practical mean to achieving the ultimate goal of reusing mixed-plastics waste over multiple use cycles (Nature 616, 731 (2023)). The group combines experiments, simulations, theory, and machine learning to design recyclable plastics and polymer membranes for removing CO₂ from air and purifying water.

Dr. Mohanasankar's Research Group works have led to highly affordable healthcare technologies through their R&D at the Healthcare Technology Innovation Centre. These technologies have benefited over 10 million patients till date, with more such technologies in the pipeline. Their recent work in whole human brain imaging at the Sudha Gopalakrishnan Brain Centre is generating unprecedented high-resolution views of whole human brains that reveal cellular-level details across different types of brains, spanning ages and diseases.

Dr. Anubhab Roy's Research Group tackles the complex issues of climate science through the lens of environmental fluid mechanics. His work focuses on understanding the impact of small-scale processes, particularly the role of instabilities and particle transport in atmospheric and oceanic flows. His research group is particularly fascinated by clouds and how the physics at the microscale is intimately coupled with large-scale precipitation dynamics. Their breakthrough work has shed light on some of the longstanding mysteries surrounding the growth and behaviour of cloud droplets and ice crystals.

Rehabilitation Research and Device Development (R2D2) has developed India's most customizable indigenous Electric Standing Wheelchair with easy-to-use navigation: NeoStand. NeoStand is the next in the series of products launched by R2D2 after Arise, India's first manual standing wheelchair, and NeoBolt, the country's first motorized add-on for wheelchairs. IIT Madras has launched 'Mobility and Intelligent Transportation' (MINT), an initiative based on the principle of 'collaborate and compete', under which the Institute will bring together industry competitors, government agencies and academic innovators and co-create mobility digital infrastructure (Bharat Multi-Modal Mobility Stack or BM3S) to enable holistic system solutions.

Dr. Kavitha Arunachalam's Research Group developed a technology that aims to provide an affordable and indigenous solution for advanced-stage breast cancer patients, with a focus on improving treatment outcomes and reducing maintenance costs, compared to imported systems. SBI General has launched the Hyperthermia Breast Cancer Treatment Device for adjuvant treatment of locally advanced and recurrent breast cancers.

Dr. Ajay Kumar Shukla's Research Group developed a process to convert waste produced from iron ore mining into an environment-friendly material that can be reused by industry. In collaboration with NMDC (National Mineral Development Corporation) and JSW Steel, they have transformed slime into iron-rich materials suitable

for blast furnace charging through a microwave-assisted beneficiation process that is economical and saves a significant amount of energy and emissions.

A state-of-the-art Silicon Photonics CoE – the Centre for Programmable Photonic Integrated Circuits and Systems (CPPICS) – was launched by Shri S Krishnan, Secretary, Ministry of Electronics and Information Technology (MeitY) that will achieve self-sufficiency and drive product commercialisation through start-ups within the next five years.

The Centre of Excellence for Road Safety (CoERS) has indigenously designed road safety vehicle 'Veera' to quickly extract and transport accident victims for timely treatment.

A 'Walmart Center for Tech Excellence' was launched on February 28, 2024 that will dedicate itself to empowering Micro, Small and Medium Enterprises (MSMEs) in the manufacturing and retail sectors. It will develop cutting-edge solutions that will help MSMEs adopt Artificial Intelligence (AI) along with digitisation to drive operational efficiency and profitability.

Mindgrove, an IIT Madras Pravartak Technologies Ltd. Incubated startup, has launched its first chip 'Secure IoT' (Internet of Things), a high-performance microcontroller class single-core 700 MHZ chip taped out at the 28nm process node using the DIR-V Shakti C-Class core, originally developed at IITM. The chip has achieved first silicon success. The chip has notable security features in its ability to secure boot software- and hardware-accelerated cryptographic algorithms, developed originally at IITM, and further developed at Mindgrove to be commercial-grade and standards-compliant. The printed circuit boards required to 'bring up' the chip were designed in-house at Mindgrove and were manufactured within India. This chip is planned to be deployed in application use cases across verticals such as consumer electronics, biometric devices and industrial devices. Full production of this chip is expected to begin in early 2025.

IITM-Maestro Ilaiyaraaja Centre for Music Learning and Research has been launched recently with the underlying concept of providing 'music for all' and the Centre will offer skill development programs, certification courses etc.

A brief on a sample of research being carried out in various departments is showcased below:

- Researchers in Aerospace Engineering studied the behaviour of composite solid propellant under biaxial tensile loading. This work, which focuses on solid propellants, viscoelasticity, and strain rate, is essential for advancements in aerospace engineering and material sciences.
- In Applied Mechanics, students explored active vortex generation and enhanced heat transfer in a 3D mini channel by the Onsager-Wien effect. This research delves into dielectrics, electric fields, and electrohydrodynamics, significantly contributing to thermal management and fluid mechanics.
- In the Department of Biotechnology, researchers studied the thermodynamic architecture and conformational plasticity of G-protein-coupled receptors, which are integral membrane proteins involved in cellular signalling.
- Researchers in Chemical Engineering utilised support vector regression modelling to predict pyro product yields from microwave-assisted catalytic co-pyrolysis of biomass and waste plastics, that is pioneering in the field of renewable energy and waste management.
- In the Department of Chemistry, students showed that common minerals can be broken by water microdroplets to make corresponding nanoparticles. This work led to the first research paper from IIT Madras to be published in the prestigious journal Science.
- Researchers in Computer Science and Engineering developed transfer learning and few-shot learning-based deep neural network models for underwater sonar image classification with a few samples. This innovative research in deep learning, convolutional neural networks, and object detection is advancing the capabilities of underwater imaging technologies.
- In the Department of Civil Engineering, students examined the physical, hydrolytic, and mechanical stability of alkali-activated fly ash-slag foam concrete. This work on compressive strength, geopolymers, and inorganic polymers is instrumental in creating more sustainable construction materials.
- Researchers in Data Science and AI optimised traffic control with model-based learning. This research in deep learning, neural networks, and robotics is enhancing traffic management systems and urban planning.
- In the Engineering Design department, students developed reconfigurable battery chargers with a wide voltage range for universal electric vehicle charging. This study on phase shift, zero voltage switching, and dc-to-dc converter is key to advancing electric vehicle technology.
- Researchers in the Department of Electrical Engineering designed tandem neural network-based multiband antennas. This research in design optimisation, neural networks, and antennas significantly adds to the knowledge base in communication technologies.
- In the Department of Humanities and Social Sciences, researchers evaluated illnesses and hardship financing in India. This research that focuses on health economics, social security, and household finance provides critical insights into the socio-economic impacts of healthcare.
- Researchers in Mathematics explored Schwarz type Lemmas and their applications in Banach spaces.
- In the Department of Management Studies, researchers developed a framework for gamification in the metaverse era. This research on gamification, e-learning, and game design is shaping the future of

digital education and user engagement.

- Researchers in Mechanical Engineering utilised green ammonia as a hydrogen energy carrier for decarbonisation in spark ignition engines. This work on nitrogen oxides, gas turbines, and methane is crucial for sustainable energy solutions.
- In the Medical Sciences and Technology department, researchers investigated perfusion pressure indexed to body surface area and found that it is a powerful predictor of poor outcomes after heart transplantation in patients with high pre-transplant venous pressure.
- Researchers in the Department of Metallurgical and Materials Engineering studied in situ electrochemical oxanion steering of water oxidation electrocatalysts for optimised activity and stability. This study on electrocatalysts, catalyst activity, and oxygen evolution is paving the way for advancements in sustainable energy.
- In the Ocean Engineering Department, researchers analysed the impact of surface-modified silica nanoparticle and surfactant on the stability and rheology of oil-in-water Pickering and surfactant-stabilised emulsions under high pressure and high temperature. This work on nanoparticles, emulsification, and Pickering emulsion is vital for the oil and gas industry.
- Researchers in Physics studied the physics and technology of thermoelectric materials and devices. This research on thermoelectricity, thermal conductivity, and antimony is contributing to advancements in energy harvesting technologies.

2.2. New Research Facilities/Centres

IIT Madras constantly upgrades her research facilities and infrastructure that will enable her scholars and students to pursue cutting-edge research. Some major additions this year are:

- Bio-SAIF (Sophisticated Analytical Instrument Facility) housing a range of high-end sophisticated equipment to strengthen biological research has been established in the Department of Biotechnology.
- A new Organic Chemistry Lab has been established in the Department of Chemistry.
- An Optical & Wireless Simulation and Modelling (OWSM) Laboratory has been established in the Department of Electrical Engineering.
- An Electrical Vehicle Simulation Laboratory supported by Altair, a Motors and Controllers Laboratory and a Battery Engineering Laboratory supported by Indus Towers, a Power Electronics lab, a Charging lab and an Electric Vehicle Engineering lab that form a critical part of becoming a hub for E-Mobility related academic activities have been established in the Department of Engineering Design.
- A Green Hydrogen Micro Grid and Battery Engineering Lab that reflects accurate state estimations for the battery pack, lifespan prediction, and effective thermal control, catering to the widespread use of rechargeable

Li-ion batteries across industries.

- A state-of-the-art Fintech Innovation Lab was inaugurated at the Department of Management Studies. Some of the major equipment that have been added to the research infrastructure are: an X-ray Irradiator, a Cryogenic Transport system, a Microwave Vector Network Analyser and an FS Laser, to name a few. A High-Resolution Transmission Electron Microscope (HR-TEM) - 200kV with STEM, EDS, CCD & EELS has been added as a common facility.

2.3. Academic Distinctions by Faculty and Students

Our faculty continued to earn accolades during the academic year gone by. Notable among the academic honours bestowed on our faculty members are the following:

Dr. Rajnish Kumar won the Shanti Swarup Bhatnagar Prize; Dr. Sanjib Senapati, the Dr. APJ Abdul Kalam HPC Awards; Dr. Aswathy Surendran has been bestowed the IEI Young Engineers Award; Dr. Arnab Rit, the Young Scientist Award by the Academy of Sciences, Chennai; and Dr. Kothandaraman Ramanujam, the Bronze Medal of the Society of Material Chemistry.

Dr. T Pradeep has been elected as a Fellow of the US National Academy of Engineering, won the National Water Award, and been bestowed the International Excellence Award of Karlsruhe Institute of Technology in combination with the Fellowship of SCHROFF Foundation. Dr. RI Sujith has been elected as a Fellow of the Indian Society of Systems for Science and Engineering (ISSE); Dr. Nitish Mahapatra, as a Fellow of the Indian National Science Academy; Drs. Indumathi M Nambi and B Ravindran, as Fellows of the Indian National Academy of Engineering; Dr. Debashis Chakraborty, as a Fellow of the Institution of Chemical Engineers; Dr. Hema Murthy, as a Fellow of the Asia-Pacific Artificial Intelligence Association; Dr. Ramesh Gardas, as a Fellow of the International Association of Advanced Materials; Dr. CS Shankar Ram, as a Fellow of the American Society of Mechanical Engineers; Dr. Srinivasa Reddy, as a Fellow of the International Society for Energy, Environment and Sustainability; Dr. Prabhu Rajagopal, as a Fellow of the Indian Society for Non-Destructive Testing; Dr. Prakash Maiya as a Fellow of the Indian Society of Heating, Refrigerating and Air Conditioning Engineers; Dr. AR Ganesan as a Fellow of the Optical Society of India; Dr. Ashok Jhunjhunwala as the Ecosystem Enabler by Forbes India Leadership Awards 2024 and Dr. Tiju Thomas as a Chartered Scientist of the Royal Society of Chemistry.

Among the honours bestowed by our Institute, Dr Basavaraj Gurappa and Dr. Mohanasankar Sivaprakasam have been awarded the Mid-Career R&D Award and Dr Anubhab Roy and Dr. Tarak Kumar Patra have been awarded the Early-Career R&D Award. Dr. Shaligram Tiwari and Dr. Joe Thomas Karackattu have been awarded the Srimathi Marti Annapurna Gurunath Award for

Excellence in Teaching.

Our students have also won recognitions: Mr. Ananth SM has won the Best Ph.D. Thesis in Mechanical Engineering from the University of Melbourne; Ms. Subitcha has won the Best Thesis Award, SPIE Women in Optics; Mr. Harish has been awarded the Dr. UC Kothiyari-ISH Best Ph.D. Thesis Award; Ms. Shruti Tandon has been bestowed the Amelia Earhart Fellowship by Zonta International, USA; Mr. Vallabh Sudhir Prabhudesai has won 1st Prize in Hindustan Petroleum Corporation Limited's New Generation Ideation Contest; Mr. Hemanth Kumar has been bestowed the Intel Research Fellowship; Ms. Vasanthi Suresh has been awarded Emerald & EFMD Outstanding Research Award; and Mr. Chayan Ranjan Das has been conferred the Young Scientist/Researcher Award by Sheffield Hallam University, UK.

2.4. Industrial Consultancy and Sponsored Research

The Centre for Industrial Consultancy and Sponsored Research continues to play a crucial role of not only by pooling in funds from ministries and industries for the research and consultancy activities of the Institute but also by supporting faculty and students in patenting and transferring technology of their innovations.

In 2023-24, the Institute received sanction for 331 Ministry-sponsored projects, for a total value of INR 568.21 crore. Our strong industry collaboration is evident from the 883 consultancy and industry-sponsored research projects received this financial year, amounting to INR 584.87 crore. The above is inclusive of around 130 international projects funded by foreign entities.

A brief of some of the major projects undertaken are:

- A Ministry of Commerce and Industry funded project for creation of a Centre for state-of-the-art facilities for Lab Grown Diamond Technologies at INR 242.96 crore;
- two Department of Telecommunications-funded projects;
- a consortium for Development of Advance Optical Communication Test bed with IIT Madras as a lead member at INR 168.45 crore and
- a project for Development of 6G: THz Test Bed with Orbital Angular Momentum and Multiplexing involving IITM and three other institutes at INR 9.09 crore;
- A Munitions India Limited funded project for development of smart artillery projectile capable of guidance to the designated target using satellite-based radio navigation system and provide working prototypes at INR 50.97 crore;
- A Fedex Corporate Services Inc., US-funded project for creation of a Centre of Excellence in Smart and Sustainable Supply Chain and Logistics that aims towards carbon net zero in logistics and supply chain at INR 38.14 crore;
- A National Bank for Agriculture and Rural Development

project for development of a Rural Self Employment Training Institutes E-Learning AI Platform at INR 18.60 crore;

- A Hyundai Motor India Limited and Guidance Tamil Nadu project for establishing a 'Hydrogen Valley Innovation Hub' at INR 100 crore; and
- An Altair project for providing solutions in simulation, high-performance computing (HPC) and Artificial Intelligence (AI), to launch an eMobility Simulation Lab at INR 5.64 crore.

This year IIT Madras has exceeded its target of one patent a day by filing 419 patents during the year, of which 85 are international filings, and was granted 445 Indian and 15 international patents.

'IIT Madras Shastra', the bimonthly science and technology magazine of IIT Madras, that showcases the developments in science and technology and its impact on society, both nationally and internationally, continues to be well received by the scientific community.

3. Research Park And Our Deep-Tech Startup Incubation System

IITM Incubation Cell (IITMIC), the nodal incubator of IIT Madras and spearheading the country's leading deep tech startup hub, marked the beginning of 2024 on a jubilant note: a total portfolio of 365 startups, cumulatively valued at INR 45,000 crore (USD 5.4 billion, based on investments raised from angels/VCs). In the past year, 60 new startups were incubated by IITMIC and its sector-specific incubators for Medical Technology, Biotech, Cyber-Physical Systems and Rural Technologies. The goal for the fiscal year 2024-25 is to incubate 100 more, focusing on areas such as space, manufacturing, robotics, assistive tech, climate-tech, fintech and AI.

Our companies, founded by IITM faculty, staff, students and alumni and external entrepreneurs (56% from across India), span the breadth of deep-tech areas in globally critical domains, including manufacturing, robotics, data science, space tech, IoT, mobility, energy, water, healthcare, biotech and agri-tech. Notably, 21% of our incubated startups have female co-founders, and 30% startups have IITM Faculty (92) as co-founders or minority shareholders.

Currently, 170 startups are in the market, generating INR 3600 crore in revenue for Financial Year 2022-23, creating over 10,000 direct jobs, and filing 210+ patents. Impressively, 80% of our incubated startups survive/thrive. All these are deep-technology startups that incorporate sophisticated engineering and high-end manufacturing in their products, with a few in the consumer-tech/services space.

Noteworthy success stories among our startups include:

- Uniphore, achieving unicorn status in 2022 and celebrating its 15-year journey in 2023 with the launch of the India AI Innovation Hub at IITM Research Park (IITMRP);

- Ather Energy, a pioneer in the electric two-wheeler segment in India, is currently preparing for a major IPO and working towards cementing its position as a leader in the electric mobility revolution;
- Agnikul, championing the private sector in the Indian space sector, successfully demonstrated the country's first semi-cryogenic engine-powered rocket launch from India's first private launchpad on May 30, 2024, using the world's first single-piece 3D-printed engine designed and built in-house at their 'rocket factory' at IITM Research Park;
- MediBuddy, now India's largest digital healthcare platform;
- NeoMotion, transforming lives by converting wheelchairs into electric-powered tricycles, providing mobility/livelihood to over 10k differently-abled individuals;
- Solinas, on a mission to eliminate manual scavenging through their sanitation robot Homosep and to promote water conservation through Endobot;
- Mindgrove, a fabless semiconductor startup, recently launched India's first commercial high-performance system-on-chip targeted at computer vision and imaging applications, aiming to become a key player in India's chip design sovereignty;
- Xyma, developing high-temperature sensors for above 1500°C, enabling industrial IoT for process industries in oil & gas, mining and metals, and auto sectors; and
- ePlane, getting ready to demonstrate a certifiable prototype of a flying taxi by early next year, aiming to alleviate urban congestion via sustainable transportation.

IITMIC is presently developing ways to replicate its model nationally and support a large population of young startups in the country. As a key step in this process, it has initiated formal engagements with colleges in Tier II/III cities to help them strengthen their entrepreneurial ecosystems and co-incubate their startups. At present, we have partnered with 18 colleges/institutions of Tamil Nadu, Andhra Pradesh, Karnataka, and West Bengal in this regard.

Meanwhile, the innovation and entrepreneurship ecosystem at IITM is maturing, with pre-venture interventions including the maker-space Centre for Innovation (CFI), pre-incubator Nirmaan, lab-to-market Gopalakrishnan-Deshpande Centre for Innovation & Entrepreneurship (GDC), and the E-Cell for outreach and networking for entrepreneurship. Nirmaan is becoming a strong pipeline for deep tech startups such as GalaxEye (space-based telemetry), Modulus Housing, and Plenome (secure electronic medical records) that have gone on to be incubated at IITMIC and won recognitions.

4. International Collaborations

The Office of Global Engagement has played a vital role

in furthering IITM's international collaborations and working towards increasing the exchange of scholars and students. They coordinate the visits of University and Embassy delegations, thus enabling us to strengthen our international relations.

In the year under review, IITM has signed 25 MoUs (Memoranda of Understanding) and renewed 35 active ones that enable student exchanges and faculty collaborations, taking the total number of active MoUs to around 317. We have 20 Joint Degree programs and have renewed 2 active joint doctoral programs this year.

IIT Madras welcomed international students across various programmes during the academic year. There were 44 full-time students in the M.Tech. and M.A. programmes, 14 full-time students enrolled in the International Interdisciplinary Master's Program (I2MP), and 6 students admitted into the PhD programme. Additionally, the Institute hosted 39 international exchange students and sent 43 of its own students to universities abroad under exchange programs. A total of 28 scholars are enrolled in joint Ph.D. programmes with partner universities. Furthermore, under the International Immersion Experience Program, 28 Ph.D. scholars were sent to various partner universities to continue their research work.

IIT Madras, in partnership with the African Asian Rural Development Organisation (AARDO), has 8 students from African countries enrolled in the MS (Research) programme this year with scholarship.

5. Human resources

In the year under review, nearly 200 staff have been promoted, while 150 have been recruited. In order to equip our staff with the necessary competencies, training programmes have been conducted not only in their area of expertise, but also in ISO and in official language. 3 in-house and 4 official language trainings have been conducted, that have benefitted nearly 250 staff members.

The Non-Academic Staff Recognition Awards were instituted to recognise the efforts of administrative/technical staff members who have been making significant contributions to the institute through their outstanding & consistently excellent service, and the awardees for 2020 and 2023-24 were felicitated at this Institute Day.

The awardees under the administrative category are: Shri K Rajendran, Smt. N S Ramadevi, Smt. R Shanthi, Shri S Elangovan, Smt. G Shakila, Shri C Vijayakumar, Shri N Mohan, and Shri CR Elangovan. The awardees under the technical category are: Shri K Udayakumar, Shri K Kumar, Smt. V Udhaya Banu, Shri J Desinghu, Shri Shivasharanappa, Shri S Sudhakar, Shri V Janarthnam, and Shri B Manikandan. The awardees under the meritorious leadership category are: Shri P Hariharan, Shri Anand P, Smt. M Janaki, Shri B Vijay Shankar and Shri Mahendra N Jadhav.

6. Infrastructure development

IIT Madras, while upgrading her infrastructure facilities to a world-class standard, takes utmost care and follows all statutory regulations, uses sustainable construction/energy conservation practices, effectively reuses and recycles both liquid and solid wastes, safely disposes biomedical and hazardous wastes and maintains the biodiversity in the campus.

The National Technology Centre for Ports, Waterways & Coasts (NTPWC) is currently functioning at Thaiyur Discovery campus. The construction of Phase I of the Thaiyur Discovery campus comprises an academic research block cum food court, hostel block, and various utilities and common services. The works are in progress and are expected to be completed by December 2024. Some startups and temporary facilities such as ePlane and Agnikul, and specialised labs under CSR initiatives, are functioning at the campus. The discovery campus will also house: Gas Pipeline Testbed Facility; Hyperloop; Integrated Centre of Propulsion Technologies (CoPT) and Centre of Ammunition (CoA); Silicon Photonic Integrated Circuit Enablement – Manufacturing Centre of Excellence (SPICE-MCoE); X2Fuels & Energy Pvt. Ltd.; a full-scale bridge testing facility; integrated urban atmospheric observatory; long flume; Centre of Excellence on Low-carbon Lean Construction; and a Hydrogen Hub to create a hydrogen manufacturing R&D ecosystem in India.

During the year under review, the major infrastructure projects that have been completed are: the New Academic Complex II at INR 187.70 crores that was inaugurated in July last year; a state of art Cryo Lab facility @ 4.5 Crs; Indoor multigame sports facility @ INR 20.21 Crs; Upgradation of water supply system @ INR 37 Crs; and Renovation of Institute hospital @ 3.2 Crs.

Some of the major projects that are in progress are: Research Visitors Guest House (G+8 floors) @ INR 75.70 Crs and Provision of centralized chilled water systems for district cooling to 19 academic buildings @ INR 102.35 Crs. Projects that are in pipeline are: New dining facility with automated kitchen to cater 3200 students; New state-of-the-art hostel (Vaigai) to accommodate 2000 students; New 800-bed capacity girls hostel; New Academic Complex-III @ 175 Crs and a New 110/11kV substation @ 65 Crs; a New Academic Complex- IV @ 188 Crs; a New sophisticated instrumentation facility building @ 120 Crs; a New Classroom complex and Student Wellness center building @ 201 Crs.

Special attention is given to maintaining the biodiversity in the campus while upgrading its infrastructure facilities to a world-class standard. Considering the wellness of students and part of improving the campus environment and sustainability, it is proposed to reimagine the campus landscape with a healthy ecosystem that sustains the native biodiversity (flora & fauna), while upgrading its infrastructure. A detailed study and a master plan for the re-imagination and beautification of the campus landscape are being undertaken with help from renowned

ecological consultants to enhance the quality of the campus environment, with improvements such as access pathways, parks, lawns and water bodies, to improve the overall wellness of the campus residents.

7. Sustainability

The School of Sustainability was inaugurated last year by Shri Jayant Sinha, the then Member of Parliament and Chairperson, Parliamentary Standing Committee on Finance. The School provides comprehensive and interdisciplinary education that ensures a holistic perspective on sustainability and prepares one to address the challenges of our rapidly changing world.

The School offers a Minor in Sustainability to all undergraduate students that fosters an awareness of environmental impact and equips students with the skills necessary for leading sustainability initiatives in any industry. In addition to the minor program, the School of Sustainability has been actively collaborating with industry leaders to offer an online certificate course aimed at integrating sustainability into business practices, which has already attracted over 100 working professionals. IIT Madras launched the Jal Dhan Campaign in the campus in the presence of Shri Ashwini Kumar Choubey, the Minister of State, Ministry of Environment, Forest and Climate Change, Ministry of Consumer Affairs, Food and Public Distribution of India, Government of India to conserve water.

IIT Madras has been accorded the Indian Green Building Council (IGBC) Platinum Certification and has become one of the country's largest and highest-rated green campuses to attain this honour. IIT Madras has established a Solid Waste Incinerator facility with the capacity to process two tons of mixed waste per day that otherwise goes out for landfilling, demonstrating the Institute's commitment to 'Zero Waste Discharge'.

The School also fosters industry-academia collaboration through a consortium where several industries come on board to define the sustainability challenges in their businesses. These challenges are then addressed by our students and faculty. This consortium will grow to encompass three pillars: academia, represented by IIT Madras faculty; industries, ranging from cement to steel and FMCG; and government participation, represented by the Department of Science and Technology (DST) and other ministries.

Furthermore, the School organises various competitions and hackathons, such as the recent 48-hour event with Accenture and Aalto University where students tackled real-world sustainability challenges. The School also recognised Sustainability Champions on World Sustainability Day, awarding their efforts in sustainability, be it through actions or through research.

Looking ahead, the School is planning to launch an Integrated Dual Degree program and an executive education program. It also focuses on research aligned with the UN Sustainable Development Goals, working to

create impactful solutions through the aforementioned consortium involving academia, industries, and government participation. The Carbon Zero Challenge (CZC), a pioneering initiative by IIT Madras, is a pan-India Eco-innovation and Entrepreneurship pre-incubation programme that has so far reached out to over 1,600 students and researchers from 600 universities and 270 startups across 25 states and 2 Union Territories in India. The competition has been the seedbed for 17 new cleantech companies so far. IIT Madras and Technip Energies have signed an MoU to explore solutions for energy research to shape a sustainable and low-carbon future both for India and the world.

8. Student Co-curricular and Extra-curricular activities

Saarang celebrated its golden jubilee this year, having started off as Mardi Gras in 1974. The annual cultural festival of IIT Madras was held successfully from January 10-14, 2024 and witnessed more than 100 events, 9,000+ student participants, a footfall of around 70,000+ and revenue generation of INR 1.5 crore, reaffirming its stature. The Professional Shows had performances by Taraana, Sikkil Gurucharan, RJD, Thaikkudam Bridge, Holy C, Matisse & Sadko, and Farhan Akhtar, along with five World Fest acts by international artists. The Classical Night also featured a showcase of Tamil Nadu's folk and tribal art. RJ Balaji, Manoj Bajpayee, Usha Uthup, and Sidharth were some of the major attractions in the Spotlight lecture series lineup. Three Nova fests – Incredible India, Fandom Fest, and Time Trek – were conducted, gathering huge participation and interest.

Shaastra, the technical festival and beacon of innovation, was held during January 3-7, 2024. It was graced by the Hon'ble Former President of India, Shri Ram Nath Kovind, alongside Dr. Kiran Bedi, Dr. Deepak Dhar, and the Hon'ble Minister of IT & Digital Services of Tamil Nadu, Thiru. Palanivel Thiaga Rajan. Events, from the poignant 'Forget Me Not' campaign addressing dementia to the cutting-edge 'Encryptcon' cybersecurity conference, showcased our commitment to societal progress. 'Emulate', India's pioneering student-run initiative for biomimetic solutions, and the Ethical Tech Summit illuminated pathways for ethical innovation. With a generous giveaway of INR 22 lakh in prize money and significant donations for social causes, Shaastra exemplified excellence and empathy.

The Extra Mural Lectures (EML) team has orchestrated fourteen events, comprising a diverse range of engaging formats including Fireside Chats, Prominent Personality Lectures, Vernacular Lectures, and a Panel Discussion that saw guests from both national and international echelons, including prominent figures such as the Chairman of the Indian Space Research Organisation (ISRO), the Chief of Defence Staff of India, the Managing Director of the World Bank, Governors of the RBI, as well as distinguished historians and diplomats. Some of the prominent speakers

included Dr. C Rangarajan, former RBI Governor; Dr. Baba Prakash Amte and Dr. Mandakini Amte, social welfare and wildlife and tribal life conservation workers; Mrs. Atishi Marleena, Education Minister of Delhi; Dr. Manu S Pillai, historian; Dr. S Somnath, Chairman of ISRO; and Gen. Anil Chauhan, Chief of Defence Staff, Indian Army, to mention some.

IITM's vision is to make her students move from employees to employers & to achieve the mission of producing 100 scalable startups per year. The Office of Innovation and Entrepreneurship (OIE) that encompasses the maker-space CFI and the Nirmaan works towards this vision.

The competition teams in CFI won accolades in the international competitions some of which are:

- Team Abhiyaan achieved first place in both the Design and Cybersecurity Challenges at the 31st Intelligent Ground Vehicle Competition (IGVC) 2023 in Michigan for their autonomous vehicle, Vikram. In the 2024 IGVC, their vehicle Vidyut secured the 6th place in the Design Challenge, finishing 8th overall out of 40 teams from five countries.
- Team Avishkar Hyperloop earned recognition in multiple categories including securing Global Top 3 in Socioeconomic Aspects for their pod 'Garuda' at the European Hyperloop Week 2023 in Edinburgh, Scotland.
- Team Abhyuday, the Rocketry team from IIT Madras, received the On the Spot Recognition Award at the Spaceport America Cup 2024 for their unique Canard System design and were placed 1st in Asia overall for their performance for their rocket Chetak 2.0.
- Team Agnirath participated in the World Solar Challenge 2023 with their solar car, Aarush.
- Team Anveshak competed in the Anatolian Rover Challenge 2023 in Turkey with their upgraded rover, Galileo, securing 6th place. They also achieved 2nd place at the International Rover Challenge 2024 held at PSG i-Tech Coimbatore, excelling in Autonomous Navigation and Project Management.
- Team Raftar excelled at Formula Bharat 2024, securing second place in the Electric Vehicle category, winning awards for Best Engineering Design and Best Battery Design. At Formula Bharat 2023, they achieved podium success, including 2nd Place in Engineering Design and 1st Place in Business Plan Presentation for their VR simulation concept.
- Team iGem secured the prestigious Gold Medal at the iGEM Grand Jamboree in Paris, showcasing excellence in synthetic biology applications.

The pre-incubator Nirmaan has launched two new programs, Pratham, the 'Startup Nursery' program that focuses on training student entrepreneurs in business aspects through classroom sessions handled by subject experts; the student entrepreneurs also receive

funding support to convert their concepts and ideas to a minimally viable prototype (MVP). Akshar is the next level of pre-incubation, where the teams are exposed to industry and market partners and try validating their MVPs, with further and more expanded funding support. Nirmaan currently hosts 89 startup teams operating in various industry segments such as sustainability (43%), industry 4.0, deep tech (38%), healthcare, fintech, and mobility. Of these, 79 are in the Pratham program and 10 in the Akshar program. It is worth mentioning that over 10% of the startups in Nirmaan are led by women entrepreneurs. Four startups from Nirmaan (Plenome Technologies, Matterize, Arctus Aerospace and Nikotto) have successfully scaled the gap to full incubation and are being actively supported by the IITM Incubation Cell. Nirmaan has obtained grants from companies such as Aptiv and HyperVerge to support pre-incubated teams and is partnering with investor groups and industry bodies such as NASSCOM (National Association of Software and Service Companies) to provide mentorship and support to our startups.

Our Institute sports teams and contingents have won several accolades last year:

- At the 56th Inter IIT Sports Meet, IIT Madras won the Overall General Championship for the first time after 2011, with the Women clinching the Women's General Championship and the Men securing the 2nd place in the Men's General Championship.
- The IIT Madras contingent won five gold medals, one each in Water Polo, Volleyball (Men), Table Tennis (Men & Women), and Basketball (Women); one silver in Tennis (Women); and six bronze medals in Hockey, Badminton (Women), Volleyball (Women), Tennis (Men), Football (Men) and Chess.
- Alphen Kriston was adjudged the best player overall in men's volleyball; Nishant Vasan and Marie Lofontaine were adjudged the best players in men's and women's tennis categories respectively; and Saga Biju was adjudged the best women's basketball player overall.

IIT Madras hosted the 9th Annual International Convention of the Society for the Promotion of Indian Classical Music And Culture Amongst Youths (SPIC MACAY) from May 20-26, 2024. The week-long festival featured renowned artists like Pandit Hari Prasad Chaurasia (Hindustani Flute), Ustad Amjad Ali Khan (Sarod), and Vid. Padma Subrahmanyam (Bharatanatyam) to name a few. The convention also held five-day long workshops by eminent artists and crafts persons.

9. Student welfare

IIT Madras gives first priority to her students' holistic wellness - physical, mental, social and economic. All our efforts are synchronised to ensure IIT Madras is an incident-free and happy campus. As a precautionary measure to address holistic wellness, IITM has embarked

on a special drive to conduct a wellness survey for all freshers. Partnering with eminent experts in the field, IIT Madras implemented the survey last year and is geared up to conduct it for this new academic year too. To enable easy access for needy students, counsellors have been made available in hostels, departments and the hospital, in addition to being available in the Wellness Centre. A Gatekeeper Training session by M/s Kauvery Hospital was launched to equip faculty and students with the skills to identify persons who are in need of help and prevent suicide. Kushal meetings continue to enable student interactions with their faculty advisors or guides at regular intervals. Faculty advisors have been encouraged to dine with their assignees at least once a month to support students' welfare. We have launched a Be Happy (<https://behappy.iitm.ac.in/>) portal in this regard. IIT Madras has also embarked on a novel initiative to obtain specific inputs from students on the Kushal website pertaining to discrimination, reasons for delay in paper publication/thesis submission, non-availability of required equipment, etc. I am happy to share that all these Kushal initiatives have given a fillip in our efforts to support students' holistic wellness. We have opened up the library 24*7 based on students' feedback. MiTr and Saathi continue to provide counselling to stressed or anxious students. MiTr conducted a six-day barefoot training program to equip students with essential skills for providing psychosocial support. Support groups such as Inclusive Education Connect and ESN (Extension Students Network) were established to assist students with specific needs.

10. Placement

IIT Madras has established a 'Career Pathway Centre' integrating the Placement and Internship Offices, the Career Development Cell, and the Entrepreneurship Cell (E-Cell) of the Institute into a single newly established body. This is aimed at providing students with a unified platform to explore diverse career pathways. This initiative is a pivotal step towards channelising various processes, providing students with comprehensive training, networking opportunities, and exposure to entrepreneurial ventures, leading to overall employability enhancement.

11. Alumni matters

In 2024 we have honoured fourteen of our alumni with the Distinguished Alumnus Awards for their outstanding achievements in their respective fields. They are Dr. Anima Anandkumar, Dr. Gankidi Madhusudhan Reddy, Dr. GDS Ramkumar, Shri Giridhar Aramane, Dr. Karan Sher Singh, Ms. Mili Majumdar, Dr. Palanivel Veeramuthuvel, Dr. S Chandrasekar, Mr. Sankaran Naren, Dr. Soundar Kumara, Dr. Unnikrishnan Nair, Mr. Venkat Rangan, Dr. Venkatraman Gopalan and Dr. Vinod Vaikuntanathan.

I am extremely happy to share that our Office of Alumni and Corporate Relations and the Office of Institutional Advancement have in 2023-24 raised a record-breaking INR 513 crore, nearly a 121% increase over the last year. Of this, INR 143.95 crore has been received as CSR donations. Alumni and philanthropic trust contributions have been received in the financial year 2023-24 for various causes, from establishing an exclusive School/Department for Data Science and AI to setting up a Centre of Excellence for Diabetics Research, from giving dreams wings through Project BrllghT Future scholarship to enhancing the B.Sc. Online course. Some of the key alumni and philanthropic trust contributors of the year are:

- Krishna Chivukula (INR 228.92 crore),
- Sunil Wadhvani (INR 30.47 crore),
- Kris Gopalakrishnan (INR 25.34 crore),
- Girish Reddy (INR 11.61 crore),
- Nilekani Philanthropies (INR 6 crore),
- Gururaj Deshpande (INR 4.14 crore),
- Jaishree Deshpande (INR 4.08 crore),
- Subramonian Shankar (INR 3.68 crore),
- Karthik Ramakrishna Sarma (INR 2.96 crore) and
- Venkata Rangan D (INR 2.48 crore).

The key CSR donors of the year are:

- FedEx set up a cross-disciplinary Centre for SMART Supply Chains to focus on the digital, sustainable and safety aspects of logistics;
- Power Finance Corp funded a UG Anatomy Lab in the newly founded Department of Medical Sciences and technology for BS students;
- Walmart set up a global CoE for developing cutting-edge solutions that will help MSMEs adopt Artificial Intelligence (AI) & digitisation to drive operational efficiency and profitability;
- Hyundai provided a large grant of INR 100 crore to enable IIT Madras's pioneering work in setting up the Hydrogen Valley Innovation Hub at the Thaiyur campus;
- HSBC provided Scholarships for BS Data Science Students across Foundation and Diploma Levels;
- Prazim Trading supported cutting-edge brain research at the Sudha Gopalakrishnan Brain Centre;
- One Plus supported Endowed Merit cum Means Scholarships for B.Tech. students across years;
- Kotak Bank continued to fund the Kotak IIT Save Energy Mission, working with multiple IITs to do energy audits of MSMEs across geographies to help optimise their energy usage;
- Altair Engg supported setting up an Electric Vehicle simulation Lab in Engineering Design Dept which is gearing up to set up State of the Art labs in the area of training and skilling for EVs; and
- Mphasis funded a CoE to enhance and accelerate applied research in Quantum Computing.

Apart from providing the infrastructure projects mentioned earlier in the report, alumni have also supported

nearly 608 students with scholarships and supported institution of Chairs and Fellowships – the Kripalu Chair for Transformational Leadership, the Muthuraman and Sumathi Visiting Chair in Urban Mining, the R Srinivasan International Visiting Chair, the Raju Venkataraman Chair, and Dr. V Ganesan Faculty Fellowship. Thanks to the Batch of 1981, who has donated five electric buses to the Institute.

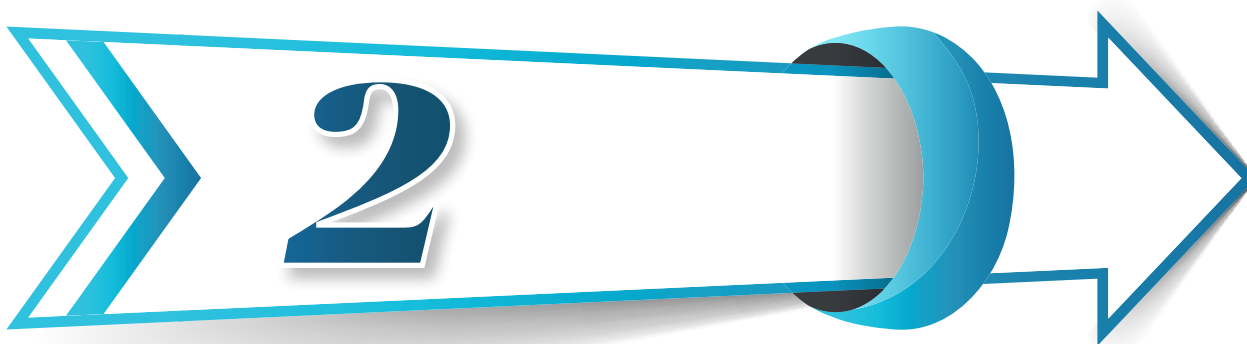
Women Leading IITM (WLI), an initiative launched in 2021 to nurture, develop and support women talent at IITM in their academic/professional careers, is funded by some of our US alumni with the overarching goal of achieving a more gender-balanced & nurturing campus. This year 38 grantees have been chosen, taking the total number of grantees so far to 113. Alumni have contributed by mentoring students in various aspects. I, on behalf of the Institute, wish to thank, in addition to the above major donors, all our alumni, corporates and well-wishers who have contributed magnanimously and made this achievable. I would also like to take this opportunity to thank the Institute Advisory Board (IAB) for guiding us on all initiatives to accelerate growth, augment and manage endowments, and implement best practices.

12. Acknowledgements

All these activities at scale and accomplishments of our Institute would not have been possible without the committed participation and support of all stakeholders – our faculty, students and staff; agencies and industries sponsoring R&D and consultancy projects; professionals from other organisations who assist us in various capacities; and our alumni and corporate donors with their generous support to our various activities. In particular, I would like to thank office-bearers viz. Heads of Departments, Deans, Chairpersons, Wardens, Advisors, and Professors-in-charge of various Cells and Centres, and hospital and hostel staff for the selfless work they put in to keep the Institute ticking.

The Institute is grateful to the Ministry of Education, Government of India, for its continued and sustained encouragement and support. I also wish to thank the Government of Tamil Nadu for all the support it continues to extend in multiple ways. I wish to thank Dr. Pawan Goenka, our Chairman, Board of Governors, and all Board members for their wise counsel, support and guidance, enabling us to scale new heights. I would like to express my heartfelt gratitude to our Chief Guest, Nobel Laureate Prof. Brian Kobilka for gracing this Convocation. We are eager to listen to his message to the graduating class of 2024. Before I end, I would once again like to congratulate the prize-winners today and wish all our graduands happiness, professional success, and fulfilment from a life of service to their profession, family and country.

*God bless you all.
Jai Hind!*



Administration Section

2.1. General

The Indian Institute of Technology Madras (IIT Madras) is an autonomous statutory organisation functioning within the Institutes of Technologies Act 1961, as amended by the Institute of Technology Amendment Act, 1963. The IITs are administrated centrally by the Councils of IITs, an apex body established by the Government of India (GoI) to coordinate the activities of these institutes. The Minister for Education, GoI is the Chairperson of the Council. Each IIT has a Board of Governors responsible for overall administration and control.

The Senate decides the academic policies of IIT Madras. It approves and controls the curricula,

courses, examinations, and declaration of results. It appoints various committees to consider specific academic matters arising from time to time. The teaching, training, and research activities of various departments at the Institute are constantly under review to improve facilities and standards. The Director of the Institute is the Chairman of the Senate. The members of the Senate are listed in Appendix 1. The Finance Committee provides financial advice. The Buildings and Works Committee advises the institute on matters relating to buildings and works activities. The compositions of these committees and boards, together with a list of other officers, are provided in the appendix.

2.2. Faculty and Staff Position

2.2.1. Number of Faculty/Staff in Position

Faculty Members	Visiting Faculty	Group A Officers	Scientific Officer	Technical Staff	Administrative Staff
638	15	82	-	248	249

2.2.2. Number of Faculty and Employees Appointed During 2023-2024

Professors	Associate Professors	Assistant Professors	Visiting Faculty and Other Faculty	Administrative and Technical
28	16	32	44	61

Department Abbreviations

AE: Aerospace Engineering	BT: Biotechnology	CH: Chemical Engineering	CS/CSE: Computer Science and Engineering	EE: Electrical Engineering	MS: Management Studies	ME: Mechanical Engineering	MST: Medical Science and Technology	OE: Ocean Engineering
AM: Applied Mechanics and Biomedical Engineering	CE: Civil Engineering	CY: Chemistry	ED: Engineering Design	HSS: Humanities and Social Sciences	MA: Mathematics	MME: Metallurgical and Materials Engineering		PH: Physics

2.2.3. Faculty and Employees (Group A) appointed between April 1, 2023 and March 31, 2024

S. No	ID No.	Name	Designation	Department / Section	Date of Joining
1	9051	S. Srinivasan	AP Gr I	MS	April 26, 2023
2	9052	Nitin Muralidharan	AP Gr I	CH	April 27, 2023
3	9053	Sankha Karmakar	AP Gr I	CH	May 1, 2023
4	9054	Surendra Babu Anantharaman	AP Gr I	MME	May 5, 2023
5	9055	Thanggoulen Kipgen	AP Gr II	HS	May 23, 2023
6	9056	Rahul Harishchandra Meshram	AP Gr I	EE	May 29, 2023
7	9057	Mohanakrishnan Logan	AP Gr II	CE	June 1, 2023
8	9058	Meiyappan Lakshmanan	AP Gr I	BT	June 1, 2023
9	9059	Umasankar Patra	AP Gr I	HS	June 13, 2023
10	9060	Sreeparvathy Vijay	AP Gr II	CE	June 19, 2023
11	9061	Murali Jagannathan	AP Gr II	CE	June 28, 2023
12	9062	Raushan Singh	AP Gr I	ME	July 3, 2023
13	9063	Anuj Kumar Tiwari	AP Gr II	ME	July 6, 2023
14	9064	S Ganga Prasath	AP Gr I	AM	July 6, 2023
15	9065	Tanushree Parsai	AP Gr II	CE	July 25, 2023
16	9066	S.Ramprasath	AP Gr I	EE	August 1, 2023
17	9067	Prathamesh Vivek Kittur	AP Gr II	MS	August 10, 2023
18	9068	Bharadwaj Satchidanandan	AP Gr I	EE	September 11, 2023
19	9070	Poguluri Sunny Kumar	AP Gr I	OE	September 27, 2023
20	9071	Deepak Paramashivan	AP Gr II	HS	September 29, 2023
21	9072	Krishna Reddy Nandipati	AP Gr I	CY	October 3, 2023
22	9073	Ipsita Saha	AP Gr I	PH	October 4, 2023
23	9074	Soumen Ghosh	AP Gr I	CY	October 30, 2023
24	9075	Sayak Dutta Gupta	AP Gr II	EE	November 11, 2023
25	9108	Kannabiran Seshasayanan	AP Gr I	AM	December 7, 2023
26	9136	Bithin Ghorai	AP Gr II	OE	December 29, 2023
27	9137	Anupama Rajan	AP Gr I	MST	January 22, 2024
28	9139	Danny Raj M	AP Gr I	AM	February 5, 2024
29	9140	Kushboo Suman	AP Gr II	CY	February 12, 2024
30	9141	Sagar Sourav	AP Gr II	CY	February 12, 2024
31	9142	Pradeeba Sridar	AP Gr I	MST	February 21, 2024
32	9143	Gopalakrishnan Srinivasan	AP Gr I	CS	March 20, 2024

2.2.4. Visiting Faculty and Other Faculty

Visiting Faculty				
S.No	Name	Designation	Department	Date of Joining
1	Prof. Glyn Williams	Visiting Faculty Fellow	HSS	April 11, 2023
2	Dr. Nebil Omri	Visiting Faculty	CY	May 26, 2023
3	Dr. Chinthaka P Gooneratne	Visiting Faculty	EE	June 5, 2023
4	Dr. Jeffrey G Rau	Visiting Faculty Fellow	PH	July 1, 2023
5	Dr. Jerome Martin	Visiting Faculty Fellow	PH	July 10, 2023
6	Dr. Alexandr Klimchik	Visiting Faculty Fellow	ME	July 12, 2023
7	Dr. Aditya G Nair	Visiting Faculty Fellow	AE	July 10, 2023
8	Dr. Jaeyoon Cho	Visiting Faculty Fellow	PH	July 27, 2023
9	Prof. Ignacio Pagonabarraga	Visiting Faculty Fellow	PH	July 13, 2023
10	Prof. Masahide Yamaguchi	Visiting Faculty Fellow	PH	August 7, 2023
11	Prof. Paul Robert Manger	Visiting Faculty Fellow	EE	May 8, 2023
12	Dr. Chiungwen Chang	Visiting Faculty	ED	August 11, 2023
13	Dr. Mrinali Rochlani	Visiting Faculty	CE	October 3, 2023
14	Prof. Shay Kutten	Visiting Faculty Fellow	CS	October 16, 2023
15	Prof. Deepak Dubal	Visiting Faculty Fellow	PH	November 2, 2023
16	Dr. Alexander Wietek	Visiting Faculty Fellow	PH	November 6, 2023
17	Dr. Olga Berrera	Visiting Faculty Fellow	ME	October 23, 2023
18	Dr. Mathew Nguyen	Visiting Faculty Fellow	PH	October 30, 2023
19	Dr. Muralikrishnan Gopalakrishnan Meena	Honorary Visiting Faculty Fellow	AE	December 2, 2023
20	Prof. S Thomas Vojta	Visiting Faculty Fellow	PH	December 19, 2023
21	Prof. Valerie King	Visiting Faculty Fellow	CS	December 10, 2023
22	Dr. Varkey Jon Thomas	Visiting Faculty Fellow	MS	November 30, 2023
23	Prof. Bruce M Kapron	Visiting Faculty Fellow	CS	December 10, 2023
24	Dr. Siddharth Ashok Parameswaran	Visiting Faculty Fellow	PH	December 20, 2023
25	Prof. Kirill Shtengel	Visiting Faculty Fellow	PH	December 21, 2023
26	Prof. Sanjay Mathur	Visiting Faculty Fellow	MME	December 22, 2023
27	Dr. Marco Marengo	Visiting Faculty Fellow	ME	January 8, 2024
28	Prof. Igor I Mazin	Visiting Faculty Fellow	PH	January 4, 2024
29	Prof. Andriy Nevidomskyy	Visiting Faculty Fellow	PH	January 4, 2024
30	Dr. Pavel Maksimov	Visiting Faculty Fellow	PH	January 3, 2024
31	Prof. Cesar B Rocha	Visiting Faculty Fellow	OE	January 2, 2024
32	Dr. Laura Messio	Visiting Faculty Fellow	PH	January 8, 2024
33	Dr. Anirudh Udupa	Visiting Faculty	ME	January 8, 2024
34	Prof. Eric Castro Andrade	Visiting Faculty Fellow	PH	January 8, 2024
35	Prof. Eric Arthur D'Asaro	Visiting Faculty Fellow	AE	January 3, 2024
36	Dr. Judit Romhanyi	Visiting Faculty Fellow	PH	January 6, 2024
37	Dr. Kirithika Randhawa	Visiting Faculty Fellow	MS	December 15, 2023

38	Dr. Fausto Tucci	Visiting Faculty Fellow	ME	January 16, 2024
39	Prof. Hikaru Kawamura	Visiting Faculty Fellow	PH	January 5, 2024
40	Prof. Johannes Tausch	Visiting Faculty	MA	January 5, 2024
41	Prof. Branko Matovic	Visiting Faculty Fellow	MME	January 23, 2024
42	Dr. Ken-Ichiro Imura	Visiting Faculty Fellow	PH	January 31, 2024
43	Prof. Johannes Reuther	Visiting Faculty Fellow	PH	January 8, 2024
44	Dr. Suzana Herculano-Houzel	Visiting Faculty Fellow	EE	January 13, 2024

2.2.5. Staff Members (Group B & C) Appointed From April 1, 2023 to March 31, 2024

S. No	ID No	Name	Designation	Department/Section	Date Of Joining (DOJ)
1	9078	Ganesh S	Staff Nurse	Hospital	November 1, 2023
2	9082	Charanya R	Staff Nurse	Hospital	November 1, 2023
3	9105	V Jeevitha	Staff Nurse	Hospital	November 1, 2023
4	9109	Prabhu R	Jr. Technician	Central Skill Training & Fabrication Facility (CSTF)	December 28, 2023
5	9110	Sathish K	Jr. Technician	Aerospace Engineering	December 28, 2023
6	9111	Shahul Hameed S	Jr. Technician	Civil Engineering	December 28, 2023
7	9112	Thangavel R	Jr. Technician	Applied Mechanics	December 28, 2023
8	9113	Sivaraman G	Jr. Technician	Mechanical Engineering	December 28, 2023
9	9114	Korada Venkata Ramana	Jr. Technician	Metallurgy and Materials Engineering	December 28, 2023
10	9115	Mercy M	Jr. Technician	Physics	December 28, 2023
11	9116	Stella Mary T	Jr. Technician	Sophisticated Analytical Instrument Facility (SAIF)	December 28, 2023
12	9117	Satendra Kumar	Jr. Technician	Mechanical Engineering	December 28, 2023
13	9118	Chandan Kumar	Jr. Technician	Chemical Engineering	December 28, 2023
14	9119	Danisha M	Jr. Technician	Biotechnology	December 28, 2023
15	9120	Gaddam Srikanth	Jr. Technician	Civil Engineering	December 28, 2023
16	9121	Alagu Bagavathi N	Jr. Technician	Civil Engineering	December 28, 2023
17	9122	Ramki R	Jr. Technician	Civil Engineering	December 28, 2023
18	9123	Reshma Sanal	Jr. Technician	Chemistry	December 28, 2023
19	9124	Salmon P S	Jr. Technician	Mechanical Engineering	December 28, 2023
20	9125	Muhammed Riyas NN	Jr. Technician	Metallurgy and Materials Engineering	December 28, 2023
21	9126	Lonka Shivakrishna	Jr. Technician	Physics	December 28, 2023
22	9127	Thalla Vishnu	Jr. Technician	Electrical Engineering	December 28, 2023
23	9128	Universe Jasmine A	Jr. Technician	Physics	December 28, 2023
24	9129	Prakash K	Jr. Technician	Central Electronics Centre (CEC)	December 28, 2023
25	9130	Arunthangavelu A	Jr. Technician	Physics	December 28, 2023

26	9131	Katari Mahesh Babu	Jr. Technician	Mechanical Engineering	December 28, 2023
27	9132	Bhuvaneswari N	Jr. Technician	Electrical Engineering	December 28, 2023
28	9133	Marothi Neeelaveni	Jr. Technician	Aerospace Engineering	December 28, 2023
29	9134	Solomon K George	Jr. Technician	Chemical Engineering	December 28, 2023
30	9135	Sneha Sathapathi	Jr. Technician	Biotechnology	December 28, 2023
31	9138	Anguluri Upendra Kumar	Jr. Technician	CEC	February 1, 2024
32	9069	Sambaji	Junior Superintendent	Audit	September 25, 2023
33	9076	Ravishankar CVS	Junior Assistant	Finance & Accounts	November 1, 2023
34	9077	Renjukrishnan RV	Junior Assistant	Academic (Courses)	November 1, 2023
35	9079	Meena J	Junior Assistant	Mechanical Engineering	November 1, 2023
36	9080	Susithra R	Junior Assistant	Finance & Accounts	November 1, 2023
37	9081	Akshaya BR	Junior Assistant	Academic (Research)	November 1, 2023
38	9083	Pooja A	Junior Assistant	Administration II	November 1, 2023
39	9084	Shibu AS	Junior Assistant	Alumni & Corporate Relations (A&CR)	November 1, 2023
40	9085	Shaik Mastan	Junior Assistant	Academic (Research)	November 1, 2023
41	9086	Malathi M	Junior Assistant	Administration I	November 1, 2023
42	9087	Deepa A	Junior Assistant	Chemistry	November 1, 2023
43	9088	Naveen M	Junior Assistant	Communication Office	November 1, 2023
44	9089	Kiran Babu D	Junior Assistant	Administration II	November 1, 2023
45	9090	Roy John	Junior Assistant	Physics	November 1, 2023
46	9091	Manikkavasagam VS	Junior Assistant	Administration I	November 1, 2023
47	9092	Lekshmi AK	Junior Assistant	Biotechnology	November 1, 2023
48	9093	Pooja Khandelwal N	Junior Assistant	Physics	November 1, 2023
49	9094	Gugan S	Junior Assistant	O/o Dean (A&CR)	November 1, 2023
50	9095	Jameel Ahamed A	Junior Assistant	Academic (Courses)	November 1, 2023
51	9096	R Prasanth	Junior Assistant	Finance & Accounts	November 1, 2023
52	9097	Roshni Deborah S	Junior Assistant	Academic (Research)	November 1, 2023
53	9098	Deepan Chakravarthy D	Junior Assistant	Engineering Unit	November 1, 2023
54	9099	Anusuya S	Junior Assistant	Chemistry	November 1, 2023
55	9100	Abinaya P	Junior Assistant	Maths	November 1, 2023
56	9101	Aravind S	Junior Assistant	Stores & Purchase	November 1, 2023
57	9102	Vaishnavi R	Junior Assistant	Administration III	November 1, 2023
58	9103	Swathi B	Junior Assistant	Applied Mechanics	November 1, 2023
59	9104	Kruthika SV	Junior Assistant	Finance & Accounts	November 1, 2023
60	9106	Chilukoti Mastanbabu	Junior Assistant	Metallurgy and Materials Engineering	November 1, 2023
61	9107	Lathik Lekha S	Junior Assistant	Engineering Unit	December 1, 2023

Ramalingaswami Re-Entry Fellowship

Name	Designation	Department	Date of Joining
Dr. Ramya Balachandran	DBT Ramalingaswami Fellowship	EE	May 1, 2023

Professor Emeritus

Name	Designation	Department	Date of Joining
Prof. Sankararaman S	Professor Emeritus	CY	July 1, 2023
Prof. Hema A Murthy	Professor Emeritus (Honorary)	CS	July 1, 2023
Prof. N Ramesh Babu	Professor Emeritus	ME	July 1, 2023

Professor (Re-employed)

S.No	Name	Designation	Department	Date of Joining
1	Prof. K Ramamurthy	Professor (Re-employed)	CE	August 1, 2023
2	Prof. Archita Patnaik	Professor (Re-employed)	CY	February 1, 2024
3	Prof. Sampath V	Professor (Re-employed)	CY	March 1, 2024

Name	Designation	Department	Date of Joining
Dr. R Ratheesh	Muthuraman and Sumathi Visiting Chair	MME	September 4, 2023

Chair Professor**INSPIRE Hosted Faculty (Innovation of Science Pursuit for Inspire Research)**

Name	Designation	Department	Date of Joining
Dr. S Vimalraj	SERB Research Scientist	AM	September 6, 2023

Professor of Practice

S.No	Name	Designation	Department	Date of Joining
1	Dr. T. Jayachandran	Professor of Practice	AE	April 26, 2023
2	Maj. Gen. Rajiv Narayanan	Professor of Practice	AE	April 26, 2023
3	Dr. V. R. Lalithambika	Professor of Practice	AE	April 27, 2023
4	Dr. P. V. Venkitakrishnan	Professor of Practice	ME	May 23, 2023
5	Dr. K. R. Balakrishnan	Professor of Practice	MST	May 12, 2023
6	Dr. Kannan Karthik Kailash	Professor of Practice	MST	May 12, 2023
7	Dr. Rajiv Raman	Professor of Practice	MST	May 12, 2023
8	Dr. S Vijayakumar	Professor of Practice	MST	May 12, 2023
9	Dr. Ragunathan K	Professor of Practice	CH	June 1, 2023
10	Shri. M. S. Srinivasan	Professor of Practice	CE	June 26, 2023
11	Rear Admiral Deepak Bansal	Professor of Practice	ME	July 1, 2023
12	Dr. Kandaswamy Paramasivan	Professor of Practice	PH	August 3, 2023
13	Dr. Vijit K Cherian	Professor of Practice	MST	May 12, 2023
14	Dr. Bagyam Raghavan	Professor of Practice	MST	July 21, 2023
15	Dr. Mullasari Ajit Sankardas	Professor of Practice	MST	May 14, 2023
16	Dr. Rajan Ravichandran	Professor of Practice	MST	May 15, 2023

17	Dr. J S Sathyanarayana Murthy	Professor of Practice	MST	May 14, 2023
18	Dr. S Suresh	Professor of Practice	MST	May 14, 2023
19	Shri. Balaji B	Professor of Practice	ED	October 1, 2023
20	Dr. K Radhakrishna	Professor of Practice	CE	December 20, 2023
21	Dr. Vikram Limaye	Professor of Practice	MS	February 22, 2024

VAJRA (Visiting Advanced Joint Research) Faculty				
S. No	Name	Designation	Department	Date of Joining
Nil				

2.2.6. Internal Faculty/Employees Appointed to Higher Grades during 2023-2024

S. No	ID No.	Name	Designation	Department/Section	DOJ (First Appoint.)	DOJ in Present Post
1	8550	Hamsa Priya Mohana Sundaram	ASP	BT	July 30, 2012	January 10, 2024
2	8556	Santhosh Abraham	ASP	HS	August 24, 2012	January 10, 2024
3	8597	Sateesh Gedupudi	ASP	ME	September 10, 2013	January 10, 2024
4	8634	Suhas Jaykumar Pandit	ASP	MA	December 19, 2013	January 10, 2024
5	8647	Vani Janakiraman	ASP	BT	January 20, 2014	January 10, 2024
6	8686	Vaibhav Chawla	ASP	MS	October 1, 2015	January 10, 2024
7	8740	Saurabh Saxena	ASP	EE	March 16, 2016	January 10, 2024
8	8796	Ganesh Tamadapu	ASP	AM	September 1, 2016	January 10, 2024
9	8827	Prabat Ranjan Pujahari	ASP	PH	November 18, 2016	January 10, 2024
10	8835	Rachel Kalpana Kalaimani	ASP	EE	December 5, 2016	January 10, 2024
11	8837	Satyesh Kumar Yadav	ASP	MME	December 29, 2016	January 10, 2024
12	8888	Ilaksh Adlakha	ASP	AM	December 4, 2017	January 10, 2024
13	8925	Pradeep Konda Gokuldoss	ASP	MME	May 1, 2018	January 10, 2024
14	8926	Piyush Chaunsali	ASP	CE	May 28, 2018	January 10, 2024
15	8929	Nagabhushana Rao Vadlamani	ASP	AE	July 16, 2018	January 10, 2024

16	8936	Jithin John Varghese	ASP	CH	October 24, 2018	January 10, 2024
17	8300	Sudarsan Padmanabhan	Prof	HS	July 25, 2007	January 10, 2024
18	8326	Somashekhar S Hiremath	Prof	ME	July 21, 2008	January 10, 2024
19	8358	Sabita Sarkar	Prof	MME	April 1, 2009	January 10, 2024
20	8397	Palaniappan Ramu	Prof	ED	June 1, 2010	January 10, 2024
21	8443	Arijit Dey	Prof	MA	July 14, 2010	January 10, 2024
22	8454	Satya Sundar Sethy	Prof	HS	August 3, 2010	January 10, 2024
23	8457	Binitha V Thampi	Prof	HS	August 30, 2010	January 10, 2024
24	8472	Deepak Kumar	Prof	OE	December 29, 2010	January 10, 2024
25	8480	Aniruddhan S	Prof	EE	April 15, 2011	January 10, 2024
26	8498	Radhakrishna Ganti	Prof	EE	August 22, 2011	January 10, 2024
27	8505	Krishna Prasanna Jagannathan	Prof	EE	November 2, 2011	January 10, 2024
28	8518	Athi Narayanan Naganathan	Prof	BT	February 1, 2012	January 10, 2024
29	8554	Venu Chandra	Prof	CE	August 8, 2012	January 10, 2024
30	8558	Upadhye Neelesh Shankar	Prof	MA	September 25, 2012	January 10, 2024
31	8569	Ramkumar P	Prof	ME	October 26, 2012	January 10, 2024
32	8574	Anup Kumar Bhandari	Prof	HS	December 21, 2012	January 10, 2024
33	8587	Solomon J Benjamin	Prof	HS	June 24, 2013	January 10, 2024
34	8598	Anand K	Prof	ME	September 16, 2013	January 10, 2024
35	8599	Venkatakrishnan P	Prof	CY	September 16, 2013	January 10, 2024
36	8604	Arunachalam N	Prof	ME	October 1, 2013	January 10, 2024
37	8606	Rupesh Nasre	Prof	CS	October 22, 2013	January 10, 2024
38	8656	Shantanu Shashikant Mulay	Prof	AE	May 19, 2014	January 10, 2024

39	8658	Nandan Sudarsanam	Prof	MS	July 18, 2014	January 10, 2024
40	8667	Mayank Mittal	Prof	ME	October 30, 2014	January 10, 2024
41	8673	Tiju Thomas	Prof	MME	January 1, 2015	January 10, 2024
42	8730	Vagesh D Narasimhamurthy	Prof	AM	February 1, 2016	January 10, 2024
43	8731	Vijyakumar Ragagobalan	Prof	OE	February 3, 2016	January 10, 2024
44	8801	Shweta Agrawal	Prof	CS	September 15, 2016	January 10, 2024

Mission Mode (MM2)

As per the Ministry of Education Letter D.O.No.33-2/2021-TS-III (Pt.) dated 24., 08.2022, an Advertisement No.IITM/R/1/2022 dated 13.07.2022 (Special Drive for SC/ST/OBC-NCL on Mission Mode-2) was issued to invites applications from individuals who belong to SC/ST/OBC-NCL category with an established record of independent, high-quality research and commitment to teaching and research for faculty positions at the level of Assistant Professor (Grade-I / II).

The number of vacancies in each category was identified as SC: 04, ST-2, OBC-NCL-10. Women applicants from the reserved categories were also encouraged to apply. Age relaxation was given for SC/ST/OBC-NCL & PwD candidates as per Government of India norms.

As part of the recruitment process, the consolidated list of subject experts to serve on the Selection Committees along with set of names of SC/ST and OBC experts to serve on the committees for the department of Chemical Engineering, Civil Engineering, Computer Science & Engineering, Electrical Engineering, Engineering Design, Humanities & Social Sciences, Management Studies, Mechanical Engineering and Ocean Engineering were approved by the Board of Governors. The selection was done through shortlisting, seminar presentation and interview during January 2023.

During this recruitment process, 8 Assistant Professors were selected (SC-2, ST-1, OBC-NCL-5). The offer letters were issued to the respective selected faculty members immediately. Out of 8 candidates selected for the post of Assistant Professor Gr.I/II, all the candidates have joined the Institute.

2.2.7. Group 'A' Officers Appointed/Promoted During April 2023-March 2024

S. No	ID No.	Name	Designation	Department	Date of Promotion	RPN/ Advt.
1	557	R Sivagami	Assistant Registrar	Academic Research	July 3, 2023	RPN
2	1291	S Revathy	Assistant Registrar	Director's Office	July 3, 2023	RPN
3	185	Janaki M	Technical Officer	Electrical Engineering	March 12, 2024	RPN
4	1533	Thamilarasan R	Technical Officer	Mechanical Engineering	March 12, 2024	RPN
5	8453	GB Rajan	Technical Officer	Physics	March 12, 2024	RPN

2.2.8. Group B & C Internal Staff Members Appointed through Direct Recruitment From April 1, 2023 to March 31, 2024

S. No.	ID No.	Name	Promotion	Department	DOJ in present post
1	8791	Sumesh Muraleedharan	Jr. Superintendent	Resigned	August 14, 2023
2	8621	D Anitha	Jr. Superintendent	Joint Entrance Examination (JEE) Office	

3	8767	Vignesh Santhanam	Jr. Superintendent	Finance & Accounts	August 14, 2023
4	8645	M Prabhakaran	Jr. Superintendent	JEE Office	August 14, 2023
5	8760	Praveen Babu Triveedhi	Jr. Superintendent	Dean (IC&SR)	August 14, 2023
6	8626	TG Deepa	Jr. Superintendent	Administration I	August 14, 2023
7	8613	T Tamil Selvi	Jr. Superintendent	Administration III	August 14, 2023
8	8633	Vidya R	Jr. Superintendent	Stores & Purchase	August 14, 2023

2.2.9. Staff Members (Group B & C) Promoted From April 1, 2023 to March 31, 2024

S. No.	ID No.	Name	Promotion	Department	DOJ in present post
1	355	Abubucker Siddhik	Chief Cook	Guest House	May 19, 2023
2	8612	Bharathi R	Superintendent	Registrar's Office	May 19, 2023
3	8652	B Sathiya	Superintendent	Dean (Administration) Office	May 19, 2023
4	8642	Kumar G	Superintendent	JEE Office	May 19, 2023
5	606	G Vijaya Banu	Superintendent	Mechanical Engineering	May 19, 2023
6	8619	Benny J	Superintendent	MME	May 19, 2023
7	1525	P Rajendran	Jr. Superintendent	CSE	May 19, 2023
8	8188	G Manickam	Jr. Superintendent	Maths	May 19, 2023
9	1181	Govindaraju P	Jr. Superintendent	Ocean Engineering	May 19, 2023
10	1194	N Govindaraju	Jr. Superintendent	Electrical Engineering	May 19, 2023
11	290	M Saravanan	Jr. Superintendent	Academic (Courses)	May 19, 2023
12	8186	Chellapriya A	Jr. Superintendent	Stores & Purchase	May 29, 2023
13	8767	Vignesh Santhanam	Sr. Assistant	Finance & Accounts	May 22, 2023
14	8757	Gnanadurai S	Sr. Assistant	Finance & Accounts	May 22, 2023
15	8768	Ananthi A	Sr. Assistant	Aerospace Engineering	May 22, 2023
16	8762	Salma Parveen A	Sr. Assistant	Finance & Accounts	May 22, 2023
17	8042	Nandakumar A	Sr. Assistant	SAIF	May 22, 2023
18	299	I Prakash	Sr. Assistant	Retired	May 22, 2023
19	8764	Gomathy G	Sr. Assistant	Administration	May 22, 2023
20	8768	Silpa KS	Sr. Assistant	Finance & Accounts	May 29, 2023
21	8761	Revathi E	Sr. Assistant	HSS	May 29, 2023
22	8760	Praveen Babu Triveedhi	Sr. Assistant	Dean (IC&SR)	May 29, 2023
23	8828	Karthik KG	Sr. Assistant	Audit	May 29, 2023
24	8831	Aiswarya D	Sr. Assistant	Administration	May 30, 2023
25	8079	Chellapandian S	Jr. Tech Superintendent.	CSTF	June 16, 2023

26	8379	A.Soundrameena	Jr. Tech Superintendent.	MME	June 16, 2023
27	8726	Sodumu Ravikanth Reddy	Sr. Technician	Engineering Unit	June 16, 2023
28	8715	Saikat Mitra	Sr. Technician	Engineering Unit	June 16, 2023
29	8797	Jayakumar P	Sr. Technician	Engineering Unit	June 16, 2023
30	8704	Shivasaranappa	Sr. Technician	Engineering Unit	June 16, 2023
31	8719	Senthurkumar M	Sr. Technician	Engineering Unit	June 16, 2023
32	8705	Nallabothula Sarveshandh	Sr. Technician	Engineering Unit	June 16, 2023
33	8734	R Venkatesan	Sr. Technician	Engineering Unit	June 16, 2023
34	8735	S Velavan	Sr. Technician	Engineering Unit	June 16, 2023
35	8380	Irudayaraj	Jr. Tech Superintendent (Systems)	Computer Centre	June 21, 2023
36	8075	Mahesh Mithreevan P	Jr. Tech Superintendent (Systems)	Computer Centre	June 21, 2023
37	1138	Lakshmanan M	Chief Cook	Guest House	June 23, 2023
38	8043	Vijayakumar S	Sr. Attendant	Mechanical	June 23, 2023
39	297	KN Ramanujam	Sr. Attendant	Electrical Engineering	June 23, 2023
40	8844	Dhanammal K	Attendant	Engineering Unit	June 23, 2023
41	8018	S Shanthi	Sr. Attendant	Hospital	June 26, 2023
42	8012	MR Nirmala	Superintendent	Chemistry	July 3, 2023
43	8786	Ezhil S	Sr. Technician	Engineering Design	June 30, 2023
44	8779	Ranjani P	Sr. Technician	Chemical Engineering	June 30, 2023
45	8720	Dhanalakshmi D	Sr. Technician	Electrical Engineering	June 30, 2023
46	8722	Sudha G	Sr. Technician	Aerospace Engineering	June 30, 2023
47	8789	R Ashok	Sr. Technician	Aerospace Engineering	June 30, 2023
48	8785	Sureka P	Sr. Technician	Mechanical Engineering	June 30, 2023
49	8736	KP Karthik	Sr. Technician	Applied Mechanics	June 30, 2023
50	8728	Ranjith Kumar N	Sr. Technician	Chemical Engineering	June 30, 2023
51	8723	Vijayabalan	Sr. Technician	Engineering Design	June 30, 2023
52	8808	Balamurugan T	Sr. Technician	CSTF	June 30, 2023
53	8717	Sathies Kumar S	Sr. Technician	Civil Engineering	June 30, 2023
54	8727	Thiruppathi P	Sr. Technician	SAIF	June 30, 2023
55	8738	A Sundaresan	Sr. Technician	CSE	June 30, 2023
56	8707	Dileesh M	Sr. Technician	Applied Mechanics	June 30, 2023
57	8713	Duraimurugan E	Sr. Technician	Physics	June 30, 2023

58	8706	Rajesh K	Sr. Technician	MME	June 30, 2023
59	8795	M Manikandan	Sr. Technician	HSS	June 30, 2023
60	8710	S Murali	Sr. Technician	ME	June 30, 2023
61	8714	Prince Anantha Raj W	Sr. Technician	Civil Engineering	June 30, 2023
62	8729	Mohamed Mydeen S	Sr. Technician	Mechanical Engineering	June 30, 2023
63	8716	Muthukumar A	Sr. Technician	MME	June 30, 2023
64	8721	Sivaganesh L	Sr. Technician	Physics	June 30, 2023
65	8084	Ravikumar S	Sr. Technician	Chemical Engineering	June 30, 2023
66	8718	P Chiranjeevi	Sr. Technician	Chemistry	June 30, 2023
67	8780	Ponnarsu Ravikumar	Sr. Technician	Chemistry	June 30, 2023
68	8725	Venkateswaran G	Sr. Technician	Electrical Engineering	June 30, 2023
69	8732	Prabhakaran R	Sr. Technician	Mechanical Engineering	June 30, 2023
70	8708	Jagadesh A	Sr. Technician	Aerospace Engineering	June 30, 2023
71	8141	MM Sidhiq	Sr. Technician	Hospital	June 30, 2023
72	8787	Jainudeen Y	Sr. Technician	Civil Engineering	July 3, 2023
73	8698	Srividhya R	Jr. Tech Superintendent	Biotechnology	June 30, 2023
74	8774	Elias Jesu Packiam	Jr. Tech Superintendent	Chemistry	June 30, 2023
75	8696	J Maheshwara Reddy	Jr. Tech Superintendent	Physics	June 30, 2023
76	8410	Gopalakrishnan CK	Jr. Tech Superintendent	Mechanical Engineering	June 30, 2023
77	8372	Rekha V	Jr. Tech Superintendent	Electrical	June 30, 2023
78	8825	Baskar K	Jr. Tech Superintendent	Mechanical	June 30, 2023
79	8689	Naveen Menni	Jr. Tech Superintendent	Chemistry	June 30, 2023
80	8375	Jayaganesh R	Jr. Tech Superintendent	CSE	June 30, 2023
81	8692	Baskar R	Jr. Tech Superintendent	MME	June 30, 2023
82	8778	NK Gopinath	Jr. Tech Superintendent	SAIF	June 30, 2023
83	8693	S Sugirdha	Jr. Tech Superintendent	MME	June 30, 2023
84	8733	Sasirekha	Jr. Tech Superintendent	Biotechnology	June 30, 2023
85	8697	D Suresh	Jr. Tech Superintendent	Physics	June 30, 2023
86	8777	CM Swathi	Jr. Tech Superintendent	Mechanical	June 30, 2023
87	8775	G Balamurugan	Jr. Tech Superintendent	Civil Engineering	July 3, 2023
88	1686	M Nattar Muthu	Superintendent	Chemical Engineering	July 12, 2023
89	8040	R Gunaseelan	Sr. Assistant	Transport Cell	August 23, 2023
90	8008	Nirmala Jeyalakshmi	Superintendent	Hospital	September 15, 2023
91	263	N Geetha	Jr. Superintendent	Engineering Design	November 20, 2023
92	2324	Murugesan P	Office/Lab Assistant	O/o Dean (A&CR)	February 14, 2024

93	0066	CR Elangovan	Office/Lab Assistant	Academic Courses	February 14, 2024
94	1758	R Muralidharan	Office/Lab Assistant	Director's Office	February 14, 2024
95	3071	KV Elangovan	Office/Lab Assistant	Retired	February 14, 2024
96	0827	T Nagarajan	Office/Lab Assistant	Chemistry	February 14, 2024
97	0424	A Sankar	Office/Lab Assistant	Maths	February 14, 2024
98	2985	N Ramachandran	Office/Lab Assistant	Engineering Unit	February 14, 2024
99	1267	Vasugi R	Jr. Superintendent	Biotechnology	February 28, 2024
100	2896	Mohan V	Superintendent	Director Office	February 28, 2024
101	8695	Balachandran J	Tech Superintendent	Maths	March 14, 2024
102	2270	Sivakumar M	Tech Superintendent	CSTF	March 14, 2024
103	8416	S Sudhakar	Junior Technical Superintendent	Engineering Design	March 28, 2024
104	302	T Chandranath	Junior Technical Superintendent	CSTF	March 28, 2024
105	8415	P Arun	Junior Technical Superintendent	CSTF	March 28, 2024
106	8316	M Prabu	Junior Technical Superintendent	Ocean Engineering	March 28, 2024
107	8377	Varun Venkatachalam	Junior Technical Superintendent	Physics	March 28, 2024
108	8396	A Sathish	Junior Technical Superintendent	Physics	March 28, 2024
109	8378	M Vasanthamalar	Junior Technical Superintendent	Physics	March 28, 2024
110	8423	S Shanmuga Priya	Junior Technical Superintendent	Ocean Engineering	March 28, 2024
111	8385	K Sudhakar	Junior Technical Superintendent	Engineering Design	March 28, 2024

2.2.10. Faculty/Employees Who Resigned or Were Relieved

S. No	ID No.	Name	Designation	Department	Date of Relief
1	8444	Dr. Anand TNC	ASP	ME	July 27, 2022
2	8677	Dr. Roland Wittje	ASP	HS	November 30, 2024
3	8651	Bhagavan Gayathri	JS	Physics	Resignation with effect (w.e.f.) June 15, 2023
4	8821	Vidhyalakshmi M	JS	RTI & Legal	Technical Resignation April 8, 2023
5	8791	Sumesh Muraleedharan	JS	EU	Resignation w.e.f. September 29, 2023

2.2.11. Faculty /Employees who opted for voluntarily retirement

S. No	ID No.	Name	Designation	Department	Date of Relief
1	1079	Karthikeyan N	Senior Security Inspector	Security Section	October 31, 2023

2.2.12. Faculty/Employees Who Superannuated Between April 1, 2023 and March 31, 2024

S. No	ID No.	Name	Designation	Department	Date of Retirement
1	3119	Dr. Hema A Murthy	Professor	Computer Science & Engineering	April 30, 2023
2	2515	Dr. K Vidyasagar	Professor	Chemistry	April 30, 2023
3	2632	Dr. G Markandeyulu	Professor	Physics	April 30, 2023
4	1603	Dr. C Vijayan	Professor	Physics	April 30, 2023
5	5003	Dr. Devdas Menon	Professor	Civil Engineering	April 30, 2023
6	2901	Smt. C Baby	Senior Technical Officer	SAIF	May 31, 2023
7	1973	Shri M Murali Prakash	Executive Engineer (Electrical)	Engineering Unit	May 31, 2023
8	127	Shri R Muthusamy	Technical Officer	Civil Engineering	May 31, 2023
9	1756	Shri P Murugan	Technical Officer	Electrical Engineering	May 31, 2023
10	1683	Shri K Chandramurthy	Senior Security Inspector	Security Section	May 31, 2023
11	1654	Shri K Jayavelu	Senior Security Inspector	Security Section	May 31, 2023
12	1117	Smt. C Murugammal	Office/Lab Assistant	Civil Engineering	May 31, 2023
13	1144	Shri M Shanmugam	Senior Attendant	Administration	May 31, 2023
14	1278	Smt. S Luxmy	Superintendent	Academic Section	June 30, 2023
15	2981	Shri S Balasubramanian	Technical Superintendent	Chemistry	June 30, 2023
16	2283	Shri S Marimuthu	Senior Security Inspector	Security Section	June 30, 2023
17	1122	Shri R Antony	Senior Security Inspector	Security Section	June 30, 2023
18	2809	Dr. K Ramamurthy	Professor	Civil Engineering	July 31, 2023
19	3116	Dr. Deepak Khemani	Professor	CSE	July 31, 2023
20	35	Shri. S Venkatesan	Senior Technician	Chemical Engineering	July 31, 2023
21	1867	Smt. S Pavalamani	Superintendent	Stores & Purchase	August 31, 2023
22	116	Shri. B Krishnan	Superintendent	Civil Engineering	August 31, 2023
23	1866	Smt. C Malini	Superintendent	Institute Hospital	October 31, 2023
24	900	Dr. V Ramkumar	Senior Technical Officer	Chemistry	November 30, 2023
25	299	Shri I Prakash	Senior Assistant	Humanities and Social Sciences	November 30, 2023
26	2521	Dr. Archita Patnaik	Professor	Chemistry	January 31, 2024

27	0167	Dr. R Sivanandan	Professor	Civil Engineering	January 31, 2024
28	1302	Shri. A Robin Kennedy	Junior Superintendent	Centre for Continuing Education (CCE)	January 31, 2024
29	1204	Smt. E Pushpa	Senior Assistant	Physics	January 31, 2024
30	1752	Shri K Natarajan	Chief Driver	Transport Cell	January 31, 2024
31	2459	Dr. V Sampath	Professor	Metallurgical & Materials Engineering	February 29, 2024
32	2786	Dr. S Mohan	Professor	Civil Engineering	February 29, 2024
33	3071	Shri KV Elangovan	Office/Lab Assistant	SAIF	February 29, 2024
34	8158	Dr. R Nagarajan	Professor	Chemical Engineering	March 31, 2024
35	5009	Dr. S Kasi Viswanathan	Professor	Physics	March 31, 2024
36	2502	Dr. AK Mishra	Professor	Chemistry	March 31, 2024
37	2758	Dr. VR Muraleedharan	Professor	Humanities & Social Sciences	March 31, 2024
38	897	Dr. A Narayanan	Senior Technical Officer	Chemistry	March 31, 2024
39	644	Shri S Gopalan	Superintendent	Director's Office	March 31, 2024
40	1525	Shri P Rajendran	Junior Superintendent	Computer Science & Engineering	March 31, 2024

2.2.13. Faculty/Employees Who Were on Extraordinary Leave (EOL), Deputation or Lien

S. No.	ID No.	Name	Desgn.	Dept.	From	To	Visit's Purpose & Venue
EOL							
1	3120	Dr. Siva Ram Murthy C	Prof	CSE	December 24, 2021	May 31, 2025	Inter IIT Faculty Exchange Programme with IIT Hyderabad & EOL with FST as Visiting Professor
2	8345	Dr. Manoj Gopalakrishnan	Prof	PH	May 15, 2023	November 30, 2024	Inter IIT Faculty Exchange Programme with IIT Palakkad
3	351	Dr. SR Chakravarthy	Prof	AE	September 1, 2021	February 29, 2024	To take up the position of full-time Chief Technical Officer for co-founded start up at IITM Research Park

4	2786	Dr. S Mohan	Prof	CE	December 22, 2021	February 28, 2024	Vice Chancellor, Puducherry Technological University
5	8229	Anurag Mittal	PROF	CSE	June 7, 2022	March 1, 2024	Inter IIT Faculty Exchange Programme with IIT Delhi Extension of HPL Extension of HPL and EL
EOL without Leave Salary							
1	8297	Sudhir Chella Rajan	PROF	HS	March 29, 2022	May 30, 2024	Private visit to USA
2	8311	Madhu Mutyam	PROF	CSE	October 4, 2022	October 3, 2024	To accept the position of 'Tenured Leader' (Salaried position) at Brane Enterprises Private Limited, Hyderabad.
3	8076	AM Parameshwaran	Jr. Asst	Dean Planning Office	October 6, 2022	September 30, 2023	EOL on personal grounds
4	871	K Anthony Raj	Jr. Attd	Administration	May 12, 2023	June 16, 2023	Unauthorised absence applied as EOL
5	8895	Thamilarasi A	Staff Nurse	Hospital	August 18, 2023	June 17, 2024	EOL on personal Grounds
6	1060	A Sethuraman	Sr. Asst	Gymkhana	August 4-6, 2023; August 12-27, 2023; September 21-24, 2023		Unauthorised absence applied as EOL
7	9091	Manikkavsagam VS	Jr. Asst	Administration	November 28, 2023	January 8, 2024	EOL on medical grounds
8	9106	Chillukoti Mastan Babu	Jr. Asst	MME	February 1, 2024	March 4, 2024	EOL on personal grounds
9	9103	Swathi B	Jr. Asst	Applied Mechanics	March 18, 2024	April 15, 2024	EOL on Medical grounds
Deputation							
1	2815	Satyanarayana KN	Prof	CE	January 18, 2017	May 31, 2027	Director at IIT Tirupati, Andhra Pradesh
2	8163	BS Murty	Prof	MM	August 26, 2019	August 25, 2024	Director at IIT Hyderabad
3	8121	KP Sudheer	Prof	CE	April 4, 2019	April 3, 2025	Executive Vice President, Kerala State Council for Science, Technology and Environment (KSCSTE)
4	3111	Dr. D Janakiram	Prof	CSE	December 23, 2020	January 23, 2024	Director at Institute for Development and Research in Banking Technology (IDRBT), Hyderabad

5	8166	Umakanth Dash	Prof	HSS	February 15, 2021	February 14, 2026	Director at Institute for Rural Management Anand (IRMA) Gujarat
6	5037	S Sundar	Prof	MA	March 14, 2022	March 13, 2027	Director National Institute of Technology, Mizoram
7	8255	Seshadri Sekhar	Prof	ME	October 12, 2022	August 31, 2027	Director at IIT Palakkad, Kerala
8	1616	Karmalkar S	Prof	EE	November 17, 2022	June 30, 2026	Director at IIT Bhubaneswar

Lien

S. No	ID No.	Name	Designation	Department	Date of Relief
1	8758	Sai Ganesh	JA	Administration	Technical Resignation & Lien w.e.f. March 18, 2024
2	8915	N.Bharathidasan	JT	CEC	Technical Resignation & Lien w.e.f. December 29, 2023
3	8766	Silpa KS	JA	Finance & Accounts	Technical Resignation & Lien w.e.f. January 19, 2024
4	8852	Sri Santhosh	Sec Ins	Security Section	Technical Resignation & Lien w.e.f. March 15, 2024

2.2.14. Faculty Members on Sabbatical Leave

S. No.	ID No.	Name	Desgn.	Dept.	From	To	Visit's Purpose & Venue
1	8919	Rajagopalan Srinivasan	Prof	CH	Sabbatical - July 11, 2023 to May 10, 2024 EL - May 11 to July 14, 2024		Visiting Professor at the University of Alberta, Canada
2	8432	Gitakrishna Ramadurai	Prof	CE	July 4, 2023	July 3, 2024	To engage in the startup Good Move Logistics & Transportation Pvt. Ltd., incubated at IITM Incubation Cell, Research Park
3	8934	Tarun Naskar	AP Gr I	CE	July 1, 2023	December 28, 2023	To visit Utah State University, USA as Short-Term Scholar and the University of Pavia, Italy to establish a joint research programme
4	8473	Michael Gromiha	Prof	BT	July 17, 2023	January 16, 2024	Visiting Professor at National University of Singapore
5	8606	Rupesh Nasre	ASP	CS	July 1, 2023	December 31, 2023	Book writing
6	8567	Raghavendra Rao	ASP	CS	July 24, 2023	July 22, 2024	Book writing & research development

7	8441	K Kalpana	ASP	HS	August 1, 2023	May 31, 2024	Affiliated researcher
8	8271	Arti Dua	Prof	CY	August 15, 2023	July 14, 2024	Book writing
9	5001	AN Rajagopalan	Prof	EE	August 1, 2023	November 30, 2023	Book writing
10	8467	R Balaji	Prof	MA	August 1, 2023	July 31, 2024	To accept the position of Visiting Professor at National University of Technology (NIT) Mizoram, Mizoram.
11	8832	Balaji Srinivasan	Prof	ME	August 1, 2023	May 15, 2024	Book writing
12	8449	RP Sundarraj	Prof	MS	August 21, 2023 December 21, 2023	December 20, 2023 May 17, 2024	To accept the position of Visiting Professor in Information Technology and Supply Chain Management (ITSCM) at the University of Wisconsin-Whitewater, United States of America.
13	8364	Srinivasan Chandrasekaran	Prof	OE	September 15, 2023	March 31, 2024	To accept the position of Visiting Professor at the University of Naples Federico II, Italy from September 15 to December 15, 2023 and at Kasertart University, Sriracha Campus, Thailand from January 5 to March 31, 2024, respectively.
14	8496	R Santhosh	Prof	HS	August 16, 2023	December 15, 2023	To accept the British Academy Visiting Fellowship hosted by the University of Sussex, UK
15	8771	Soumen Sarkar	Prof	MA	August 8, 2023	December 31, 2023	To visit the Department of Pure Mathematics at Xi'an Jiaotong-Liverpool University in Suzhou, China for academic research collaboration
16	8217	AV Jayanthan	Prof	MA	August 1, 2023	December 15, 2023	To accept the position of Visiting Scholar at Purdue University, United States of America
17	8073	Ravinder David Koilpillai	Prof	EE	August 1, 2023	July 31, 2024	Joint Director at Centre of Excellence in Wireless Technology (CEWiT), IITM Research Park
18	8660	Prabha Mandayam	ASP	PH	January 17, 2024	January 10, 2025	To write a book titled 'Lecture Notes on Quantum Error Correction and Fault Tolerance'
19	8841	Prasanth LA	ASP	CS	January 1, 2024	December 31, 2024	To write a book titled 'Gradient - Based Algorithms for Zero TR Order Optimization'
20	8458	Smita Srivastava	Prof	BT	February 1, 2024	June 1, 2024	Official Guest, University of Tours, France

21	8356	Jim Libby	Prof	PH	January 1, 2024	December 31, 2024	Physics collaborator in Japan
22	8103	Narayanaswamy NS	Prof	CS	August 23, 2024	July 22, 2025	Visiting Professor in the Department of Computer Science at the University of Maryland, USA
23	8074	Anil Prabhakar	Prof	EE	March 1, 2024	June 30, 2024	Collaboration on the topic 'Quantum Technologies and their potential technologies' with the Raman Research Institute Bengaluru
24	8886	Avishek Parui	ASP	HSS	January 8, 2024	May 28, 2024	To take up an Institute of Advanced Study (IAS) Fellowship at Durham University, UK and to edit a special issue of the Postcolonial Writing Journal

2.2.15. Faculty and Employees Who Passed Away While in Service

S. No.	ID No.	Name	Designation	Department/Section	Date
1	2961	Jayakumar A	Senior Technician	CEC	October 12, 2023
2	0263	N Geetha	Junior Superintendent	Engineering Design	December 31, 2023

2.2.16. Children Education Allowance – April 2023 to March 2024

The Institute reimbursed a sum of INR 1,60,38,000/- to 584 claims received from faculty and staff members towards the Children Education Allowance as per Government of India (GOI) norms between April 2023 and March 2024.

S. No.	Month / Year	April 2023 to March 2024	
		No. of Employees/Claims	Total Reimbursement in INR.
1.	April 2023	339	91,53,000
2.	May 2023	69	20,52,000
3.	June 2023	40	11,61,000
4.	July 2023	24	6,48,000
5.	August 2023	13	3,51,000
6.	September 2023	18	4,86,000
7.	October 2023	11	2,97,000
8.	November 2023	07	1,89,000
9.	December 2023	08	2,16,000
10.	January 2024	34	9,18,000
11.	February 2024	17	4,59,000
12.	March 2024	04	1,08,000
Total		584	1,60,38,000

2.3.1.1. Ongoing Activities of Official Language, Hindi Cell

The Hindi Cell at IIT Madras functions under the overall administrative control of the Registrar.

a) Hindi Training

In accordance with the directives of the Department of Official Language of the Ministry of Home Affairs (MHA), GOI, Hindi language training classes were conducted regularly for both technical and administrative employees under the Hindi Teaching Scheme. In 2023-24, 10 and 2 employees successfully completed the Prabodh and Praveen courses respectively. Cash awards were given to 6 employees for having passed exams prescribed for their posts with creditable marks.

b) Hindi Workshops and Seminars

In 2023-24 five Hindi workshops were conducted, training given to 115 employees in Official Language Policy of the Union and General Hindi, Official Correspondences in Hindi and Simple Translation, and Unicode & Inscript keyboard Training. The employees were also apprised of the Official Language Policy, Technical Terminology and Annual Programme of MHA by the Hindi Officers of various central government offices and Public Sector Undertaking (PSU) organisations. Many activity-based tests, quizzes, practical, and interactive sessions were conducted. A Rajbhasha Seminar on 'Atal Bihari Vajpayee (A renowned Poet & Ex-Prime Minister of India)' was organised on the occasion of World Hindi Day Celebrations 2024.

c) OLIC Meetings

The Official Language Implementation Committee (OLIC) meetings of IIT Madras were convened regularly on a quarterly basis during the year under review, in which achieving the targets prescribed for various items in the annual programme of the MHA were discussed in detail. Follow-up actions were taken on the decisions made. The last OLIC meeting for the year 2023-24 was held on March 26, 2024.

d) Translation Work

During the year under review, the following translation work was carried out: Translation of advertisements related to students' admission, teaching and non-teaching positions, Inspection Questionnaires for the study visit of various Parliamentary Committees, RTI letters, accounts report, and other reports sent to the ministry, Information Brochure of JEE examination, invitations pertaining to Convocation and Institute Day, press releases, Institute's main website, administrative website, and confidential work assigned by the authorities.

e) Preparation of Help Literature

Help Literature is prepared on a routine and essential basis for the effective and progressive use of Hindi. During the year, Help Literature, consisting of administrative terms and phrases used in sections, centres and departments, were prepared and distributed for use in files and in view of Hindi competitions.

f) Celebration of Hindi Day

Hindi Day was celebrated on October 20, 2023 and was presided over by the Registrar. The Registrar announced the prize winners of competitions conducted during the Hindi Fortnight, such as Reading, Video based Quiz, Word Power, Quiz, Typewriting, Noting & Drafting, Handwriting, and Hindi Music (Solo & Group), and distributed the certificates to the prize winners and participants of the competitions. As part of the cultural programme, Hindi songs were rendered by IIT Madras students and a spot activity was organised for the audience.

g) Grant of Annual Incentive for doing Official Work in Hindi

5 employees were awarded cash incentives under the 10,000 Words Incentive Scheme during the year.

h) Other Activities for Effective Implementation of Official Language

The following activities were conducted to maintain a congenial atmosphere for Hindi and to create interest in Hindi among the staff:

- 'Learn a Word in Hindi' is updated every day in three languages, viz., Tamil, Hindi and English, through Announce mail.
- World Hindi Day was celebrated on 10 January 2024.
- A coordination meeting was convened during December 2023 to give information about Hindi Training and Implementation of Official Language to newly recruited employees of the Institute in view of increasing the use of Hindi in official work.

i) Town Official Language Implementation Committee (TOLIC) Activities

IIT Madras actively participates in Town Official Language Implementation Committee (TOLIC) activities such as meetings, webinars, seminars and competitions. The staff participated in various competitions such as Extempore, Debate, Book Review, Noting and Drafting, Elocution, Essay Writing and Word Power conducted by the TOLIC during the year. Shri Shivasharanappa, Senior Technician, Engineering Unit won Second Prize in the Debate competition and Shri Boopathy B., Senior Assistant, Finance & Accounts

won Motivation prize in the Elocution competition.

j) Official Language Inspection

The Official Language Inspection of IIT Madras by the First Sub-Committee of the Parliamentary Committee

on Official Language was held on February 22, 2024 at Puducherry. Steps are being taken to ensure the effective implementation of Official Language in the Institute and compliance with the assurances given to the Committee in this regard.

2.4. Insurance Cell

2.4.1. Insurance Schemes 2023-24

2.4.1.1. Group Mediclaim Insurance Scheme from 1 February 2023 to 31 January 2024

Category/Numbers of Persons Covered	Employee and Dependents	Pensioner and Dependents	Family Pensioner
Opted for Basic coverage only	796	571	419
Opted for Basic + Additional coverage	385	387	103
Total dependents covered	2933	915	00
Total number of persons under coverage	4114	1873	522
Total premium paid	₹ 9,46,98,269/-		
Total number of claims made	1072		
Total claimed amount	₹ 9,15,94,256/-		

2.4.1.2. Group Term Insurance Scheme from February 10, 2023 to February 9, 2024

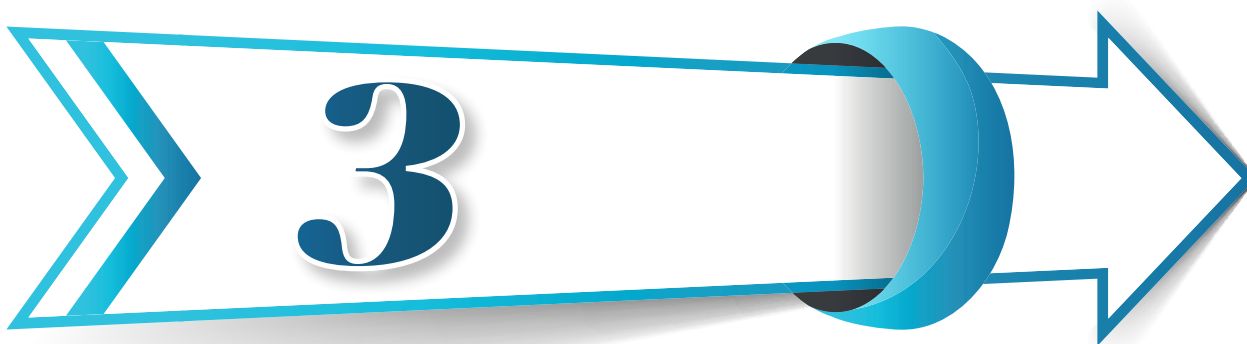
Category	Life Insurance: Number of Persons Covered
Basic Coverage opted	1130
Total Premium paid	₹ 2,51,41,232/-
Total number of claims made	Two
Total claimed amount	₹ 60,00,000/-

2.4.1.3. Group Fire and Burglary Insurance Scheme from April 26, 2023 to April 25, 2024

Category	Value
Fixed Assets total value	₹ 7,10,71,88,950/-
Total Premium paid	₹ 19,73,797/-
Total number of claims made	Nil
Total claimed amount	Nil

2.5. Housing Facilities Quarters In IIT Madras

The Institute provides 974 quarters for its employees and 238 quarters for the accommodation of married students.



Academic Programmes and Award of Degrees

In 2023-24, the Indian Institute of Technology Madras offered the following programmes:

- Ph.D.
- M.S. (By Research)
- Interdisciplinary M.S./Ph.D.
- Joint Degree/Single Degree Ph.D.
- M.Tech.
- M.Sc.
- B.Tech.
- Dual Degree (B.Tech. and M.Tech., B.S. and M.S.)
- B.Sc.
- B.S.
- MBA
- EMBA
- M.A.
- Inter-Disciplinary Dual Degree programmes
- International Inter-Disciplinary M.Tech. programmes
- Diploma
- PG Diploma
- PG Programme in Management for Executives

3.1. Admissions 2023-24

Candidates were admitted to the following programmes during the academic year 2023-24.

Programme	Admission Procedure
B.Tech., Dual Degree	JEE (Advanced)
M.Tech., MA	GATE, Sponsored and User-Oriented Programmes
Ph.D. and M.S.	Test/interview/GATE/ Sponsored
M.Sc.	JAM
MBA	CAT and interview

The number of students and scholars admitted to various programmes both in July 2023 and in January 2024 are given in the table. Reservation has been followed as per the Government of India (GOI) order for the academic year 2023-24 in all programmes (15% for Scheduled Castes (SC), 7.5 for Scheduled Tribes (ST), 27% for Other Backward Classes (OBC), 10% for the Environmentally Weaker Section (EWS) & Persons with Disabilities (PWD) as applicable).

Table 1. Fresh Admissions

Details of OBC/SC/ST and Women Students under Fresh Admission (programme and category wise)

Dept.	B.Tech.	DD	M.Tech.	M.Tech. (Web-based)	M.Sc	MBA	EMBA	M.A.	M.S.	Ph.D.	PG Diploma MEM	PG Diploma BE	Total
AE	56	12	49	46	-	-	-		14	12			189
AM	-	-	29	-	-	-	-		22	30			81
BT	75	-	38	-	-	-	-		4	30			147
CH	109	-	60	41	-	-	-		11	20			241
CY	-	-	-	-	65	-	-		2	31			98
CE	116	-	123	-	-	-	-		8	26			273
CS	94	-	74	31	-	-	-		22	11			232
DA	-	-	-	-	21	-	-	-	-	-	-	-	21
ED	-	78	-		-	-	-		19	18			115
EE	167	-	101	83	-	-	-		42	27			420
GE	-	-	18	-	-	-	-		-				18
HS	-	-	-	-	-	-	-	70	-	29			99
MA	-	-	24	-	49	-	-		-	18			91
MD	29	-	-	-	-	-	-		-	8			37
MS	-	-	-	-	-	93	49		5	16	40	15	218
ME	217	-	138	48	-	-	-		23	30			456
MM	60	-	27	-	-	-	-		3	15			105
OE	68	-	45	-	-	-	-		5	12			130
PH	46	11	10	-	55	-	-		-	35			157
Total	1037	101	736	249	190	93	49	70	180	368	40	15	3128

S. No.	Programme	GE	EWS	OBC	SC	ST	Total	Female	Male
1.	B.Tech.	399	109	290	159	80	1037	220	817
2.	Dual Degree	42	11	28	13	7	101	20	81
3.	M.Tech.	281	80	225	97	53	736	107	629
4.	M.Tech. (Web-based)	202	1	38	5	3	249	37	212
5.	M.Sc.	78	18	56	26	12	190	50	140
6.	MBA	30	10	32	17	4	93	21	72
7.	EMBA (2024 Batch)	39		6	4		49	12	37
8.	M.A.	43	5	12	9	1	70	30	40
9.	M.S.	108	9	50	13		180	22	158
10.	Ph.D.	187	28	111	35	7	368	134	234
Total		1409	271	848	378	167	3073	653	2420

The total number of students admitted during the year included the following:

Foreign Nationals	62	Defence Officers (M.Tech.)		25
EWS	271	User-Oriented Programme (M.Tech.)		32
		Web-based M.Tech.		249
OBC	848	Sponsored M.Tech.		10
Scheduled Castes	378	Quality Improvement Programme (Q.I.P.)	Ph.D.	7
Scheduled Tribes	167	Project	M.S. Ph.D.	54 16
Physically handicapped	41	External registration	M.S.	6
Women students	653		Ph.D.	13

3.2. Students'/Scholars' Enrolment

The total numbers of students on roll in various programmes of the Institute in the academic year 2023-24 are given below.

Table 2. Students on roll

Dept.	B.Tech.	DD	M.Tech.	Web-based M.Tech.	M.Sc.	MBA	EMBA	M.A.	M.S.	Ph.D.	PG Diploma MEM	PG Diploma BE	Total
AE	253	79	75	104					54	168			733
AM			105						88	218			411
BT	76	320	36						9	227			668
CH	449	49	123	91					53	170			935
CY					135				2	255			392
CE	498	47	275						40	306		15	1181
CS	394	17	193	96					78	100			878
DA	-	-	-	-	21	-	-	-	-	-			21
ED		396							59	111			566
EE	643	69	248	419					232	328			1939
GE			18										18
HS								302		172			474
MA			53		128					111			292
MS						183	159		28	137	80		587
MD	29									8			37
ME	836	110	323	98					164	317			1848
MM	248	43	63						38	182			574
OE	286	43	110						40	145			624
PH	180	66	27		118					250			641
Total	3900	1259	1670	808	402	183	159	302	885	3205	80	15	12826

The above total includes the following:

Foreign Nationals	120	QIP	Ph.D.	70
EWS	902	Sponsored	M.Tech	26
OBC	3488	Project	M.S. Ph.D.	217 118

Scheduled Castes	1600	External Registration	M.S. Ph.D.	42 219
Scheduled Tribes	663	Registration Kept Alive	M.S. Ph.D.	40 204
Physically Handicapped	179	Part -Time Programme	M.S. Ph.D.	52 96
Women students	2871	User-oriented Programme (M.Tech.)		69
Defence Officers (M.Tech.)	58	Web-based M.Tech.		808

Details of OBC/SC/ST and women students on roll (programme and category wise):

S. No	Programme	GE	EWS	OBC	SC	ST	Total	PH	Female
1.	B.Tech	1422	329	1011	587	303	3652	91	726
2.	Dual Degree	630	70	370	211	90	1371	18	255
3.	M.Tech	448	131	346	153	77	1155	12	175
4.	Online M.Tech	491	-	130	9	1	631	-	91
5.	M.Sc	128	34	95	45	25	327	7	88
6.	M.B.A	78	8	44	25	1	156	1	49
7.	EMBA	81	-	15	13	-	109	1	25
8.	M.A	108	14	83	44	20	269	8	164
9.	M.S	522	64	271	67	6	930	3	153
10.	Ph.D	1931	82	886	265	54	3218	14	1018
Total		5839	732	3251	1419	576	11818	155	2744

The branch/discipline-wise and year-wise details of students enrolled in B.Tech., Dual Degree and M.Tech. programmes are given below.

Table 3. B.Tech. students on roll

S. No.	Branch	2023	2022	2021	2020	2019 and Earlier Batch	Total
1.	Aerospace Engineering	56	62	63	60	18	259
2.	Biotechnology	75				9	84
3.	Chemical Engineering	109	116	115	117	23	480
4.	Civil Engineering	116	128	128	124	23	519
5.	Computer Science and Engineering	94	90	86	87	28	385
6.	Electrical Engineering	167	155	154	155	22	653
7.	Mechanical Engineering	217	220	218	207	31	893
8.	Medical Science and Technology	29	-	-	-	-	29
9.	Metallurgical and Materials Engineering	60	68	70	66	11	275
10.	Naval Architecture	68	81	76	72	20	317
11.	Engineering Physics	46	43	43	40	11	183
Total		1037	963	953	928	196	4077

Table 4. Dual Degree (B.Tech. and M.Tech.) students on roll

S. No.	Branch	2023	2022	2021	2020	2019	2018 and Earlier Batch	Total
1.	Aerospace Engineering	12	10	10	10	19	21	82
2.	Biotechnology: Biological Engineering Biological Sciences (B.S. and M.S.)	-	46 45	43 47	39 34	33 28	33 26	194 180
3.	Chemical Engineering	-	-	-	-	11	26	37
4.	Civil Engineering	-	-	-	-	11	37	48
5.	Computer Science and Engineering	-	-	-	-	3	5	8
6.	Electrical Engineering	-	-	-	-	22	69	91
	Electrical Engineering (B.Tech.) and Applied Mechanics (M.Tech.)	-	-	-	-	-	-	0
7.	Engineering Design	78	77	73	72	62	57	419
8.	Mechanical Engineering	-	-	-	-	42	92	134
9.	Metallurgical and Materials Engineering	-	-	-	-	16	21	37
10.	Naval Architecture and Ocean Engineering	-	-	-	-	10	23	33
	Naval Architecture (B.Tech.) and Applied Mechanics (M.Tech.)	-	-	-	-	-	-	0
11.	Physics (B.S. and M.S.)	11	15	12	13	17	17	85
12.	Engineering Physics (IDDD)	-	-	-	-	-	-	0
Total		101	193	185	168	274	427	1348

Table 5. M.Sc. students on roll

S. No.	Branch	2023	2022	Extended	Total
1.	Chemistry	65	62	8	135
2.	Mathematics	49	48	31	128
3.	Physics	55	51	12	118
4.	Joint M.Sc. in Data Science & AI	21	-	-	21
Total		190	161	51	402

Table 6. M.Tech. students on roll

S. No.	Department/Discipline/Batch	2023	2022	Extended Students	Total
1.	Aerospace Engineering	49	22	5	76
2.	Applied Mechanics Biomedical Engineering Computational and Experimental Mechanics	13 16	8 11	10 9	31 36
3.	Biotechnology Bioprocess Engineering Clinical Engineering	17 21	24 13	6 4	47 38

4.	Chemical Engineering	48	39	22	109
	CA - Catalysis Technology	12	6	8	26
5.	Civil Engineering				
	CE 1 - Building Technology and Construction Management	14	15	14	43
	CE 2 - Environmental Engineering	16	10	8	34
	CE 3 - Geotechnical Engineering	10	10	6	26
	CE 4 - Hydraulic and Water Resource Engineering	7	8	6	21
	CE 5 - Structural Engineering	27	18	11	56
	CE 6 - Transportation Engineering	15	14	6	35
	CE 7 - Construction Technology and Management	34	-	4	38
6.	Computer Science & Engineering	74	94	27	195
7.	Electrical Engineering:	1	-	-	1
	EE 1 - Communication and Signal Processing	18	16	8	42
	EE 2 - Control and Optimization	1	-	-	1
	EE 3 - Electronic System Design and Instrumentation	9	-	1	10
	EE 3 - Power Systems and Power Electronics	22	10	18	50
	EE 4 - Microelectronics and VLSI Design	15	13	10	38
	EE-5 - Control and Instrumentation	5	-	9	14
	EE 6 - Integrated Circuits and Systems	17	15	15	47
	EE 7 - RF and Photonics	11	5	2	18
	EE 8 - Quantum Science and Technology	2	-	0	2
	EE 9 - Communication System & Photonics	-	-	2	2
	EE10 - Microelectronics & Photonics	-	-	5	5
8.	Industrial Maths and Scientific Computing	24	-	7	31
9.	Mechanical Engineering:				
	ME 1 - Thermal Engineering	57	37	52	146
	ME 2 - Mechanical Design	45	29	35	109
	ME 3 - Manufacturing Engineering	36	21	15	72
	ME 4 - Hydro turbo Machines & Design	-	-	4	4
	ME 5 - Manufacturing and Precision Engineering	-	-	1	1
10.	Metallurgical and Materials Engineering	27	26	10	63
11.	Ocean Engineering				
	- Ocean Technology	8	7	14	29
	- Petroleum Engineering	13	17	8	38
	Ocean Structure	23	21	5	49
12.	Physics:				
	- Functional Materials and Nanotechnology	10	9	7	26
	Solid State Technology	-	-	1	1
13	Global Engagement	18	21	-	39
Total		736	518	374	1628

Web-Based M.Tech.					
1.	M.Tech. in Aerospace Engineering	29	28	20	77
2.	AE - M.Tech in Ammunition Technology	17	10	-	27
3.	CH - Industrial Artificial Intelligence	41	50	-	91
4.	CS 102 - M.Tech. in Information Security (CSE)	31	27	38	96
5.	EE 101 - M.Tech. in Communications and Signal Processing	22	18	109	149
6.	EE 102 - M.Tech. in Integrated Circuits and Systems	32	38	104	174
7.	EE 105 - M.Tech. in Multimedia Signal Processing	-	-	20	20
8.	EE 106 - M.Tech. in Microelectronics	29	26	15	70
9.	EE 107 - M.Tech. in Quantum Science and Technology	-	-	6	6
10.	ME 102 - Mechanical Design (Web-based)	23	-	39	62
11.	ME 103 - M.Tech. in Automotive Technology	25	-	11	36
Total		249	197	362	808

Table 7. MBA students on roll

S. No.	Branch	2023	2022	Students on Extension	Total
1.	Management Studies	93	86	4	183

Table 8. M.A. students on roll

S. No.	Branch	2023	2022	2021	2020	2019 & Earlier	Total
1.	Humanities and Social Sciences	70	51	57	50	74	302

Table 9. EMBA students on roll

S. No.	Branch	2024	2023	2022	Total
1.	Management Studies	49	49	61	159

Table 10. PG Diploma in Management for Executives in Manufacturing (PGDMEM) students on roll

S. No.	Branch	2023	2022	Total
1.	Management Studies	40	40	80

Table 11. PG Diploma in Bridge Engineering (PGDBE) students on roll

S. No.	Branch	2023	Total
1.	Management Studies	15	15

Table 12. M.S. scholars on roll

S. No.	Branch	Year I	Year II	Year III	Year IV	Year V and Others	Total
1.	Aerospace Engineering	14	10	16	11	3	54
2.	Applied Mechanics	22	26	25	8	7	88
3.	Biotechnology	4	2	2	0	1	9
4.	Chemical Engineering	11	13	15	8	6	53
5.	Civil Engineering	8	11	8	8	5	40
6.	Computer Science and Engineering	22	15	14	21	6	78
7.	Chemistry	2	-	-	-	-	2
7.	Electrical Engineering	42	47	68	61	14	232
8.	Engineering Design	19	11	14	10	5	59
9.	Management Studies	5	7	12	1	3	28
10.	Mechanical Engineering	23	40	46	33	22	164
11.	Metallurgical and Materials Engineering	3	12	12	6	5	38
12.	Ocean Engineering	5	10	11	8	6	40
Total		180	204	243	175	83	885

Table 13. Ph.D. scholars on roll

S. No.	Branch	Year I	Year II	Year III	Year IV	Year V and Others	Total
1.	Aerospace Engineering	12	14	21	32	89	168
2.	Applied Mechanics	30	27	31	18	112	218
3.	Biotechnology	30	42	45	18	92	227
4.	Chemical Engineering	20	26	29	23	72	170
5.	Chemistry	31	37	39	39	109	255
6.	Civil Engineering	26	40	42	73	125	306
7.	Computer Science and Engineering	11	12	19	18	40	100
8.	Electrical Engineering	27	32	49	51	169	328
9.	Engineering Design	18	17	18	17	41	111
10.	Humanities and Social Sciences	29	19	33	16	75	172
11.	Management Studies	16	17	21	14	69	137
12.	Mathematics	18	16	8	13	56	111
13.	Medical Science and Technology	8	-	-	-	-	8
13.	Mechanical Engineering	30	54	37	34	162	317
14.	Metallurgical and Materials Engineering	15	28	27	23	89	182
15.	Ocean Engineering	12	18	21	14	80	145
16.	Physics	35	37	21	37	120	250
Total		368	436	461	440	1500	3205

3.3. Courses Offered

In the academic year 2023-24, 2388 courses were offered of which 874 courses were offered during July-November 2023, and 1514 courses were offered during January-May 2024. The department-wise details of the courses offered are given below:

Table 14. Number of courses offered

S.No.	Department	No. of Courses Offered in July-November 2023	No. of Courses Offered in January-May 2024
		Core and Elective	Core and Elective
1	Aerospace Engineering	64	84
2	Applied Mechanics	52	92
3	Biotechnology	50	78
4	Civil Engineering	94	145
5	Chemical Engineering	54	88
6	Computer Science and Engineering	40	75
7	Chemistry	21	70
8	Engineering Design	40	64
9	Electrical Engineering	75	150
10	Humanities and Social Sciences	87	127
11	Mathematics	35	77
12	Mechanical Engineering	54	136
13	Medical Sciences & Technology	5	6
14	Metallurgical and Materials Engineering	40	81
15	Management Studies	81	69
16	Ocean Engineering	41	63
17	Physics	61	115
Total		879	1520

3.4. Convocation

The 60th Convocation was held on July 21, 2023. Justice Dhananjaya Y Chandrachud, Chief Justice of India, graced the occasion as Chief Guest. 2,817 candidates were awarded various degrees in absentia. The department-wise details of degrees awarded are given below.

Table 15. Department wise Number of Degrees awarded at the 60th Convocation for the Academic Year 2023-24 (BoG July 21, 2023)

S. No.	Dept.	Joint Degree		Dual Degree		Ph.D.	M.S.	M.Tech.	Web-Based M.Tech.	M.Sc.	MBA	EMBA	PGDBE	M.A	B.S.	Dual Degree			B.Tech. (Honours)	B.Tech.	Total
		M.S./M. Tech.	Ph.D.	M.S./M. Tech./M. Sc.	Ph. D.											B.Tech./B.S. (Hons)	B.Tech./B.S.	M.Tech./M.S./IDDD			
1	AE		1	3	3	4	9	15									21	21	2	33	112
2	AM			2	2	14	12	26													56
3	BT					9	6	11							2	1	57	57		1	145
4	CH		1	5	5	8	4	30								2	26	26	2	86	197
5	CY					25				63											88
6	CE		2	3	3	31	12	86					15			2	30	30	1	102	319
7	CS			1	1	6	10	75	15								5	5	7	78	203
8	EE			6	6	10	28	52	41							5	71	71	15	126	436
9	ED			1	1	4	4									1	54	54		1	121
10	HS					7								46							53
11	MS			5	5	6	4				67	49									136
12	MA		1	2	2	10		24		37											76
13	ME	1	1	5	5	23	22	56	14							3	92	92	9	144	470
14	MM		1	9	9	8	4	27									19	19		36	132
15	OE	1	2	4	4	13	12	36									17	17		48	154
16	PH			2	2	10		4		47						2	15	15		20	119
Total		2	9	48	48	188	127	442	70	147	67	49	15	46	2	16	407	407	36	675	2817

Total: 2360 students, 2817 degrees awarded

Table 16. Department-wise Number of Degrees awarded at the 60th Convocation for the Academic Year 2023-24, Part II

S. No.	Dept.	Joint Degree		Dual Degree			Web-Based M.Tech.	M.Sc.	M.A.	Dual Degree		B.Tech.	Total
		M.S./M.Tech	Ph.D.	M.S. /M.Tech./ M.Sc.	Ph.D	Ph.D.				B.Tech./B.S. (Hons)	M.Tech./M.S./ IDDD		
1	AE	1	1	5	5	1					7	2	33
2	AM	1	1	7	7	6							30
3	BT		1			11	2				2		22
4	CH			3	3	2					1	3	15
5	CY			1	1	18		1					25
6	CE	1	1	4	4	18					2	5	43
7	CS			4	4	2	3					5	32
8	EE		1	2	2	14	1				2	9	39
9	ED			3	3	5					3		22
10	HS					13			6				32
11	MS		1			6	1						8
12	MA			2	2	7							11
13	ME		2	9	9	17	1				4	1	47
14	MM			2	2	8	1						14
15	OE		2	2	2	10	5					3	24
16	PH			4	4	12						4	24
Total		3	10	48	48	150	8	1	6		21	32	423

Total: 351 students, 423 degrees awarded

With this Convocation, the total number of degrees awarded so far by the institute is 64,099, including those of September 2023 graduates, the details of which are given below.

S. No.	Programme		Awarded up to Convocation 2023
1.	Joint Degree - Dual Degree	M.S.	2
		Ph.D.	
2.	Joint Degree - Single Degree		9
3.	Dual Degree	M.S./M.Tech.	48
4.		Ph.D.	48
5.	Ph.D.		188
6.	M.S.		127
7.	M.Tech.		442
8.	Web-based M.Tech.		70
9.	M.Sc.		147
10.	Post Graduate Diploma in Management for Executives in Manufacturing		15
11.	Diploma in Data Science		60
12.	MBA.		67
13.	Executive MBA		49
14.	M.A.		49
15.	Dual Degree	B.Tech. (Honours)	16
		M.Tech.	16
16.	Dual Degree	B.Tech.	407
		M.Tech.	407
17.	Dual Degree	B.S.	2
		M.S.	2
18.	B.Tech. (Honours)		36
19.	B.Tech.		675
Total			2877

3.5.1. Convocation Prizes

The following are the details of convocation prizes awarded for the year 2023-24.

S. No.	Name of the Prize	Roll Number	Prizewinner's Name
B.Tech.			
1	President of India Prize	EE19B053	Sai Gautham Ravipati
2	Bharat Ratna M Visvesvaraya Memorial Prize	EE19B053	Sai Gautham Ravipati
3	Dr Shankar Dayal Sharma Prize	ME19B166	Shatakshi Sarangi
4	HAL Prize	AE19B030	Atharva Aalok
5	Reliance Heat Transfer Pvt. Ltd. Prize	CH19B029	Sundar Raam S
6	CA Sastry Endowment Prize	CH19B063	Kush Mehul Ganatra
7	Larsen & Toubro Endowment Prize	CE19B101	Vibhu Vilas Sharma

8	B Ravichandran Memorial Prize	CS19B016	Chougule Atharva Mahavir
9	C Sivaram Murthy Best B.Tech. Project Award	CS19B077	Alan Joel
10	Motorola Prize	CS19B027	Shah Kshitij Aashish
11	Siemens Prize	EE19B053	Sai Gautham Ravipati
12	Ms. Hema Balasubramanian Excellence Award	EP19B030	Shivaprasad U Hulyal
13	Shri. Jandhyala Lakshmi Kantam & Srimati Sitamahalakshmi Prize	EP19B006	Neeraj K Udupa
14	Banco Foundation Prize	ME19B052	Tadeparti Sidharth
15	Sivasailam Merit Prize	ME19B052	Tadeparti Sidharth
16	Vaidy Krishnan Memorial Prize	ME19B052	Tadeparti Sidharth
17	Dr. Dhandapani Memorial Prize	MM19B057	Vir Karan
18	Vijay Jagannathan Award	MM19B057	Vir Karan
19	American Bureau of Shipping Prize	NA19B040	Kalash Jain
20	48th Indian Pharmaceutical Congress Prize	CH19B094	G Swathi
Dual Degree			
21	Shri V Srinivasan Memorial Prize	BE18B008	Neha Swaminathan
22	Governor's Prize	BE18B036	S Prahalad
23	American Express Award	BE18B008	Neha Swaminathan
24	Vedam Design Award	NA18B107	H Abirami
25	Mayan Prize	AE18B012	Srishti Adhikary
26	Dr. V Mohan Raman Prize	AE18B031	Nihal S Manvi
27	Kalpathi AGS Prize	BE18B008	Neha Swaminathan
28	Biocon Prize	BE18B008	Neha Swaminathan
29	The Divashri Award	BS18B004	P Gayathri
30	Dr. NR Dave Prize	CE18B135	Yakkala Eswita
31	B Ravichandran Memorial Prize	CH18B067	Shania Mitra
32	Alumni Association Prize	CS18B102	Nischith Shadagopan MN
33	Lakshmi Ravi Prize	CH18B067	Shania Mitra
34	Prema & Nagaraja Setty Prize	ED18B002	Akash Anand
35	Dr.K Gopinath & Padmini Gopinath Prize	ED18B041	Akshat Sharda
36	Rajesh Rajamani Automotive Engineering Student Excellence Award	ED18B041	Akshat Sharda
37	Philips India Prize	EE18B154	Sreekar Sai Ranganathan
38	Prof. GVN Rayudu Memorial Prize	ME18B085	Kishore Ram Sathia
39	S Anantharamakrishna Memorial Prize	MM18B109	Raghav Mallampalli
40	Prof. J Sobhanadri Prize	PH18B008	Gaurav M Vaidya
41	Goodearth Shipbuilding Pvt. Ltd. Prize	NA18B008	Aaradhy Sirothia
42	Prof. A Ravindran Prize	ME18B085	Kishore Ram Sathia
43	American Express Top Achievement Award	AE18B031	Nihal S Manvi
44	Prof. T. Govindaraj Prize	MM18B114	Shyam VS
45	Dr. Susan Calvin Prize	ME18B012	Hruthik VS

46	Institute Merit Prize	ED18B044	Guddanti Sai Sakunthala
47	Institute Merit Prize	MM18B015	BV Murari
48	Institute Merit Prize	ME18B052	Kalash Verma
49	C & S Electric Ltd Award for Entrepreneurship	ED18B002	Akash Anand
M.Sc.			
50	Mira Paul Memorial Prize	MA21C045	Suvendu Kar
51	Prof. Chilukury Ramasastry Memorial Prize	PH21C009	Diwakar Gaur
52	Shri Jandhyala Lakshmi Kantam & Srimathi Sitamahalakshmi Prize	PH21C026	Mehraj Chhetri
53	V Ratna Rao Memorial Prize	CY21C025	Khushboo Goel
54	Dr. SR Ramadas 60th Birthday Commemoration Award	CY21C030	Manabendra Kapasi
M.Tech.			
55	Valadi Krishna Sarma Balaji & Savithri Balaji Award	EE21M029	Nachiket Khameshwar Dandare
56	Bhagyalakshmi And Krishna Ayengar Award	CE21M007	Megha S Pradeep
57	Buti Foundation Gold Medal Award	BT21M012	Shakunthala N
58	Prof. CS Krishnamoorthy Endowment Prize	AE21M007	Nachiketa Narayan Kurhade
59	Prof. Mizar Devadas Pai Memorial Endowment Prize	ME21M100	Piyush Kumar Sharma
60	Prof. M Singaperumal Endowment Award	ME19M505	Ram Kumar S
61	Air India Prize	AE21M007	Nachiketa Narayan Kurhade
62	Prof. BVA Rao Endowment Prize	AM21M002	Gadibavi Thrinath Reddy
63	Sushruta Award	AM21M014	Gaatha Bhatia
64	Dr. SS Srikanta Prize	CL21M012	Prabhsharn Singh
65	Institute Merit Prize	BT21M012	Shakunthala N
66	Dr. K Subba Raju Memorial Prize	CH21M026	Sowmya M
67	Shri SV Balakrishnan Prize	CA21M006	Susan Mondal
68	Mico-Bosch Prize	CH21M022	Rohit Arvind Agrawal
69	Institute Merit Prize	CE21M022	Vineeth R
70	Valli Anantharamakrishnan Merit Prize	CE21M022	Vineeth R
71	K Devarajan Memorial Prize	CE21M056	Aayush Jain
72	L&T Endowment Prize	CE21M115	Kaustav Ghosal
73	Prof. Plaehn Prize	CE21M073	Paul Sigamani Moses
74	Rajnikant Gandhi Memorial Award	CE21M069	Megha S Narayanan
75	CMC Prize	CS21M013	Chandra Churh Chatterjee
76	Prof. HN Mahabala Endowment Prize	CS21M809	Anukul Parajuli
		CS21M079	Brahma Asutosh
77	Siemens Prize	EE21M068	Bereddy Dinesh Reddy
78	Prof Achim Bopp Prize	EE18B126	Ashfan Ahamed P
		EE21M810	Md. Abu Nayeem
79	Prof. Helmut Neunzert Endowment Prize	MA21M003	Ajit Kumar Sahu

80	Prof. B Sengupto Prize	ME21M057	Kallakuri Heramba Datta Sai Uday Krishna
81	Dr. S Vaidyanathan Memorial Prize	ME21M076	Anurag Parija
82	S Anantharamakrishnan Merit Prize	ME21M022	Karthik Soundarajan KR
83	Prof Ramamohana Rao Memorial Prize	ME21M057	Kallakuri Heramba Datta Sai Uday Krishna
84	Sudharshan Bhatt Memorial Prize	MM21M029	Emil Joe Thomas
85	Institute Merit Prize	PE21M005	Anurag Vishwakarma
86	American Bureau of Shipping Prize	OE21M034	Sony Lambada
87	Prof. KAV Pandalai Prize	OE21M025	Nadikoppula Durga Rao
88	RRP Sinha & Vimla Dewi Prize	PE21M005	Anurag Vishwakarma
89	Sri Krishnamurthy Sundarambal Prize	PH21M008	Ravuri LN Saketh
90	American Express Award	BT21M012	Shakunthala N
91	Dronnadula Nagaratnam Reddy Award	CE21M075	Rohit Malik
92	Duvvuru Sarada Award	CE22M002	Sumukh Swaroop CR
Ph.D			
93	Bhagyalakshmi and Krishna Ayengar Award	CY13D070	V Surya Kumar
94	GE Ecomagination Excellence Award	CE16D303	Inigo
		CE17D035	Vaishali Choudhary
95	Prof. V Ramamurti Award	AM17D203	Amritesh Kumar
96	Prof. S Radhakrishnan Award	AM16D203	V Anudeep
97	Batch of 1979 Award	BT15D017	Shereena P Joy
		BT16D006	Priyanshu Sharma
98	Shree Gaayathree Devi Award	CE13D050	Resmi G
99	IBM Best Thesis Award	CS15D400	Sareena K
100	Sudharshan Bhatt Memorial Prize	MM18D301	ML Aparna
101	Prof. CN Pillai Prize	CY15D007	K Ramachandran
102	Prof. G Sundararajan Endowment Prize	CY16D018	Debayan Roy
103	Prof. Langmuir Prize	CY17D037	Vivekananda Mahanta
104	Prof. Werner Prize	CY17D006	Vipin Kumar Pandey
105	Smt. Lakshmikutty Amma and Shri A Krishnankutty Nair Prize	MA18D001	Mrityunjay Ghosh
106	Dr. M Mukunda Rao Endowment Prize	EE15D020	V Raj Kiran
		EE17D041	TV Jeshma
107	Prof. MS Shanmugam Endowment Prize	ME15D070	Hari Ganesh S
		ME17D043	Kali Prasad
108	Mrs. Abayambal & Mr. Natarajan Award	PH17D022	Athrey CD
109	Prof. AL Lashkar Prize	PH18D018	Suhail Ahmad Rather
		PH16D056	Saroj Kumar Barik
110	Prof. R Krishnamurthy Endowment Award	ME19D751	Deepak Sharma
111	Prof. Vallam Sundar Prize	OE16D203	S Harish

112	Best Ph.D. Thesis in Data Sciences	CS15D017	Tarun Kumar
		EE18D701	Lokesh Bommisetty
113	Shri N Kannan Prize	MS16D202	Jyotsna JH
114	Shri RN Rajendran Memorial Prize	MS17D016	Ramya M
115	Keshav-Rangnath Excellence in Research Award	PH16D056	Saroj Kumar Barik
		AM18D405	Rahul Madbhavi
MS			
116	TS Vedagiri Memeorial Award	EE18S050	Karthikeyan M
		EE19S025	Himanshu Goyel
117	Prof. S Radhakrishnan Award	AM20S009	Rishab Shukla
118	Smt. DL Saraswati Memorial Prize	CH19S005	Hariharan B
119	Biswajit Sain Endowment Prize	CS18S029	Babar Sadbhavana Manohar Sadhana
120	Avishek Bhattacharjee Memorial Award	CS18S029	Babar Sadbhavana Manohar Sadhana
MA			
121	Institute Merit Prize	HS18H036	Rohan Gopakumar
122	Dr. Dilip Veeraraghavan Memorial Award	HS18H055	Reeya Rakchhandha
123	Prof. AV Krishna Rao Memorial Award	HS18H036	Rohan Gopakumar
124	Shri MN Ramachandran and Smt. Gowri Appadorai Ramachandran Prize	HS18H016	Cherene Aniyen Puthethu
MBA			
125	Coka Parthasarathy Memorial Prize	MS21A021	Harish Guptha K
126	KV Arunkumar Memorial Prize	MS21A045	Prathyusha Deepak
127	Institute Merit Prize	MS21W020	Guruprasanna M

3.5.2. Institute Day Prizes

S. No.	Name of the Prize	Roll Number	Prizewinner's Name
B.Tech.			
1	Shri S Subramanian Prize	EE21B019	Anirudh BS
2	Shri K Krishnamurthi Prize	CS21B021	Chahel Singh
3	Shri V Ramachandran Prize	CS20B003	Aditya C
4	Shri V Rajagopalan Memorial Prize	EE20B023	Chagari Koushal Kumar Reddy
5	Ms. Latha & Sampath Srinath Prize	EP20B001	Aadithya GS
6	Mrs. Jayashree Ananth Prize	ME20B121	Nilesh Balu
7	Ms. Latha & Sampath Srinath Prize	NA20B024	Janisha BL
8	Dr. RK Viswanath Memorial Prize	CH19B025	Saujanya S
9	Shri Ramasarma V Kolluri Memorial Prize	EE19B085	Jeffin Biju
10	Mr. K Krishnamurthy Iyer Prize	EP19B018	Amogh Yogesh Waghmare
11	Dr. Vivekanand Kochikar Award	ME19B166	Shatakshi Sarangi

12	Prof. K Gopinath and Padmini Gopinath Prize	NA19B010	Shivani Chauhan
13	K. Srinivasan and Indira Srinivasan Prize	CE19B101	Vibhu Vilas Sharma
14	Dr. Dilip Veeraraghavan Memorial Award	CS19B027	Shah Kshitij Aashish
15	Shri Raghavendra Memorial Prize	ME20B121	Nilesh Balu
16	Dr. S Chandrasekharan Memorial Prize	ME19B035	Paranjape Shreyas Sachin
17	Dr. Dinesh Balagangadhar Prize	ME19B035	Paranjape Shreyas Sachin
18	Swati / Jayalakshmi Memorial Award	ME19B166	Shatakshi Sarangi
19	Notional Prize	29 students	29 Students
Dual Degree			
20	Prof. TK Varadan Prize	AE20B102	Anik Bhowmick
21	Dr. Anita Mehta-Damani Prize	BE20B026	Rajagopal Subramani C
22	Mrs. Jayalakshmi Sambasivam Prize	BS20B037	Vatsal Arya
23	Dr. Anita Mehta-Damani Prize	CH20B012	Anish Anand Pophale
24	Computer Age Management Services Pvt. Ltd. Prize	CE20B043	Gary Thomas Job
25	Ms. Latha & Sampath Srinath Prize	ED20B034	Madhav Rajadurai
26	Shri Satish Pai Prize	MM20B001	Aarya Bawishi
27	N Arunachalam Memorial Prize	PH20B001	Amrit Putcha
28	Prof. EG Tulapurkara Prize	AE19B011	Sampatirao Sai Saandeep
29	Dr. Anita Mehta-Damani Prize	BE19B014	Aryamaan Saha
		BE19B018	Chokshi Ishan Rajiv
30	Institute Merit Prize	BS19B021	Pradhyumn Jain
31	MSK Chaitanya Varma Memorial Prize	CE19B089	Sruthi Sreeram
32	Computer Age Management Services Pvt. Ltd. Prize	CS19B021	KV Vikram
33	Dr. Srikanth Sundararajan Prize	ED19B015	Keshava Krishna S
34	Ratna Award	MM19B040	Nagappan N
35	Electronics For You Prize	PH19B006	TL Abishek
36	Shri Jandhyalaya Lakshmi Kantham & Smt. Sitamahalakshmi Prize	PH19B001	Bhatt Vivan Ashish
37	Shri Kakkara Balachandran Menon Prize	AE18B105	Raut Pracheta
38	Sarada Bhaskara Reddy Award	ED18B010	Jonnalagadda Devansh Royal
39	Shri Madan Gopal Damani Prize	BE18B008	Neha Swaminathan
40	Institute Merit Prize	BS18B027	Shreya Santosh Ugale
41	Shri Venkataraman Ravi Prize	CE18B135	Yakkala Eswita
42	Dr. Anita Mehta-Damani Prize	CH18B119	Manasee Jadhav
43	Computer Age Management Services Pvt. Ltd. Prize	CS18B103	Shreesha G Bhat
44	Institute Merit Prize	EE18B154	Sreekar Sai Ranganathan
45	Shri Rajesh Achanta Prize	ME18B174	Chandak Sourav Manoj
46	Shri Sagar Pushpala Prize	ME18B101	Nair Asheel Venugopal
47	Prof. K Gopinath and Padmini Gopinath Prize	ME18B032	Sreerag EP

48	Prof. V Sundaresan Prize	MM18B101	Sayantan Mondal
49	Poovai TR Srinivasan & S Alamelu Award	NA18B107	H Abirami
50	Mr. S Venkitaramanan, IAS (Retd.) Prize	PH18B008	Gaurav M Vaidya
		PH18B006	Rishi Raj
51	Shri GS Bhuvaneshwar Prize	ME18B085	Kishore Ram Sathia
52	American Express Award	AE18B031	Nihal S Manvi
53	Ms. Pattammal Viswanathan Prize	ME18B126	Avasarala Krishna Koustubha
		ME18B086	Arvind Ragghav V
54	Institute Merit Prize	ED18B044	Guddanti Sai Sakunthala
55	Shri S Viswanthan Prize	NA18B007	Sneha Bhosale
56	Institute Merit Prize	ME18B052	Kalash Verma
57	Shri KM Ramamurthi Prize	ME19B166	Shatakshi Sarangi
58	Swati / Jayalakshmi Memorial Award	BE18B008	Neha Swaminathan
59	MV Undergraduate Prize (Prof. Malathy Veeraraghavan Award)	AE20B058	Srilakshmi Kangatharan
60	Sri Raghu Ramamoorthy Prize	BS18B015	Chamakura Suraj Reddy
M.Sc.			
61	Chilukuri Ramasastry Memorial Prize	PH21C024	MS Dinesh
62	Geetha Raghupathy Prize	MA21C045	Suvendu Kar
63	LVKV Sarma Prize	MA21C045	Suvendu Kar
64	V Kalyanasundaram Memorial Prize	PH21C007	Bidhi Vijaywargia
65	Swati / Jayalakshmi Memorial Award	CY21C025	Khushboo Goel
66	R Padmanbhan Memorial Prize	CY21C036	Nikhil Chandrashekhar Meshram
67	Mrs. Kalaimani Natarajan Prize	CY21C002	Aishee De
M.Tech.			
68	Prof. S.Santhakumar Prize	AE21M007	Nachiketa Narayan Kurhade
69	Shrimathi Parvatham Ramalingam Prize	AM21M014	Gaatha Bhatia
70	PK Narayana Iyer Prize	CL21M012	Prabhsharn Singh
71	Institute Merit Prize	BT21M012	Shakunthala N
72	V Mahadeva Iyer and Akash Dube Prize	CA21M006	Susan Mondal
73	Prakash Arora Prize	CS21M013	Chandra Churh Chatterjee
74	Dr. N Seshagiri Prize	MA21M003	Ajit Kumar Sahu
75	LVKV Sarma Prize	MA21M003	Ajit Kumar Sahu
76	Dr. MN Dhandapani Prize	MM21M017	Paturi Sai Teja
77	Subrath Kumar Mallik Prize	OE21M025	Nadikoppula Durga Rao
78	S Sambasivan Award	CE21M115	Kaustav Ghosal
79	Institute Merit Prize	CE21M022	Vineeth R
80	M/s Chevron Products Company Prize	CH21M013	Marripelli Maniteja
81	Prof. MK Achuthan Prize	EE21M003	Anurag Srivastava

82	Sri. Ramanan Ramamurti Memorial Prize	ME21M057	Kallakuri Heramba Datta Sai Uday Krishna
83	Prof. Vallam Venkataswami Prize	OE21M031 [OE21D200]	Saurabh Tripathi
84	Prof. MS Ananth Prize	PE21M008	Gowtham Kolli
85	Mrs Lakshmi Ravikumar Memorial Prize	PH21M008	Ravuri LN Saketh
86	Prof. Gerhard Rouve Memorial Prize	CE21M039	Naveen SL
87	Prof. N Venkatarayulu Memorial Prize	ME21M018	Guru Venkata Rama Jaswanth Voleti
88	Chola MSRSL - Process Safety Award	CA21M006	Susan Mondal
89	Swati / Jayalakshmi Memorial Award	BT21M012	Shakunthala N
90	Prof. PK Raju and Laxmi Endowed Prize.	AM21M014	Sreelakshmi Gangadharan
91	Srimathi Marti Annapurna Gurunath Award for Excellence in Teaching	AM21M014	Gaatha Bhatia
MA			
92	Institute Merit Prize	HS21H012	Arya Jayant Daoo
93	Institute Merit Prize	HS20H043	Sushant Jaswal
94	Institute Merit Prize	HS19H035	Sajusha Ashok
95	Dr. V Ravikumar Memorial Prize	HS19H019	Kishan Alakkal Sanoj
96	Dr. V Ravikumar Memorial Prize	HS18H014	Chandi Haripriya Guduru
		HS18H055	Reeya Rakchandha
97	Gonsalvez Foundation Prize	HS18H036	Rohan Gopakumar
98	Swati / Jayalakshmi Memorial Award	HS18H055	Reeya Rakchhandha
Ph.D.			
99	VRS Rao Prize	CY21D001	Deepak Kumar Patel
100	Bro. C Selvam Endowment Fund Prize	CS18D008	Anshu Yadav
		CS17D013	Keerthi K
101	Bhagyalakshmi & Krishna Ayengar Award (For Faculty)	Faculty Award	Prof. Dillip Kumar Chand



Department Of Aerospace Engineering

1. Introduction

The Department of Aerospace Engineering was established in 1969 and has been offering B.Tech., M.Tech., Dual Degree, M.S. and Ph.D. programmes.

The areas of teaching and research of the Department are Aerodynamics & Flight Mechanics, Propulsion & Combustion, and Aerospace Structures.

2. Academic Programmes

B.Tech. / Dual Degree (B.Tech. + M.Tech.) / M.Tech. / M.S. & Ph.D.

2.1. Students On Roll as of September 2023 + M.S. & Ph.D Admissions in January 2024

Programme	I Year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	57	67	53	48	5 + 3	233
Dual Degree	10	8	12	15	12 + 2	59
M.Tech.	49	20				69
M.S.	15	9	13	4		41
Ph.D.	12	9	23	22	17 + 43	126
Total	143	113	101	89	82	528

2.2. Students/Scholars Who Attended Conferences, Seminars and Symposia Abroad in India

S. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
Abroad					
1	Gaurav Chopra	ICSR36280	104th American Meteorological Society Annual Meeting	January 28-February 1, 2024, in Baltimore, Maryland, USA	ONRG

2	Ankit Sahay	AE18D202	76th Annual Meeting of the Division of Fluid Dynamics	November 19-21, 2023, Washington, DC, USA	NA (presented by co-author)
			Third International Nonlinear Dynamics Conference (NODYCON 2023) (online)	June 18-22, 2023, Sapienza University of Rome, Rome, Italy	NA
3	Aswin Balaji	AE20B016	76th Annual Meeting of the Division of Fluid Dynamics	November 19-21, 2023, Washington, DC, USA	IITM
4	Samerjeet Singh	AE18D207	Third International Nonlinear Dynamics Conference (NODYCON)	June 18-22, 2023, Sapienza University of Rome, Rome, Italy	IITM
			Combustion Institute Canadian Section 2023 Technical Meeting	May 15-18, 2023, University of Alberta campus, Edmonton, Alberta, Canada	IITM
5	Andrea Elizabeth Biju	AE19B027	Third International Nonlinear Dynamics Conference (NODYCON)	June 18-22, 2023, Sapienza University of Rome, Rome, Italy	IITM
6	Madabushi LNV Kasturi Rangan	AE18D402	ISSW34	July 15-21, 2024, People's Republic of Korea	Institute
7	Mohammed Shahid Habib Khan	AE21S023	ISSW34	July 5-21, 2024, People's Republic of Korea	Institute
India					
1	Pruthiraj Mishra	AE228018	7th International Conference on Complex Dynamical Systems and Applications (CDSA)	January 25-27, 2024, Digha, Indian Statistical Institute, Kolkata	IITM
2	Sivakumar Sudarshan	AE20D019	7th International Conference on Complex Dynamical Systems and Applications (CDSA)	January 25-27, 2024, Digha, Indian Statistical Institute, Kolkata	IITM
3	Ramesh S Bhavi	AE20D200	7th International Conference on Complex Dynamical Systems and Applications (CDSA)	January 25-27, 2024, Digha, Indian Statistical Institute, Kolkata	IITM
4	Somnath De	IC34585	7th International Conference on Complex Dynamical Systems and Applications (CDSA)	January 25-27, 2024, Digha, Indian Statistical Institute, Kolkata	Office of Naval Research Global (ONRG)

2.3. Students/Scholars Who Won Outside Prizes and Awards

S. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded by
1	Ananth SM	AE18D002	Turbo Expo Early Career Engineer (TEECE) travel award 2023 & 2024	American Society of Mechanical Engineers (ASME) International Gas Turbine Institute
2	Ananth SM	AE18D002	Best Ph.D. Thesis in Mechanical Engineering	University of Melbourne

2.4.Students/Scholars Who Won Institute Convocation/Institute Day Prizes

S. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1	Nachiketa Narayan	AE21M007	Prof. CS Krishnamoorthy endowment prize for best M.Tech. thesis	IIT Madras

3.Faculty and Their Activities

3.1.Faculty

S. No.	Name and Qualifications	Major Areas of Specialisation
PROFESSORS		
1	Dr. Ramakrishna M, Ph.D. (Univ. of Texas at Arlington)	Fluid mechanics, numerical methods, computer solutions
2	Dr. Sriram P, Ph.D. (Institute Chair Professor) (Georgia Inst. Of Technology)	Structural mechanics, fatigue & fracture, parallel computing
3	Dr. Bhaskar K, Ph.D. (IIT Madras)	Structural mechanics, plates & shells, composite structures
4	Dr. Sujith RI, Ph.D. (Institute Chair Professor) (Georgia Inst. Of Technology)	Thermoacoustic instability, optical flow diagnostics
5	Dr. Chakravarthy SR, Ph.D. (Georgia Inst. Of Technology)	Propulsion, combustion & fluid mechanics
6	Dr. Velmurugan R, Ph.D. (IIT Delhi)	Composite structures analysis and design, impact mechanics, 3D composites
7	Dr. Luoyi Tao, Ph.D. (University of Pittsburgh)	Continuum mechanics and its applications (fluids, solids, multiphase flows, etc.)
8	Dr. Murthy HSN, Ph.D. (Purdue University) HOD of Aerospace Engg.	Fatigue and fracture, non-destructive evaluation, tribology, advanced materials., elasticity
9	Dr. Amit Kumar, Ph.D (Case Western Reserve Univ.)	Combustion, propulsion, fire research, CFD
10	Dr. Ramakrishna PA, Ph.D. (Indian Institute of Science)	Combustion, propulsion
11	Dr. Nandan Kumar Sinha, Ph.D (IIT Bombay)	Dynamics and control of aerospace vehicles, aerial vehicle autonomy
12	Dr. Sunetra Sarkar, Ph.D. (Indian Institute of Science)	Insect aerodynamics, fluid structure interaction, uncertainty quantification
13	Dr. Sameen A, Ph.D. (Indian Institute of Science)	Stability, transition and turbulence, computational fluid dynamics
14	Dr. Muruganandam TM, Ph.D. (Georgia Institute of Technology)	Combustion, blowout dynamics, optical diagnostics, spectroscopic methods, vortex breakdown, dynamics of mode shifting. High speed flows, unsteady gas dynamics
15	Dr. Sivasambu Mahesh, Ph.D. (Cornell Univ.)	Structure-property modeling of aerospace materials
16	Dr. Rajesh G, Ph.D. (Andong National University, S.Korea)	Shockwave dynamics, ballistics, experimental gas dynamics
17	Dr. KV Nagendra Gopal, Ph.D. (Indian Institute of Science)	Computational mechanics and multi-scale modeling, fracture mechanics, structural dynamics and aero elasticity
18	Dr. Manikandan Mathur, Ph.D. (MIT, USA)	Instabilities & mixing, stratified & rotating flows, low-speed aerodynamics

19	Dr. Shantanu Shashikant Mulay, Ph.D. (Nanyang Tech. Univ.)	Continuum mechanics, large deformation of materials, fracture mechanics and plasticity
ASSOCIATE PROFESSORS		
20	Dr. Shyam M Keralavarma, Ph.D. (Texas A&M University)	Plasticity, ductile fracture, computational materials modeling, multiscale modelling
21	Dr. Santanu Ghosh, Ph.D. (North Carolina University)	Computational fluid dynamics, airfoil/wing aerodynamics, shock/boundary-layer interaction
22	Dr. Vadlamani Nagabhushana Rao, Ph.D, University of Cambridge (Robinson College)	Computational fluid dynamics, transition to turbulence, turbo machinery, high order methods, high performance computing
23	Dr. Ranjith Mohan, Ph.D. (Florida Atlantic Univ.)	Helicopters, rotorcraft MAVs
ASSISTANT PROFESSORS		
24	Dr. Shankar Ghosh, Ph.D. (University of Minnesota)	Hypersonic flow simulation, non-equilibrium effects, computational fluid dynamics, turbulent flows
25	Dr. Joel George, Ph.D. (IISc.)	Navigation, guidance and control of aerospace vehicles multi-agent systems theory as applied to multiple unmanned aerial vehicle missions
26	Dr. M Senthil Murugan, Ph.D (IISc.)	Aeromechanics, dynamics & aeroelasticity, stochastic systems
27	Dr. Satadal Ghosh, Ph.D (IISc.)	Guidance and control; motion planning
28	Dr. Sriram Rengarajan, Ph.D (IISc)	Experimental fluid dynamics, high-speed flows, shockwave boundary layer interactions
29	Dr. Bharath M Govindarajan, Ph.D (University of Maryland, College Park USA)	Computational aerodynamics of flow past bodies, mathematical and numerical modelling, algorithms and their applications, overall design of aerospace vehicles
30	Dr. Devaprakash Muniraj, Ph.D, (Aerospace Engineering, Virginia Tech, USA)	Dynamics and control of unmanned aircraft systems (UAS), security-aware design of UAS, verification of UAS
31	Dr. Prashant Rawat, Ph.D. (Mech. Engg.,) Indian Institute of Technology (Indian School of Mines) Dhanbad	Manufacturing and experimental analysis, polymer composites, biomimetics
32	Dr. David Kumar	Experimental structural mechanics, designing unmanned aerial vehicles, nondestructive testing methods
33	Dr. Aswathy Surendran Keele University, United Kingdom	Aero/thermoacoustics, combustion/propulsion, heat transfer
34	Dr. Pravendra Kumar (University of Tokyo)	Plasma-assisted combustion/ignition, electric propulsion, micro-combustion
PROFESSORS OF PRACTICE		
1.	Dr. Rear Admiral A George	October 1, 2023-September 30, 2024
2.	Lt. Gen. P Ravi Shankar	March 1, 2024-February 28, 2025
3.	Dr. T Jayachandran	March 1, 2024-February 28, 2025
4.	Dr. VR Lalithambika	March 1, 2024-February 28, 2025
5.	Major Gen. Rajiv Narayanan	March 1, 2024-February 28, 2025
6.	Dr. Lazar T Chitilappilly	March 1, 2024-February 28, 2025
VISITING FACULTY		
1.	Dr. Dipankar Das	February 16, 2023-February 15, 2024

3.2.Short-term Courses, Workshops, Seminars, Symposia and Conferences Organised by Faculty Members

S. No.	Coordinator(s)	Title	Period
Seminars			
1	Dr. RI Sujith	Critical Transitions in Complex Systems Webinar Series	September 2021- Ongoing
Symposia			
1	Dr. V Kamakoti, Dr. HSN Murthy, Dr. D Muniraj, Dr. David Kumar, Dr. Pravendra Kumar	Aerospace and Defence Industries Summit for Advancing Key Technological Innovations	March 13, 2023
Workshops			
1	Dr. HSN Murthy, Dr. David Kumar, Dr. Devaprakash Muniraj, Dr. Pravendra Kumar	Workshop on 'How to Build and Fly Drones' under the project 'Capacity Building for Human Resource Development in Unmanned Aircraft System (Drone and Related Technology)' governed by the Ministry of Electronics and Information Technology (MeitY)	July 3-9, 2023
2	Dr. RI Sujith	Workshop on Complex Networks and Application to Fluid Dynamics (online)	February 19-21, 2024
Short term Courses			
1	Dr. Aswathy Surendran (ISRO Nodal Officer)	ISRO Space Science and Technology Awareness Training (START) Programme	July 20- August 7, 2023
2	Dr. Aswathy Surendran (Group Leader)	Workshop on Technical and Scientific Writing	May 15-19, 2023

3.3.Short-term Courses, Workshops, Seminars, Symposia, Conferences and Training Events Attended by Faculty Members in Academic Institutions and Public Sector Undertakings

S. No.	Name of Faculty	Title	Institution	Period
Workshops				
1	Dr. Aswathy Surendran	IITM-Kenyon Train-the-Trainers Writing Workshop	IITM (India) - Kenyon (US)	January 3-8, 2023
2	Dr. Aswathy Surendran	Workshop on Research Grants (Writing, Defense, and Implementation of a Grant Proposal)	IITM	October 17, 2023
3	Dr. RI Sujith	Annual monsoon workshop and national symposium on understanding the science of heatwaves under the warming scenario and challenges ahead	Indian Institute of Tropical Meteorology, Pune	March 18-19, 2024
Conferences				
1	Dr. Pravendra Kumar	15th International Symposium on Experimental and Computational Aerothermodynamics of Internal Flows	IIT Madras	October 24-27, 2023
2	Dr. Pravendra Kumar	29th International Colloquium on the Dynamics of Explosions and Reactive Systems	Seoul National University, South Korea	July 23-28, 2023

3	Tirthadeb Ghosh, MS Ingole and Dr. PA Ramakrishna	Study of Transient Burning Characteristics of Boron Potassium Nitrate During Rapid Depressurization	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
4	Sumit Sarma, K Nagendra, B Mondeep, and Dr. PA Ramakrishna	Characterisation of Pyrotechnic Igniter: Heat Flux and Ignition Delay	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
5	Sahul Kumar VS, and Dr. PA Ramakrishna	Development and Testing of Aluminium Based Hypergolic Hybrid Solid Fuel with Industrial Grade H ₂ O ₂	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
6	Piyali Ghosh and Dr. PA Ramakrishna	Effects of DC Electric Voltage on Solid Propellant Burn -Rate	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
7	Kishore M, Yogesh Kumar, Prathamesh Chine, Dr. PA Ramakrishna, Prof. Rajesh G, and Katabathula Srinath	Design of a Ramjet-Assisted Shell with Front Intake	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
8	Annie Rose Elizabeth, Sumit Sarma, T Jayachandran and Dr. PA Ramakrishna	Experimental Verification of The Seven Equation Compressible Multifluid Formulation for Granular Combustion	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
9	Anandu Bhadrar, Joel George Manathara, and Dr. PA Ramakrishna	Soft Landing of a Hybrid Rocket Thruster Powered Platform: Hardware-In-The-Loop Simulation	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
10	Karri. Veerandra Yadav, Dr. HSN Murthy, Dr. PA Ramakrishna	Effect of Ageing on The Decomposition Characteristics of Ammonium Perchlorate with Copper Chromite as Additive	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
11	MS Ingole, K Nagendra and Dr. PA Ramakrishna	Computational Study on Combustion of Ammonium Perchlorate with Burn-Rate Modifiers	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
12	Jyothsna Yerra, Karri Veerandra Yadav, M Thirumurthy, Dr. HSN Murthy and Dr. PA Ramakrishna	Methodology for Experimental Evaluation of Tactical Missile Solid Rocket Motor Service Life Using Thermal Analysis	Nordic Ammunition Company (NAMMO)	May 30-June 2, 2023
13	Dr. Sunetra Sarkar	Talk at International Union of Theoretical and Applied Mechanics (IUTAM) Symposium.	Tsukuba Science City, Japan	July 31-September 4, 2023
14	Dr. M Senthil Murugan	Presented a paper at 49th European Rotorcraft Forum 2023.	Buckeburg, Germany	September 5-7, 2023
15	Dr. Shyam M Keralavarma	Oral presentation in XVII International Conference, on Computational Plasticity Fundamentals and Applications (COMPLAS 2023) Conference.	Barcelona, Spain	September 5-7, 2023

16	Dr. RI Sujith	104th American Meteorological Society Annual Meeting	University of Maryland, USA	February 2, 2024
17	Dr. RI Sujith	Nonlinear Data Analysis and Modelling: Advances, Applications, Perspectives	Georgia Institute of Technology, USA	September 25-28, 2023
18	Dr. Velmurugan R	Paper presentation at Conference on Advances in Materials and Processing Technologies (AMPT 2023)	University Putra Malaysia, Selangor, Malaysia.	September 13-16, 2023
19	Dr. Velmurugan R	Paper presentations at the Ninth International Conference on Thin-walled Structures (ICTWS 2023), the 11th International Symposium on Impact Engineering (ISIE 2023), the Sixth Australasian Conference on Computational Mechanics (ACCM 2023) and research collaborations.	1. ICTWS 2023 at Univ. of Sydney 2. ISIE 2023 at Perth 3. Swinburne University of Technology	November 29-December 15, 2023
Training Events				
1	Dr. Aswathy Surendran	Faculty Development Programme	IITM	January 11-12, 2023

3.4. Special Lectures Delivered by Faculty in Other Institutions

S. No.	Name of Faculty	Topic of Lecture	Institution	Date
1	Dr. Nagabhushana Rao Vadlamani	Rough-Ribbed Surfaces to Mitigate Losses in High Lift Low-Pressure Turbines	University of Cambridge	March 8, 2024
2	Dr. Nagabhushana Rao Vadlamani	Multi-fidelity simulations in Gas-Turbine Engines	University of Melbourne	November 22, 2023
3	Dr. Prashant Rawat	Bio-inspired Flexible Body Armors: Materials and Important Aspects	SRM Institute of Science and Technology, Main Campus, Chennai	September 8, 2023
4	Dr. Prashant Rawat	Bio-inspiration to achieve more!	GLA University Mathura, Uttar Pradesh	October 14, 2023
5	Dr. Prashant Rawat	Anatomy of Research Papers	Mahant Bachittar Singh College of Engineering and Technology, Jammu	November 17, 2023
6	Dr. RI Sujith	Secondary bifurcations and explosive synchronization in turbulent reacting flow systems	Georgia Institute of Technology, Atlanta, Georgia, USA	September 26, 2023
7	Dr. RI Sujith	Singing flames: A complex system perspective	University of Maryland, USA	October 30, 2023
8	Dr. RI Sujith	Singing flames: A complex system perspective	IIT BHU, Varanasi, Uttar Pradesh	August 21, 2023

3.5. Visits Abroad by Faculty

S. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding from
1	Dr. Nagabhushana Rao Vadlamani	United Kingdom (University of Cambridge)	March 3-9, 2024	Conference and collaboration	Personal Contingency Fund (PCF), Mathematical Research Impact Centric Support (MATRICS)
2	Dr. Nagabhushana Rao Vadlamani	Australia (University of Melbourne)	November 14-27, 2023	Conference and collaboration	Melbourne India Postgraduate Academy (MIPA), PCF, MATRICS, Cumulative Professional Development Allowance (CPDA)
3	Dr. Nagabhushana Rao Vadlamani	Italy, Rome	September 10-18, 2023	Turbulence, Heat and Mass Transfer Conference	PCF, MATRICS, CPDA
4	Dr. Pravendra Kumar	South Korea	July 23, 2023	Conference	CPDA
5	Dr. RI Sujith	University of Maryland, USA	February 2, 2024	104th American Meteorological Society Annual Meeting	CPDA
6	Dr. RI Sujith	Georgia Institute of Technology, USA	September 28-3, 2023	Nonlinear Data Analysis and Modelling: Advances, Applications, Perspectives	ONRG
7	Dr. Santanu Ghosh	People's Republic of Korea	July 15-21, 2024	Session Chair Conference	Institute

3.6. Honours and Awards Obtained by Faculty

S. No.	Name of Faculty	Name of Award	Awarded by	Awarded for	Date of Award
i. Honours:					
1	Dr. Nagabhushana Rao Vadlamani	Srimathi Marti Annapurna Gurunath Award	IIT Madras	Excellence in Teaching	April 2023
2	Dr. RI Sujith	Indian Society of System for Science and Engineering (ISSE) Honorary Fellowship	Indian Society of System for Science and Engineering	In recognition of his contributions in promoting system engineering concepts	2023
ii. Awards:					
1	Dr. Aswathy Surendran	IEI Young Engineers Award 2023-24	Institution of Engineers India	Aerospace Division	September 1, 2023
2	Grant award	TrendSetter	The Energy Consortium, IIT Madras	Project Grant	June 30, 2023

3	Dr. RI Sujith	Lifetime Achievement Award	IIT Madras	Excellence in Research and Development	April 20, 2023
4	Dr. RI Sujith	Best Teacher Award	IIT Madras	Excellence in Teaching	2023

3.7.Fellowships of Academies and Professional Societies

S. No.	Name of Faculty	Year of Admission
Others:		
1	Dr. RI Sujith: Indian Society of System for Science and Engineering (ISSE) Honorary Fellowship	2023
2	Dr. RI Sujith: International Member of the US National Academy of Engineering (NAE)	2023

3.8.Journal Editorial Boards

S. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1	Dr. RI Sujith	Editorial Advisory Board Member	Chaos

4.Design and Development Activities

4.1.New Facilities Added or Major Equipment Procured

S. No.	Name of Equipment	Value (in INR)
1	UTM/Dynamic Testing Machine (5 KN)	80 lakh
2	High-speed double cavity double pulsed Nd-YLF LASER	108.63 lakh
3	2DPDA	199.86 lakh
4	Image intensifier	79.54 lakh
5	Mini LDV	111 lakh
6	Phantom VEO 710L	38.81 lakh (USD 46,607 @ 83.29 - Conversation rate as on April 8, 2024)
7	Photron camera	62.27 lakhs (USD 74,770 @ 83.29 - Conversation rate as on April 8, 2024)
8	High-performance computing cluster	68 lakhs

4.2.Patents

4.2.1.Patents Filed

S. No.	Name of faculty	Topic of Patent
1	Dr. HSN Murthy, Dr. M Ramakrishna, Dr.David Kumar	A peripheral particle guard and method for manufacture thereof [Indian Patent, Application No.: 202441025684]
2	Dr. HSN Murthy, Dr. M Ramakrishna, Dr.David Kumar	Wave-crest inspired peripheral debris guard for runways [Design Patent, Application No.: 411873-001]
3	Dr. Prashant Rawat	Devices and methods for manufacturing corrugated composite panels (Application No.: 202341050413)

4.2.2. Patents Awarded

S. No.	Name of Faculty	Topic of Patent
1	Dr. RI Sujith	Systems and methods for suppressing thermo-acoustic instabilities in a combustor (US patent, Patent No. 11573151)
2	Dr. RI Sujith	Apparatus to estimate the root mean square value or the amplitude of limit cycle oscillations in systems that encounter oscillatory instabilities and methods thereof (Indian patent, Patent No. 513392)
3	Dr. RI Sujith	Apparatus to estimate the root mean square value or the amplitude of limit cycle oscillations in systems that encounter oscillatory instabilities and methods thereof (US patent, Patent No. 11650552)

5. Research and Consultancy

5.1. Sponsored Research Projects (Ongoing & New)

Sl. No.	Title	Period	Funding Agency	Amount (INR)	Co-ordinators
1	Capacity building for human resource development in Unmanned Aircraft Systems (Drone and related technology)	December 2022-December 2027	Ministry of Electronics and Information Technology (MeitY)	260.91 lakh	Dr. HSN Murthy (PI), Dr. David Kumar (Co-PI), Dr. Devaprakash Muniraj (Co-PI), Dr. Pravendra Kumar (Co-PI)
2	Low-order models for thermoacoustic instability predictions in Rayleigh Flows	February 12, 2024-February 11, 2027	Science and Engineering Research Board (SERB)	6 lakh	Dr. Aswathy Surendran
3	Non-axisymmetric end-wall contouring of turbine stator	January 2024		35.8 lakh	Dr. Vadlamani Nagabhushana Rao
4	Novel design and fabrication of bioinspired flexible body armour with composite scales	December 19, 2023 to December 18, 2025	Science and Engineering Research Board	31.768 lakh	Dr. Prashant Rawat
5	Capacity-building for human resource development in Unmanned Aircraft Systems (Drone and related technology)	December 28, 2022-December 27, 2027	Ministry of Electronics & Information Technology	2,60,91,000	Dr. Pravendra Kumar (Co-PI)
6	Development of plasma-assisted ignition/combustion technology	October 19, 2023-October 18, 2025	Science and Engineering Research Board	32,24,460	Dr. Pravendra Kumar
7	Extension of ISRO flow solver PRAVAHA to flows involving Vibrational and Chemical Non-equilibrium	January 8, 2023-January 7, 2024	Indian Space Research Organisation (ISRO)	13.74 lakh	Dr. Shankar Ghosh
8	Network structure of transitions in thermo fluid systems in nature and engineering	January 2022-January 2024	ONRG	178.52 lakh	Dr. RI Sujith
9	Rate dependent transition to thermoacoustic instability	March 10, 2021-March 9, 2024	SERB	67.13 lakh	Dr. RI Sujith
10	JC Bose fellowship	March 11, 2019-March 10, 2024	SERB	95 lakh	Dr. RI Sujith

11	Numerical and Experimental Investigation of Flow-separation Control Using Passive Mechanisms in High-speed Flows	May 20, 2019-September 30, 2023	Ministry of Education (MoE)	47,96,353	Dr. Santanu Ghosh (Indian, PI) Dr. TM Muruganandam (Co I) Venkateswaran Narayanswamy (Foreign, PI) Jack R. Edwards (Foreign, Co I)
12	Variable camber morphing wing	May 30, 2017-June 30, 2024	Defence Research and Development Organisation (DRDO)	12,86,12,400	Dr. Sameen A (PI) Dr. Santanu Ghosh (Co-PI) Dr. Rajesh G (Co-PI) Dr. Manikandan MS (Co-PI) Dr. Rinku Mukherjee (Co-PI) Dr. Shaikh Faruque Ali (Co-PI) Dr. Shyam Keralavarma (Co-PI) Dr. Arockiarajan A (Co-PI) Dr. Chakravarty SR (Co-PI)

5.2.Industrial Consultancy Projects (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (in INR lakh)
1	Dr. HSN Murthy (PI), Dr. David Kumar (Co-PI)	Accelerated Ageing Studies on Composite Solid Propellants	DRDO	97.96
2	Dr. David Kumar (PI), Dr. HSN Murthy (Co-PI), Dr. M Ramakrishna (Co-PI)	Indigenous Design and Development of FOD Barrier/Trap for Indian Air Force	Indian Air Force	25.96
3	Dr. Rajesh G (PI), Dr. Sameen A (Co-PI), Dr. David Kumar (Co-PI), Dr. Alagappan Ponnalagu (Co-PI)	Development of smart 155 m ammunition (ISA-Indian Smart Ammunition) to limit the CEP (circular error probable) within 10 m at the range of the existing 155 mm ammunition	Ordnance Factory Badmal (Munitions India Limited)	5096
4	Dr. Pravendra Kumar	In situ Application of Plasma Discharge for Sustainable Aviation Fuels (SAF)/Biofuels	The Energy Consortium	10
5	Dr. RI Sujith	Climate-resilient and sustainable livelihoods for communities (Virudhunagar)	IndusInd bank	132

4.2. Department Of Applied Mechanics & Biomedical Engineering

1. Introduction:

The Department of Applied Mechanics saw a change of name to Department of Applied Mechanics & Biomedical Engineering from August 2023. This Department has been in existence since 1962 and become a full-fledged interdisciplinary graduate research department over the years. The department focuses on academic activities in three broad areas: biomedical engineering, fluid mechanics and solid mechanics. The department also offers minor streams for undergraduate students.

2. Academic Programmes:

Ph.D., Direct Ph.D, M.S. (by research), M.Tech. (Computational and Experimental Mechanics), M.Tech. (Biomedical Engineering), M.Tech. (Clinical Engineering) and Inter-Disciplinary Dual Degrees in Biomedical Engineering & Computational Engineering

2.1. New Courses introduced:

Sl. No.	Course No.	Title
1	AM6023	Geometry & mechanics of materials: From hair curls to origami
2	ID5100	Carbon Neutral Energy Technology (CNET) Lab
3	AM5090	Flow visualization techniques

2.2. Students on roll as of September 2023 +M.S. & Ph.D admission in Jan. 2024:

Programme	I year	II Year	III Year	IV Year	V Year & others	Total
M.Tech.	32	39	-	-	-	71
M.S.	22	24	25	8	10	89
Ph.D.	30	31	28	18	105	212
Total	84	94	53	26	115	372

2.3. Names of Student/Scholar who attended Conference/ /Seminar and Symposia Abroad/India:

Sl. No.	Name of the Student/ Scholar	Roll No.	Name of the Conference/ Seminar/ Symposia/ Workshop	Date and Venue	Financial Assistance from
Abroad					
1	Pooja Vardhini Natesan	AM19D750	60th International Biomedical Sciences Instrumentation & Rocky Mountain Bio engg Symposium	13-16 April 2023, Translational Medicine Institute Colorado State University, USA	Institute
2	Saurabh Mangal	AM21S090	ECCC2023 - 6th International Creep & Fracture Conference	24 May 2023, Edinburgh	Institute
3	Pooja Vardhini Natesan	AM19D750	IEEE EMBS-NUS iHealthtech Forum for Data Science & Engg in Healthcare, Medicine & Biology	30-31 May 2023, National University of Singapore, Singapore.	PMRF
4	Shib Sundar Banerjee	AM16D206			Institute
5	Sreelakshmi S	AM19D200			

6	A Mathioli	AM21D203	UBISS 2023, Summer School	11 June 2023, Oulu, Finland	Institute
7	Sowmya Sundar	AM22S049	18th edition of the IEEE International Symposium on Medical Measurements and Applications (MeMeA 2023)	14-16 June 2023, Jeju, Korea	Institute
8	Shib Banerjee	AM16D206			Institute
9	Priyanka Jadhav	AM22S052	21st International Conference on Informatics, Management & Technology in Healthcare, ICIMTH	1-3 July 2023, Athens, Greece	Institute
10	Sowmya Sundar	AM22S049	9th International Conference on Control, Decision and Information Technologies, CoDIT 2023,	3-6 July 2023, Rome	Institute
11	T Janardhan Reddy	AM18D017	EMBC - 2023	24-28 July 2023, Sydney, Australia	Institute
12	Sreelakshmi S	AM19D200	45th Annual International Conference of the IEEE Engg in Medicine & Biology Society	24-27 July 2023, International Convention Centre Sydney, Australia	Department
13	Priyanka Jadhav	AM22S052			
14	Sowmya Sundar	AM22S049			
15	Vinothini S	AM18D005			
16	Shib Banerjee	AM16D206			
17	Omkar Pande	AM20S038			
18	Yedukondala Rao V	AM18D030			
19	Sreelekshmi P S	AM21D042			
20	Saravanan M	AM21D010	ISB/JSB 2023, Congress	30 July -3 Aug 2023, Fukuoka, Japan	Institute
21	Debjit Kundu	AM20D700	ISAM CONGRESS 2023	26-30 Aug 2023, Saarbrücken, Germany	PMRF
22	Thiruselvam S	AM18D029	IEEE MetroXRAINE	25-27 Oct 2023, Milano, Italy	Institute
23	C Sivananda Reddy	AM19D003	Mechatronics & Machine Vision in Practice (M2VIP-2023)	21-24 Nov 2023, Queenstown, NewZealand	Institute
24	Saravanan M	AM21D010	2023 International Conference on Internet of Things & Intelligence System	28-30 Nov 2023, Bali, Indonesia	Institute
25	Subham Chakraborty	AM22S002	Big BRAIN 2023, Organized by Mathematical Institute of Serbian Academy of Sciences and Arts	4-8 Dec 2023, Belgrade, Serbia	Institute
26	Azhaganmaadevi K A	AM19D037	MICAD 2023	9-10 Dec 2023, Cambridge, UK	Institute
27	Alok Kumar	AM21S008	ICCMME 2024	14-16 Jan 2024, Singapore	Institute

28	Priyanka Jadhav	AM22S052	INVICTA Spring School	18-22 March 2024, Porto, Portugal	Instiute
29	Sowmya Sundar	AM22S049			
30	Subham Chakraborty	AM22S002			
31	Praveen Kumar G	AM23D010			
India					
1	Anand Zambare	AM21S004	11th European Combustion Meeting (ECM 2023)	26-28 April 2023, Rouen, France.	Institute
2	Nisanth Kumar P	AM20D601	International Conference on Recent Advances in Fluid Mechanics & Nanoelectronics (ICRAFMN-2023)	12-14 June 2023, MIT, Bengaluru	Institute
3	Eldhose Babu M.	AM19D040			
4	Valeti Chanikya	AM20D010			
5	Ashish Pandey	AM17D031	ISAM sponsored research workshop on Multiscale modelling in solid mechanics	13-14 July 2023, IITBHU, Varanasi	Institute
6	Brahmadathan V B	AM19D024			
7	Smit Bhoir	AM22S042			
8	Richa Bisht	AM22D035			
9	Debiprasad Senapati.	AM22S046			
10	Sourav Dutta	AM21D350	International Conference on Sustainable & Applied Nano-technology for Agriculture & Health (SANTAH)	19-21 July, 2023, IIT Madras	Institute
11	Ashish Pandey	AM17D031	3rd International Conference on Structural Integrity (ICONS 2023)	23-25 Aug 2023, Mamallapuram, TN	Institute
12	Saurabh Mangal	AM21S090			
13	Brahmadathan	AM19D024			
14	Binu Varghese	AM17D032	The first Indian Conference on Micro nano fluidics ICOM2023	9 Sep-1 Oct 2023, IIT Madras	Department
15	C Sivananda Reddy	AM19D003	Computer applications in Electrical Engineering - Recent Advances (CERA-2023)	27-29 Oct 2023, IIT Roorkee	Institute
16	Anand Zambare	AM21S004	Asian Computational Fluid Dynamics Conference (ACFD 2023)	30 Oct-2 Nov 2023, HAL, Bengaluru	Institute
17	Deekshith Ishwar Poojary	AM20D200	14th Asian Computational Fluid Dynamics Conference	30 Oct - 2 Nov 2023, HAL, Bengaluru	Institute
18	Somasani Mahesh	AM21D013			
19	Debiprasad Senapati	AM22S046	3rd International Conference on Sports Engineering	2-4 Nov 2023, BITS Pilani	Institute
20	Nikhil Chitnavis	AM20D005	IHMTC-2023	14-17 Dec 2023, IIT Patna	Department
21	Deekshith Ishwar Poojary	AM20D200	17th Complex Fluids Symposium (CompFlu)	18-20 Dec 2023, IITM, Chennai	Institute
22	Sriram Mahitha	AM21D020	Advanced bioimaging workshop	18-21 Dec 2023, IIT Madras	Department

23	Nikhil Chitnavis	AM20D005	FMFP-2023,	20-22 Dec 2023, IIT Jodhpur	Department
24	Valeti Chanikya	AM20D010			
25	Nilojendu Banerjee	AM19D005	Fluid Mechanics and Fluid Power Conference (2023)	20-22 Dec 2023, IIT Jodhpur	Institute
26	Nisanth Kumar P	AM20D601	10th International and 50th National Conference on Fluid Mechanics and Fluid Power (FMFP - 2023)	20-23 Dec 2023, IIT Jodhpur	Institute
27	Deekshith Ishwar Poojary	AM20D200	IUTAM Symposium on Rapid Granular Flows & Turbulent Particle Suspensions	21-25 Jan 2024, IIT Mumbai	Institute
28	Sourav Dutta	AM21D350	IEEE APSCON 2024	22-24 Jan 2024, BITS Pilani, Goa	Institute
29	Udiptya Saha	AM21D404			PMRF
30	S Kannappan	AM18S301			Institute
31	Debjit Kundu	AM20D700	PMRF Annual Symposium 2024	3-4 March 2024, Madhya Pradesh	PMRF
32	Somasani Mahesh	AM21D013	International Conference on Advances in Aerospace and Energy Systems (IAES 2024)	4-6 April, 2024, LPSC Thiruvananthapuram	Institute
33	Sourav Dutta	AM21D350	IEEE Apscon	22-24 Jan 2024, BITS Pilani (Goa)	Institute

2.4. Names of students/scholars who won outside prizes and awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize awarded by
1	Alok Kumar	AM21S008	Best Presentation Award	9th International Conference on Composite Materials & Material Engg (ICCMME2024) Singapore
2	Dharmi Chand	AM19D014	Best Presentation Award	9th International Conference on Composite Materials & Material Engg (ICCMME2024), 14-16 Jan 2024 Singapore
3	Udiptya Saha	AM21D404	Best Poster Award	International Conference on Sustainable & Applied Nano-technology for Agriculture & Health (SANTAH)
4	Debjit Kundu	AM20D700	Best Poster Award	PMRF symposium 2024
5	Azhaganmaadevi K A	AM19D037	Second position IEEE india covid move	IEEE India Council
6	Pooja Vardhini Natesan	AM19D750	RMBS Contest Chairs' Award	International Biomedical Sciences Instrumentation Symposium & Rocky Mountain Bioengineering Symposium
7	Pooja Vardhini Natesan	AM19D750	Best Poster Award	IEEE EMBS-NUS iHealthtech Forum for Data Science & Engg in Healthcare, Medicine & Biology

8	Allwyn S	AM19D011	Indo-Japanese Smart city workshop	Metal-Organic Framework Based Fiber-optic Ammonia Sensor for Liver Disorder Diagnosis
9	Allwyn S	AM19D011	IEEE Applied Sensing Conference (APSCON- 2023)	Development of Diagnostic Devices for Pre & Post Liver Transplant care
10	Swetha S Menon	AM17D028	IEEE Applied Sensing Conference (APSCON- 2023)	Metal-organic Framework Coated Optical Fiber Heavy Metal Ion Sensors
11	Swetha S Menon	AM17D028	Optica conference Munich, Germany (Oral Presentation) 2023	Detection of Cu (II) ions using Metal-Organic Framework Coated Optical Fibers
12	Udiptya Saha	AM21D404	International Conference on Sustainable & Applied Nanotechnology for Agriculture and Health (SANTAH)	Synthesis, characterization & functionalization of gold nano-particles for nucleic acid sensing
13	Kaviya V B	AM22D009	Best poster presentation award for the project titled Doxorubicin loaded thermostable nanoarchaeosomes: a next-generation drug carrier for breast cancer therapeutics	All India Research Scholar Summit, IIT Madras, March 2024
14	Thilak Raj	AM22D400	Best poster presentation award for the project titled Unveiling the propulsion dynamics of active patchy colloids using optical tweezer at COMPFLU - 2023	IIT Madras, December 2023
15	Anagha Manohar	AM22D200	Best Poster presentation award for project titled Drying Induced Nanoprecipitation of Macromolecules to synthesise Nanomaterials	The International Conference on Sustainable & Applied Nano-technology for Agricultural & Healthcare, IIT Madras, July 2023
16	Nidhi Murali	AM17D039	Best Student Talk-Interfacial adhesion mechanism between polymer coating and clay surfacet	Clay Minerals Group Research in Progress, UK, 18th May 2023
17	Ashish Pandey	AM17D031	Best oral presentation for the paper titled "Experimental Investigation of Anisotropic characteristic of Willow wood under high strain rate"	3rd International Conference on Structural Integrity (ICONS 2023), Mamallapuram, 23 - 25 August 2023
18	Vaibhav Hiwale	AM21S079	Best Paper Award for paper titled Turbulent Heat Transfer in Elliptical tube with Dimples	10th International Conference in Heat Transfer and Fluid Flow (HTFF 2023) Brunel University, UK, during August 6-8, 2023
19	Subitcha J	AM19D004	1st prize in 3-in-1 Thesis presentation as one of many inspiring women working in the field of optics	Women in Optics and Photonics in India 2023 conference
20	Anurag Pant	AM11D201	Best Poster Award for "Vorticity Generation in Miscible, Volatile Film Spreading	CompFlu-2023, 18-20 Dec 2023 IIT Madras

2.5. Name of Students/Scholars who won Institute Convocation/Institute Day Prize:

Sl.No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1	Anand Zambare	AM21S004	Institute Research Award	IIT Madras
2	Vishnu R	AM21S015	Institute Research Award	IIT Madras
3	Pijush Patra	AM17D700	Institute Research Award	IIT Madras
4	Nehal Dash	AM17D033	Institute Research Award	IIT Madras

3. Faculty and their activities

3.1. Faculty:

Name and Qualifications	Major area of specialization (only 3 areas)
Professor:	
Dr. M. S. Sivakumar, Ph.D [Head]	Smart materials and structures, inelasticity/plasticity, fatigue of materials
Dr. S. Ramakrishnan, Ph.D	Biomedical Instrumentation, Machine learning and Informatics, Medical Device Regulations and Standards
Dr. Anuradha Banerjee, Ph.D	Fracture and fatigue analysis in metals, composites, bio-materials, brittle materials
Dr. A. Arockiarajan, Ph.D	Smart materials, composites, material modelling, computational mechanics and experimental mechanics
Dr. K Arul Prakash, Ph.D	CFD and heat transfer, LES and related techniques, thermal hydraulics, cooling technologies, biofluid dynamics
Dr. Arun Kumar Thittai, Ph.D	Ultrasound imaging, HIFU application in therapy, acoustic radiation force application in mechanics, photoacoustics
Dr. A P Baburaj, Ph.D	Coherent structures in turbulent convection, interfacial phenomena and transport across membranes
Dr. C. Lakshmana Rao, Ph.D	Impact mechanics, fracture mechanics, modelling of smart materials, numerical approach
Dr. Mahesh V Panchagnula, Ph.D	Spray combustion and atomization, surface tension phenomena, multiphase flows, active particles and systems
Dr. M. Manivannan, Ph.D	Haptics, medical simulation, biomechanics, virtual reality, computational geometry and physiology
Dr. B.S.V. Prasad Patnaik, Ph.D	Computational fluid dynamics, CFD tools for FSI, micro, bio-fluid flow systems
Dr. M Ramasubba Reddy, Ph.D	Bio-signal processing, bio-instrumentation
Dr. K Ramesh, Ph.D	Digital photomechanics, fracture mechanics, computer applications in experimental mechanics
Dr. Sarith P. Sathian, Ph.D	Rarefied gas flows and nanofluidics

Dr. Sayan Gupta, Ph.D	Vibrations, nonlinear dynamics, probabilistic mechanics, structural reliability
Dr. N Sujatha, Ph.D	Biomedical imaging, Non-invasive characterization of tissues and microorganisms, laser based diagnostics, Modeling light tissue interaction, Optical signal and image processing, Data analytics, Photonics for agriculture
Dr. S Vengadesan, Ph.D	CFD and turbulence modelling - basics, advanced topics and applications to engineering problems, FSI, biofluid flows
Dr. Abhijit Chaudhuri, Ph.D	Modelling hydrothermal systems, water waves, mass transfer in heterogeneous systems
Dr. Pijush Ghosh, Ph.D	Nanomechanics, biomaterials, mechanics of thin films, molecular dynamics simulation
Dr. V V Raghavendra Sai, Ph.D	Biosensor for healthcare, fibre optic sensor and instrumentation, Nano technology
Dr. Shaikh Faruque Ali, Ph.D	Vibration and its controls, smart structures and energy harvesting
Associate Professor:	
Dr. Babji Srinivasan, Ph.D	Cognitive Systems Engineering, Neuroergonomics, Human Cyber Physical Systems, Physiological Cyber Physical Systems
Dr. Rinku Mukherjee, Ph.D	Applied aerodynamics—flow modelling, unsteady wake phenomenon, dynamic stall and formation flight, CFD
Dr. Satyanarayanan Seshadri, Ph.D	Aerosol mechanics, air quality - sensors, control equipment, renewable thermal energy - WHR/solar
Dr. Vagesh D Narasimhamurthy, Ph.D	CFD, DNS, turbulence, transition, bluff body flows, premixed combustion, multiphase flows
Dr. S K M Varadhan, Ph.D	Neural control of human movement, neuro mechanics and biomechanics
Dr. Anubhab Roy, Ph.D	Hydrodynamic stability, microhydrodynamics, geophysical flows, living fluids
Dr. Ganesh Tamadapu, Ph.D	Mechanics of elastomers, encapsulated microbubbles, tensegrity structures
Dr. Ilaksh Adlakha, Ph.D	Mechanical Behavior of Advanced Materials, Development of Structure-Property Relationships, Computational Material Science, Data Science for Mechanics of Materials
Assistant Professor:	
Dr. Saumendra Kumar Bajpai, Ph.D	Cell mechanics, tissue mechanics, biophysics of tumours, vascular mechanics
Dr. Swathi Sudhakar, Ph.D	Nanomechanics, Nanotherapeutics, Nanomaterials, Bio-sensors, Bio-Instrumentation, Colloids and Surfaces, Surface Chemistry of Biomolecules.
Dr. Lakshminath Kundanati, Ph.D	Structure and Mechanics of Biological Materials : Bioinspired engineering
Dr. Kiran Raj M, Ph.D	Experimental Fluid Dynamics, Microfluidics, Soft Matter
Dr. S Ganga Prasath, Ph.D	Theory and numerics to investigate phenomena in Robotics, Animal behavior Smart-material design, Elastic instabilities
Dr. Kannabiran Seshasayanan, Ph.D	Non Linear Dynamics, Statistical Mechanics, Oceanography, Turbulence, Magnetohydrodynamics, Geophysical and Astrophysical fluid dynamics

Dr. Danny Raj M, Ph.D	Collective dynamics, Male infertility research, Physics-informed data science
Adjunct Faculty:	
Dr. André Bénard	Sustainable manufacturing & materials processing, multiphase flow & heat transfer
Dr. Aranyak Chakravarty	Heat Transfer Multiphase Flow, Computational Fluid Dynamics, Pulmonary Fluid Mechanics
Dr. Arun R Srinivasa	Plasticity of metals & polymers, thermomechanics of dissipative processes, dislocation dynamics, Cosserat continua, design & dynamics of compliant mechanisms, computational modeling of defects, fracture & fatigue processes
Dr. B. Jayanand Sudhir	Brain Bypass Surgery, Computational Fluid Dynamics, Moyamoya Disease, Arteriovenous Malsormations, Aneurysm surgery, Skullbase surgery, Pediatric Neuro-oncology
Dr. Santosh Kapuria	Structural Mechanics, Smart Composite and Sandwich Structures, Functionally Graded Materials & Structures, Structural Health Monitoring, Active Vibration Control of Structures, Computational Mechanics
Dr. Billy Todd	Statistical mechanics of non-equilibrium systems, non-equilibrium molecular dynamics and computational nanofluidics
Dr. Cemal Basaran	Unified mechanic theory & atomistic simulation
Dr. Danesh K Tafti	Computational Fluid Dynamics dynamic geometries, High Performance Parallel Computing, Fluid-Structure Interaction, Dense Particulate Flows and Impact Modeling, Discrete Element Method
Dr. Trygve Skjold	Computational fluid dynamics (CFD) tool FLACSTM / Advanced modelling of complex physical phenomena in the commercial software product FLACSTM
Dr. Steven M LaValle	Robotics, sensing, motion planning, cyber-physical systems, control theory, computational geometry, artificial intelligence, computational biology, computer vision, computer graphics, virtual reality, filtering, sensor fusion, planning algorithms
Dr. Pothukuchi Harish	Thermal hydraulics of nuclear systems, Multiphase Flows, Fluid Structure Interaction
Dr. Rajesh Raveendran	Statistical Physics
Dr. Thangarajan Rajkumar	Medical Oncology and Molecular Oncology research
Dr. Nikhil Subhashchandra Tambe	Renewable energy systems, and computational and experimental methods related to tribology and nano materials
Visiting Faculty:	
Dr. S Pandian	Experimental Aerodynamics
Dr. Balasubramaniam Natarajan	Cyber Physical Systems
Dr. Praneeth Chakravarthula	Research Assistant Professor at Univ of North Carolina, USA
Dr. Anna M. LaValle	Lecturer, University of Oulu, Finland
Dr. Venkatraman Sadanand	Pediatric Neurosurgeon, Loma Linda University Health System, California, USA (Distinguished Alumnus Awardee)
Emeritus Scientist/ Emeritus Professor:	Nil
Scientific Officers / Engineers:	Nil

3.2. Short-term Courses/ Workshops/ Seminars/ Symposia /Conferences organized by the faculty members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1	Dr. Sayan Gupta	Perspectives in Nonlinear Dynamics 2023	1-5 August 2023
Seminar:			
1	Dr. S. Ramakrishnan	Neonatal Brachial Plexus Injury: Advancing Bench to Bedside Research by Dr. Anita Singh	30 June 2023
2	Dr. S. Ramakrishnan	Recent Advancements In High Resolution Microscopy by Dr. Kirti Prakash	18 October 2023
3	Dr. S. Ramakrishnan	Inteventional Psychiatry: Clinical And Emerging Research Perspectives by Dr. Venkat Bhat	12 March 2024
Workshop:			
1	Dr. S. Ramakrishnan	National Inter IIT Workshop on Medical Device Regulations and Standards	20-22 Dec 2023
2	Dr. S Ganga Prasath	Basic Life Skills workshop	23 Apr 2024

3.3. Short-term Courses/Workshops/Seminars/Symposia/Conferences/Training attended by the faculty members in Academic institutions and Public Sector Undertakings:

Sl.No.	Name of faculty	Title	Institution	Period
Workshop:				
1	Dr. S Ganga Prasath	Chennai Soft-matter days -Behavioural priors to control collectives	Institute of Mathematical Sciences, Chennai	23-24 Feb 2024
Seminar:				
1	Dr. S Ganga Prasath	Folds, cuts & isometries: Art, Science & Technology		11 Jan 2024
2	Dr. S Ganga Prasath Dr. S Kannabiran	Internship meeting for scholars	Bosch Center, Bangalore	18 Apr 2024
Symposia:				
1	Dr. S Ramakrishnan	18th International Symposium on Computer Methods in Biomechanics & Biomedical Engineering (CMBBE 2023) "Challenges in Computational Biomechanics for Tomorrow's Healthcare System"	Arts et Métiers Institute of Technology Georges Charpak Institute of Human Biomechanics, Paris, France	3-5 May 2023
Conference:				
1	Dr. S Ramakrishnan	IEEE 9th International conference on Control Decision & Information Technologies - CoDIT 2023	Sapienza University of Rome	3-6 July 2023

3.4. Special Lectures delivered by the faculty in other Institutions:

Sl.No.	Name of faculty	Topic of Lecture	Institution	Date
1	Dr. K Ramesh	Developments in Photoelasticity and its Diverse Applications	Stanford university	29 June 2023
2	Dr. S Ramakrishnan	Attempts Towards Instrumented Approaches To Understand Cognitions and Emotions	University of Birmingham	7 Nov 2023
3	Dr. S Ramakrishnan	Sepsis: Detection and Prediction Approaches using Digital Techniques	University of Birmingham	10 Nov 2023
4	Dr. S Ganga Prasath	Innovation in stigmergic collectives	ICTS-TIFR Bengaluru	11 Aug 2023
5	Dr. S Ganga Prasath	Dynamics of innovation in navigating collectives	IIT Kharagpur	2 Jul 2023

3.5. Visits abroad by faculty:

Sl. No.	Name of faculty	Country visited	Date	Purpose of visit	Funding from
1	Dr. K. Ramesh	USA	5 June-4 July 2023	Receive M M Frocht award, Present technical papers and give talks at UCSD and Stanford university	CPDA/PCF
2	Dr. S Ramakrishnan	Paris, France	3-5 May 2023	18th International Symposium on Computer Methods in Biomechanics and Biomedical Engg. (CMBBE 2023)	CPDA/PCF
3	Dr. S Ramakrishnan	London	6-11 May 2023	Project collaboration in Institute of Cancer Research, London	CPDA/PCF
4	Dr. S Ramakrishnan	Rome, Italy	3-6 July 2023	IEEE 9th International conference on Control Decision & Information Technologies - CoDIT 2023	CPDA/PCF
5	Dr. S Ramakrishnan	Seoul, South Korea	19-22 Sep 2023	Represented India as a National Delegate in the International Electrotechnical Commission (IEC) TC 62 meetings on Medical Device Standards	CPDA/PCF
6	Dr. S Ramakrishnan	Munich, Germany	25-27 Oct 2023	Represented India as a National Delegate in the IEC Meetings on Artificial Intelligence Enabled Medical Devices - Methods for Technical Verification and Validation	CPDA
7	Dr. Sayan Gupta	France	27 Nov-Dec 2 2023	Conference on Complex Networks 2023	CPDA
8	Dr. S Ganga Prasath	Germany	16-19 Aug 2023	Organised a session in Behaviour 2023 conference	Initiation Grant
9	Dr. S Ganga Prasath	France	19-25 Aug 2023	Collaboration with Aix-Marseille Univ., France	Initiation Grant

3.6. Honours and Awards obtained by faculty:

Sl. No.	Name of faculty	Name of Award	Awarded by	Awarded for	Date of award
i Awards:					
1	Dr. K. Ramesh	M M Frocht Award	Society of Experimental Mechanics (SEM), USA	Outstanding achievement as an educator in the field of experimental mechanics.	7 June 2023
2	Dr. S Ramakrishnan	Best Poster Award	IEEE EMBS - NUS iHealthtech Forum for Data Science & Engg in Healthcare, Medicine & Biology	Presenting a Poster titled Development of A Smart System for the Design of Drug Encapsulated Hydrogel Dressings for Wound Healing Applications	30-31 May 2023
3	Dr. K Arul Prakash	Best Teacher Award	Excellence in Teaching	Teachers' Day celebrations at IIT Madras	5 Sep 2023
4	Dr. Kiran Raj	Young Scientist Speaker Award	Workshop on Interfacial Engineering at Multiple Spatio-temporal Scales	IISc Bengaluru	29 Feb - 3 Jan 2024

3.7. Fellowships of Academies and Professional Societies:

Sl. No.	Name of faculty	Year of admission
INAE:		
1.	Dr. K. Ramesh	2006

3.8. Journal Editorial Boards:

Sl.No.	Name of faculty	Position (Editor/Member)	Journal Name
1.	Dr. K Ramesh	Guest Editor, Member	Optics and Lasers in Engineering
2.	Dr. K Ramesh	Member	Strain
3.	Dr. S Ramakrishnan	Editor	International Journal of Advances in Engineering Sciences and Applied Mathematics'
4.	Dr. Sayan Gupta	Associate Editor	Sadhana
5.	Dr. Sayan Gupta	Associate Editor	Frontiersin Complex Systems

4. Design and Development Activities:

4.1. Brief and specific details of Process/Instruments/Equipment/ Software designed and developed:

Dr. K Ramesh : Four software has been commercialized

Dr. S Ramakrishnan :

- A simple, user-friendly, rapid tuberculosis detection technique with antibody embedded fabric as a matrix
- CAD system for diagnosis of brain disorders from different neuroimaging modalities

- Development and validation of a wearable system for real-time emotion tracking using peripheral measurements
- Design of a wearable system for preterm pregnancy monitoring and prediction as a remote healthcare initiative
- Development of compendium of 100 experiments for biomedical laboratory course in graduate
- Design and development of Array Fiber optic Absorbance Biosensor (ArFAB) and Bending machine demo models for IGSTC

Manufactured cartridges by injection moulding process for holding the U-bent fibers

4.2. New facilities added or major equipment procured:

Sl. No.	Name of Equipment	Value (Rs. in lakhs)
1	Digital USB Microscope	Rs. 3,06,800
2	Multimode Microplate Reader	Rs. 14,99,780
3	IKA C-MAG HS 7 digital - Magnetic stirrer with heating, ceramic plate	0.53
4	Anycubic photon Mono 2 3D printer	0.18
5	Anycubic Wash and Cure 2.0	0.10

4.3. Patents:

4.3.1 Patents filed:

Sl.No.	Name of faculty	Topic of patent
1	Dr. M S Sivakumar	Self-watering device for plants
2	Dr. M Manivannan	Device for sensing surface pressure and methods thereof
3	Dr. S K M Varadhan	Posture correction system and method thereof
4	Dr. A Arockiarajan Dr. Shaikh Faruque Ali	an assembly for morphing a leading side of an airfoil member
5	Dr. V V Raghavendra Sai	Fiber optic lead ion sensor
6	Dr. A P Baburaj	Flat heat pipe with microcapillary wick.
7	Dr. N Sujatha	A multi-layered silicone-based tissue phantom & method of manufacturing thereof
8	Dr. Satyanarayanan Seshadri	accumulator device for electric vehicles
9	Dr. Swathi Sudhakar	Drug loading in nanomaterials using microgravity
10	Dr. Swathi Sudhakar	Quercetin loaded nano-archaosomes for breast cancer therapeutics
With other Department		
11	Dr. K C Sivakumar (MA) Dr. Pijush Ghosh	A dishwasher apparatus & a method of operating the dishwasher apparatus thereof
12	Dr. K C Sivakumar (MA) Pijush Ghosh	A cleaning device
13	Dr. Ethayaraja Mani (CH) Dr. Swathi Sudhakar	Biodegradable film for packaging and methods thereof
14	Dr. Vimalraj Selvaraj Dr. Swathi Sudhakar Dr. S Ramakrishnan Dr. Saravanan Sekaran	Innovation In Dental Screw Implants For Enhanced Osseointegrations
15	Dr. Vimalraj Selvaraj Dr. Swathi Sudhakar Dr. S Ramakrishnan Dr. Saravanan Sekaran	A Novel Immunomodulatory Hydrogel to Prevent Rejection of Allogenic Mesenchymal Stem Cells

International		
1	Dr. Rinku Mukherjee	External attachment to increase aerodynamic efficiency of a wing applicable for aeroplanes, turbines and fans.
2	Dr. Arun K Thittai	A hybrid high-frequency ultrasound imaging system and a method thereof
3	Dr. Mahesh V Panchagnula	Exhaled breath based user authentication and diagnosis
4	Dr. V V Raghavendra Sai	Methods and kits for detecting cannabinoids
5	Dr. V V Raghavendra Sai	Fiber optic measurement device

4.3.2 Patents awarded:

Sl.No.	Name of faculty	Topic of patent
1	Dr. V V Raghavendra Sai	Design and fabrication of highly sensitive U-bent plastic optical fiber (POF) probes with optimum geometry
2	Dr. Arun K Thittai	Method and apparatus to obtain sub-pitch precision in lateral motion estimation in ultrasound elastography
3	Dr. N Sujatha	Multilayer skin tissue models and methods of preparation thereof
4	Dr. N Sujatha	Laser speckle fiberscope for detection of extent of cancerous tissue and methods thereof
5	Dr. N Sujatha	Transdermal collagen and hemoglobin sensor
6	Dr. Arun K Thittai	Method and apparatus for operator-independent 11 ultrasound elastography
7	Dr. Satyanarayanan Seshadri	System and method for compressed air recuperated energy storage
8	Dr. Satyanarayanan Seshadri	Controlling admission volume of inlet gas for fixed RPM operation of rotary or reciprocating expander
9	Dr. M Manivannan	METHOD OF CONSTRUCTING HYBRID TACTILE display
10	Dr. Mahesh V Panchagnula	Design of a walk-in lab test for lung morphometry characterization
11	Dr. Arun K Thittai	Method and system for Ultrasonic regularized Nakagami parameter imaging for Microwave Hyperthermia monitoring
12	Dr. Saumendra K. Bajpai	A rapid, efficient and low cost method for determining the lipid concentration in a sample
13	Dr. Arun K Thittai	System and method for automated filtering of salient anatomic features in an ultrasound image
14	Dr. Arun K Thittai	Method and apparatus using weighted nonlinear beamformer for ultrasound imaging
15	Dr. Satyanarayanan Seshadri	Two stage regenerative organic rankine cycle (orc) heat recovery based power generation system
16	Dr. V V Raghavendra Sai	Optical fiber probe and method of forming thereof
17	Dr. V V Raghavendra Sai	Optical sensor for hexavalent chromium
18	Dr. Arun K Thittai	A hybrid high-frequency ultrasound imaging system and a method thereof
19	Dr. A Arockiarajan	Solar driven photocatalyst for water purification
With other Department		

1	Dr. G Saravana Kumar (ED) Dr. K Arul Prakash	A structure for heat exchanger and ventilation applications
2	Dr. T Asokan (ED) Dr. S K M Varadhan	Artificial hand for prosthetic applications
3	Dr. K C Sivakumar (MA) Dr. Pijush Ghosh	A dishwasher apparatus and a method of operating THE dishwasher apparatus thereof
4	Dr. G Saravana Kumar (ED) Dr. K Arul Prakash	A novel heat exchanger based on the 3d space filling curve
5	Dr. G Saravana Kumar (ED) Dr. S Vengadesan	A novel heat exchanger based on the 3d space filling curve
6	Dr. G Saravana Kumar (ED) Dr. S Vengadesan	A structure for heat exchanger and ventilation applications
7	Ms. Remya R Nair Ms. Divya Sasidharan, Dr. Venugopal G Dr. S. Ramakrishnan	System and Methods for Identifying Type II Dominance In Rectus Femoris Muscle of Aspiring Athletes

5. Research and Consultancy:

5.1. Sponsored Research Projects: (on going & new)

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in lakhs)	Co-ordinators
ONGOING					
1	Airblast injector development for next gen engine	30/05/2017 to 30/06/2024	DRDO	243.17	Dr. Mahesh Panchagnula Dr. Srikrishna Sahu, ME Dr. Vagesh D Narasimhamurthy Dr. Satyanarayanan Seshadri
2	Evaluation of Steam Oxidation Behavior of Materials under Ultra Super Critical Steam Conditions using a Purpose Built Test Rig	11/10/2018 to 26/09/2024	Advanced Research Centre for Powder Metallurgy & Materials, International	90.85	Dr. Satyanarayanan Seshadri Dr. Kamaraj M, MM Dr. Subramanya Sarma V, MM
3	Investigation of Nanoscale Heat Transport at Solid-liquid Interfaces for Engineering Tailored Nanostructures in Thermal Interface Systems	15/05/2020 to 09/06/2024	Ministry of Education	48.44	Dr. Sarith P Sathian
4	Teach in 10: Discovering Talents in Rural School students	25/02/2021 to 24/05/2024	Department of Science & Technology	46.55	Dr. Pijush Ghosh
5	Development of a Diagnostic Device for Affordable & Early Detection of Pre-Eclampsia	15/11/2021 to 14/11/2024	Indian Council of Medical Research	40.56	Dr. Raghavendra Sai V V

6	Fatigue Studies on Influence of Hybridization and Patch lay-up Configuration of Post-Impact Response on Repaired Composites for Defence Applications	17/01/2022 to 16/01/2025	Armament Research Board	67.03	Dr. Arockiarajan A Dr. Shaikh Faruque Ali
7	Investigation of dust free regions near interfaces in turbulent convection	27/12/2021 to 26/12/2024	Science and Engineering Research Board	45.48	Dr. Baburaj A P Dr. Anubhab Roy
8	Studying the role of pulmonary endothelial micro-vesicles in ventilator-induced lung injury under antihypertension therapy	31/12/2021 to 30/12/2024	Science and Engineering Research Board	60.98	Dr. Saumendra Kumar Bajpai
9	Prediction of Interfacial Thermal Resistance at solid-Liquid interfaces using Molecular Dynamics simulations & Machine Learning	28/01/2022 to 27/01/2025	Science and Engineering Research Board	28.59	Dr. Sarith P Sathian Dr. Pallab Sinha Mahapatra, ME
10	Explosive resonant interactions with singular eigenfunctions	21/02/2022 to 20/02/2025	Science and Engineering Research Board	6.60	Dr. Anubhab Roy
11	Development of an Improved Multivariate Machine Learning Solution with Additional Features for Non-Invasive Anemia Detection	13/12/2021 to 12/12/2024	Science and Engineering Research Board	10.05	Dr. Raghavendra Sai V V
12	Computational Fluid Dynamics based tools to the aid of clinical decision making in the management of intracranial aneurysms	22/10/2021 to 22/10/2024	Science and Engineering Research Board	34.65	Dr. Prasad Patnaik B S V
13	A Non-Linear Constitutive Model Based Finite Element Method for Magneto-Electro-Elastic-Thermal (MEET) Based Functional Composites.	21/02/2022 to 20/02/2025	Science And Engineering Research Board	6.60	Dr. Arockiarajan A
14	Development of affordable and portable fNIRS functional Near Infrared Spectroscopy device for Cognitive Studies	31/03/2022 to 30/03/2025	Department of Science & Technology	70.21	Dr. Manivannan M
15	Magnetostriction based Magneto-Electric (Me) High Temperature 3d-Pressure Sensor for Defence Applications	02/09/2022 to 01/09/2025	Defence Research and Development Organisation	91.11	Dr. Arockiarajan A Dr. Shaikh Faruque Ali, AM
16	Wind Generation of Ocean Waves: from Primary Instabilities to Cyclogenesis	28/06/2022 to 27/06/2025	Science and Engineering Research Board	18.29	Dr. Anubhab Roy

17	Solvent Responsive Expandable Soft Structures: A 4D Printing Approach	22/06/2023 to 21/06/2025	Science and Engineering Research Board	21.11	Dr. Pijush Ghosh
18	Theoretical investigation of magnetic microbubbles for biomedical applications	22/02/2023 to 21/02/2026	Science and Engineering Research Board	25.15	Dr. Ganesh Tamadapu
19	Prostate Imaging: Indigenous Technology platform with Advanced Elastography Modes using Trans-rectal Ultrasound (TRUS)	03/02/2023 to 02/02/2026	Science and Engineering Research Board	37.57	Dr. Arun Kumar Thittai
20	Frequency Modulated Press-fit Magneto-Electric (ME) Composite: Configuration to Application	17/02/2023 to 16/02/2026	Science and Engineering Research Board	60.68	Dr. Arockiarajan A
21	Study of Nuclear Reactor Safety in the Context of Fast Breeder Reactors ((FBRs) : Sub-channel analysis vis-a-vis CFD Simulations)	02/11/2022 to 01/11/2025	Science And Engineering Research Board	10.05	Dr. Prasad Patnaik B S V
22	Exploration of the use to Model Degradation of Batteries used in Electric Vehicles using the Unified Mechanics Theory	01/07/2022 to 30/06/2027	UB (University at Buffalo) Electronic Packaging Laboratory	29.14	Dr. Lakshmana Rao C
23	Development of therapeutic strategies to mitigate oxidative stress and cytoskeletal damage in astronauts for the Gaganyaan space mission	09/01/2023 to 08/01/2025	Indian Space Research Organisation	38.56	Dr. Swathi Sudhakar Dr. Shantanu Pradhan,BT
24	An indigenous novel device for ultrasound-guided minimally invasive, single-operator driven, suction-based muscle biopsy technology: A proof-of-concept prototype development	04/01/2024 to 03/01/2027	Indian Council of Medical Research	26.28	Dr. Arun Kumar Thittai
25	Ultra-Sensitive and Highly Specific Padlock Probe Assay for Point-of-Care Antemortem Rabies Diagnosis	12/04/2023 to 11/04/2026	Department of Biotechnology	14.50	Dr. Raghavendra Sai V V Dr. Narayanan Srinivasan,BT
26	4D-Printed Structures of locally stiffened PH responsive soft actuators	20/10/2023 to 19/10/2025	Department of Science and Technology	8.55	Dr. Pijush Ghosh
27	Development of Mathematical Models for Enhanced EMG based Force Estimation in Dynamical Muscle Contractions	26/02/2024 to 25/02/2027	Science and Engineering Research Board	6.60	Dr. Ramakrishnan S

28	Particular instabilities - A study on the transition to turbulence in shear flows of suspensions	11/03/2024 to 10/03/2027	Science and Engineering Research Board	32.48	Dr. Anubhab Roy
29	Development of Physics Informed Machine Learning Models for the Prediction of Fatigue in Calf Muscles	30/01/2024 to 29/01/2027	Science and Engineering Research Board	18.41	Dr. Babji Srinivasan
30	Delineating the role of FLT4 signalling in tumour angiogenesis and developing a transgenic platform for intussusceptive angiogenesis-specific drug screening	06/09/2023 to 05/09/2025	Science and Engineering Research Board	46.00	Dr. Vimalraj S
31	Development of HPC tools for CFD-based patient specific management of Cerebral Aneurysms - (FY 23-24)	17/07/2023 to 16/07/2024	National Supercomputing Mission	17.21	Dr. Prasad Patnaik B S V
32	Development of Novel Multimodal Fatigue Scoring System for Improving Neck and Cervical Spine Health	07/02/2024 to 06/02/2027	Science And Engineering Research Board	16.10	Dr. Ramakrishnan S
33	Unraveling p53 proteins amyloid aggregation & Liquid- Liquid Phase Separation dynamics in cancer	13/03/2024 to 12/03/2026	Science And Engineering Research Board	32.97	Dr. Swathi Sudhakar
34	Droplet microfluidic system to control the cancer cells - towards developing an organ-on-chip platform	23/01/2024 to 22/01/2026	Science And Engineering Research Board	29.35	Dr. Kiran Raj M
36	Modelling oceanic wave breaking using machine learning, theory and Direct Numerical Simulations (DNS)	26/09/2023 to 25/09/2026	Ministry of Education	30.13	Dr. Anubhab Roy
37	Smart Trainer: An AI powered IoT weight training module to enhance the performance of athletics under the Scheme of Human Resources Development in Sports (HRDS)	16/01/2024 to 15/01/2026	Ministry of Youth Affairs and Sports	20.26	Dr. Babji Srinivasan
38	Design and development of fabric antibody embedded matrix for tuberculosis screening	24/01/2024 to 23/01/2025	Ministry of Textiles	50.00	Dr. Ramakrishnan S Dr. Swathi Sudhakar
NEW					
1	Ultra-Sensitive and Highly Specific Padlock Probe Assay for Point-of-Care Antemortem Rabies Diagnosis	12/04/2023 to 11/04/2026	Department of Biotechnology	14.5	Dr. Raghavendra Sai V V Dr. Narayanan Srinivasan

2	Development of HPC tools for CFD-based patient specific management of Cerebral Aneurysms - (FY 23-24)	17/02/2023 to 16/02/2024	National Supercomputing Mission	17.205	Dr. Prasad Patnaik B S V
3	Delineating the role of FLT4 signalling in tumour angiogenesis and developing a transgenic platform for intussusceptive angiogenesis-specific drug screening	06/09/2023 to 05/09/2025	Science and Engineering Research Board	46.00	Dr. Vimalraj S
4	Modelling oceanic wave breaking using machine learning, theory and Direct Numerical Simulations (DNS)	21/12/2023 to 20/12/2026	Ministry of Education	10.39	Dr. Anubhab Roy
5	4D-Printed Structures of locally stiffened PH responsive soft actuators	20/10/2023 to 19/10/2025	Department of Science and Technology	8.55	Dr. Pijush Ghosh
6	An indigenous novel device for ultrasound-guided minimally invasive, single-operator driven, suction-based muscle biopsy technology: A proof-of-concept prototype development	04/01/2024 to 03/01/2027	Indian Council of Medical Research	26.28	Dr. Arun Kumar Thittai
7	Decoding wave-vortex-turbulence interactions in Geophysical flows	23/03/2021 to 31/03/2024	National Supercomputing Mission	24.00	Dr. Kannabiran Seshasayanan
8	Droplet microfluidic system to control the cancer cells - towards developing an organ-on-chip platform	23/01/2024 to 22/01/2026	Science And Engineering Research Board	29.35	Dr. Kiran Raj M
9	Design and development of fabric antibody embedded matrix for tuberculosis screening	24/01/2024 to 23/01/2025	Ministry of Textiles	50.00	Dr. Ramakrishnan S Dr. Swathi Sudhakar
10	Development of Physics Informed Machine Learning Models for the Prediction of Fatigue in Calf Muscles	30/01/2024 to 29/01/2027	Science and Engineering Research Board	18.41	Dr. Babji Srinivasan
11	Development of Mathematical Models for Enhanced EMG based Force Estimation in Dynamical Muscle Contractions	26/02/2024 to 25/02/2027	Science and Engineering Research Board	6.60	Dr. Ramakrishnan S
14	Particular instabilities - A study on the transition to turbulence in shear flows of suspensions	11/03/2024 to 10/03/2027	Science and Engineering Research Board	32.48	Dr. Anubhab Roy
15	Unraveling p53 proteins amyloid aggregation and Liquid-Liquid Phase Separation dynamics in cancer	13/03/2024 to 12/03/2026	Science And Engineering Research Board	32.97	Dr. Swathi Sudhakar

16	Development of Novel Multimodal Fatigue Scoring System for Improving Neck and Cervical Spine Health	07/02/2024 to 06/02/2027	Science And Engineering Research Board	16.10	Dr. Ramakrishnan S
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5.2. Industrial Consultancy projects: (on going & new)

Sl.No.	Name of faculty	Title	Industry	Amount (Rs. in lakhs)
Ongoing				
1	Dr. Manivannan M	Skill Training in Virtual Reality	Tides Foundation	37.06
2	Dr. Satyanarayanan Seshadri Dr. Mahesh Panchagnula, AM	Environment and Sustainable Development	Kotak Mahindra Bank Limited	2000.00
3	Dr. Arun Kumar Thittai	Indigenous State-of-the-art Ultrasound Scanner for Maternal and fetal Healthcare	Cholamandalam Investment And Finance Company Limited	406.88
4	Dr. Sivakumar M S Dr. Arockiarajan A Dr. Balaganesan G, CWS	Design and development of a Geriatric Chair	APA engineering Private Limited	13.00
5	Dr. Satyanarayanan Seshadri Dr. Mahesh Panchagnula	Environment and Sustainable Development (Phase-II)	Kotak Mahindra Bank Limited	1344.00
6	Dr. Pijush Ghosh	STEM in Rural Schools	Vertiv Energy Private Limited	26.38
7	Dr. Satyanarayanan Seshadri	Combined Cooling and Heating Project (CCHP) Fuel Cell Project	Johnson Controls (India) Private Limited	35.00
8	Dr. Pijush Ghosh	Dip coater (multi - vessel) 1. Utm testing 2. Contact angle testing	Common Code	5.00
9	Dr. Raghavendra Sai V V	Fiber Optic Sensor Fabrication Facility	Common Code	11.80
10	Dr. Arockiarajan A	Mechanical testing of samples	Common Code	5.00
11	Dr. Pijush Ghosh	Nano Indentation Testing Facility - Phase Ii	Common Code	5.90
12	Dr. Pijush Ghosh	Dip coater (multi - vessel) , 1. Utm(low load) 2. Contact angle testing	Common Code	5.90
13	Dr. Raghavendra Sai V V Dr. Subrahmanyam A,PH	Fiber optic sensor fabrication facility	Common Code	41.80
14	Dr. Arockiarajan A	Mechanical testing of samples	Common Code	5.00
15	Dr. Pijush Ghosh	Nano Indentation Testing Facility - Phase Ii	Common Code	5.00

NEW				
1	Dr. Satyanarayanan Seshadri	A project proposal by the school of sustainability at IIT Madras	Aspire Systems (India) Private Limited	15.00
2	Dr. Satyanarayanan Seshadri Dr. Mahesh Panchagnula,AM	CSR Proposal for pilot demonstration of residential heat	pumps in UT Ladakh GE Oil and Gas India Private Limited	25.00
3	Dr. Satyanarayanan Seshadri	Raftar Sponsorship	CSM Technologies Pvt Ltd	3.54
4	Dr. Pijush Ghosh	Nano Indentation Testing Facility - Phase II	Common Code	5.90
5	Dr. Pijush Ghosh	Nano Indentation Testing Facility - Phase II	Common Code	5.00

5.3. RBIC projects: (on going & new)

Sl.No.	Name of faculty	Title	Industry	Amount (Rs. in lakhs)
Ongoing				
1	Dr. Arockiarajan A	DVV Partner	National Assessment And Accreditation Council	3.54
2	Dr. Satyanarayanan Seshadri Dr. Rajnish Kumar,CH Dr. Aravind Kumar Chandiran,CH	Compatible Green Hydrogen Standards in India (GIZ)	PManifold Business Solutions Private Limited	17.70
3	Dr. Arul Prakash K Dr. S.Pandian	Aerodynamic Characterization of Garuda 1 Configuration	MTAR Technologies Limited	9.50
4	Dr. Prasad Patnaik B S V	Review of B100	Mahindra Electric Automobile Ltd	20.08
5	Dr. Manivannan M	Developing iTAD - Interactive TOuch Active Display	Vishvesraiah Industrail and Technology Museum	2.48
6	Dr. Lakshmana Rao C Dr. Kanjarla Anand Krishna,MM	Life prediction of aeroengine alloys under creep and fatigue loading conditions using damage mechanics approach	Defence Metallurgical Research Laboratory	59.08
7	Dr. Satyanarayanan Seshadri	Energy Consortium - Saipem	Saipem India Projects Private Limited	88.50
8	Dr. Arul Prakash K	BMS for LTO Battery	Centre for Development of Advanced Computing	4.00
9	Dr. Manivannan M Dr. Vijayalakshmi V, MS	Techniques to improve learning in Metaverse	Facebook India Online Services Private Limited	34.69
10	Dr. Arockiarajan A	Experimental Study of Self-Loosening of Bolted Joints	Caterpillar India Engineering Solutions Private Limited	13.03

11	Dr. Manivannan M	AR-VR Experience Center for short term and long-term new age trainings	Steel Authority of India Limited	48.44
12	Dr. Manivannan M	VR and AR Based Healthcare Skills Training	Healthcare Skill Sector Council	11.80
13	Dr. Arockiarajan A	Structural Analysis of various capacity tanks	Novarius Global (India) Private Limited	30.09
14	Dr. Babji Srinivasan	Explainable Transfer learning for Condition Monitoring of Electrical Machines	Viking Analytics AB	23.00
15	Dr. Babji Srinivasan	SmartBoxer: An Integrated Cost-Effective IoT and Vision-based System to Advance Boxing Training and Fight Analytics	Inspire Institute of Sport	35.00
16	Dr. Satyanarayanan Seshadri	Heat Recovery: Refrigerant Study	Shell India Markets Private Limited	9.44
17	Dr. Raghavendra Sai V V Dr. Narayanan Srinivasan-HF0051,BT	Production of recombinant proteins and purification	Vector Control Research Centre (ICMR)	24.16
18	Dr. Raghavendra Sai V V Dr. Narayanan Srinivasan-HF0051,BT	P-Fab based TBE antigen quantification in drug substance (DS) and drug product (DP)-Proof -of-concept study	Pfizer Healthcare India Private Limited	98.21
19	Dr. Manivannan M	Literature Survey of Technology Developed	Accenture LLP	22.55
20	Dr. Satyanarayanan Seshadri	Shell Chair Professorship, Shell IITM Center for Energy Research at IITM and research projects	Shell India Markets Private Limited	216.17
21	Dr. Manivannan M	Development of Anthropometry Measurement System	Human Space flight Centre	42.48
22	Dr. Manivannan M	Hindustan-228	Hindustan Aeronautics Limited	9.34
23	Dr. Manivannan M	HAPTICS & VIRTUAL REALITY BASED TRAINING SIMULATOR For IOCL	Indian Oil Corporation Limited	22.47
New				
1	Dr. Satyanarayanan Seshadri Dr. Rajnish Kumar,CH	Compatible Green Hydrogen Standards in India (GIZ)	PManifold Business Solutions Private Limited	17.70
2	Dr. Arul Prakash K	Aerodynamic Characterization of Garuda 1 Configuration	MTAR Technologies Limited	8.05
3	Dr. Arockiarajan A Dr. Shaikh Faruque Ali,AM	Design vetting and prepare report for deformed container	Larsen and Toubro Limited Construction Water and Effluent Treatment IC	2.95

4	Dr. Prasad Patnaik B S V	Review of B100	Mahindra Electric Automobile Limited	5.02
5	Dr. Manivannan M	Developing iTAD - Interactive TOuch Active Display	Vishvesraiah Industrail and Technology Museum	2.48
6	Dr. Arul Prakash K	Development of Gas inlet duct for equal distribution of Gas	Acoustics India Private Limited	3.00
7	Dr. Satyanarayanan Seshadri	Heat Recovery: Refrigerant Study	Shell India Markets Private Limited	9.44
8	Dr. Raghavendra Sai V V Dr. Narayanan Srinivasan BT	Production of recombinant proteins and purification	Vector Control Research Centre (ICMR)	9.03
9	Dr. Raghavendra Sai V V Dr. Narayanan Srinivasan BT	P-Fab based TBE antigen quantification in drug substance (DS) and drug product (DP)-Proof -of-concept study	Pfizer Healthcare India Private Limited	98.21
10	Dr. Manivannan M Dr. S.Pandian-VF0207,AM	VR Experience of Aditya-L1 Launch	Satish Dhawan Space Center	5.90
11	Dr. Manivannan M	Literature Survey of Technology Developed	Accenture LLP	22.55
12	Dr. Satyanarayanan Seshadri	Shell Chair Professorship, Shell IITM Center for Energy Research at IITM and research projects	Shell India Markets Private Limited	216.17
13	Dr. Manivannan M	Development of Anthropometry Measurement System	Human Space flight Centre	42.48
14	Dr. Manivannan M	Hindustan-228	Hindustan Aeronautics Limited	9.34
15	Dr. Manivannan M	Haptics & Virtual Reality Based Training Simulator For locl	Indian Oil Corporation Limited	22.47

5.4. Retainer Consultancy: (on going & new)

Sl. No.	Name of faculty	Title	Industry	Amount (Rs. in lakhs)
Ongoing				
1	Dr. Babji Srinivasan	Training in Advanced Analytics	Gnanam Institute for Training in Advanced Analytics Private Ltd	41.30
2	Dr. Satyanarayanan Seshadri	IITM Research Park Consultancy on Renewable energy	IIT Madras Research Park	14.16
NEW				
1	Dr. Ramakrishnan S	RC - Digital and Mental Health Systems	Neurowyzyr	7.20
2	Dr. Sayan Gupta	Investigations on Brinefield Dynamics	Archean Chemical Industries Limited	2.36

3	Dr. Manivannan M Dr. Bharath Bhikkaji, EE Dr. Palaniappan Ramu, ED	Assessment of Employees	Lucas T.V.S. limited	4.00
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5. Distinguished Visitors to the Department:

Sl. No.	Name of the visitor and Designation	Date of visit	Purpose of visit
1	Dr. Anita Singh Associate Professor, Bioengineering Department, Temple University, Philadelphia, USA	30 June 2023	To give a talk on Neonatal Brachial Plexus Injury: Advancing Bench to Bedside Research
2	Dr. Kirti Prakash Senior Staff Scientist, The Institute of Cancer Research, London, United Kingdom	18 Oct 2023	Seminar and Research Collaborations
3	Prof. Anders Lars-Gunnar Heyden Lund University, Sweden	11 Nov 2023	Research Collaboration
4	Dr. Jac Fredo	9 -12 Feb 2024	Research Discussion
5	Dr. Rogelio Miñana	12 Feb 2024	Discussion on iSTAR program
6	Dr. Sriram Balasubramanian	12 Feb 2024	Discussion on iSTAR program
7	Prof. L Mahadevan, Harvard University	11-12 Jan 2024	Delivered Institute Colloquium
8	Dr. Nirmal Punjabi	13 Dec 2023	Invited speaker on "Optical Sensors in Wearable Health Technology for Vital Parameter Monitoring"
9	Prof. Sumeet Mahajan	18 Dec 2023	Guest lecture on "Biophotonics for Early Disease Detection, Stratification and Personalised Interventions"
10	Prof. Amrit Mudher	18 Dec 2023	Guest lecture on "What can the humble fruit fly teach us about Alzheimer's Disease?"
12	Dr. Steven M. LaValle, University of Oulu, Finland	2 Feb 2023	Toward the Foundations of Perception Engg -Guest Lecture
13	Dr. Ram Ramaswamy, Emeritus Professor, IIT Delhi	9 March 2023	Guest lecture - This wondrous and complex world -
14	Mr. Ashwin S Mecheri SankhyaSutra Labs, Bengaluru	20 April 2023	Seminar Talk on Introduction to Sankhyasutra Taral: High Fidelity & High Accuracy Multiphysics CFD Tool
16	Prof. Shin Kida, Kyushu University, Japan	16 Nov 2023	Special Seminar on River-ocean interaction of the Ganges-Brahmaputra-Meghna Delta
17	Prof. Thiagarajan Ganesh, Professor, Civil Engineering, University of Missouri, Kansas City, USA	11 July 2023	Special seminar - Investigating the effect of lcn morphology alteration due to aging on osteocyte ffss using computational modeling
18	Dr. Sachin Kumar Srivastava, Assistant Professor, Dept. of Physics, IIT Roorkee	10 July 2023	Technical Talk - Plasmonic Nanostructures: Sensing and Beyond...

19	Dr. Edgar Knobloch, Dept. of Physics, University of California at Berkeley	31 July 2023	Special Seminar - Wrinkling of elastic structures under compression
20	Dr. Sandeep Kumar Kalva, Postdoctoral Fellow, ETH, Zurich	27 July 2023	Special seminar - acoustic sensing of light: photoacoustic/optoacoustic imaging for deep tissue interrogation
21	Dr. Suraj Singh, Postdoctoral scholar, University of Massachusetts, Dartmouth	16 Aug 2023	Special Seminar - Baroclinic instability of curved ocean fronts
22	Prof. P A Aswatha Narayana, IIT Madras	28 Aug 2023	Technical Talk - Landmarks in Fluid Mechanics and my personal and Professional journey
23	Dr. Sreehari Perumanath, Leverhulme Early Career Fellow, University of Warwick's Mathematics Institute	3 Jan 2024	Guest Lectures - Interface Evolution of Fluids at Nanoscale: Zooming in on Droplets
24	Dr. Chaitanya Paramatmuni Dept. of Materials Science & Engineering The University of Sheffield, United Kingdom	28 Aug 2023	Special seminar - synergistic experimental-computational approach for mechanics of materials
25	Dr. Javier González-Rocha - Department of Applied Mathematics, University of California Santa Cruz	3 Jan 2024	Special Seminar - Developing aerial robotic systems for on-demand wind sensing in the lower atmosphere
26	Dr. L Mahadevan - Harvard University	1 Jan 2024	Special Seminar - Folds, cuts and isometries: art, science and technology
27	Dr. Dipanjan Chaudhuri - Postdoctoral Scholar at the Applied Physics Laboratory, University of Washington, Seattle	1 Feb 2024	Special Seminar - Measuring the Upper Ocean
28	Dr. Christian Ruyer-Quil - Université de Savoie Mont-Blanc (Chambéry)	4 Mar 2024	Special Seminar - How to deal with a porous boundary? Accurate boundary conditions at a porous-fluid interface

7. Other Activities of the Department/Centre:

i. Student visit

Sl.No	Name of the students	Purpose of Visit	Date & Venue
1	Udiptya Saha	Research Exchange through Erasmus+ Global Mobility Program, NTNU, Norway	1st March, 2023 - 31st July, 2023
2	Sourav Dutta	Research Exchange Program (Erasmus+ Global Exchange fellowship)	6th March - 31st July, 2023 - NTNU, Norway

4.3. Department Of Biotechnology

4.3.1. Introduction:

The Department of Biotechnology at IIT Madras was founded in 2004 with a vision to be recognised as a department of international repute with a strong interdisciplinary research and teaching base in biological sciences and engineering involving an active collaboration with industries and health care institutions. The Department is housed in the Bhupat and Jyoti Mehta School of Biosciences. The first batch of B.Tech. and dual degree students in Biotechnology graduated in July 2006 and 2007, respectively. The thrust areas of research are bioprocess engineering, computational biology, chemical biology and medical biotechnology related to cancer and cardiovascular aspects. Faculty members of the Department hold several patents and are involved in active industrial

consultancy. Several collaborative and technology transfer projects are currently running with many industries and the Department has collaborative research projects with hospitals. We have set up a Centre of Excellence in Bioprocess Engineering to develop knowledge and expertise in this domain and DST-funded National Facility to Identify Potential Drug Targets through Cellular Dynamics and FIST facility for infrastructure facilities. DBT funded for a programme support on Cancer Biology earlier and now DST is supporting a National Cancer Tissue Biobank. A Bioinformatics Centre has also been set up with funding from DBT. IIT Madras Bio-incubator initiated by our Department (funded by BIRAC) offers lab and office space, including equipment, technical support, and centralised utilities for process and product development.

4.3.2. Academic Programmes:

Dual Degree B. Tech. and M. Tech. in Biological Engineering (5 years), Dual Degree B.S. and M.S. in Biological Sciences (5 years), M. S. (by research) and Ph. D. are the academic programmes offered currently by the Department. In addition, the Department offers M.Tech. (Clinical Engineering) and Ph.D. (Major: Biomedical Devices and Technology) programmes, jointly with Sree Chitra Tirunal Institute of Medical Sciences and Technology, Trivandrum and Christian Medical College, Vellore.

4.3.2.1. New Courses Introduced:

Sl. No.	Course No.	Title
1.	BT5520	Biorefineries

4.3.2.2. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024:

Programme	I year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	75	-	-	-	1	76
Dual Degree	-	85	80	71	66	302
M.A.	-	-	-	-	-	-
M.Sc.	-	-	-	-	-	-
M.Tech.	17	13	-	-	1	31
M.B.A.	-	-	-	-	-	-
M.S.	4	2	1	-	-	7
Ph.D.	31	40	44	18	61	194
Total	127	140	125	89	129	610

4.3.2.3. Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Babu R	BT17D023	International Conference on Natural Products Utilization: From Plants to Pharmacy Shelf (ICNPU 2023)	May 30 - June 02, 2023 Sts. Constantine & Helena Resort, Bulgaria	IIT Madras
2.	Vidya Muthulakshmi M	BT18D701	International Conference on Natural Products Utilization: From Plants to Pharmacy Shelf (ICNPU 2023)	May 30 - June 02, 2023 Sts. Constantine & Helena Resort, Bulgaria	PMRF
3.	Harini K	BT19D400	ISMB/ECCB 2023	July 23 - 27, 2023. Lyon, France	HTRA
4.	Fathima Ridha Karuvanthodikayil	BT20D701	ISMB/ECCB-2023	July 23 - 27, 2023. Lyon, France	PMRF Contingency
5.	Samyuktha S	BT18D205	Metabolic Pathway Analysis Conference (MPA 2023)	July 24 - 27, 2023. Seoul, Republic of Korea	IIT Madras
6.	Sarayu M	BT16D001	Metabolic Pathway Analysis Conference (MPA 2023)	July 24 - 27, 2023. Seoul, Republic of Korea	ACR
7.	Srijith Sasikumar	BT19D403	ISMB Conference	July 24 - 29, 2023. Lyon, France	Institute Fund and Travel Grant from ISMB
8.	Nela Pragathi Sneha	BT18D019	INCOB 2023	November 12 - 15, 2023. Brisbane, Australia	IIT Madras
9.	Divya Sharma	BT19D752	GIW Asia 2023	November 18 - 21, 2023. Singapore	SERB and ICSR-PMRF
10.	Purnima K V K	BT17D022	All-Ireland RNA Club Autumn Meeting	December 01, 2023. (Online)	Nil
11.	Fathima Ridha Karuvanthodikayil	BT20D701	Tokyo Tech Academy for Convergence of Materials and Informatics (TAC-MI) 2023	December 04 - 08, 2023. Tokyo, Japan	Nil
12.	Dhruv Kumar Chaurasiya	BT19D202	EMBO Workshop: Computational Structural Biology	December 06 - 09, 2023. Heidelberg, Germany	Institute Fund

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
India					
1.	Babu R	BT17D023	Metabolomics in Action: A Hands-On Workshop for Experimental Design and Analysis	April 18 - 20, 2023. Centre for Cellular and Molecular Platforms (C-CAMP)	IIT Madras
2.	Fenita Hephzibah D	BT21D008	Metabolomics in Action: A Hands-On Workshop for Experimental Design and Analysis	April 18 - 20, 2023. Centre for Cellular and Molecular Platforms (C-CAMP)	PMRF
3.	Vineetha NN	BT21D042	Python Programming for Beginners	May 25, 2023. RGCB, Trivandrum (Online)	Self
4.	R Siva Kumar Raju	BT21D055	Python Programming for Beginners	May 25, 2023. RGCB, Trivandrum (Online)	Self
5.	Divya Sharma	BT19D752	BDBio 2023	June 02 - 03, 2023. IISc Bengaluru	ICSR-PMRF
6.	Ritesh Kothawade	BT23M007	Hands-on Training Fermentation Assisted Biomanufacturing	July 03 -05, 2023. TICEL Bio Park in Collaboration with IITM Bioincubator & Department of Biotechnology, IIT Madras	Self
7.	Sarayu M	BT16D001	Hands-on Training Fermentation Assisted Biomanufacturing	July 03 - 05, 2023. TICEL Bio Park in Collaboration with IITM Bioincubator & Department of Biotechnology, IIT Madras	Self
8.	Hemalatha R	BT16D026	Hands-on Training Fermentation Assisted Biomanufacturing	July 03 - 05, 2023. TICEL Bio Park in Collaboration with IITM Bioincubator & Department of Biotechnology, IIT Madras	IIT Madras
9.	Babu R	BT17D023	Hands-on Training Fermentation Assisted Biomanufacturing	July 03 - 05, 2023. TICEL Bio Park in Collaboration with IITM Bioincubator & Department of Biotechnology, IIT Madras	IIT Madras

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
10.	Vidya Muthulakshmi M	BT18D701	Hands-on Training Fermentation Assisted Biomanufacturing	July 03 - 05, 2023. TICEL Bio Park in Collaboration with IITM Bioincubator & Department of Biotechnology, IIT Madras	Self
11.	Ritu Sinha	BT20D001	Hands-on Training Fermentation Assisted Biomanufacturing	July 03 - 05, 2023. TICEL Bio Park, in Collaboration with IITM Bioincubator & Department of Biotechnology, IIT Madras	Self
12.	Purnima K V K	BT17D022	Hands-on Workshop on Single-cell Transcriptomics	July 13, 2023. (Online)	Nil
13.	Vineetha NN	BT21D042	Biomers 2023	September 09, 2023. IIT Madras,	Nil
14.	R Siva Kumar Raju	BT21D055	Biomers 2023	September 09, 2023. IIT Madras,	Nil
15.	Varshiny G	BT21D204	Biomers 2023	September 09, 2023. IIT Madras	Nil
16.	Mariya Reji	BT22D037	Biomers 2023	September 09, 2023. IIT Madras	Nil
17.	Vineetha N N	BT21D042	ICCB 2023	September 14 - 16, 2023. IIT Madras	Self
18.	R Siva Kumar Raju	BT21D055	ICCB 2023	September 14 - 16, 2023. IIT Madras	Self
19.	Mariya Reji	BT22D037	ICCB	September 14 - 16, 2023. IIT Madras	Self
20.	Diksha Mall	BT22D017	Indian Conference on Micro Nano Fluidics	September 29 - October 01, 2023. IIT Madras	IIT Madras
21.	Neha Rani Das	BT22D025	ICOM	October 26, 2023 - November 01, 2023. IIT Madras	IIT Madras
22.	Hemalatha R	BT16D026	International Conference on New Horizons in Biotechnology 2023	November 26 - 29, 2023. Thiruvananthapuram, Kerala	IIT Madras
23.	Pranjali Singh	BT19D028	New Horizons in Biotechnology 2023	November 26 - 29, 2023. Thiruvananthapuram, Kerala	IIT Madras

24.	Vishnu Damodaran Nambissan	BT19D017	New Horizons in Biotechnology 2023	November 26 - 29, 2023. Thiruvananthapuram, Kerala	IIT Madras
25.	Sambita Das	BT21D095	New Horizons in Biotechnology 2023	November 26 - 29, 2023. Thiruvananthapuram, Kerala	IIT Madras
26.	Akilandaeswari J	BT20D201	New Horizons in Biotechnology 2023	November 26 - 29, 2023. Thiruvananthapuram, Kerala	IIT Madras
27.	S Manoj Kumar	BT19D009	Biotex 2023	November 29 - December 01, 2023. IIT Delhi	IIT Madras
28.	S Manoj Kumar	BT19D009	MRSI	December 12 - 15, 2023 IIT BHU	IIT Madras
29.	Varshiny G	BT21D204	F4 Advanced Bioimaging Workshop	December 18 - 21, 2023 IIT Madras	IIT Madras
30.	Neha Rani Das	BT22D025	Molecular Imaging and Stem Cells Workshop	January 29 - 31, 2024. NIMHANS	IIT Madras
31.	Divya Sharma	BT19D752	AIRSS 2024	March 04 - 07, 2024. IIT Madras	ICSR-PMRF
32.	Vineetha NN	BT21D042	AIRSS-2024	March 04 - 07, 2024. IIT Madras	Self
33.	R Siva Kumar Raju	BT21D055	AIRSS-2024	March 04 - 07, 2024. IIT Madras	Self

4.3.2.4. Students/Scholars Who Won Outside Prizes and Awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Seemanti Aditya	BT21D751	Best Oral Presentation Award	European Calcium Society - ECSW 2023
2.	Purnima K V K	BT17D022	Scientific Exchange Grant	European Molecular Biology Organisation
3.	Purnima K V K	BT17D022	International Immersion Experience	Office of Global Engagement, IIT Madras
4.	Pragathi Sneha	BT18D019	Travel Award	APBIONet, INCOB 2023 Organizing Committee
5.	Harini K	BT19D400	Best Oral Presentation Award	VIT Vellore
6.	Medha Pandey	BT17D027	Institute Research Award	IIT Madras
7.	Fathima Ridha Karuvanthodikayil	BT20D701	Good Oral Presentation Award	TAC-MI International Forum 2023, Japan
8.	S Manoj Kumar	BT19D009	Bajpai-Saha Student Award	Society of Biomaterials and Artificial Organs, India
9.	Srijith Sasikumar	BT19D403	ISMB Travel Award (1000 dollars)	ISMB

4.3.2.5. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1	Shereena P Joy	BT15D017	Batch of 1979 Award	IIT Madras
2	Priyanshu Sharma	BT16D006	Batch of 1979 Award	IIT Madras
3	Shakunthala N	BT21M012	Institute Merit Prize	IIT Madras
			Buti Foundation Gold Medal Award	
			American Express Award	
4	Neha Swaminathan	BE18B008	Sri V Srinivasan Memorial Prize	IIT Madras
			American Express Award	
			Kalpathi Ags Prize	
			Biocon Prize	
5	S Prahalad	BE18B036	Governor's Prize	IIT Madras
6	P Gayathri	BS18B004	The Divashri Award	IIT Madras

4.3.3. Faculty and Their Activities:

4.3.3.1. Faculty:

Name and Qualifications	Major Area of Specialisation (Only 3 Areas)
Professor:	
Dr. Guhan Jayaraman [Head] (August 2020 - August 2023)	Metabolic Engineering, Synthetic Biology, Downstream Processing
Dr. N Satyanarayana Gummadi [[Head] (August 2023 - September 2023)	Bioprocess Engineering
Dr. Sanjib Senapati [Head] (September 2023 onwards)	Computational Biophysics
Dr. G K Suraishkumar	Understanding and Manipulation of Biological Systems, Reactive Species and Their Applications - Cancer Therapy, Nanotoxicology, Bio-energy
Dr. S Mahalingam	Molecular Virology and Cell Biology
Dr. V Srinivasa Chakravarthy	Computational Neuroscience
Dr. K Subramaniam	Developmental Biology
Dr. Amal Kanti Bera	Ion Channels and Signaling
Dr. Nitish R Mahapatra	Cardiovascular Genetics, Molecular Medicine
Dr. A Gopala Krishna	Signal Transduction and Protein Biochemistry
Dr. M Michael Gromiha	Bioinformatics, Computational Biology, Biophysics
Dr. K Chandraraj	Biomass Conversion, Bio-Remediation, Functional Foods
Dr. Rayala Suresh Kumar	Cancer Biology
Dr. V Kesavan	Chemical Biology
Dr. R Baskar	Developmental Genetics
Dr. Madhulika Dixit	Vascular Biology
Dr. Karthik Raman	Computational Systems Biology

Dr. Vignesh Muthuvijayan	Biomaterials and Tissue Engineering
Dr. Smita Srivastava	Plant Biotechnology and Bioprocess Engineering
Dr. N Manoj	Structural Biology
Dr. Athi Narayanan	Experimental/Computational Protein Folding
Associate Professor:	
Dr. Himanshu Sinha	Systems Genetics, Clinical Data Analysis
Dr. Hamsapriya Mohanasundaram	Biomolecular Simulations, Self-Assembly & Aggregation
Dr. Arumugam Rajavelu	Epigenetics, Plasmodium, Host-Pathogen interactions.
Dr. R Murugan	Theoretical Biology and Biophysics
Dr. Vani Janakiraman	Infection Biology/Infectious Diseases
Assistant Professor:	
Dr. Nirav Pravinbhai Bhatt	Modeling, Control, and Optimisation of Biochemical Reaction Systems, Systems Biology, Integrated Bio-process Manufacturing
Dr. Shantanu Pradhan	Biomaterials, Tissue Engineering, Cancer and Vascular Diseases
Dr. Ninitha A J	Cardiovascular Biology, Treatment Strategies for Hypertension and Heart Failure, Metabolic Syndrome, Obesity, Diabetes, and Diabetic Retinopathy
Dr. Nathiya Muthalagu	Cancer Biology, Mouse Models of Cancer
Dr. Santhosh Sethuramanujam	Visual Information Encoded by Neuronal Circuits, Neuronal Communication, Information Processing in Dendrites
Dr. Greeshma Thiruvikraman	Engineered Tissue & Organ Equivalents, Stem Cell Based Regenerative Medicine, Microenvironment Manipulation for Morphogenesis & Disease Modeling
Dr. Krithika Ravi	Biochemical Engineering, Lignin Valorisation, Biorefineries, Waste to Value.
Dr. Richa Karmakar	Prokaryotic and Eukaryotic Chemotaxis, Microfluidics Based Lab-on-Chip technologies, Biophysical Aspect of Cell-Cell and Cell-Material Interaction
Dr. Meiyappan Lakshmanan	Systematic Bioprocess Development for Biopharmaceutical and Cultivated Meat Manufacturing, Data-driven Cell Line Development for Biopharmaceutical Manufacturing
Visiting Faculty:	
Dr. M S Narayanan	Biomolecular Interfacing: Bioassay Development and Readout Strategies, Biosensors: Design, Validation and Technical Integration of Nucleic Acid/Protein Biomarker Platforms
Emeritus Scientist/ Emeritus Professor: Dr. D. Karunakaran	Cancer Biology, Signal Transduction, Apoptosis

4.3.3.2. Short-term Courses, Workshops, Seminars, Symposia, Conferences Organized by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	Dr. S Mahalingam Dr. Nathiya Muthalagu Dr. Shantanu Pradhan	International Conference on Cancer Biology: Molecular Mechanisms, Genomics and Novel Therapeutics	September 14 - 16, 2023
Seminar:			
1.	Dr. Karthik Raman Dr. Himanshu Sinha	Structures Systems Investigations of Information Processing in Biological Networks	September 21, 2023
2.	Dr. Karthik Raman Dr. Himanshu Sinha	(Re)defining the Role of Viruses in Microbiomes	September 27, 2023
3.	Dr. Karthik Raman Dr. Himanshu Sinha	Computational Gastronomy: A Vision for Making Food Computable	October 16, 2023
4.	Dr. Karthik Raman Dr. Himanshu Sinha	Machine Learning for Small Molecules	October 19, 2023
5.	Dr. Karthik Raman Dr. Himanshu Sinha	Cybergentics: Theory and Implementation of Genetic Control Systems	February 05, 2024
6.	Dr. Karthik Raman Dr. Himanshu Sinha	Next Generation Drug Discovery Using Mechanistic AI	February 22, 2024
7.	Dr. Krithika Ravi Dr. Richa Karmakar Dr. Meiyappan Lakshmanan	An Engineer Roaming in the Domain of Biology. (16th Dr. Joseph Thomas Memorial Lecture)	February 23, 2024
8.	Dr. Karthik Raman Dr. Himanshu Sinha	Development of AI Tools in Transplantation: Current and Future Prospects	March 11, 2024
9.	Dr. Karthik Raman Dr. Himanshu Sinha	Genomes OnLine Database (GOLD): A Metadata Management System for Genomes and Metagenomes	March 22, 2024
10.	Dr. Karthik Raman Dr. Himanshu Sinha	Drug Discovery Stories	March 28, 2024
Symposia:			
1.	Dr. Mahalingam Dr. Shantanu Pradhan Dr. Nathiya Muthalagu	International Conference on Cancer Biology 2023 (Biomers 2023)	September 09, 2023
2.	Dr. Karthik Raman Dr. Himanshu Sinha	IITM-CSI Symposium	October 03 - 04, 2023
Workshop:			
1.	Dr. Karthik Raman Dr. Himanshu Sinha	Tutorial on NGS Data Analysis	April 05, 2023
2.	Dr. Karthik Raman Dr. Himanshu Sinha	Single Cell Transcriptomics	July 13, 2023
3.	Dr. M Michael Gromiha	Applications of Machine Learning Techniques in Biology Using Weka	September 09 - 10, 2023
4.	Dr. Shantanu Pradhan	EVIDENT-DSS-IITM, 1st Annual Workshop FRET, FLIM, FCS, & FRAP (F4) Microscopy	December 18 - 21, 2023
5.	Dr. Shantanu Pradhan	Protein Expression and Purification	December 22 - 23, 2023
Short Term Course:			
1.	Dr. Karthik Raman Dr. Himanshu Sinha	The Living Machine: An Introduction to Synthetic Biology	February 01 - 21, 2024

4.3.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, Training Attended by the Faculty Members in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Conference:				
1.	Dr. Nathiya Muthalagu	International Conference on Cancer Biology	IIT Madras	September 14 - 16, 2023
2.	Dr. Greeshma Thrivikraman	International Conference on Biomedical Materials And Technology BioTEx	IIT Delhi	November 29 - December 01, 2023

4.3.3.4. Special Lectures Delivered by the Faculty in Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Dr. M Michael Gromiha	Bioinformatics Approaches for Understanding Mutational Effects on Protein Structure and Function: Implications to Diseases	Vel-Tech High Tech Engineering College, Chennai	April 05, 2023
2.	Dr. Smita Srivastava	Plant Cell Fermentation for High-Value and Low-Volume Phytochemicals	Department of Biotechnology, School of Life Sciences, Pondicherry University, Kalapet	April 27, 2023
3.	Dr. Karthik Raman	Computational Approaches to Decoding Microbial Interactions in Microbiomes	Institute of Mathematical Sciences, Chennai	May 04, 2023
4.	Dr. M Michael Gromiha	Machine Learning and AI-based Methods for Identifying Disease Causing Mutations in Proteins: Applications to Drug Design	NIT Warangal	May 09, 2023
5.	Dr. M Michael Gromiha	Bioinformatics Approaches for Understanding Mutational Effects on Protein Structure and Function: Implications to Diseases	Institute of Mathematical Sciences, Chennai	May 23, 2023
6.	Dr. Karthik Raman	Decoding Driver Genes in Cancer Genomes: From Pan-Cancer to Personalised Predictions	IISc, Bengaluru	June 01, 2023
7.	Dr. Nitish R Mahapatra	Functional Genetic Variations in Chromogranin: A Gene Enhance Cardiometabolic Disease Risk in Human Populations	Sri Ramachandra Institute of Higher Education and Research, Chennai	July 20, 2023
8.	Dr. Karthik Raman	Learning On, Using and From Networks in Biology	Institute of Mathematical Sciences, Chennai	July 20, 2023
9.	Dr. M Michael Gromiha	Binding Affinity of Protein-Carbohydrate Complexes: Database Development, Analysis and Prediction	IISc Bangalore	September 04, 2023

10.	Dr. M Michael Gromiha	Machine Learning and AI-based Methods for Identifying Disease Causing Mutations in Proteins: Applications to Drug Design	NIPER Chandigarh	October 10, 2023
11.	Dr. Karthik Raman	Surmounting Uncertainty in Microbial Community Modelling Using Pan-Genera Metabolic Models	Institute of Mathematical Sciences, Chennai	October 14, 2023
12.	Dr. Krithika Ravi	Lignin is the New Cellulose	Sri Venkateswara College of Engineering, Sriperumbudur	October 20, 2023
13.	Dr. M Michael Gromiha	Computer Aided Drug Design	IISER Trivandrum	November 07, 2023
14.	Dr. M Michael Gromiha	Bioinformatics Approaches for Understanding the Binding Affinity of Protein-Carbohydrate Complexes: Database Development, Analysis and Prediction	Tokyo Institute of Technology Japan	December 04, 2023
15.	Dr. Nitish R Mahapatra	Chromogranin A: A Key Regulator of Cardiometabolic Diseases	CSIR-IICT, Hyderabad	December 07, 2023
16.	Dr. M Michael Gromiha	Machine Learning and AI-based Methods for Identifying Disease Causing Mutations in Proteins: Applications to Drug Design	Holy Cross College, Trichy and Theevanam Additives	December 20, 2023
17.	Dr. M Michael Gromiha	Bioinformatics Approaches for Understanding Mutational Effects on Protein Structure and Function: Implications to Diseases	Bioinformatics Institute, Astar Singapore	January 15, 2024
18.	Dr. Madhulika Dixit	Insulin and Impaired Glucose Metabolism: The Atypical Determinants of Lymphocyte Adherence	Kusuma School of Biosciences, IIT Delhi	January 31, 2024
19.	Dr. M Michael Gromiha	Bioinformatics Approaches for Understanding Mutational Effects on Protein Structure and Function: Implications to Diseases	Dhanalakshmi Srinivasan Engineering College Perambalur	February 01, 2024
20.	Dr. Karthik Raman	Panera: A Novel Framework for Surmounting Uncertainty in Microbial Community Modelling Using Pan-Genera Metabolic Models	IIT Kharagpur (Online)	February 03, 2024
21.	Dr. Karthik Raman	Algorithmic Adventures in Microbial Ecosystems: Disentangling Complexities with Metabolic Modelling	Institute of Mathematical Sciences Chennai	February 19, 2024
22.	Dr. Nitish R Mahapatra	Prof. C Rajamanickam Endowment Lecture, School of Biological Sciences	Madurai Kamraj University	February 28, 2024
23.	Dr. M Michael Gromiha	Bioinformatics Approaches for Understanding Mutational Effects on Protein Structure and Function: Implications to Diseases	Chuo University Tokyo	February 28, 2024
24.	Dr. Nitish R Mahapatra	Role of Genetic Variations in Chromogranin: A Gene in Regulating Cardiometabolic Disease Risk	Instem, Bangalore	March 04, 2024

25.	Dr. Nitish R Mahapatra	Pancreastatin: A Novel Regulator of Cardiometabolic Diseases	IISc Bangalore	March 05, 2024
26.	Dr. M Michael Gromiha	Bioinformatics Approaches for Identifying Disease Causing Mutations in Proteins: Applications to Drug Design	K L University Vijayawada	March 05, 2024
27.	Dr. M Michael Gromiha	Machine Learning and AI-based Methods for Identifying Disease Causing Mutations in Proteins: Applications to Drug Design	Vellore Institute of Technology Vellore	March 22, 2024
28.	Dr. M Michael Gromiha	Bioinformatics Approaches for Understanding Mutational Effects on Protein Structure and Function: Implications to Diseases	IIIT Delhi	March 23, 2024

4.3.3.5. Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Dr. Greeshma Thrivikraman	Switzerland	September 04 - 08, 2023	European Society for Biomaterials (ESB 2023) Conference	SERB International Travel Grant
2.	Dr. M Michael Gromiha	Singapore	July 17, 2023 - January 16, 2024	Visiting Professor	National University of Singapore
3.	Dr. M Michael Gromiha	Tokyo	February 19 - March 01, 2024	Visiting Professor	Tokyo Institute of Technology
4.	Dr. M Michael Gromiha	Denmark	March 11 - 15, 2024	Conference	IIT Madras

4.3.3.6. Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Awards:					
1.	Dr. Rayala Suresh Kumar	Mid-career Institute Research & Development Award	IIT Madras	Excellent Research Contribution	April 20, 2023
2.	Dr. Sanjib Senapati	Dr. APJ Abdul Kalam HPC Awards 2023	Hewlett Packard	Outstanding Research in Drug Designing	September 01, 2023
3.	Dr Sathyanarayana N Gummadi	Talented Industrial Biotechnologist Award 2023	Association of Biotechnology and Pharmacy, AP	Industrial Biotechnologist	November 20, 2023
4.	Dr. Smita Srivastava	Venus International Women Awards (VIWA) 2023	VIWA Scheme by of Venus International Foundation (VIF)	Outstanding Women Researcher (Bioprocess Engineering)	2023
5.	Dr. Smita Srivastava	CSR Changemaker Award 2023	ACR Office, IIT Madras	CSR Changemaker Award - Faculty Recognition Programme	July 19, 2023

4.3.3.7. Fellowships of Academies and Professional Societies:

Sl. No.	Name of Faculty	Year of Admission
INSA:		
1	Dr. Nitish R Mahapatra	2024

4.3.3.8 Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor/ Member)	Journal Name
1.	Dr. Karthik Raman	Member	NPJ Systems Biology and Applications
2.	Dr. Karthik Raman	Member	PLoS Complex Systems
3.	Dr. M Michael Gromiha	Associate Editor	BMC Bioinformatics
4.	Dr. M Michael Gromiha	Associate Editor	Frontiers in Bioinformatics
5.	Dr. M Michael Gromiha	Associate Editor	Bioinformatics Advances
6.	Dr. M Michael Gromiha	Associate Editor	Biomed Informatics
7.	Dr. M Michael Gromiha	Associate Editor	Biologia
8.	Dr. M Michael Gromiha	Section Editor	Current Protein and Peptide Science
9.	Dr. M Michael Gromiha	Editorial Board Member	Scientific Reports
10.	Dr. M Michael Gromiha	Editorial Board Member	Biology Direct
11.	Dr. M Michael Gromiha	Editorial Board Member	Genes
12.	Dr. M Michael Gromiha	Editorial Board Member	Journal of Bioinformatics and Computational Biology
13.	Dr. M Michael Gromiha	Editorial Board Member	Current Computer Aided Drug Design

4.3.4. Patents:**4.3.4.1. Patents Filed:**

Sl. No.	Name of Faculty	Topic of Patent
1.	Dr. V Srinivasa Chakravarthy	A Method and System for Automated Assessment of Upper-Limb Motor Impairment
2.	Dr. Sanjib Senapati	Salts and Combinations Comprising Choline and Isobutylphenyl Propanoic Acid
3.	Dr. Sanjib Senapati	Salts and Combinations Comprising Tetramethylguanidine and Para Acetamidophenol
4.	Dr. Sanjib Senapati	Salts and Combinations Comprising Tetramethylguanidine and Isobutylphenyl Propanoic Acid
5.	Dr. Sanjib Senapati	Salts and Combinations Comprising Tetramethylguanidine and Acetylsalicylic Acid
6.	Dr. Sanjib Senapati	Salts and Combinations Comprising Tetramethylguanidine and Dichloroanilino Phenylacetic Acid
7.	Dr. Sanjib Senapati	Salts and Combinations Comprising Choline and Para Acetamidophenol
8.	Dr. M Michael Gromiha	System and Method for Predicting Binding Affinity of Small Molecules to RNA Targets
9.	Dr. Himanshu Sinha	A Population-Specific Gestational Dating System and a Method Thereof
10.	Dr. V Srinivasa Chakravarthy	A Sparsh Bharati E-Reader System and a Method Thereof

11.	Dr. G K Suraishkumar	A Mixing Apparatus for a Reactor
12.	Dr. Vignesh Muthuvijayan	Optical Reflectance Method for Monitoring Blood Clotting on Implant Surfaces
13.	Dr. Vignesh Muthuvijayan	Composition of Multifunctional Hydrogel and Method of Preparation Thereof
14.	Dr. Vignesh Muthuvijayan	An Injectable Hydrogel to Treat Fibrosis and Related Ailments
15.	Dr. V Srinivasa Chakravarthy	Quantitative, Unified, Affordable Diagnostic System for Parkinson's Disease (QUADIS-PD).
16.	Dr. G K Suraishkumar	Vertically Stacked Photobioreactors with Adjustable Reflector Fins
17.	Dr. Richa Karmakar	Method and Device for Bacterial Detection and Antimicrobial Susceptibility Testing
18.	Dr. Arumugam Rajavelu	A Cost-effective Magneto-Optic Sensor for Rapid Malaria Diagnosis

4.3.4.2. Patents Awarded:

Sl. No.	Name of Faculty	Topic of Patent
1.	Dr. Chandra T S	An Ultra-Light Weight Nanofiber Polymer Carrier for Use in Agricultural and Industrial Applications
2.	Dr. K Chandraraj	Combination of Cheese Whey and Cellulosic Biomass for Production of Bioethanol
3.	Dr. G K Suraishkumar	Design and Method of Manufacturing of a Safer, More Efficient and Eco-friendly Cigarette Filter
4.	Dr. Vignesh Muthuvijayan	Improved Wound Dressing Hydrogel
5.	Dr. V Srinivasa Chakravarthy	Method and System for Disease Prediction and Diagnostics Through Visualization of Genetic Data
6.	Dr. K Chandraraj	Improved Method of Bacterial Mediated Biosynthesis of Zirconium Oxide Nanoparticle
7.	Dr. Mukesh Doble	Water Soluble Novel Chiral Prodigiosin from <i>Alcaligenes Faecalis</i> Strain BP11
8.	Dr. Anju Chadha	Sustainable Yeast Supported Gold Nanoparticles Catalyst
9.	Dr. Smita Srivastava	Bioprocess Technique for Production of Secondary Metabolites from Plant Cells Using Textile Dye Effluents
10.	Dr. Mukesh Doble	Magnesium Based Degradable Implants for Bone Defect Repair Applications
11.	Dr. Rama S Verma	Metal-Free Polyester Based Nano-Drug Carrier
12.	Dr. Rama S Verma	System And Method for Encoding and Decoding Ethnic Data into Genetic Codes
13.	Dr. V Srinivasa Chakravarthy	System and Method for Handling Rehabilitation Strategy Training for Subject
14.	Dr. K Chandraraj	Method for Pretreatment of Biomass Using 11 Ammoniacal Glycerol
15.	Dr. Smita Srivastava	Sustainable Production of Camptothecin in the Suspension Culture of the Endophyte from <i>Nothapodytes Nimmoniana</i>

16.	Dr. V Srinivasa Chakravarthy	A Comprehensive Brain-Inspired Computational Model for Spatial Navigation
17.	Dr. Mukesh Doble	A Device for Determining Photoluminescent Quencher and Restorer Analytes Using Photoluminescent Carbon Nanodots Membrane
18.	Dr. Nirav Pravinbhai Bhatt	A Method for Simultaneous Synthesis and Separation of Nanoparticles in an Aqueous Two-Phase System
19.	Dr. V Srinivasa Chakravarthy	Multiscale Systems Neuropharmacological Model of Cortico-Basal Ganglia Circuitry of Reaching for Normal and Parkinson's Disease
20.	Dr. K Chandraraj	Method for Production of Molds from Cotton Microdust Waste and Its Reinforcement with Sand
21.	Dr. Rama S Verma	Anti-oxidant Incorporated Amniotic Membrane (AM) for Wound Healing and Method for Developing Thereof
22.	Dr. Mukesh Doble	Encapsulation of Herbal Extracts
23.	Shashwat Kumar Sahoo (Student)	Artemis: Railroad Crack Detection Robot
24.	Dr. Mukesh Doble	A Scaffold of Nanofibrous Matrix and Method Thereof

4.3.5. Research and Consultancy:

4.3.5.1. Sponsored Research Projects: (Ongoing & New)

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in Lakhs)	Co-ordinators
1.	A Comprehensive Framework for Treatment of Stroke of Upper Extremity by Combining Computational Modeling, Movement Behavior and Gaming	2018 - 2024	Uchhatar Avishkar Yojana, IIT Madras	312.00	Dr. V Srinivasa Chakravarthy
2.	Shear Stress Effects on Metastasizing Cancer Cells: Toward Better Cancer Therapies	2020 - 2023	Science and Engineering Research Board	52.48	Dr. G K Suraishkumar
3.	Lipid Transfer Mechanism of Cholesteryl Ester Transfer Protein: Role of Triglycerides	2020 - 2024	Department of Biotechnology	24.94	Dr. Sanjib Senapati
4.	GenomeIndia: Cataloguing the Genetic Variation in Indians	2020 - 2024	Department of Biotechnology	140.00	Dr. Himanshu Sinha
5.	Exploring the Potential Role of Poly (ADP-ribose) Polymerase (PARP) 6 in the Development of Hypertension Induced Cardiomyopathy	2020 - 2024	Science and Engineering Research Board	50.07	Dr. Ninitha A J
6.	Three-dimensional Tissue-engineered Platform for Investigation of Obesity-induced Inflammation, Insulin Resistance and Breast Cancer	2020 - 2025	Department of Biotechnology	42.50	Dr. Shantanu Pradhan
7.	INCENTIVE: Indo-European Consortium for Next Generation Influenza Vaccine Innovation	2020 - 2025	Department of Biotechnology	265.24	Dr. Himanshu Sinha
8.	Development of Improved Process for Production of 3-Hydroxypropionic Acid from Crude Glycerol and Lignocellulosic Biomass Derived Glucose	2021 - 2024	Department of Biotechnology	33.93	Dr. Guhan Jayaraman

9.	Sequential Motor Skills: A Dual System View	2021 - 2024	Indo French Centre for the Promotion of Advanced Research	32.90	Dr. V Srinivasa Chakravarthy
10.	Nanoengineered Self-Healing Bioink For Diabetic Wound Repair	2021- -2024	Council of Scientific and Industrial Research	19.00	Dr. Vignesh Muthuvijayan
11.	An Integrative Approach for Understanding the Structure, Function and Dynamics of HIV Protease: Applications to Design Novel Inhibitors	2021 - 2024	Department of Science & Technology	34.55	Dr. M Michael Gromiha
12.	Role of Wild Type and Disease-relevant Mutant LRR8B Proteins in ER Stress Related Signaling	2021 - 2024	Department of Biotechnology	87.51	Dr. Amal Kanti Bera
13.	Carbon Based Materials With High Antibacterial Activity for Face Mask Application to Combat Covid-19	2021 - 2024	Science and Engineering Research Board	10.05	Dr. Sathyanarayana N Gummadi
14.	Efficacy of HSP90 Mitochondrial Targeting of Withanolide A & Withaferin A in Hepatocellular Carcinoma	2021 - 2024	Science and Engineering Research Board	10.05	Dr. M Michael Gromiha
15.	Understanding the Interplay Between P21 Activated Kinase 1 and Pancreatic Stellate Cells of Tumour Microenvironment in Deregulating Cellular Energetics in Cancer Cells	2021 - 2024	Science and Engineering Research Board	64.38	Dr. Suresh Kumar Rayala
16.	Decoding the Genetic Program That Regulates Stress-induced Quiescence in C. Elegans Germline Stem Cells	2021 - 2026	Wellcome Trust	169.90	Dr. Subramaniam K
17.	Setting up of a High End Imaging Facility (FIST Program 2019)	2021 - 2026	Department of Science & Technology	203.00	Dr. Sanjib Senapati
18.	Understanding the Mechanism of MYC Induced Pancreatic Neuroendocrine Tumours and Its Clinical Implications	2021 - 2026	Department of Biotechnology	42.50	Dr. Nathiya Muthalagu
19.	Integrated Miniaturised Microfluidic Biosensors for Molecular Diagnostics of Zoonotic Infections at the Point-of-Care Using Padlock Probes and Rolling Circle Amplification (ZooPoC-ID)	2021 - 2026	Department of Biotechnology	113.60	Dr. Narayanan Srinivasan
20.	Exploring the Role of Leucine-rich repeat-containing 8B (LRR8B) Protein in Cognition	2022 - 2024	Indian Council of Medical Research	60.65	Dr. Amal Kanti Bera
21.	Unraveling the Mechanism of Mutant p53-p73 Interactions: Useful Insights for Rational Drug Design Against Cancer Using Computational Tools	2022 - 2024	Science and Engineering Research Board	22.37	Dr. Sanjib Senapati
22.	Towards Designing Photocurable Hyaluronic Acid-Based Disc Closure System for Lumbar Disc Herniation and Sciatica	2022 - 2024	Science And Engineering Research Board	28.71	Dr. Greeshma Thrivikraman

23.	Mechanisms and Functions of Methyl-binding Proteins in Virulence Genes Expression of the Human Malaria Parasite	2022 - 2025	Department of Biotechnology	76.71	Dr. Arumugam Rajavelu
24.	ID-PPP-OTN: Infrastructure and Development of Technologies for Pre-clinical Evaluation, Product Establishment and Platform Integration for Onco-Theranostic Applications	2022 - 2025	Science And Engineering Research Board	207.07	Dr. Guhan Jayaraman
25.	Effect of SARS-COV-2 Proteins on Calcium Signaling, Vesicle Dynamics and Secretion in Neuron and Astrocytes	2022 - 2025	Department of Science & Technology	13.50	Dr. Amal Kanti Bera
26.	A Study to Identify Prognostic Biochemical and Cellular Markers of Placental Endothelial Dysfunction in Gestational Diabetes	2022 - 2025	Indian Council of Medical Research	40.85	Dr. Madhulika Dixit
27.	A Study to Identify Prognostic Biochemical and Cellular Markers of Placental Endothelial Dysfunction in Gestational Diabetes	2022 - 2025	Indian Council of Medical Research	51.56	Dr. Madhulika Dixit
28.	Designing Macromolecular Assemblies With Ordered and High-Complexity Disordered Proteins	2022 - 2025	Department of Biotechnology	37.89	Dr. Athi Narayanan
29.	Characterisation of Novel Mutants of Human Protein Z-dependent Protease Inhibitor (ZPI): Potential Therapeutics for Hemophilia	2022 - 2025	Science and Engineering Research Board	28.53	Dr. N Manoj
30.	Rational Metabolic Engineering Strategies for Enhanced Production of Camptothecin in Nothapodytes Nimmoniana Plant Cells	2022 - 2025	Science and Engineering Research Board	53.13	Dr. Smita Srivastava
31.	Development of a Comprehensive Computational Model of Multisensory Integration in the Hippocampal Spatial Cell Network	2022 - 2025	Science and Engineering Research Board	27.55	Dr. V Srinivasa Chakravarthy
32.	Estimating Differential Metabolic Functionality in Antibiotic-resistant Helicobacter Pylori Through Integrated Experimental and Computational Analysis	2022 - 2025	Science and Engineering Research Board	10.05	Dr. Karthik Raman
33.	Cancer Tissue Biobanking and Identification of Comprehensive Genomic Landscape of Cancers That are Prevalent in Indian Population (Grant)	2022 - 2025	Karkinos Healthcare Private Limited	1230.08	Dr. S Mahalingam
34.	Patient Derived Xenografts for Combinatorial Therapy of PAK1 and TKI Inhibitors as a Preclinical Platform for EGFR Positive NSCLC Patients	2022 - 2025	Science and Engineering Research Board	10.05	Dr. Rayala Suresh Kumar
35.	Nutrigenomics Based Lifestyle Intervention for Efficient PCOS Management	2022 - 2026	SERB-NPDF	29.8	Dr. Madhulika Dixit
36.	Prime Minister's Fellowship for Doctoral Research to Ms. Aditi G Muddebhalkar (Government Part)	2022 - 2026	Science and Engineering Research Board	19.64	Dr. Hamsa Priya Mohanasundaram

37.	Establishment of Institutional Resource Centre for Manpower Training in Regulatory Guidelines for Medical Devices and Research Ethics	2022 - 2027	Indian Council of Medical Research	36.99	Dr. Madhulika Dixit
38.	Meta-analysis of COVID 19: An Approach to Elucidate Underlying Mechanisms of Clinical Presentations and Coherent Factors	2023 - 2024	Department of Biotechnology	7.67	Dr. Vani Janakiraman
39.	Protocol Development for AI Models for Ultrasound in India	2023 - 2024	Bill and Melinda Gates Foundation	42.16	Dr. Himanshu Sinha
40.	Vasculogenic Characterisation of Peripheral Blood Derived Mononuclear Cells (pbmcs) From PCOS Subjects	2023 - 2024	Indian Council of Medical Research	83.41	Dr. Madhulika Dixit
41.	33rd Annual Conference of the European Society for Biomaterials. September 04 - 08, 2023. Davos, Switzerland	2023 - 2024	Science and Engineering Research Board	1.43	Dr. Greeshma Thrivikraman
42.	Protocol Development for AI Models for Ultrasound in India	2023 - 2024	Bill and Melinda Gates Foundation	42.68	Dr. Himanshu Sinha
43.	AI-enhanced Indigenous Near-infrared (NIR) Spectrometers for Chemical and Biochemical Industries	2023 - 2025	IITM Pravartak Technologies Foundation	49.14	Dr. Nirav Pravinbhai Bhatt
44.	Does Strigolactone Signaling Connect Heat Stress to Increased Meiotic Recombination Rates? A Study in Arabidopsis	2023 - 2025	Department of Biotechnology	7.49	Dr. R Baskar
45.	Vasculogenic Characterisation of Peripheral Blood Derived Mononuclear Cells (pbmcs) From PCOS Subjects	2023 - 2026	Indian Council of Medical Research	120.00	Dr. Madhulika Dixit
46.	Elucidating the Interplay Between Ligand-Binding and DNA-Recognition in the Transcription Regulator CytR	2023 - 2026	Science And Engineering Research Board	49.17	Dr. Athi Narayanan
47.	Circumferential Cell Migration Towards a Neuropeptide Gradient for Healing Critical-Sized Cranial Defects	2023 - 2026	Indo German Science & Technology Centre	39.00	Dr. Greeshma Thrivikraman
48.	Targeting Acid-Sensing Ion Channel 3 for Effective Management of Pancreatic Cancer-associated Pain and Cancer Treatment	2023 - 2026	Department of Biotechnology	79.10	Dr. Shantanu Pradhan
49.	CORD-M HEAL: A Magnetically Aligned 3D Photogel for Enhanced Neurovascular Guidance Following Spinal Cord Injury	2023 - 2026	Ministry of Education	49.00	Dr. Greeshma Thrivikraman
50.	Zwitterionic Polymer Coatings on Medical Implants for Antifouling, Biocompatible and Controlled Release of Therapeutic Drugs to Combat Implant Associated Infections	2023 - 2026	Department of Biotechnology	51.58	Dr. Vignesh Muthu Vijayan
51.	Regulatory Influence of Renin-Angiotensin Aldosterone System on Renal Expression of Renalase	2023 - 2026	Department of Science and Technology	37.63	Dr. Nitish R Mahapatra
52.	Effect of Ghee From Indigenous Cow Milk on Cognition and Neuro-protection Against Alzheimer's Disease	2023 - 2026	Ministry of AYUSH	70.00	Dr. Amal Kanti Bera

53.	Multienzymatic Process for Delignification and Valorization of Lignin From Agroresidues to Value Added Products	2023 - 2026	Science And Engineering Research Board	10.05	Dr. Sathyanarayana N Gummadi
54.	Multi-Scale Brain Function India-Italy Network of Excellence (MSBFIINE)	2023 - 2026	Department of Science and Technology	25.50	Dr. V Srinivasa Chakravarthy
55.	Mechanism of Differential Expression of HMG-CoA Reductase Gene in Rodent Models of Genetic Hypertension	2023 - 2026	Department of Science and Technology	35.85	Dr. Nitish R Mahapatra
56.	Role of PLP-1, the C. elegans Ortholog of Human Pur-alpha, in the Regulation of Genes Involved in Stress Protection	2023 - 2026	Science and Engineering Research Board	50.30	Dr. Subramaniam K
57.	Ras Effector RASSF10 Locks the Metabolic Reprogramming Mechanism in Tumour Cells	2023 - 2026	Science and Engineering Research Board	76.70	Dr. S Mahalingam
58.	Cross Adaptation of Arabidopsis Accessions Naturalised to Growing in Heavy Winds	2023 - 2026	Science And Engineering Research Board	48.53	Dr. R Baskar
59.	Inspire Fellowship for Ms. Shreya Mukherjee - BT22D144	2023 - 2028	Department of Science and Technology	5.84	Dr. Nitish R Mahapatra
60.	Investigate the Role of Somatostatin in Facilitating Excitation-Inhibition Balance in Retinal Circuits	2023 - 2028	Wellcome Trust	361.16	Dr. Santhosh Sethuramanujam
61.	National Network Project of National Centre for Biological Sciences: Genome Informatics Networks to Understand Plant Stress Management	2023 - 2028	Department of Biotechnology	55.68	Dr. M Michael Gromiha
62.	National Network Project of Alagappa University, Karaikudi	2023 - 2028	Department of Biotechnology	24.22	Dr. M Michael Gromiha
63.	Inspire Fellowship for Ms. Saima Owais - BT22D117	2024 - 2024	Department of Science and Technology	2.59	Dr. V Kesavan
64.	GIW 2023 and ISCB-Asia VI Conference (GIW ISCB ASIA 2023), Singapore (18 November, 2023 to 21 November, 2023), Health City Novena, Singapore	2024 - 2024	Science And Engineering Research Board	0.77	Dr. M Michael Gromiha
65.	Electrochemical Impedance Sensing on a Microfluidic Chip for Rapid Antibiotic Susceptibility Testing	2024 - 2026	Science and Engineering Research Board	26.76	Dr. Richa Karmakar
66.	Investigating the Circuit Mechanisms Underlying Image Stabilisation	2024 - 2026	Science And Engineering Research Board	25.42	Dr. Santhosh Sethuramanujam
67.	Metabolic Engineering Strategies for Improving in vitro Propagation and Enhanced production of Iridoid Glycosides in Gentiana Kurroo Royle, and Assessing Their Cardiovascular Protective Effects in Human Endothelial Cells	2024 - 2026	Science And Engineering Research Board	29.81	Dr. Smita Srivastava
68.	Elucidate the Direct and Indirect Regulation of PLK1 by MYC and Its Role in Pancreatic Cancer	2024 - 2026	Science And Engineering Research Board	28.71	Dr. Nathiya Muthalagu

69.	Explore Viral Involvement in the Alzheimer's Amyloid Beta Peptides Toxicity: Multiscale In-Silico Experimental Approach	2024 - 2026	Science And Engineering Research Board	29.81	Dr. M Michael Gromiha
70.	Regulation of Post-Traumatic Stress Disorder by Sympathoinhibitor Catestatin Peptide	2024 - 2027	Indian Council of Medical Research	140.61	Dr. Nitish R Mahapatra
71.	Exploring the Pathway of Protein Supramolecular Assembly Through Machine Learning Aided Molecular Simulations	2024 - 2027	Science and Engineering Research Board	6.60	Dr. Hamsa Priya Mohanasundaram
72.	Characterisation and Functional Studies on Human Odorant Binding Proteins (OBPs) for Their Role in Bacterial Infections	2024 - 2027	Science and Engineering Research Board	37.51	Dr. Vani Janakiraman
73.	Development of a Comprehensive Database for Disease Causing Mutations and Tool for Predicting the Binding Affinity of Protein Carbohydrate Complexes: Influence of Binding Affinity on Disease Causing Mutations	2024 - 2027	Department of Biotechnology	37.48	Dr. M Michael Gromiha
74.	Pre-clinical Evaluation of Novel Dysidean One Analogs With Proven Anti-Cancer Activity Targeting Triple Negative Breast Cancer: A Leap Forward From Bench to Bedside	2024 - 2027	Indian Council of Medical Research	69.70	Dr. Rayala Suresh Kumar
75.	A Comprehensive Framework for Treatment of Stroke of Upper Extremity by Combining Computational Modeling, Movement Behavior and Gaming	2018 - 2024	Uchhatar Avishkar Yojana, IIT Madras	312.00	Dr. V Srinivasa Chakravarthy

4.3.5.2. Industrial Consultancy Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Dr. Smita Srivastava	GTBL - IITM MOA for IITM Bioincubator Facility Usage	Gujarat Themis Biosyn Limited	105.35
2.	Dr. Athi Narayanan	Experimental Validation of Designed Antibodies for Hormone Detection in LFA Strips	Samplytics Technologies Pvt. Ltd.	11.40
3.	Dr. Guhan Jayaraman	Development of a GMP-compatible, Clinical Grade Injectable Plasmid DNA Production Process	KODO Life Science Pvt. Ltd.	31.86

4.3.5.3 RBIC Ojects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Dr. Karthik Raman	Skin Microbiome Systems Biology: Unravelling Metabolic Capabilities of Microbes in Communities	Unilever Industries Pvt. Ltd.	49.17
2.	Dr. Hamsa Priya Mohana Sundaram	Developing Strategies for Viral Deactivation Using Molecular Modelling	Unilever Industries Pvt. Ltd.	48.16
3.	Dr. Hamsa Priya Mohana Sundaram	Prime Minister's Fellowship for Doctoral Research to Ms. Aditi G Muddebihalkar (Industry Part)	Unilever Industries Pvt. Ltd.	23.18

4.	Dr. S Mahalingam	Cancer Tissue Biobanking and Identification of Comprehensive Genomic Landscape of Cancers that are Prevalent in Indian Population	Karkinos Healthcare Pvt. Ltd.	645.63
5.	Dr. Karthik Raman	Microbiome Systems Biology: Understanding Microbial Interactions and Identifying Optimal Intervention Strategies in Home Microbiomes	Hindustan Unilever Ltd.	70.99
6.	Dr. V Srinivasa Chakravarthy	Development of a System for Cataract Identification Using Red Reflex Digital Images Using Machine Learning	Telemedc Healthcare Pvt. Ltd.	3.63
7.	Dr. G K Suraishkumar	Generation of Energy From Photosynthesis Through the Use of Quinones - Phase II	Vaayuneer Sciences Pvt. Ltd.	10.00
8.	Dr. Smita Srivastava	In vitro Production of Lauric Acid by Plant Cell Cultivation of Cocos nucifera (Coconut)	Unilever Industries Pvt. Ltd.	62.66
9.	Dr. Meiyappan Lakshmanan	Ashwagandha Functional Elucidation project	Hindustan Unilever Ltd.	6.41
10.	Dr. S Mahalingam	Molecular & Imaging Testing Facility	Common Code	300.00
11.	Dr. S Mahalingam	Molecular & Imaging Testing Facility	Common Code	61.27
12.	Dr. Smita Srivastava	Bioincubator Support Scheme March 06, 2013	Common Code	172.36
13.	Dr. Smita Srivastava	Bioincubator Support Scheme March 06, 2013	Common Code	100.00
14.	Dr. R Baskar	Semi-Preparative HPLC And GS-MS (Single Quad) Analysis	Common Code	5.00
15.	Dr. Vignesh MuthuVijayan	Cholamandalam Scholarship for BSc Students	Cholamandalam Investment And Finance Company Ltd.	10.00
16.	Dr. Vignesh MuthuVijayan	Walmart Fee Waiver for Students	WM Global Technorogy Services India Pvt. Ltd.	110.00
17.	Dr. Vignesh MuthuVijayan	Shraman Foundation	Shraman Foundation	476.25
18.	Dr. Sanjib Senapati	BT Central Facility Under the HOD	Common Code	25.00
19.	Dr. Sanjib Senapati	BT Central Facility Under the HOD	Common Code	5.00
20.	Dr. Himanshu Sinha	MOOCs on Biological Big Data Analysis	Excelra Knowledge Solutions Pvt. Ltd.	96.80
21.	Dr. V Srinivasa Chakravarthy	Parkinson's Therapeutics Lab	Donors	100.00
22.	Dr. Guhan Jayaraman	iGEM	Donors	10.00
23.	Dr. V Srinivasa Chakravarthy	Sparsh Bharati: A Novel, Easy Braille-like System for the Visually Impaired in India	AICL Communications Ltd.	39.90
24.	Dr. Smita Srivastava	Capacity Building for Bio Incubator	Common Code - Consultancy	10.25
25.	Dr. Nathiya Muthalagu	Animal House Facility	Common Code - Consultancy	11.80

26.	Dr. Nathiya Muthalagu	Animal House Facility	Common Code - Consultancy	100.00
27.	Dr. Rayala Suresh Kumar	Blood Irradiator for Gamma Radiation of Tissue Samples/Mouse Models for Research - Phase II	Common Code - Consultancy	5.00
28.	Dr. Sanjib Senapati	Proposal for Purchase of Lab Equipment to Aid IIT Madras Biotechnology Department - Dynamic Light Scattering System	Shipping Corporation of India	50.00
29.	Dr. S Mahalingam	Comprehensive Genomic Analysis of Pediatric Leukemia	L&T Technology Services Ltd.	55.00
30.	Dr. Sathyanarayana N Gummadi	Anti-Malarial Drug Discovery and Development Research Proposal	Hyperverge Technologies Pvt. Ltd.	5.46

4.3.5.4. Retainer Consultancy: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Dr. Smita Srivastava	GTBL - Prof. Smita Srivastava Consultancy Agreement	Gujarat Themis Biosyn Ltd.	63.72
2.	Dr. Karthik Raman	Genome-scale Metabolic Modeling of Microalgae	Yokogawa Technology Solutions India Pvt. Ltd.	4.60
3.	Dr. Smita Srivastava	Trishveda Naturals Pvt. Ltd. - Prof. Smita Srivastava Consultancy project	Trishveda Naturals Pvt. Ltd.	63.72

4.3.6. Distinguished Visitors to the Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Dr. Marshall Feter, Nanostring Technologies, USA	April 06, 2023	Seminar Talk
2.	Dr. Gagan Thoppe, Assistant Professor	May 02, 2023	Seminar Talk
3.	Dr. Kartik Josyula, Rensselaer Polytechnic Institute, USA	June 08, 2023	Seminar Talk
4.	Dr. Shreya Raghavan, Biomedical Engineering, Texas A&M University, USA	June 22, 2023	Seminar Talk
5.	Prof. Kumar Somasundaram, MCB, IISC	June 28, 2023	Seminar Talk
6.	Dr. Rahul Joshi, Global Business Head at HiMedia	July 11, 2023	Seminar Talk
7.	Dr. Bhuvaneish T Selvaraj	July 18, 2023	Seminar Talk
8.	Prof. Vijay Rangachari, Dept. of Chemistry & Biochemistry, Center for Molecular and Cellular Biosciences, The Univ. of Souther Mississippi, USA	August 08, 2023	Seminar Talk
9.	Prof. Alexander Maier, ANU College of Science, Australia	August 24, 2023	Seminar Talk
10.	Dr. Saravanan Matheswaran, IIT Kanpur	September 11, 2023	Seminar Talk
11.	Dr. Sharbani Kaushik, Ohio State University	September 12, 2023	Seminar Talk
12.	Dr. Fukushige University of Tsukuba, Japan	September 14, 2023	Discuss Possible Collaborations

13.	Dr. Chandra Verma, A*STAR Singapore	October 06, 2023	Seminar Talk
14.	Dr. Kirti Prakash from Institute of Cancer Research	October 18, 2023	Seminar Talk
15.	Dr. Soundhara Rajan Gopi, Postdoctoral Researcher, Takada Lab. Department of Biophysics, Kyoto University, Japan	October 20, 2023	Seminar Talk
16.	Dr. Joseph Brock, Australian National University	October 30, 2023	Seminar Talk
17.	Dr. Deepak Nair	October 31, 2023	Seminar Talk
18.	Prof. Purusharth I Rajyaguru, Indian Institute of Science	November 02, 2023	Seminar Talk
19.	Dr. Tridib Mahata, Tel-Aviv University, Israel	November 07, 2023	Seminar Talk
20.	Dr. Jiaul Hoque, Postdoctoral Fellow, Duke University, Durham, NC	November 07, 2023	Seminar Talk
21.	Prof. Radhakrishnan Mahalakshmi, IISER Bhopal	November 09, 2023	Seminar Talk
22.	Dr. Ram Vishwakarma, Distinguished Scientist of CSIR, Central Drug Research Institute (CDRI), Lucknow	November 09, 2023	Seminar Talk
23.	Prof. Robert Zorec	November 14, 2023	Seminar Talk
24.	Prof. Paul S. Weiss, Nanoscientist California NanoSystems Institute and Departments of Chemistry & Biochemistry, Bioengineering, and Materials Science & Engineering, UCLA, Los Angeles	December 18, 2023	Seminar Talk
25.	Dr. Srinivasa Rao, Nuffield Department of Surgical Sciences, University of Oxford	January 05, 2024	Seminar Talk
26.	Dr. Maya Raghunandan, The Institute of Cancer Research, London, UK	March 05, 2024	Seminar Talk
27.	Dr. Debayan Chakraborty, The Institute of Mathematical Sciences, Chennai	March 19, 2024	Seminar Talk
28.	Dr. Shubham Sahu, Laboratoire Physico-Chimie Curie, Institut Curie, Institut de Chimie du CNRS, Sorbonne Université, Centre National de la Recherche Scientifique, Paris, France	March 21, 2024	Seminar Talk
29.	Dr. Camille Lambert, Laboratory of Biophysics and Evolution (LBE), UMR 8231, ESPCI-PSL, Paris, France	March 21, 2024	Seminar Talk
30.	Dr. Pravin S. Iyer, Sr. Vice President, Zydus Research Center, Zydus Life Sciences Ltd.	March 28, 2024	Seminar Talk

4.3. 7. Other Activities of the Department/Centre:

News of the Day	Title/Published:
Dr. Himanshu Sinha	IITM Researchers led to develop AI diagnostics tools for helping Physicians - The Hindu 25.08.2023
Dr. Smita Srivastava, Dr. Karthik Raman and Dr. Sarayu M	"IIT Madras, IIT Mandi researchers engineer N nimmoniana plant cells to increased Camptothecin production, used in cancer treatment", published in The Economic Times on December 28, 2023
Dr. Smita Srivastava	"Budget 2024: Govt must incentivize sustainable biomanufacturing of low-cost phytodrugs & phytopharma", published in Biovoice news on January 23, 2024
Dr. Smita Srivastava	Featured by India Today as "one among 10 award-winning women professors from IIT Madras for their remarkable achievements", June 2023.

4.3.7.2. International Collaboration Achievements by the Department:**4.3.7.2.1. Faculty Visit**

Sl.No.	Name of the Faculty Member	Purpose of Visit	Date & Venue
1.	Dr. Sanjib Senapati	To initiate Australian National University-IIT Madras Research Collaboration	November 13 - 22, 2023 Australian National University (ANU), Australia

4.3.7.2.2. Student Visit

Sl. No.	Name of the students	Purpose of Visit	Date & Venue
1.	Varshiny G (BT21D204)	Internship	May 10 - July 23, 2023. Nanyang Technological University, Singapore
2.	Fathima Ridha Karuvanthodikayil (BT20D701)	Research Collaboration	July 28 - August 05, 2023. Technical University of Munich, Germany
3.	Srijith Sasikumar (BT19D403)	Visiting Researcher	August 01 - September 30, 2023. (Technical University of Denmark)
4.	Purnima K V K (BT17D022)	Visiting Student for Scientific Exchange	September 27, 2023 - January 25, 2024. Queen's University Belfast, UK
5.	Laavanya D (BT21D064)	Internship - Mehta Rice Engineering Scholars Program Scholarship	October 01, 2023 - February 07, 2024. Rice University, Houston, Texas.

4.4. Department of Chemical Engineering

4.4.1. Introduction:

The Department of Chemical Engineering was established in 1959. It has a rich pool of permanent faculty members, who are not only dedicated teachers, but also researchers carrying out cutting-edge research in frontier areas of Chemical Engineering and inter/multi-disciplinary subjects. The focus of

the research is on reaction and transport processes, energy, materials and environment. The faculty work towards analysing these systems at multiple scales by understanding their behaviour from the molecular to macroscopic levels as well as using a system-based approach.

4.4.2.1. Students on Roll as of September 2023 and M.S. & Ph.D Admission in January 2024:

Programme	I year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	108	114	97	84	4	407
M.Tech.	47	27				74
M.S.	12	13	13	5	3	46
Ph.D.	24	26	24	23	35	132
Total	191	180	134	112	42	659

4.4.2.2. Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Kundarapu Laxman Kumar	CH22D025	9th Thermal and Fluids Engineering Conference	April 26, 2024	IIT Madras
2.	Akhil Kongara	CH17D201	Global Energy Meet 2024	March 04-06, 2024	IIT Madras
3.	Ajin R	CH19D005	ISCRE27	Jun 11-14, 2023	Institute Fund
4.	Rashmi B	CH18D400	35th Topical Meeting of the International Society of Electrochemistry (ISE)	May 07-10, 2023	IIT Madras
5.	Rajahmundry Ganesh Kumar	CH20D408	AICHE Annual Meeting, -2023	November 08, 2023	PMRF Fellowship
6.	Krithika B	CH20D752	XIXth International Congress on Rheology (ICR2023)	July 29-August 4, 2023	PMRF
7.	Athira K K	CH20D201	2023 AIChE Annual Meeting	November 5- November 10, 2023	PMRF
8.	Swethika CS	CH20B105	ACS Fall 2023	August 15, 2023	Gas Hydrate Lab
9.	Puchalapalli Saveri	CH19D203	International Congress of Rheology, ICR	July 29- Aug 5, 2023	IIT Madras

10.	Abhishek Anand	CH20D400	IGCS Summer School 2023	July 24-August 04, 2023	IGCS
11.	Muhammed Hamdan Bin Basheer	CH18D015	MATSUS Fall 2023	October 16-20, 2023	Institute
12.	Bhavikkumar Mahant	CH19D752	10th International Conference on Gas Hydrate, Singapore	July 09-14, 2023	IC&SR project / guide
India					
1.	Suraj Kumar	CH22D034	AIRSS	March 06, 2024	Self
2.	Sandeep Parma	CH21D004	CompFlu2023	December 18-20, 2023	IIT Madras
3.	Niketha	CH21D404	23rd National Convention of Electrochemists	January 04-05, 2024	PMRF
4.	Arun Kumar Diwakar	CH22M005	MD@60 CECAM	February 26, 2024	CH Department
5.	Mahendra Tiwari	CH20D006	New Horizons in Biotechnology (NHBT 2023)	November 27, 2023	Institute
6.	Deepak Kumar	CH22D017	Chemference	October 01, 2023	IIT Madras
7.	Racha Varun Kumar	CH21D012	Energy Summit 2023	December 06-07 2023	Institute
8.	Parvathy S Chandran	CH22D09	Energy Summit 2023	December 06-07, 2023	ICSR
9.	Gouri RamadasNayanar	CH23D034	Energy Summit 2023	December 06--07, 2023	ICSR, IIT Madras
10.	Gouri RamadasNayanar	CH23D034	Energy Summit 2023	December 06--07, 2023	ICSR, IIT Madras
11.	Parvathy S Chandran	CH22D009	Next Generation Atomistic Modelling and Simulations with AMS Software	September 25-October 04, 2023	NA
12.	Bhagyesh Anand Nandgawle	CH22S002	DeSaltM-23 (Conference on Desalination, Brine Management and Water Recycling), IIT Bombay	July 21-22, 2023	IIT Madras
13.	Bhagyesh Anand Nandgawle	CH22S002	National Convention of Electrochemists, 23	January 04-05, 2024	IIT Madras
14.	Rajana Revanth Sai	CH20S301	COMSNETS 2024	January 03, 2024	-
15.	Rajput Shubham Ajaykumar	CH20D753	2024 Mrs Spring Meeting & Exhibit, Seattle, USA	April 22-26, 2024	
16.	Ajay Koushik V	CH19D200	International Conference of Chemistry and Chemical Processes (ICCCP)	February 26-29, 2024	
17.	Kundarapu Laxman Kumar	CH22D025	9th Thermal and Fluids Engineering Conference	April 26, 2024	
18.	Ajay Koushik V	CH19D200	All India Research Scholars Summit (AIRSS)	March 04-07, 2024	
19.	Khizar shaikh	CH22S018	CHEMREC24	April 28-May 02, 2024	

20.	Shiv Shankar Kumar	CH18D008	American Society of Thermal and Fluids Engineers	April 26, 2024	
21.	P Govardhan	CH19D011	2024 Mrs Spring Meeting and Exhibit, Seattle, USA	April 24, 2024	
22.	Adil Muhammed	CH22D003	9th Thermal and Fluids Engineering Conference (TFEC)	April 26, 2024	
23.	Haile Jose	CH22S003	Energy Summit 2023	December 07, 2023	ICSR
24.	Durga RamadasNayanar	CH21D041	Energy Summit 2023	December 06-07, 2023	Institute
25.	Javed Akhtar	CH21D301	AMMM-23, BARC, Mumbai; CompFlu-2023, IIT Madras, Chennai; MD@60, JNCASR, Bangalore	December 16, 2023	Institute
26.	Anoop N	CH20D021	NCE, 23	January 04-05, 2024	PMRF Grant
27.	Anoop N	CH20D021	EIHE, 2024	February 08-10, 2024	PMRF Grant
28.	Bhumana Teressa	CH22D042	Energy Summit 2023	December 06-o7, 2023	IIT Madras
29.	Swethika CS	CH20B105	ACS Fall 2023	August 15, 2023	Gas Hydrate Lab
30.	Swethika CS	CH20B105	CHEMCON 2023	December 27-30, 2023	Gas Hydrate lab
31.	Swethika CS	CH20B105	World Hydrogen Energy Summit, 2023	October 16-17, 2023	SERG
32.	Puchalapalli Saveri	CH19D203	International Congress of Rheology, ICR	July 29-August 05, 2023	IIT Madras
33.	Dipesh	CH22M013	Shell.ai Scientific Conference	October 04-05, 2023	Project
34.	Boddu Vinisha	CH19D750	Water Security and Climate Adaption Conference (WSCA 2023)	October 04-07, 2023	PMRF Contingency
35.	Boddu Vinisha	CH19D750	Conference on Desalination, Brine Management and Water Recycling (DeSaltM 23)	July 21-22, 2023	PMRF Contingency
36.	Boddu Vinisha	CH19D750	International Conference on Advanced Functional Materials and Devices (AFMD 2024)	February 26-29, 2024	Project
37.	Shambhu Anil	CH18D201	CompFlu 2023, Indo German Workshop 2024, ICOM 2024	December 18-20, 2023	IIT Madras
38.	Nitesh Someshwarrao Dharme	CH22M023	CEES, 2023 (Conference on Catalysis for Energy, Environment and Sustainability)	September 25-27, 2024	Project

39.	K Namratha	CH22D400	ChEmference 2023	September 30-October 02, 2023	HTRA
40.	K Namratha	CH22D400	CompFlu 2023	December 18-20, 2023	PMRF Grant
41.	Abhishek Anand	CH20D400	International Conference on Novel Materials and Technologies for Energy and Environment Applications (NMTE2A 2024)	February 17, 2024	IIT Madras
42.	Abhishek Anand	CH20D400	World Hydrogen Energy Summit 2023	October 16-17, 2023	IIT Madras

4.4.2.3. Students/Scholars Who Won Outside Prizes and Awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Yogendra Kumar	CH21D005	Best Paper Award	International Chemical Engineering Conference on Energy, Environment and Sustainability
2.	Yogendra Kumar	CH21D005	Best Paper Award	All India Research Scholar Summit
3.	Suraj Kumar	CH22D034	Best Technical Poster Presentation Award	All India Research Scholar Summit, IIT Madras, Chennai
4.	Nitin Patil	CH21B068	National Winners of Maruti Suzuki XCElerate 2023	Maruti Suzuki India Ltd
5.	Mahendra Tiwari	CH20D006	NHBT- 2023 Best Poster Award	NHBT 2023 (CSIR-NIIST)
6.	Deepak Kumar	CH22D017	Best Presentation Award: Advanced Chemical Engineering Category	Prof. Suman Kundu, BITS Pilani
7.	Rashmi B	CH18D400	Best Poster Award	International Society of Electrochemistry
8.	Bhagyesh Anand Nandgawle	CH22S002	2nd position: Best Poster Award	Society for Advancement of Electrochemical Science and Technology (SAEST)
9.	Anoop N	CH20D021	Best Paper Award	EIHE 2024 committee
10.	Bhumana Teresa	CH22D042	Third Prize	Energy Summit 2023
11.	Abhimanyu Singh Khichi	CH23S010	2nd Prize: 99.54 Euro	IGCS Motan Workshop 2023
12.	Swethika C S	CH20B105	Urja Shakti Write-up Competition	Rajiv Gandhi Institute of Petroleum Technology
13.	Boddu Vinisha	CH19D750	Best Oral Presentation Award	International Conference on Advanced Functional Materials and Devices (AFMD 2024)
14.	Vallabh Sudhir Prabhudesai	CH19D004	1st Prize: New Generation Ideation Contest (NGIC)	Hindustan Petroleum Corporation Limited (HPCL)
15.	K Namratha	CH22D400	Best Poster Award	BITS Goa
16.	Abhishek Anand	CH2000D	Best Presentation Award: Conference at BITS Hyderabad	BITS Hyderabad

4.4.2.4. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor/Criteria
1.	Yashika	CA20M007	Dr. V Mahadeva Iyer Prize	Smt. Sujatha Dube
2.	Jose Peter	CH20M018	M/S. Chevron Products Company Prize	Dr. Ashok Krishna
3.	Shashank V	CH17B119	Dr. Anita Mehta-Damani Prize: 7th & 8th semesters of B. Tech./Dual Degree in CH	Dr. Ramesh Damani
4.	Sundar Raam S	CH19B029	Reliance Heat Transfer Pvt. Ltd. Prize	B. Tech. student with the best academic record in the Chemical Engineering
5.	Shania Mitra	CH18B067	Late B Ravichandran Memorial Prize	Dual Degree student with the best academic record in Chemical Engineering
6.	Sowmya M	CH21M026	Dr. K Subba Raju Memorial Prize	M. Tech. student with the best academic record in Chemical Engineering
7.	Kush Mehul Ganatra	CH19B063	C A Sastry Endowment Prize	Student with the best overall performance in curricular and co-curricular activities among B. Tech./Dual Degree Programme in Chemical Engineering
8.	Swathi G	CH19B094	48th Indian Pharmaceutical Congress Prize	Student with the best project in the area of Biotechnology amongst the B.Tech./Dual Degree/M.Tech. in Chemical Engineering
9.	Shania Mitra	CH18B067	Lakshmi Ravi Prize	Student with the best Dual Degree project in the Inter-Disciplinary Dual Degree Program in Data Science in Computer Science Engineering
10.	Susan Mondal	CA21M006	Sri S V Balakrishnan Prize	M. Tech. student with the best academic record in Catalysis Technology in Chemical Engineering
11.	Agrawal Rohit Arvind	CH21M022	Mico-Bosch Prize	M. Tech. student with the best project in the areas of Environmental Pollution Control & Energy Conservation, Environmental Pollution Control & Techniques and Energy Conservation in Chemical
12.	Hariharan B	CH19S005	Smt. D L Saraswati Memorial Prize	Scholar with the best project in the areas of Environmental Engineering in Chemical Engineering

4.4.3. Faculty and Their Activities:

4.4.3.1. Faculty:

Name and Qualifications	Major Areas of Specialisation
Professors	
Dr. Nagarajan R	Ultrasonic and Megasonic Fields, Cleanroom and Contamination Control, Nano-particle Synthesis and Nano-composite Formulation

Dr. Abhijit P Deshpande	Rheology of Complex Fluids, Polymers and Polymeric Composites, Processing Flow Visualisation
Dr. Arun K Tangirala	Process Systems Engineering, Control, Identification and Monitoring, Applied Signal Processing
Dr. Jitendra Sangwai	Enhanced Oil Recovery, Flow Assurance, Nanotech Applications for O&G, Gas Hydrates in Bulk and Porous Media, Rheology of Complex Fluids, Drilling Fluids, Polymer Science, PVT Studies
Dr. Basavaraja M Gurappa	Directed Assembly of Colloids, Microstructure and Rheology of Colloids, Surfactants, Polymer and Their Mixtures, Interfacial Rheology, Ionic Liquids, Particulate Gels
Dr. Ethayaraja Mani	Molecular Simulations, Self-assembly, Mathematical Modelling
Dr. Kannan A	Mathematical Modelling, Simulation and Optimisation of Chemical Processes
Dr. Niket S Kaisare	Catalytic Combustion, Micro-reactors, Advanced Process Control, Energy and Fuel Processing
Dr. Preeti Aghalayam	Underground Coal Gasification, Reduction of Automotive NO _x , Reduction of Large Reaction Mechanisms, Reactor Modelling
Dr. Pushpavanam S	Modelling and Simulation, Non-linear Dynamics, Flow Visualisation
Dr. Raghunathan Rengasamy	Process Systems Engineering, Fuel Cells, Computational Discrete Microfluidics
Dr. Raghuram Chetty	Electrocatalysis, Fuel Cells, Wastewater Treatment, CO ₂ Reduction
Dr. Rajagopalan Srinivasan	Safety, Sustainability and Resilience of Complex Systems, Cognitive Engineering, Supply Chain Management and Enterprise Optimisation
Dr. Rajnish Kumar	Gas Hydrates (Formation, Inhibition and Recovery), Carbon Dioxide Capture, Storage and Utilisation Methane and Hydrogen Storage Hydrothermal Liquefaction at Subcritical and Supercritical Conditions
Dr. Ramanathan S	Electrochemistry, Chemical Mechanical Planarisation for Semiconductor Processing
Dr. Ravi R	Applied Statistical Mechanics, Foundations of Thermodynamics and Mechanics, Process Dynamics and Control
Dr. Ravi Krishna R (Head)	Bioaerosols, Contaminant Fate and Transport, Aerosol Dynamics
Dr. Renganathan T	Multiphase Systems, Gasification, Capture of CO ₂
Dr. Shankar Narasimhan	Process Design, Data Mining, Fault Diagnosis
Dr. Sreenivas Jayanti	Fuel cells, combustion, energy systems
Dr. Sridharakumar Narasimhan	Process System Engineering, Optimisation, Process Control, Fault Diagnosis
Dr. Susy Varughese	Physics and Mechanics of Polymeric Materials, Polymeric Nano Composites
Dr. Tanmay Basak	Microwave Application, Mathematical Modelling and Simulation
Dr. Upendra Natarajan	Polymer Science and Engineering, Molecular Simulation, Statistical Thermodynamics of Complex Fluids, Nanostructured Hybrid Composite Materials
Dr. Vinu R	Thermo-catalytic Conversion of Biomass to Useful Intermediates, Photocatalysis for Environmental Decontamination, Microkinetic Modelling of Complex Reactions
Associate Professors	
Dr. Aravind Kumar Chandiran	Solar Cells, Solar Water Splitting, Carbon Dioxide Reduction, Photoconductivity, Oxide Semiconductors and Solar Energy Research

Dr. Sumesh P Thampi	Hydrodynamics of Complex Fluids, Interfacial Flows, Active Matter
Dr. Jithin John Varghese	Atomistic and Computational Modelling of Catalytic Reactions: Catalytic Conversion of Light Alkanes, Biomass Derivatives and Carbon Dioxide to Fuels and Chemicals
Assistant Professors	
Dr. Himanshu Goyal	Clean Energy (Biofuels and Carbon Dioxide Capture), Process Intensification, Multiphase Reactors, Multiscale Modelling, Computational Fluid Dynamics (CFD), Uncertainty Quantification (UQ), High Performance Computing (HPC)
Dr. Ramnarayanan R	Applying Physical Chemistry Concepts to Biology, Light and State of Matter Interaction, Solid State Materials
Dr. Tarak Patra	High Throughput Materials Design, Soft and Nano Materials, Molecular Simulations and Machine Learning, HPC and AI
Dr. Nitin Muralidharan	Development of Novel Critical Material-free Battery Materials for Next Generation Electric Vehicles (EVs) and EVTOL Systems
Dr. Sankha Karmakar	Metal Organic Framework, Membrane Based Separation Process, Water Treatment, Environmental Remediation
Dr. Khushboo Suman	Soft Matter, Synthesis of Nanoparticles, Structure and Dynamics of Colloidal Glasses and Gels, Self Assembly in Physically and Chemically Crosslinking Systems, Structure Property Relationships, Rheology, Scattering and Microscopy of Complex Fluids
Dr. Sagar Sourav	Heterogeneous Catalysis, In-situ and Operando Spectroscopic Characterization of Catalysts, Transient Kinetics and Reaction Studies, Catalytic Hydrocarbon Conversion and Valorization, Carbon Circular Economy (Sustainable Energy and Chemical Production)
Dr. Parul Verma	Computational Neuroscience, Network Neuroscience, Mathematical Modelling, Personalised Medicine, and Chemical Engineering
Professor of Practices	
Shri M. S. Srinivasan	May 05, 2023
Dr. Raghunathan K	May 05, 2023
Dr. Girish Rao	April 29, 2024
Distinguished Professor	
Dr. Sankaran Sundaresan	Professor, Department of Chemical Engineering, Princeton University, USA
Dr. Sanat Kumar	Professor, Department of Chemical Engineering, Columbia University, USA

4.4.3.2. Short-term Courses, Workshops, Seminars, Symposia, Conferences Organised by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	Department Faculty & Members of IOE Centre on Soft and Biological Matter	CompFlu 2023	December 18-20, 2023
Symposia:			
1.	Dr. Madivala G Basavaraj	Chennai Soft Matter Days 2024	February 23-24, 2024
Workshop:			
1.	Dr. R Vinu	Indo-Japan Joint Workshop on Frontiers in Analytical & Applied Pyrolysis for Energy & Environment (FAAPEE 2024)	February 26-27, 2024

4.4.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, Trainings Attended by the Faculty Members in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Workshop:				
1.	Dr. Ethayaraja Mani	Workshop: Modelling & Experiments at the Interface of Polymers and Colloids	Norwegian University of Science and Technology (NTNU) Trondheim, Norway	November 27–December 06, 2023
Seminar:				
1.	Dr. Tarak Kumar Patra	APS March Meeting	The Minneapolis Conversion Centre at USA	March 03-08, 2024
Symposia:				
1.	Dr. R Vinu	International Symposium on Feedstock Recycling of Polymeric Materials (ISFR 2023)	Sendai, Japan	November 06-08, 2023
Conference:				
1.	Dr. Nagarajan	Education Conference and Working Group Summit	Institute of Environmental Science and Technology	November 13-16, 2023
2.	Dr. Rajgopal Srinivasan	Oral Presentation	AIChE at USA	November 05-10, 2023

4.4.3.4. Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Dr. Nagarajan R	USA	May 02, 2023	First Online Meeting of IIT Madras Research Park Alumni Advisory Council Meeting	
2.	Dr. Nagarajan R	USA	May 10, 2023	Paper Presentation: ESTECH 2023, 70th Annual Technical Meeting of the Institute of Environmental Sciences & Technology, Minneapolis, MN, USA	
3.	Dr. Nagarajan R	USA	May 15-18, 2023	CS MANTECH 2023, International Conference on Compound Semiconductor Manufacturing Technology, Orlando, FL, USA	
4.	Dr. Nagarajan R	USA	May 15, June 7, June 29, 2023	Attended Meetings of Board of Directors of Coromandel International Ltd.	

4.4.3.5. Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Awards:					
1.	Dr. Rajnish Kumar	Shanti Swarup Bhatnagar Prize for Science and Technology 2022	Council of Scientific and Industrial Research (CSIR)	Outstanding Research in Engineering	September 26, 2023

2.	Dr. Tanmay Basak	Dr. Y B G Varma Award for Teaching Excellence in Chemical Engineering for the Year 2022	IIT Madras	Teaching Excellence in Chemical Engineering	September 2023
3.	Prof. Basavaraj Madivala Gurappa	Shah-Schulman Award	IChE Award for the Year 2022	Best Ph.D. thesis in the area of Colloid and Interface Sciences	September 2023
4.	Prof. Basavaraj Madivala Gurappa	The Mid-Career Research and Development Award	IIT Madras		April 20, 2023
5.	Prof. Tarak Kumar Patra	The Early-Career Research and Development Award	IIT Madras		April 20, 2023

4.4.3.6. Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1.	Dr. Tanmay Basak	Editor & Editorial Advisory Board	Editor: Heat Transfer, Wiley; Editorial Advisory Board: International Communications in Heat and Mass Transfer, Elsevier; Editorial Advisory Board: International Journal of Numerical Methods for Heat & Fluid Flow, Emerald
2.	Dr. Arun K Tangirala	Editor-in-Chief & Associate Editor	Editor-in-Chief: Journal of the Institution of Engineers India: Series E; Associate Editor: ASME Journal of Dynamic Systems, Measurement and Control
3.	Dr. Rajnish Kumar	Editorial Advisory Board	Editorial Advisory Board: ACS Engineering Au
4.	Dr. Rajnish Kumar	Editorial Advisory Board	Scientific Report, Nature
5.	Dr. R Vinu	Editor & Editorial Board Member	Editor: Advanced Powder Technology, an International Journal of Science and Technology of Powder and Particulate Materials; Editorial Board Member: Journal of Analytical and Applied Pyrolysis
6.	Dr. Raghuram Chetty	Editorial Advisory Board	Fuel Cells Journal, Wiley
7.	Dr. Khushboo Suman	Editorial Advisory Board	Physics of Fluids, American Institute of Physics Publishing
8.	Dr. S Ramanathan,	Associate Editor	Bulletin of Materials

4.4.4. Design and Development Activities:

4.4.4.1. New Facilities Added or Major Equipment Procured:

Sl. No.	Name of Equipment	Value (Rs.)
1.	Shell & Tube Heat Exchanger	1,99,160.00
2.	Rotary Peristaltic Pump	47,549.00
3.	Magnetic Stirrer With Stainless Steel	63,508.00
4.	Sigma High Vacuum Pump	76,700.00
5.	Inner Chamber Size	2,47,800.00
6.	Hot Air Oven With Digital	53,100.00

7.	KEM Digital Refractometer	1,77,000.00
8.	Pellet Making Machine Capacity of the Press	88,500.00
9.	Technico Incubator Shaker	1,72,516.00
10.	Jasco UV-Visible Spectrophotometer	5,78,200.00

4.4.5. Patents:

4.4.5.1. Patents Filed:

Sl. No.	Name of Faculty	Topic of Patent
1.	Jitendra S Sangwai	Chemogel Superabsorbent Formulation for Carbon Capture
2.	Aravind Kumar Chandran	Mechanically Stable Water-resistant Layer for Metal-air Batteries
3.	Shankar Narasimhan	Low Carbon Cost-effective Vapour Recompression Columns Design Using Extended Pinch Analysis
4.	Jitendra S Sangwai	Advanced Photo-reactor for UV-Assisted Wastewater Treatment
5.	Vinu R	A Process For Manufacture of Hydrogenated Hydroxyl Terminated Polybutadiene (Hhtpb) Using Pd-Zr-Activated Charcoal As Catalyst
6.	Ethayaraja Mani	Biodegradable Film for Packaging and Methods Thereof
7.	Jitendra S Sangwai	Packing For Packed Bed Contactor
8.	Kannan A	Process for Preparing Activated Carbon From Prosopis Juliflora Thornbush Plant and Application of the Activated Carbon Thereof
9.	Raghunathan Rengaswamy	Production of Polystyrene Microparticles and Microfibers Using Spinning Disk Equipment
10.	Sreenivas Jayanti	Improved Architecture of Redox Flow Batteries Cells Using Thin, Textured Bipolar Plates and Thick Electrodes
11.	Aravind Kumar Chandiran	Electro-deposition Bath for Recharging the Anode of Mechanically Rechargeable Metal-air Batteries
12.	Rajagopalan Srinivasan	Device and Method for Multi-user Eye-tracking
13.	Raghunathan Rengaswamy	Method and Side-view Mirror System of Vehicle for Monitoring Ambient Parameters During Vehicle Mobility
14.	Abhhijit P Deshpande	Bio-polymer Based Adhesive for Electrical Insulating Components

4.4.5.2. Patents Awarded:

Sl. No.	Name of faculty	Topic of patent
1.	Raghunathan Rengaswamy	Method For Impedance Measurement Using Multiple Phase Shifted Chirp Signals
2.	Aravind Kumar Chandiran	White Light Emission from Single Semiconductor Material Based On Trivalent Mixed Halide Double Perovskites
3.	Raghuram Chetty	A Remote Monitoring System for a Stand-alone Power Generation System and Method Thereof
4.	Aravind Kumar Chandiran	White Light Emission From Single Semiconductor Material Based on Trivalent Mixed Halide Double Perovskites
5.	Nagarajan R	A Formulation Comprising Nano-Scale Anti-Cancer Compound
6.	Nagarajan R	Formulation Comprising Spice Oil Based Nano-Scaled System for Medicinal Applications
7.	Sridharakumar Narasimhan	System And Method For Providing Monitoring And Control Of A Supply In A Cyber-Physical Environment

8.	Pushoavanam S	Method For Fabricating Microfluidic Devices On Porous Substrates
9.	Raghuram Chetty	Clamping Mechanism For Fuel Cell
10.	Raghunathan Rengaswamy	Microfluidic Device with Removable Capillaries
11.	Raghunathan Rengaswamy	A Spinning Disc Atomization Apparatus For Producing Micro-Particles And A Method Thereof
12.	Rajnish Kumar	Effluent Water Purification and Recycle by Gas Hydrate Process in a Reactor System
13.	Pushpavanam S	Device For Continuous Passive Foam Separation In Microfluidic System
14.	Sreenivas Jayanti	Pillar-supported Electrode Felt for Headers of Electrolyte/Reactant Distribution Channels
15.	Aravind Kumar Chandiran	Battery Architecture For Ultrafast Anode Swappable And Scalable Metal-Air Batteries

4.4.6. Research and Consultancy:

4.4.6.1. Sponsored Research Projects: (Ongoing & New)

Sl. No.	Title	Period		Funding Agency	Amount (Rs. in lakhs)	Co-ordinators	
		Start Date	Close Date			Principal Investigator	Co-Principal Investigator(s)
1.	National Carbonaceous Aerosols Programme (NCAP) Working Group-III Project	March 30, 2016	March 31, 2025	Ministry of Environment and Forests	399.47	Ravi Krishna R	Sachin S Gunthe-008502, CE Shiva Nagendra S M-008251, CE
2.	Water Distribution and Sewer Networks	August 23, 2018	June 30, 2024	Department of Science & Technology	33.08	Sridharakumar Narasimhan	Shankar Narasimhan S-002635, CH Murty B S-005017, CE Ravindra Gettu-008190, CE
3.	High-throughput Synthesis of Non-spherical Plasmonic Nanoparticles for Applications in Sensing	February 05, 2021	August 04, 2024	Department of Science & Technology	41.74	Ethayaraja Mani	Raghavendra Sai V V-008493, AM Raghavendra Sai V V-008493, AM
4.	Modelling of Flow, Electrochemical and Thermal Phenomena in High Temperature PEM Fuel Cells	June 22, 2021	June 30, 2024	Defence Research and Development Organisation	26.85	Sreenivas Jayanti	
5.	Understanding the Microstructure and Rheology of Root Derived Mucilage and Its Interactions With Soil in the Context of Plant Physiology	December 30, 2020	June 29, 2024	Science and Engineering Research Board	72.09	Susy Varughese	Abhijit Deshpande P-000354, CH

6.	Process Demonstration of Continuous Hydrothermal Liquefaction for Conversion of Agri and Municipal Solid Wastes to High Value Bio-Crude and Bio-Char	June 29, 2021	June 28, 2024	Department of Science & Technology	150.43	Vinu R	Chakravarthy S R-000351, AE
7.	Catalytic Hydrodeoxygenation of Pyrolytic-oil Produced from Copyrolysis of Agricultural Residue and Plastic Waste	September 07, 2021	September 06, 2024	Department of Science & Technology	32.33	Vinu R	
8.	Bridging the Gap Between Surface Science Studies and Catalytic Reaction Engineering for Oxidative Dehydrogenation of Light Alkanes	April 05, 2021	April 04, 2024	Science and Engineering Research Board	77.94	Jithin John Varghese	Niket Kaisare-008669, CH Selvam P-008267, CY
9.	Drop Spreading and Imbibition of Structured Fluids: Development of a Diagnostic and Screening Tool	April 05, 2021	April 02, 2025	Science and Engineering Research Board	93.04	Abhijit Deshpande P	Susy Varughese-000047, CH
10.	Development of a Techno-Economic Model for the in-situ (underground) Gasification of Indian Lignites	June 28, 2021	June 27, 2024	Science and Engineering Research Board	53.46	Preeti Aghalayam	
11.	Endowing Explanation Abilities to Artificial Intelligence (AI) Methodologies for Process Monitoring and Fault Diagnosis	December 28, 2021	December 27, 2024	Science And Engineering Research Board	33.55	Rajagopalan Srinivasan	
12.	Low Cost, Rapid Detection for Antibiotic Susceptibility of Bacteria Using Lab-on-a-chip Designs That Exploit Chemotactic Responses	January 01, 2022	December 31, 2026	Wellcome Trust	148.43	Pushpavanam S	Richa Karmakar-008999, BT
13.	Physics-based AI-ML models for Predicting Crop Yield at Different Space-Time Scales	January 06, 2022	July 05, 2024	Indian Space Research Organisation	27.35	Arun K Tangirala	

14.	MOF Integrated Smart Textiles (Sweat pads) for Stress Hormone Monitoring	December 12, 2022	December 11, 2024	Science and Engineering Research Board	22.37	Ramanathan S	
15.	Investigation of the Mechanism of Passive Release of Fungal Spores From Solid Substrates	February 07, 2023	February 06, 2026	Science And Engineering Research Board	52.4	Ravi Krishna R	Baburaj A P-008214, AM
16.	Pravartak Research Grant for Dr. Sridharakumar Narasimhan	November 01, 2022	October 31, 2024	IITM Pravartak Technologies Foundation	6	Sridharakumar Narasimhan	
17.	International Congress on Industrial and Applied Mathematics (ICIAM) 2023	May 15, 2023	May 14, 2024	Department of Atomic Energy	2.52	Raghunathan Rengaswamy	
18.	Inspire Fellowship for Mr. Hari Hitesh Desai - CH18D05	August 14, 2019	August 13, 2024	Department of Science & Technology	17.92	Kannan A	
19.	Development of Robust Electrochemical Biosensor Using Aptamers and Metal Binding Peptides to Detect Chikungunya and Dengue Diagnosis	September 25, 2023	September 24, 2026	Department of Biotechnology	60.55	Ramanathan S	Raghavendra Sai V V-008493, AM
20.	1st Phase Evaluation Meeting of Received Proposals Against RD&D in the Area of CCUS Under Mission Innovation (MI) 2.0" from 191h -201h February 2024, In Remote Mode to be coordinated by IIT Madras	February 16, 2024	August 15, 2024	Department of Science and Technology	2.35	Rajnish Kumar	
21.	Establishing Molecular Mechanisms for Efficient Recycling of Mixed Plastics Waste	April 26, 2023	April 25, 2026	Science and Engineering Research Board	27.75	Tarak Kumar Patra	
22.	Experimental and Numerical Investigations of Absorption and Desorption Behaviour of a bi-phasic solvent for CO2 Capture Process	March 10, 2023	march 09, 2026	Science and Engineering Research Board	52.5	Swapna Singha Rabha	
23.	Process Development for Enhanced Carbon Capture From Flue Gas Using Magnetic Nanofluid	March 16, 2024	March 15, 2027	Science and Engineering Research Board	57.58	Jitendra Sangwai	

24.	Structure and Dynamics of Phase-Separation in Intrinsically Disordered Proteins: A Soft Matter Perspective	June 20, 2023	June 19, 2026	Science And Engineering Research Board	58	Abhijit Deshpande P	Ethayaraja Mani-008504, CH
25.	Reactive Transport of the Fractured Porous Media Dynamics of Geological Reservoirs for CO2 Storage	September 15, 2023	September 14, 2026	Science And Engineering Research Board	43.49	Swapna Singha Rabha	
26.	Utilising Mullins-Sekerka Instability to Design Striated Polymer Composites	September 26, 2023	September 25, 2026	Ministry of Education	46.44	Sumesh P Thampi	
27.	Microfluidics-based Sensors for Quantifying Soil Nutrients for Applications in Agriculture	March 04, 2024	March 03, 2025	IIT Madras Pravartak Technologies Foundation	22.68	Pushpavanam S	
28.	3D Printed Protein-Based Textile Fibers	April 12, 2023	October 11, -2024	Ministry of Textiles	100	Ethayaraja Mani	Swathi Sudhakar-009000, AM

4.4.6.2. Industrial Consultancy Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in lakhs)
1.	Vinu R	Technology Development for Biomass Based Thermal Power Plants	Sukhbir Agro Energy Ltd.	188.09
2.	Raghunathan Rengaswamy	New AI-based Methods for Bizjets Prognostic/Predictive Maintenance	Dassault Aviation	64.98
3.	Renganathan T	Hydrodynamic and Liquid Phase Mixing Studies in a Slurry Bubble Column	Hindustan Petroleum Corporation Ltd.	97.35
4.	Sridharakumar Narasimhan	Retainer Consultant on Cyber Physical Systems	IIT Madras Pravartak Technologies Foundation	1.18
5.	Pushpavanam S	Development of Paper Based Microfluidic Sensor for Detection of Azadaracthjin Compounds in Neem Seed	Coromandel International Ltd.	15.86
6.	Nagarajan R	Indian Spice-derived Cancer Nanomedicine: An Effective Strategy in Drug Development	Pratiksha Trust	132.28
7.	Aravind Kumar Chandiran	Green Electrification - A 100% Renewable Powered Office at IIT Madras	L And T Technology Services Ltd.	126.00
8.	Vinu R	Process Demonstration of Continuous Hydrothermal Liquefaction (HTL) for Conversion of Agri and Municipal Solid Wastes to High Value Bio-crude and Bio-char	Valmet Technologies Pvt. Ltd.	20.96

9.	Raghuram Chetty	HR-SEM Analysis CH -Phase II	Common Code	29.50
10.	Raghuram Chetty	HR-SEM Analysis CH - Phase II	Common Code	10.00
11.	Vinu R	Pyrolysis Kinetics of Biomass, Pretreated Biomass and Solid Waste Mixtures	Shell India Markets Pvt. Ltd.	33.98
12.	Vinu R	Biomass Fuel Characterisation and Optimisation of Biomass Pelletisation, Pellet Combustion and Its Performance for Coal-Biomass Fuel Blends	Saint Gobain India Pvt. Ltd. (Research & Development)	93.74
13.	Vinu R	Development of a Novel Multi-Swirl Plasma Reactor For Producing Hydrogen, Carbon and Ammonia	SEID AS	104.10
14.	Raghuram Chetty	Development of a 250 W Compact Polymer Electrolyte Membrane (PEM) Fuel Cell Stack	Schaeffler India Ltd.	50.00
15.	Vinu R	Valorisation of Waste Plastics to Valuable Crude/Chemicals Through Catalytic Hydrothermal Liquefaction	SIA Terrawaste	70.00
16.	Rajnish Kumar	Development of CO2 Scrubbing System at IIT Madras	Larsen & Toubro Limited-Construction- Heavy Civil Infrastructure	90.77
17.	Vinu R	Catalytic Hydrodeoxygenation of Pyrolytic Oil Produced From Coprolysis of Agricultural Residue and Plastic Waste	Hindustan Petroleum Corporation Ltd.	12.98
18.	Sreenivas Jayanti	Testing of Membranes for Vanadium Redox Flow Battery Applications	Vimano Ewa Pvt. Ltd.	2.83
19.	Rajnish Kumar	Continuous Process for Waste Water Purification and Recycle by Gas Hydrate Process (Bench Scale Study-phase-II)	Gas Authority Of India Limited	94.40
20.	Vinu R	Understanding of Bio-char Passivation for Safe Storage & Scale-up: Characterization, Chemistry & Kinetics	Shell India Markets Pvt. Ltd.	52.04
21.	Rajagopalan Srinivasan	Explainable AI(XAI) Based Machine Learning (ML) Approaches for Automatic Target Recognition (ATR) in Main Battle Tanks	Combat Vehicles Research and Development Establishment	85.83
22.	Basavaraja Madivala Gurappa	Fuel Blend Characterisation	ISRO Propulsion Complex	12.74
23.	Nagarajan R	Heritage Centre Development Fund	Donors	1000.00

24.	Vinu R	Process Development for Salt Recovery From Ash Treatment Bleed Stream Through Crystallisation	Valmet Technologies Private Limited	16.14
25.	Vinu R	Ion Chromatograph and Curie point Micropyrolyzer GCMS	Common Code - Consultancy	11.80
26.	Vinu R	Ion Chromatograph and Curie point Micropyrolyzer GCMS	Common Code - Consultancy	10.00
27.	Sumesh P Thampi	Hydrodynamic Response of a Micro-Swimmer in a Microchannel	I-Hub Foundation For Cobotics	33.75
28.	Vinu R	Evaluation of Hydrothermal Liquefaction Bio-crude from Hydrolysis Lignin as a Partial Replacement of Bitumen	BioEnergO Oy	30.96
29.	Himanshu Goyal	Project Sookha: Predicting Adsorption Kinetics in a Dehydration Unit for Gas Treating Applications	Shell India Markets Pvt. Ltd.	9.06
30.	Jitendra Sangwai	Large-scale CO ₂ Capture From High Sulfur Flue Gas Exhaust From Coal-Fired Power Plants	Sembcorp Energy India Ltd.	71.30
31.	Vinu R	Process Optimisation of Supercritical CO ₂ Pre-Treatment of Biomass for 2G Green Ethanol	Cybernetik Technologies Pvt. Ltd.	30.44
32.	Abhijit Deshpande P	Testing for Polymer Engineering and Colloid Science Group - Phase II	Common Code - Consultancy	5.00
33.	Abhijit Deshpande P	Testing for Equipment in Polymer Engineering and Colloid Science Group - Phase II	Common Code - Consultancy	40.40
34.	Swapna Singha Rabha	Increased Iron Coordination With Amine Solvent Decomposition	Shell India Markets Pvt. Ltd.	14.16
35.	Basavaraja Madivala Gurappa	Vaarahi: Lignin Interfacial Characterisation	Shell India Markets Pvt. Ltd.	18.69
36.	Basavaraja Madivala Gurappa	Project Coorg: Product Innovation by Controlling Drop Evaporation	Shell India Markets Pvt. Ltd.	13.03
37.	Himanshu Goyal	Direct e-catalytic Processes	Shell India Markets Pvt. Ltd.	33.98
38.	Pushpavanam S	Affordable Paper-based Sensor for Detection of High-risk HPVs Associated With Cervical Cancer	Syngene International Ltd.	180.00
39.	Raghunathan Rengaswamy	Artificial Intelligence Based Model for Formulation and Process Design	Pfizer Healthcare India Pvt. Ltd.	19.36
40.	Raghunathan Rengaswamy	Evaluation of DGQI	Development Monitoring and Evaluation Office	48.00
41.	Aravind Kumar Chandiran	Preproposal for Setting up Test Bed for Solid Oxide Electrolyser/ Fuel Cells	Yokogawa Technology Solutions India Pvt. Ltd.	97.92

42.	Vinu R	Pyrolysis Study of Sludge Samples	Aarksee Green Arabia	2.40
43.	Raghunathan Rengaswamy	IOT Based Alert System to Monitor - Access Control, PPEs Monitoring & Health Vitals	Hero Wind Energy Pvt. Ltd.	2.95
44.	Aravind Kumar Chandiran	Analysis of Energy Storage Opportunities for Industrial Load Profile	Aditya Birla Science and Technology Company PPvt. Ltd.	12.74
45.	Raghunathan Rengaswamy	Developing Spatiotemporal Air Quality Assessment Package for High Resolution Air Quality Networks	Translational Health Science And Technology Institute (THSTI)	9.94
46.	Rajnish Kumar	Porous Organic Ligands Based Solid Heterogeneous Catalyst for Hydroformylation	Shell India Markets Pvt. Ltd.	87.91
47.	Rajagopalan Srinivasan	AI based Smart PPE Monitoring in Research Laboratories	Pfizer Healthcare India Pvt. Ltd.	51.92
48.	Aravind Kumar Chandiran	Direct Electrolysis of Iron Ore to Metals	GE Oil and Gas India Pvt. Ltd.	48.14
49.	Himanshu Goyal	Microwave Assisted Chemistries Towards a Sustainable Future	Pfizer Healthcare India Pvt. Ltd.	60.00
50.	Sankha Karmakar	Familiarization of Crossflow Approach and Its Components in Application Aspects and Demonstration on Lab Scale	Pfizer Healthcare India Pvt. Ltd.	46.73
51.	Abhijit Deshpande P	Textile Lubricants - Benchmarking of Polyisobutylene Rheological Response and Development of Alternative Sustainable Systems	Totalenergies One Tech	12.76

4.4.7. Distinguished Visitors to the Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Dr. Tabish Nawaz, Environmental Science and Engineering, IIT Bombay	April 26, 2024	Guest Lecture on Developing Environmental Remediation Technology Coupled-with Resource Recovery and Waste-to-Wealth Strategies
2.	Dr. Ju Dong Lee Executive Director in Offshore Plant Resources R&D Center at Korea Institute of Industrial Technology (KITECH)	February 20, 2024	Guest Lecture on Hydrate-based Desalination and Water Treatments
3.	Prof. (Emeritus) Dr. K. Seshan Faculty of Science & Technology, University of Twente, The Netherlands	January 18, 2024	Guest Lecture on Hydrogen from Biomass Wastes via Aqueous Phase Reforming
4.	Dr. Rama Venkatesan General Manager of Fluid Flow and Reactor Engineering at Shell Technology Center	January 05, 2024	Guest Lecture on Applications of Fluid Flow and Reactor Engineering in Shell

5.	Dr. Gopalakrishnan Kumar, University of Stavanger, Norway	November 30, 2023	Guest Lecture on Circularity via Advanced Environmental Biorefinery: Scandinavian Perspective
6.	Prof. Siddharth Deshpande Assistant Professor of Chemical Engineering at the University of Rochester	October 30, 2023	Guest Lecture on Atomic Modelling of Next Generation Heterogeneous Catalytic Systems
7.	Dr. Sankaran Sundaresan Professor of Chemical and Biological Engineering, Norman John Sollenberger Professor in Engineering Princeton, NJ 08544	September 21, 2023	Interactive Session
8.	Dr. Aditya Bhan Department of Chemical Engineering and Materials Science University of Minnesota, Twin Cities, Minneapolis, MN	July 25, 2023	Guest Lecture: All that Most Maddens and Torments in Catalytic C1 Conversion
9.	Dr. Dharik S Mallapragada Principal Research Scientist at the MIT Energy Initiative (MITEI)	May 25, 2023	Seminar: Advancing Systems Modelling to Support Technology Innovation and the Transition to a Deeply Decarbonised Energy System

4.4.8. Other Activities of the Department/Centre:

4.4.8.1. Faculty Visit

Sl. No.	Name of the Faculty Member	Purpose of Visit	Date & Venue
1.	Dr. R Vinu	Research Collaboration	September 25-26, 2023. University of Stavanger, Norway
2.	Dr. R Vinu	Research Collaboration	September 27-28, 2023. Abo Akademi University in Turku, Finland
3.	Dr. Vinu	Research Collaboration	September 29-30, 2023. Aarhus University, Denmark
4.	Dr. Swapna singha Rabha	Academic Activity	September 25-29, 2023. Hemlmholtz-Zentrum Dersden- Rossendorf
5.	Dr. Raghunathan Rengaswamy	Time Higher Education World Academics Summit	June 22-September 04, 2023. Australia
6.	Dr. Himanshu Goyal	Australian Awards Fellowship Program	November 13-27, 2023. University Of Sydney, Australia
7.	Dr. Tarak kumarpatra	Laboratory Visit	October 30-November 04, 2023. University of South Florida, USA
8.	Dr. Rajagopalan Srinivasan	Sabbatical Leave and Research Collabrations	August 01-November 30, 2023. Canada
9.	Dr. Raghuram Chetty	Australian Awards Fellowship Program	November 12-December 02, 2023. University Of Sydney, Australia
10.	Dr. Rajnish Kumar	Australian Awards Fellowship Program	November 12-23, 2023. University Of Sydney, Australia
11.	Dr. Raghunathan Rengaswamy	Visit IITM Zanzibar Campus	January 16-31, 2024. IITM Zanzibar
12.	Dr. Raghunathan Rengaswamy	Visit IITM Zanzibar Campus	February 29-March 14, 2024. IITM Zanzibar

4.5. Department Of Chemistry

4.5.1. Introduction

The Department of Chemistry was a part of the Department of Chemical Engineering from 1959-1961 and became an independent Department in 1961 with Prof. V Srinivasan as the Head-in-Charge. Prof. M V C Sastri assumed charge as the first Head of the Department in November 1961. He was instrumental in building the Department as well as the Applied Chemistry Building (completed in 1973). Prof. Sastri was also responsible for the Special Instruments Laboratory (established in 1970; later known as RSIC and presently known as SAIF), and the MSRC

(established in 1974 with Prof. Sastri as the Head and Prof. V Srinivasan as the Associate Head). The Department offers M.Sc. and Ph.D. programmes in Chemistry. As of date, 1192 students have graduated with the M.Sc. degree and 908 students with the Ph.D. degree. Various aspects of Chemistry are also taught at the preparatory level (for weaker section students) and in the B.Tech. programme (core as well as minor stream courses in Chemistry). The Department is well-equipped with modern instrumentation facilities and actively engaged in performing quality teaching and research in frontier areas.

4.5.2. Academic Programmes:

4.5.2.1. New Courses Introduced:

Sl. No.	Course No.	Title
1.	ID5011	A Hybrid Course on Water Quality: An Approach to People's Water Data
2.	ID5031	Innovation and Entrepreneurship - A Multidisciplinary Approach

4.5.2.2. New Lab(s) Established:

Sl. No.	Faculty	Location
1.	Prof. Kothandaraman Ramanujam	MSRC: 203, 207, 208, 210
2.	Dr. Sudam G Dawande	A New Organic Chemistry Lab by Combining CY 119 & 120
3.	Dr. Krishna Reddy Nandipati	CY 215
4.	Dr. Soumen Ghosh	CY 217

4.5.2.3. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024:

Programme	I year	II Year	III Year	IV Year	V Year & others	Total
M.Sc.	65	67	-	-	-	132
M.S.	2	-	-	-	-	02
Ph.D.	29	37	38	39	66	209
Total	96	104	38	39	66	343

4.5.2.4. Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Sriparna Sarkar	CY18D006	7th International Symposium on Frontiers in Polymer Science	May 28, 2023. Gothenburg, Sweden	
2.	Manaswini Ray	CY17D002	17th International Symposium on Macrocyclic and Supramolecular Chemistry (ISMSC-2023)	June 24 - 28, 2023, Harpa Conference & Concert Centre, Reykjavik, Iceland	Department
3.	Chandra Shekhar Tiwari	CY18D005			
4.	Shashi Kumar	CY18D061			
5.	Moumita Sarkar	CY18D064			
6.	Shruti Sharma	CY17D003			
7.	Pragyansmruti Sunani	CY18D069			
8.	Tapan Kumar Ghosh	Cy17D015	16th International Conference on Materials Chemistry (MC-16)	July 02 - 05, 2023. University College Dublin, Ireland	Department
9.	Jayoti Roy	CY18D024			
10.	Gaurav Vishwakarma	CY18D030			
11.	Spoorthi B K	CY18D090			
12.	Soniya Mariya Varghese	CY18D301			
13.	Sweta Thangriyal	CY17D045			
14.	Gaurav Vishwakarma	CY18D030	10th International Conference on Gas Hydrates (ICGH10)	July 08 - 13, 2023. Suntec Singapore International Convention & Exhibition Centre	Department
15.	Shambhavi C N	CY19D018	22nd European Symposium on Organic Chemistry	July 09 - 13, 2023.	Ghent, Belgium
16.	Subhash Bairagi	CY17D200	The International Meeting on Boron Chemistry (IMEBORON 17)	July 09 - 13, 2023. University of Rennes 1, France	Department
17.	Suvam Saha	CY18D009			
18.	Ketaki Kar	CY19D055			
19.	Sachind Prabha P	CY18d022	Materials Today Conference 2023	August 01 - 04, 2023. Singapore Expo, Singapore	Department
20.	Indrajit Das	CY18d110			
21.	Asit Kumar Pradhan	CY18D127	IUPAC CHAINS2023	August 19 - 24, 2023. World Forum, The Hague, Netherlands	Department
22.	Leena Sushmita Barla	CY18D121			
23.	Sonali Sahu	CY18D118			
24.	Soumi Roy	CY18D033			
25.	Swatilekha Pratihari	CY17D043			

26.	Deboki Reja	CY18d021	EuChemS CompChem 2023	Thessaloniki, Greece August 26 - 28, 2023.	Department
27.	Chandan Kumar Giri	CY18D114	6th EuChemS Conference on Green and Sustainable Chemistry	September 02 - 05, 2023. Salerno, Italy	Department
28.	Richa Sharma	CY18D032	EUCHIS 23	September 10 - 13, 2023. Siglufjordur, Iceland	Department
29.	S Jenifer	CY17D300	RSC Water at Interfaces Faraday Discussions	September 19 - 21, 2023. The Royal Society of Chemistry, Burlington House, UK	Department
30.	Sriparna Sarkar	CY18D006	4th World Conference on Chemistry and Chemical Engg	November 13 - 14, 2023. Bangkok Thailand	Department
31.	Anagha Jose	CY19D752	Gordon Research Conferences	January 31 - April 29, 2024.	Project
32.	Aravindan N	CY19D057	International Symposium on Catalysis and Fine Chemicals (C&FC2023)	November 27 - December 08, 2023. Tokyo Metropolitan University (Minami- Osawa Campus)	Department
33.	Logeswaran R	CY18D115			
34.	Deepak Kumar Patel	CY21D001	Gordon Research Conferences	February 03 - 04, 2024. Galveston, Texas, United States	Project
35.	Baiju C	CY18D117	ACS Regional Middle East and Africa (MEA) Conference: Chemistry for Future Sustainable Societies	New York University Abu Dhabi, UAE	Department
36.	Prabukumar B	CY20D019	Suprachem 2024	Ulm University	Department
37.	Bijesh Kumar Malla	CY20D068	International Immersion Experience (IIE) Travel	University of Houston	Project
38.	Sooraj B S	CY19D064	Research Lab Visit for Collaboration Work	Claude Bernard University Lyon1	Project
39.	L K Nivedha	CY18D026	Renewable Energy Conference (REN 2023)	October 22 - 24, 2023. Mercure Paris Charles De Gaulle & Convention, Paris, France	Department
40.	Sandeep Kumar Mohapatra	CY18D105			
41.	Priya V	CY18D106			
42.	Harun Khan	CY18D088			
43.	Potham Sravani	CY18D131			
44.	Richa Gupta	CY18D104			
45.	Krateeka	CY18D001			
46.	Nagaraju Ponugoti	CY19D750	Beilstein Organic Chemistry Symposium 2023 (π-Conjugated Molecules and Materials)	November 06 - 08, 2023. Limburg, Germany	Project

47.	Swati Panigrahi	CY20D049	Garnet synthesis for high voltage cathode material	October 07 - January 01, 2024. Kyushu University, Japan	Project
48.	Swetashree Acharya	CY19D754	Atomically Precise Nanochemistry GRC 2024	February 02 - 08, 2024. Galveston, Texas, United States	Project
49.	Subrata Duary	CY20D0750	Gordon Research Conferences	November 03 - 09, 2023. Galveston, Texas, United States	Project
India					
1.	Shuchi Sharma	CY18D109	Two Days International Conference on Women in Electrochemistry (ICWEC 2023)	June 04, 2023. IISc Bengaluru	Department
2.	Archana PP	CY19D027	Workshop on Technical and Scientific Writing	May 14, 2023. HSB, IIT Madras	Department
3.	Anjana E	CY19D751			Project
4.	Bignya Rani Dash	CY20D126	IITM Technical and Science Writing Workshop	May 14, 2023. IIT Madras	Department
5.	Sachind Prabha P	CY18D022	3rd International Conference on Recent Trends in Analytical Chemistry	June 25 - 27, 2023. University of Madras, Guindy	Department
6.	Baiju C	CY18D117			Department
7.	Harun Khan	CY18D088	International Conference on Energy Conversion and Storage (IC-ECS - 2023)	June 20 - 22, 2023. Amrita School of Physical Sciences, Coimbatore Campus	Department
8.	Nagaraju Ponugoti	CY19D750	International Conference on Organic and Medicinal Chemistry - 2023 (ICOMC - 2023)	June 27 - 29, 2023. National Institute of Technology, Warangal	Department
9.	Prathap R	CY19D006	31st CRSI National Symposium in Chemistry (CRSI NSC-31) and ACS Symposium Series in Chemistry	July 05 - 07, 2023. NIT Rourkela	Department
10.	Sujit Das	CY19D059			
11.	Sangita Sahoo	CY20D015			
12.	Misba Siddique	CY20D016			
13.	Harsha K Sasidharan	CY20D073			
14.	Sonam	CY21D149			
15.	Kalpak	CY23D049	Classical ML for a Quantum Computer: Predicting Molecular Ground State Energies	April 12, 2023. IBM-IITM Industry Day, IITM Research Park	
16.	Khushboo	CY21D042	International Conference on Advances in Photovoltaic Materials and Devices (APMD 23)	June 02 - 04, 2023. Online Conference	
17.	Ankita	CY21D082			

18.	Sumit Kumar	CY21D079	Quantum Computing for Natural Sciences (with IBM Quantum) Conducted by IBM	June 06 - 26, 2023. Online Conference	
19.	Ankita Narwal	CY21D082	CiHS - 2023	August 23, 2023. IIT Madras	
20.	Babuji Dandigunta	PH21D300	Workshop on Technical and Scientific Writing	July 17 - 21, 2023. IIT Madras	
			International Conference on Materials Genome - III (ICMG-III)	February 17 - 23, 2024. SRM University, Andhra Pradesh	
21.	Subhadeep	CY16D038	Chemistry-Academia Industry Meet 2023	August 10, 2023. Department of Chemistry, IIT Madras	
22.	Samir	CY20D148			
23.	Ankita	CY21D082			
24.	Khushboo	CY21D042			
25.	Sumit	CY21D079			
26.	Kalpak	CY23D049			
27.	Jijith M	CY21D301	National Workshop on Fluorescence and Raman Spectroscopy (FCS XIV)	December 13 - 18, 2023	
28.	Samir Kumar Nayak	CY20D148	CoE-Winter School 2023	December 10 - 14, 2023. IIT Madras	Project
			TCS	December 07 - 10, 2023	Project
29.	Richa Sharma	CY18D032	ICC-ICCS 2023	December 07 - 08, 2023. Sarla-Basant Birla Auditorium, Kolkata	Department
			SPSI MACRO 2023	December 09 - 12, 2023. IIT Guwahati	
30.	Ankita	CY21D082	TCS	December 07 - 10, 2023. IIT Madras	Project
31.	Chandan Kumar Giri	CY18D114	XVIII-JNOST-2023	October 09 - 11, 2023. Indian Institute of Science Education and Research	Department
32.	Bignya Rani Dash	CY20D126	ESMAC 2023	November 17 - 19, 2023. Kalinga Institute of Industrial and Technology	Department
			NCTCBS 2023	October 24 - 27, 2023. Rashtrasant Tukadoji Maharaj Nagpur University	
33.	Asit Kumar Pradhan	CY18D127	ESMAC 2023	November 17 - 19, 2023. KIIT- Campus, Bhubaneswar	Department
34.	Anagha Jose	CY19D752	ICANN 2023	November 28 - 30, 2023. IIT Guwahati	Project
35.	Swetashree Acharya	CY19D754			Project

36.	Prabukumar B	CY20D019	GCRC-2023	December 06 - 08, 2023. GITAM Deemed to be University	Department
			ICAC-2023	December 03 - 04, 2023. The American College	Department
37.	Tanmayaa Nayak	CY20D050	3rd International Conference on Water Technologies	December 03 - 08, 2023. Water Innovation Centre, IIT Bombay	Department
38.	Ashish Chander Satti	CY20D091	J-NOST	October 09 - 11, 2023. IISER Pune	Department
39.	Sandeep Kumar Mohapatra	CY18D105	NSEST - 2023	August 16 - 17, 2023.	Department
40.	Amoghavarsha R Kini	CY19D065	Atomically Precise Nanochemistry	February 02 - 04, 2024. Galveston, Texas, United States	Department
			Nanomechanical Investigations on Crystals of Tetranuclear Copper Clusters Protected by Isomeric Carborane-thiols, ICANN -2023	November 29 - December 01, 2023	Department
41.	Saurav Ghosh	CY20D144	CHiS	August 22, 2023. IC&SR	Department
42.	Sujit Das	CY19D059			
43.	Pandidurai S	CY18D012	XVIII J-NOST 2023 Conference	October 09 - 11, 2023. IISER Pune	Department
44.	Suman Ghosh	CY21D012	31st CRSI-NSC & CRSI-ACS Symposium Series in Chemistry	July 05 - 07, 2023. NIT Rourkela	Project
45.	Leena Sushmita Barla	CY18D121	Science and Technical Writing Workshop	July 16 - 20, 2023. IIT Madras	Department
46.	Athira K K	CY18D085	NCTCBS 2023	October 24 - 27, 2023. Rashtrasant Tukadoji Maharaj Nagpur University	Department
47.	Kalpak Ghosh	CY23D049	TCS-2023	December 07 - 10, 2023. IIT Madras	Department
48.	Ankita Narwal	CY21D082			
49.	Sumit Kumar	CY21D079			
50.	Pramod Kumar Verma	ic38804			
51.	Samir Kumar Nayak	CY20D148			
52.	K M Shelly	CY19D753	International Conference on Chitosan & 10th Indian Chitin Chitosan Symposium	December 06 - 08, 2023. Sarala - Basant Birla Auditorium, Artsacre Foundation	Project

53.	Keerthana M S	CY18D011	IFSC Conference	December 08 - 13, 2023. IISER, Trivandrum	Department
54.	Karunamayee Mondal	CY21D002			Project
55.	R Logeswaran	CY18D115			Department
56.	Chandra Shekhar Tiwari	CY18D005			
57.	Sriparna Sarkar	CY18D006	MTIC XX	December 13 - 16, 2023. IISc Bengaluru	Department
58.	Sinchan Mukhopadhyay	CY21D053	International Conference on Molecular Matter - Emerging Directions for Sustainability	December 15 - 17, 2023. IC & SR Auditorium, IIT Madras	Department
59.	Tanmayaa Nayak	CY20D050			
60.	Bijesh Kumar Malla	CY20D068			
61.	Siddique Khan	CY18D130	XVII J-NOST Conference 2023	October 09 - 11, 2023. IISER Pune	Department
62.	Bijesh Kumar Malla	CY20D068	Vikram Discussions on Astrochemistry and Astrobiology	December 28, 2023 - January 03, 2024. PRL Ahmedabad	Department
63.	Sudhin R	CY23D036	Theoretical Chemistry Symposium 2023 (TCS-2023)	December 06 - 09, 2023. IIT Madras Research Park	Department
64.	Madhurja Buragohain	CY22D015			
65.	Sonam	CY21D149			
66.	Harsha K Sasidharan	CY20D073			
67.	Sujan Manna	CY20D065	International Conference on Molecular Matter - Emerging Directions for Sustainability (ICMM 2023)	December 10 - 17, 2023. IIT Madras	Department
68.	Shashi Kumar	CY18D061			
69.	Moumita Sarkar	CY18D064			
70.	Soham Chowdhury	CY21D081			
71.	Keerthana Unni	CY21D072			
72.	Sooraj B S	CY19D064			
73.	JogeswarChhatraia	CY22D017			
74.	Harshita Nagar	CY22D058			
75.	Ashish Kumar	CY20D001	MTIC XX	December 13 - 16, 2023. IISc Bengaluru	Department
76.	Stutee Mohapatra	CY20D075			
77.	Ankita	CY21D082			
78.	Sujit Das	CY19D059			
79.	Gopika S Madhu	CY19D070	TSRP 2024	December 10, 2023 - January 06, 2024. DAE Convention Centre, Anushaktinagar Bhabha Atomic Research Centre	Department
80.	Bishnupriya Kar	CY19D028			
81.	Harsha K Sasidharan	CY20D073	One Week Online Workshop on Quantum Espresso	December 10 - 16, 2023. Online	Department

82.	Amit Debnath	CY19D041	32nd CRSI National Symposium in Chemistry (CRSI-NSC-32)	January 31 – February 03, 2024. Department of Chemistry, BITS Pilani-Pilani Campus	Department
83.	Saurav Ghosh	CY20D144			
84.	Celin Rooth	CY20D133	TSRP 2024	BARC Mumbai January 06 – 10, 2024	Department
85.	Bignya Rani Dash	CY20D126			
86.	Leena Sushmita Barla	CY18D121			
87.	Asit Kumar Pradhan	CY18D127			
88.	Potham Sravani	CY18D131	National Convention of Electrochemists	January 03 – 04, 2024. SRM University, Kattankulathur	Department
89.	Mohana Priya D B	CY20D045			
90.	Soham Chowdhury	CY21D081	42nd Meeting of the Astronomical Society of India – ASI 2024	January 31 – February 03, 2024. IISc Bengaluru	Department
91.	Ankita	CY21D082	COE Winter School 2023	December 10 – 14, 2023. IIT Madras	Project
92.	Sujan Manna	CY20D065	RAM-90 and International Winter School 2023	December 03 – 08, 2023. JNCASR, Bengaluru	Department
93.	Bishnupriya Kar	CY19D028	Spectroscopy and Dynamics of Molecules and Clusters	February 21– 24, 2024. Borgos Resort, Kaziranga	Department
94.	Gopika S Madhu	CY19D070			
95.	Madhurja Buragohain	CY22D015	JNCASR – CECAM Conference	February 25 – 28, 2024. JNCASR Bengaluru	Project
96.	Sudhin R	CY23D036			
97.	Mohana Priya D B	CY20D045	International Conference Electro Industry Health Environment CO2 Centre	February 07 – 09, 2024. VIT Vellore	Department
98.	Dilip Kumar Tiwari	CY19D067	2nd International Conference on Novel Materials and Technologies for Energy and Environment Applicant	February 16 – 17, 2024. BITS Hyderabad	Department
99.	Samir Kumar Nayak	CY20D148	3rd International Conference and Workshop on Materials Genome (ICMG-III)	February 17 – 23, 2024. SRM, AP, Amaravati	Department
100.	Soniya Mariya Varghese	CY18D301	Novel Materials and Technologies for Energy Applications	February 16 – 17, 2024. BITS Hyderabad	Department
101.	Karunamayee Mondal	CY21D002	PMRF Symposium 2024	January 31 – February 03, 2024. CRSI Conference	Project
102.	Nemichand	CY20D038	Emerging Trends in Catalysis and Synthesis 2024	IIT Kharagpur	Department

103.	Sonam	CY21D149	Modern Trends in Chemical Sciences (MTCS)-2024	February 15 - 16, 2024. IIT Tirupati	Department
104.	Sangita Mondal	CY21D150			
105.	Karunamayee Mondal	CY21D002	PMRF Symposium 2024	March 02 - 03, 2024. PMRF Symposium 2024	Project
106.	Swati Lekha Mondal	CY20D033	32nd CRSI NSC	January 31 - February 03, 2024. & BITS Pilani	Department
107.	Harsha K Sasidharan	CY20D073			
108.	Ananya Dutta	CY20D017			
109.	Priyambada Prusty	CY20D021			
110.	Sindoori	CY19D049	32nd CRSI NSC	January 31 - February 03, 2024. & BITS Pilani	Department
111.	Surabhi Mishra	CY20D023			
112.	Sujit Das	CY19D059			
113.	Sonam	CY21D149			
114.	Suresh Kumar Yadav	CY19D048	International Conference on Frontiers in Catalysis-2024	February 03 - 04, 2024. Central University of Rajasthan, Ajmer	Department
115.	Koushik Patra	CY20D142	IFSC-2023	December 09 - 12, 2023. IISER Thiruvananthapuram	Project
116.	Chandan Kumar Giri	CY18D114			Department
117.	Riya Dutta	CY23D071	Molecular Matter- Emerging Directions for Sustainability	December 15 - 17, 2023. IIT Madras	Department
118.	Atrayee Datta	CY23D012	International Conference on Molecular Materials	December 15 - 17, 2023. IIT Madras	Department
119.	Anubhav Mahapatra	CY23D044	ICMM 2023	December 15 - 17, 2023. IC&SR	Department
120.	Akshaya K V	CY17D025	J-NOST 2023	October 09 - 11, 2023. IISER Pune	Department
121.	Asit Kumar Pradhan	CY18D127	Workshop on Technical and Scientific Writing	July 16 - 20, 2023. IIT Madras	Department
122.	Celin Rooth	CY20D133	Workshop on Technical and Scientific Writing	November 26 - 30, 2023. IIT Madras	Department
123.	Chandra Shekhar Tiwari	CY18D005	International Conference on Modern Trends in Inorganic Chemistry (MTIC XX)	December 13 - 16, 2023. IISc Bengaluru	Department
124.	Shashi Kumar	CY18D061			
125.	Moumita Sarkar	CY18D064			
126.	Sudhin R	CY23D036	Technical Workshop by Remark Skill and E-Cell	September 22 - 23, 2023. IIT Hyderabad	Department
127.	Shivankan Mishra	CY20D003	MTIC	December 13 - 16, 2023. IISc Bangalore	Department
128.	Stutee Mohapatra	CY20D075			
129.	Prabukumar B	CY20D019	Technical and Scientific Writing	November 26 - 30, 2023. IIT Madras	Department
130.	M Bakkiyaraj	CY19D047	JNOST-2023	October 09 - 11, 2023. IISER Pune	Department

131.	Jijith M	CY21D301	National Workshop on Fluorescence and Raman Spectroscopy (FCS XIV)	December 08 - 13, 2023. IISER Mohali	Project
132.	Deboki Reja	CY18D021	TCS-2023	December 06 - 09, 2023. IIT Madras	Department
133.	K M Shelly	CY19D753	SPSI-MACRO-2023 17th International Conference and Technology	November 09 - 13, 2023. IIT Guwahati	Project
134.	Leena Sushmita Barla	CY18D121	ESMAC -2023	November 17 - 19, 2023. KIIT Bhubaneswar	Department
135.	Jayoti Roy	CY18D024	International Conference on Molecular Matter - Emerging Directions for Sustainability 2023	December 15 - 17, 2023. IIT Madras	Department
136.	Khushboo	CY21D042	Theoretical Chemistry Symposium 2023 CoE Winter School	December 06 - 09, 2023. IIT Madras Research Park	Department
137.	Subhadeep Banerjee	CY16D038			
138.	Subhadeep Banerjee	CY16D038			
139.	Khushboo	CY21D042			
140.	Sumit Kumar	CY21D079		December 10 - 14, 2023. Department of Chemistry, IIT Madras	Department
141.	Arjun Ravikumar	CY20D301	8th Asia Conference on Environment and Sustainable Development (ACESD 2023)	November 02 - 04, 2023. Sapporo, Hokaido	Department
142.	Sriparna Sarkar	CY18D006	Chemical Science Symposium 2023: Chemistry of Polymers	October 25 - 26, 2023. Online	Department
143.	Samir Kumar Nayak	CY20D148	MSCC Workshop	October 08 - 10, 2023. Pune	Project
			Workshop on Computational Design of Electrocatalyst, CDE 2024	February 18 - 20, 2024. SRM University Andhra Pradesh	
144.	Christel Livia Mascarenhas	CY22D122	Chemistry in-House Symposium (CiHS 2023)	August 22, 2023. ICSR IITM	Department
145.	Harsha K Sasidharan	CY20D073			
146.	Prathap R	CY19D006			
147.	Jayasree K	CY17D004			
148.	Chandan Kumar Giri	CY18D114	31st CRSI-NSC & CRSI-ACS Symposium Series in Chemistry	July 05 - 07, 2023. NIT Rourkela	Department
149.	Sudeshna Mondal	CY21D091	NSEST-2023	August 16 - 17, 2023. ARCI Hyderabad	Department
150.	Richa Gupta	CY18D104			
151.	Deep Lata Singh	CY18D070			
152.	Harun Khan	CY18D088			

153.	Manaswini Ray	CY17D002	CRSI-2023	July 05 - 07, 2023. NIT Rourkela	Department
154.	Prabukumar B	CY20D019	Transcending Frontiers in Chemical Sciences (TFCS-2023)	August 09 - 12, 2023. NIT Trichy	Department
155.	Aravindan N	CY19D057			
156.	R Logeswaran	CY18D115			
157.	Saurav Ghosh	CY20D144	A Seven Day National Workshop Cum Hands-on Training Program on Single Crystal X-Ray Diffractometry	July 17 - 23, 2023. University of Burdwan	Department
158.	Kalpak	CY23D049	CoE Winter School	December 11 - 15, 2023.	Project

4.5.2.5. Student/Scholar Who Won Outside Prizes and Awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Sweta Thangriyal	CY17D045	Best Oral Presentation Award	The Electrochemical Society of India, IISc Bengaluru
2.	Shuchi Sarma	CY18D109	Best Oral Presentation Award	Department of Petroleum Engineering, School of Energy Technology, Pandit Deendayal Energy University, Gandhinagar, Gujarat
3.	Nagaraju Ponugoti	CY19D750	Best Oral Presentation Award	International Conference on Organic and Medicinal Chemistry (ICOMC -2023), June 28 - 30, 2023. Warangal
4.	Baiju C	CY18D117	Best Poster Presentation Award	3rd International Conference on Recent Trends in Analytical Chemistry (ICORTAC-2023) June 26 - 28, 2023. Chennai
5.	Prathap R	CY19D006	Best Poster Award	CRSI-NSC 31 Conference, July 06 - 08 2023. NIT Rourkela
6.	Sonam	CY21D149	Best Poster Award	CRSI-NSC 31 Conference, July 06 - 08, 2023. NIT Rourkela
7.	Ms. Ramya Krishna Battulla, IDRP Scholar	PH17D303	Featured as a "Women Researcher at the Forefront of Crystal Engineering"	Published by ACS Crystal Growth and Design. Guides: Prof. Sudakar Chandran, Prof. P Bhyrappa and Dr. Easwaramoorthi (ARCI)
8.	Dr. Chinmaya Mirle former Doctoral Scholar		Alexander von Humboldt Research Fellowship	Guide: Prof. Kothandaraman Ramanujam

9.	Shuchi Sharma	CY18D109	Best Oral Presentation Award	National Symposium on Electrochemical Science And Technology (NSEST - 2023), August 17 - 18, 2023. The Electrochemical Society of India, IISC Bengaluru and ARCI, Hyderabad
10.	Krateeka Madan	CY18D001	Best Poster Presentation Award	
11.	Sachind Prabha P	CY18D001	Best Poster Award	Materials Today Conference 2023 held during August 02 - 05, 2023. Singapore
12.	Bignya Rani Dash	CY20D126	Best Poster Presentation Award, First Prize in Section 'A' (Chemical Thermodynamics)	13th National Conference on Thermodynamics of Chemical and Biological Systems (NCTCBS 2023) Under the Auspices of The Indian Thermodynamics Society, October 26 - 28, 2023. Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur
13.	Athira K K	CY18D085	Best Oral Presentation Award, Second Prize in Section 'A' (Chemical Thermodynamics)	
14.	Donthireddy Siva Nagendra Reddy	CY17D019	Keshav-Rangnath and Institute Research Awards	KR-IR Award Committee 2023
15.	Priya V	CY18D106		
16.	Ashish Chander Satti	CY20D091	Best Poster Award	XVIII J-NOST Conference 2023 October 10 - 12, 2023. Pune
17.	Madhurja Buragohain	CY22D015	Best Poster Award	TCS - 2023 & IITM
18.	Subhadeep Banerjee	CY16D038	Best Poster Award	
19.	Khushboo	CY21D042	Best Poster Award	
20.	Prabukumar B	CY0D019	Best Oral Presentation	ICAC-2023 Conference at The American College
			The GCRC-2023 Conference at GITAM University (PFA)	Royal Society of Chemistry, Journal of Material Chemistry
21.	K M Shelly	CY20D091	Best Poster Award	National Institute of Pharmaceutical Education And Research, Kolkata
22.	Gopika S Madhu		Best Poster Award	DAE Convention Centre, BARC Mumbai
23.	Mohana Priya	CY20D045	Oral Poster Best Paper Award	EIHE-2024, VIT
24.	Sujit Das	CY19D059	Best Poster Award	CRSI National Symposium in Chemistry, 2024
25.	Soniya Mariya Varghese	CY18D301	Best Oral Presentation Award	2nd International Conference on Novel Materials and Technologies for Energy and Environment Applications
26.	S Suraj	CY22C049	Best Oral Presentation Award	
27.	Nemichand Pradhan	CY20D038	Best Poster Award	International Conference on Emerging Trends in Catalysis and Synthesis 2024

4.5.2.6. Student/Scholar Who Won Institute Convocation/Institute Day Prize:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1.	Vivekananda Mahanta	CY17D037	Langmuir Best PhD Thesis Award	Department of Chemistry, IIT Madras.
2.	Vipin Kumar Pandey	CY17D006	Werner Prize, Organic and Theoretical Chemistry	Department of Chemistry, IIT Madras.
3.	Ramachandran	CY15D0007	C.N. Pillai Prize, Inorganic and Bio-Chemistry	Department of Chemistry, IIT Madras
4.	Debayan Roy	CY16D018	Prof. G Sundarrajan, Endowment Prize in Organic Chemistry	Department of Chemistry, IIT Madras

4.5.3. Faculty and Their Activities:

4.5.3.1. Faculty:

Name and Qualifications	Major Areas of Specialisation (Any 3 Areas)
Professors	
Dhamodharan R, Ph.D. (U. Mass, USA)	Chemistry of Macromolecules
Mishra A K, Ph.D. (IIT Kanpur)	Physical Photochemistry, Fluorescence Spectroscopy
Pradeep T, Ph.D. (IISc. Bangalore)	Solid State Chemistry, Materials Science
Selvam P, Ph.D. (IIT Madras)	Catalysis, Solid State Chemistry
Archita Patnaik, Ph.D. (BHU)	Physical Chemistry, Colloid and Interface Science, Nanoscience and Nanotechnology
Baskaran S, Ph.D. (IIT Kanpur)	Organic Synthesis and Asymmetric Synthesis
Indrapal Singh Aidhen, Ph.D. (University of Pune)	Synthetic Organic Chemistry, Synthetic Carbohydrate Chemistry and Synthesis of Biologically and Medicinally Important Targets
Bhyrappa P, Ph.D. (IISc, Bangalore)	Bioinorganic, Supramolecular and Materials Chemistry of Porphyrinoids
Ranga Rao G, Ph.D. (IISc, Bangalore)	Materials Chemistry, Solid State Electrochemistry, Surface Chemistry and Heterogeneous Catalysis
Sanjay Kumar, Ph.D. (IIT Kanpur)	Theoretical Chemistry, Quantum Molecular Reaction Dynamics
Narasimha Murthy N, Ph.D. (IISc, Bangalore)	Bio-inorganic Chemistry, Inorganic Chemistry, Spectroscopy
Dillip Kumar Chand, Ph.D. (IIT Kanpur)	Supramolecular Chemistry, Inorganic Chemistry
Sekar G, Ph.D. (IIT Kanpur)	Enantioselective Organic Synthesis
Sundaragopal Ghosh, Ph.D. (IIT Bombay)	Organometallic and Metalloborane Chemistry
Rajakumar B, Ph.D. (IISc. Bangalore)	Atmospheric Chemistry, Gas-phase Kinetic and High-Resolution Cavity Ring Down Spectroscopy, Computational Chemistry
Muraleedharan K M, Ph.D. (RRL, Trivandrum)	Bioorganic Chemistry, Medicinal Chemistry
Prasad Edamana, Ph.D. (RRL, Trivandrum)	Divalent Lanthanide and Dendrimer Chemistry
Arti Dua, Ph.D. (IISc. Bangalore)	Theoretical Physical Chemistry, Stochastic Reaction Dynamics, Statistical Mechanics of Complex Fluids

Ramesh Gardas, Ph.D. (South Gujarat University)	Solution Thermodynamics, Ionic Liquids
Debashis Chakraborty, Ph.D. (University of Gottingen, Germany)	Organometallic Chemistry
Pazhamalai Anbarasan, Ph.D. (IISc. Bangalore)	Design and Development of New Synthetic Methodologies Based on Carbenes Trifluoromethylation and Trifluoromethylthiolation Synthesis of Therapeutically Important Natural Products
Kothandaraman R, Ph.D. (IISc. Bangalore)	Electrochemical Systems and Electrocatalysis
Jeganmohan M, Ph.D. (NTHU, Taiwan)	Metalcatalyzed Organic Reactions, Total Synthesis and Asymmetric Synthesis
Beeraiah Baire, Ph.D. (IISc. Bangalore)	Organic Synthesis
Md Mahinddin Baidya, Ph.D. (LMU, Munich, Germany)	Designer Catalysis for Organic Synthesis Asymmetric Synthesis, Photoredox Catalysis, C-H Bond Activation, Synthesis of Natural Products
Associate Professors	
Venkatakrishnan P, Ph.D. (IIT Kanpur)	Organic Functional Materials
Kartik Chandra Mondal, Ph.D. (Karlsruhe Institute of Technology, Germany)	Inorganic Chemistry
Arnab Rit, Ph.D. (University of Muenster, Germany)	Organometallic Chemistry and Catalysis, Main-Group Chemistry
Assistant Professors	
Hema Chandra Kotamarthi	Molecular Biophysics, Biophysical Chemistry
Yamijala S R K Chitanya Shrama	Application of Nonadiabatic Molecular Dynamics (NAMD) Methods, Electronic Structure (DFT) and ab initio Molecular Dynamics Methods
Sooraj K	Computational Chemistry and Material Science
Palani Selvam T	Physical Chemistry - Electrochemistry High Performance Electrode Materials for All Solid-State Battery Applications
Dawande Sudam Ganpat	Synthetic Organic Chemistry, C-H Bond Functionalisation, Metal Carbene Chemistry
Krishna Reddy Nandipati	Theoretical and Computational Chemistry: Quantum Dynamics & Molecular Spectroscopy & Light-Matter Interactions
Soumen Ghosh	Theoretical and Computational Chemistry: Quantum Chemical Electronic Structure Method, Computational Materials Chemistry, Theoretical Spectroscopy
Emeritus Professor	
Mangala Sunder K, Ph.D. (Head) (McGill, Canada)	Theoretical Spectroscopy, Magnetic Resonance and Molecular Spectra, Quantum Chemistry and Quantum Information Processing, Online Digital Content Development and Online Teaching, Technology-enhanced Learning
Sangaranarayanan M V, Ph.D. (IISc, Bangalore)	Electrochemistry
Sankararaman S, Ph.D. (Victoria, Canada)	Synthetic and Mechanistic Organic Chemistry
Visiting Professor	
Subramanian V	Theoretical & Computational Chemistry

4.5.3.2. Short-term Courses, Workshops, Seminars, Symposia, And Conferences Organised by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	Prof. Kothandaraman R Prof. Venkatakrishnan P (Core Committee Members and Organisers)	The Energy Summit 2023	December 05 - 08, 2023.
Seminar:			
1.	Prof. Pradeep T	The Nobel Prize in Chemistry 2023 Quantum Dots-Seeds of Nanoscience	2023
2.	Dr. Yamijala Chaitanya Sharma	Recorded several NPTEL lectures on Performing Quantum Chemistry Calculations on Quantum Computers (IIT Madras, Coordinator: Prof. Prabha Mandyam, Physics Department) between January 08 - 12, 2024	2024
		Recorded two lectures on Quantum Mechanics for DESI (IIT Madras, Coordinator: Prof. Prasad)	2024
		Live interaction with NPTEL CODE students on Quantum Computing for 3 hrs (Online, IIT Madras, Coordinator: Prof. Prabha Mandyam, Physics Department)	2024
Symposia:			
1.	Professor Sanjay Kumar Dr. V Subramanian	Theoretical Chemistry Symposium (TCS-2023), IIT Madras	December 07 - 10, 2023.
Workshop:			
1.	Prof. Kothandaraman R (Coordinator and Faculty Advisor of ECS IITM Student Chapter Workshops Organised by ECS IITM Student Chapter	Symmetry Elements and Structure Solving, Prof. Werner Paulus, U. Montpellier, at IIT Madras	January 12 - 16, 2024
		Electrochemical Characterisation of Batteries, January 22 - 23, 2024, NIT Trichy Campus Lectures Delivered by Prof. Kothandaraman and Prof. Ramanathan; Hands-on Electrochemical Experiments	January 22 - 23, 2024
		International Workshop on Next Generation Batteries (IWETNGB-2023)	March 29 - 30, 2023
		Workshop on Biosensors, IIT Madras. Lectures Delivered by Prof. Krishnan Gopan from Oklahomo State University-USA and Prof. Kothandaraman; Hands-on Electrochemical Experiments	June 27, 2023
		Teacher’s Day Celebration at IIT Madras Lecture Delivered by Prof. K Vidyasagar	September 05, 2023
		Indo-Korea Workshop on Electrochemical Energy Storage Faculty Delivered Lectures are: 1.Prof. Jinwoo Lee, KAIST-South Korea 2.Prof. Seongbeen Kim, KAIST-South Korea 3.Prof S. Ramanathan, IIT Madras 4.Prof Kothandaraman R, IIT Madras Hands-on Electrochemical Experiments Pre-Energy Summit Workshop Talks Delivered by: 1.Prof. Watanabe Ken, Kuyshu Univeristy, Japan 2.Prof. V Subramanian, IITM 3.Dr. K Ramesha, Director, CECRI 4.Prof. A Mukhopadhyay, IIT Bombay 5.Prof. Satpal Singh Badsara, Rajastan University 6.Dr. J Mathiyarasu, CECRI 7.rof. Pritam Mukhopadhyay, JNU 8.Dr. M B Sahana, ARCI	September 20 - 21, 2023
			December 05, 2023

4.5.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, and Trainings Attended by the Faculty Members in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Workshop:				
1.	Dr. Yamijala Chaitanya Sharma	Talk, JFBMP-IITM & Deakin-Workshop2-Materials for Energy Generation	IIT Madras	August 14, 2023
		International Conference on Energy Conversion and Storage (IC-ECS-2023), Amrita Vishwa Vidyapeetham Coimbatore	Coimbatore/India	June 22 - 23, 2023
2.	Prof. Sanjay Kumar	Invited Talk: Nonadiabatic Processes in Ion and Electron Molecule Collisions: Charge Transfer and Resonant Vibrational Excitations, International Workshop on Quantum Systems in Chemistry, Physics & Biology (QSCP-XXVI)	Hotel Crowne Plaza, Jaipur, Tonk Road, Jaipur Rajasthan-	October 14 - 20, 2023
Seminar:				
1.	Dr. Yamijala Chaitanya Sharma (Co-present)	IRIS-2.0 Webinar for the Atomistic Modelling and Materials Designing CoE	IIT Madras	November 24, 2023
		Participated in Building India 2047 - IIT Madras CSR Summit	IIT Madras	February 17, 2024
Symposia:				
1.	Dr. Yamijala Chaitanya Sharma	Presentation Representing the Theory & Computation Division, Chemistry Department Industry Expo	IIT Madras	August 11, 2023
		Talk: A Microscopic Understanding of the Formation and Evolution of Solid Electrolyte Interphase (SEI) at the Calcium Anode Surface, Theoretical Chemistry Symposium 2023	IIT Madras	December 07 - 10, 2023
2.	Prof. Pradeep T	Invited for Chairing Morning Session of CiHS-2023	IC&SR Auditorium	August 23, 2023
3.	Prof. Kothandaraman R	A Symposium and Workshop on Batteries, to felicitate Prof. A K Shukla (IISc Bangalore)	IIT Madras	February 23 - 24, 2024
4.	Dr. Sooraj K	Chemistry In-house Symposium (Co-Convener)	IIT Madras	August 23, 2023
		Talk: Insights into the Role of Structure and Composition of Ion-Solvent Complexes in the Reductive Decomposition of Li-Ion and Post--Li-ion Battery Electrolytes, Theoretical Chemistry Symposium	IIT Madras	December 07 - 10, 2023
Conference:				
1.	Prof. Sanjay Kumar	Invited Talk: Nonadiabatic Collisions in Ion and Electron Molecule Systems, at the International Conference on Structure and Dynamics: Spectroscopy and Scattering (SDSS-2023)	IACS, Kolkata	October 05 - 08, 2023
2.	Dr. Yamijala Chaitanya Sharma	Attended and Chaired the Poster Session; Poster Presentation, MD@60 Conference;	JNCASR, Bengaluru	February 25 - 28, 2024

3.	Prof. P Anbarasan	Invited Talk: Recent Advances in Chemistry - 2023	Mother Teresa Women's University	July 13 - 14, 2023
		Invited Talk: Frontiers in Catalysis - FIC 2024	Central university of Rajasthan	January 04 - 05, 2024
		Invited Talk: Current Trends in Chemical Sciences	MKU, Madurai	February 21 - 23, 2024
		Invited Talk: Emerging Trends in Catalysis & Synthesis	IIT Kharagpur	March 07 - 09, 2024
4.	Prof. M Jegenmohan	International Conference on Organometallics and Catalysis	Goa/India	October 30 - November 02, 2023
5.	Dr. Arnab Rit	International Conference on Organometallics and Catalysis ICOC-III	Goa/India	October 30 - November 02, 2023
6.	Prof. A K Mishra	National Conference on Emerging Frontiers in Chemical Sciences 2023	Brahmpur/India	November 04 - 06, 2023
		4th International Conference on Emerging Smart Materials in Applied Chemistry (ESMAC2023)	Bhubaneswar/India	November 17 - 21, 2023
7.	Prof. G Ranga	Catalysis for Energy, Environment, and Sustainability (CEES-2023)	Mani/India	September 23 - October 01, 2023
		National Symposium on Electrochemical Science & Technology, NSEST-2023	Hyderabad/India	August 16 - 20, 2023
		International Conference on Electrochemistry for Industry, Health and Environment EIHE2024	Vellore/India	February 08 - 09, 2024
		2nd International Conference on Novel Materials and Technology for Energy Environment Applications	Hyderabad/India	February 17 - 18, 2024
8.	Prof. Archita Patnaik	FORCE-IICS-2023	Kathmandu/Nepal	September 28 - October 01, 2023
9.	Prof. Indrapal Singh Aidhen	Carbo-XXXVII, Department of Applied Chemistry, Delhi Technological University (DTU)	Delhi/India	November 29 - 30, 2023
10.	Prof. Sundar Gopal Ghosh	Indian Academy of Sciences Annual Meeting	BITS Pilani Goa/India	November 03, 2023
11.	Prof. B Rajakumar	Physical Chemistry Symposium	Bangalore/India	July 02 - 06, 2023
		International Conference on Smart Nano Technologies (ICONSNT 2023)	Visakhapatnam/India	July 07 - 13, 2023
		Recent Trends in Chemical Science and Technology	Patna/India	February 29 - March 02, 2024
		60th Annual Convention of Chemists 2023	New Delhi/India	December 20 - 21, 2023

12.	Prof. P Venkatakrishnan	NOST-2024 Conference	Bhubaneswar/India	February 29 - March 03, 2024
13.	Prof. Md Mahiuddin Baidya	Recent Trends in Chemical Science and Technology (RTCST-2024)	IIT Patna/India	February 29 - March 02, 2024
		International Conference of Organometallics and Catalysis (ICOC 2023)	Goa/India	October 30 - November 02, 2023
		4th Frontiers Symposium in Chemistry (FS-CHM 2024)	Thiruvananthapuram/India	January 20 - 21, 2024
14.	Prof. Anbarasan P	Emerging Trends in Catalysis & Synthesis	Kharagpur/India	March 07 - 09, 2024
15.	Prof. Ramesh Gardas	13th National Conference on Thermodynamics of Chemical and Biological Systems (NCTBS-2023)	Nagpur/India	October 26 - 28, 2023
16.	Prof. Debashis Chakraborty	MACRO 2023	Mohunpur/India	November 16 - 17, 2023
17.	Prof. P Selvam	National Workshop on Futuristic Catalysts and Catalytic Processes	Kasaragod, Kerala/India	February 15 - 16 2024

4.5.3.4. Special Lectures Delivered by the Faculty in Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Prof. Pradeep T	International Conference on Science and Technology of Advanced Materials- STAM 23	Mar Athanasius College (Autonomous), Kerala	April 18, 2023
		Sree Visakham Thirunal Endowment Lecture, Endowment Lecture on affordable Clean Water Using Nanomaterials	ICAR-CTCRI, Thiruvananthapuram, Kerala	June 05, 2023
		VVIP for the Flag-off Function of Ek Bharat Shreshtha Bharat (EBSB) Event and to Address the Youth	Indian Institute of Technology Palakkad	May 23, 2023
		Invited Lecture in the Session VISION 2035 -Freedom Fest 2023	Thiruvananthapuram	August 12, 2023
		Invited Talk at the Upcoming Residential Innovation Council (Rashmi Aquaworks - Marmon Water Research Center (MWRC) Our Filtrex Team	Ritz Carlton, Bangalore	September 27, 2023
		Webinar, Affordable Clean Water Using Advanced Materials	Online	January 13, 2024
		CRS Gold Medal Award and Presentation of the Award Lecture: Atomically Precise Matter. Science Beyond Boundary: Invention, Discovery, Innovation and Society - Rasayan 18	Stella Maris College (Autonomous), Chennai	January 29, 2024

2.	Dr. Yamijala Chaitanya Sharma	Exploring Chemistry on Quantum Computers, IBM-IITM Industry	IITM Research Park	April 12, 2023
		Invited Speaker: Stability of Salts and Solvents, and the Formation of Solid Electrolyte Interphase (SEI) at the Calcium Anode Surface. NAMMA (New Approaches and Machine Learning Methods for Ab initio Calculations) PSI-K Conference	Bengaluru IISC & JNC Campuses	July 24 - 28, 2023
		Online Talk: Energy Materials. One Day National Workshop on Clean Energy and Sustainable Future	Government Degree College, Palakonda , Parvathipuram Manyam Dt, A.P, India.	September 16, 2023
3.	Prof. Kothandaraman R	Options for Grid Level Energy Storage: Pumped Hydro and Batteries	Workshop on Electrochemistry - Fundamentals to Applications, VIT, Chennai	April 12, 2023
		Invited Speaker, IMESD Conference Title: Materials Beyond Phase Diagram for Battery and Hydrogen Storage Applications	International Meeting on Energy Storage Devices (IMESD)	December 07 - 10, 2023
		Invited Speaker, Indo-German Centre for Sustainability (IGCS) Summer School 2023, (The Integration of Renewable Energies into a Power Grid - A Key Contribution towards a Carbon Neutral Society, Title: High Energy and Power Density Redox Flow Battery Chemistries for Grid Storage)	TU Berlin, Germany and IIT Madras	July 24 - August 04, 2023
		Plenary Lecture Title: Hydrogen Storage via Ammonia by Electrochemical Reduction of Nitrogen SERB Workshop on Green Hydrogen Production, Storage and Transportation: A Green Energy Prospective, School of Mechanical Engineering	VIT, Vellore	March 14 - 15, 2024
		Dr. K S Rajagopalan Birth Centenary Memorial Lecture Electrochemistry on Storing Energy and Building Molecules	Ramakrishna Mission Vivekananda College, Mylapore, Chennai	August 11, 2023
		SMC Bronze Medal Lecture Title: Electro Valorisation	DAE-BRNS 6th National Workshop on Materials Chemistry (NWMC), BARC, Mumbai	October 13 - 14, 2023

		Title: One Redox Centre with Three Hats Post Lithium Storage Cluster of Excellence (POLIS), Online Seminar Organised by Dr. Johannes Schnaidt, Universitat Ulm, Germany	Universitat Ulm, Germany	February 28, 2024
		Title: One Redox Centre with Three Hats 18th Asian Conference on Solid State Ionics (ACSSI)-2024 Organised at Meenakshi College for Women	Meenakshi College for Women	February 22, 2024
		Title: One Redox Centre with Three Hats International Conference on Advanced Functional Materials and Devices - 2024	SRM University, Chennai	February 26 - 28, 2024
		Title: Organic Redox Flow Battery Chemistries and Capacity Drop Mitigation Strategies Current Trends in Chemical Sciences	CRSI Madurai Chapter at School of Chemistry, Madurai Kamaraj University	February 21 - 23, 2024
		Title: Upending Current Ammonia Synthesis Method International Conference on Electrochemistry for Industry, Health and Environment (EIHE-2024)	VIT Vellore	February 08, 2024
4.	Prof. Sangaranarayanan M V	The 1st Dr. S R Rajagopalan Endowment Lecture	IISc Bangalore	July 21, 2023
		Lecture: Mechanism of Charge Transport Through Chemically Modified Electrodes and Analytical Applications. 3rd International Conference on Physics and Nanotechnology	Mangalore University, Karnataka	September 22, 2023
5.	Prof. Selvam P	Plenary Lecture, 3rd International Conference on Recent Trends in Analytical Chemistry	Online	June 26 - 28, 2023
		Guest Lecture, Department of Chemical and Biomolecular Engineering, University of Delaware	Newark, USA	June 29, 2023
		Invited Talk, School of Chemistry	University Madras, Chennai	November 17, 2023
		Invited Talk, BARC Colloquium: Sustainable Future Through Chemistry - The Role of Heterogeneous Catalysis and Nanostructured Materials)	Mumbai	November 20, 2023
		Invited Talk, 4th International Conference on Nanomaterials for Health, Energy and the Environment, Sunshine Coast	Australia	August 28 - September 01, 2023
6.	Dr. Hema Chandra Kotamarthi	Invited Speaker, Softmatter Young Investigator Meeting-SMYIM-2023	IIT Kanpur, at Jim Corbett national park	June 14 - 17, 2023
		Invited Speaker, 1st National Conference on Force Spectroscopy and Microscopy	Fluorescence Society of India and IISER Pune, Tamhini	June 24 - 26, 2023
		Invited Speaker, Kaleidoscope: A Discussion Meeting on Chemistry	TIFR Mumbai and IIT Bombay, Udaipur	July 06 - 09, 2023

		Invited Speaker, Biogroup India Meeting-2023	JNCASR, Bengaluru	July 18, 2023
		RSIC Lecture for School Students	IITM	
		SMYIM-2023	Ramnagar, Uttra Khand /India	June 14 - 19, 2023
7.	Dr. Sooraj K	Online Lecture: Computational Material Science as a Tool for the Development of Materials for Energy Storage Applications. Refresher Course in Material Science (MD), Organised by UGC - Human Resource Development Centre, University of Calicut	Online	August 16, 2023
8.	Prof. P Anbarasan	Invited Talk, Department of Chemistry	Raak Arts and Science-Villupuram	November 09, 2023
9.	Prof. Jeganmohan M	31st CRSI Meeting: CRSI Bronze Medal Lecture	NIT Rourkela/India	July 05 - 08, 2023
10.	Prof. Mishra A K	Seminar on Modern Trends in Chemical Sciences	Bhubaneswar/India	January 02 - 14, 2024
11.	Prof. Beeaiah Baire	Seminar on Synergy of Chemistry and Biology Towards Affordable Health	Hyderabad/India	November 01 - 02, 2023

4.5.3.5. Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1.	Prof. P Selvam	Providence, Rhode Island	June 18 - 23, 2023	Invited Talk: The 28th North American Catalysis Society Meeting
2.	Prof. Mishra A K	Destin, Florida, USA	January 02 - 14, 2024	2024 I-APS Meeting
3.	Prof. Sunargopal Ghosh	Bangkok, Thailand	February 18 - 22, 2024	ACCC9
		Rennes, France	July 08 - 16, 2023	ImeBoron 2023
4.	Prof. Beeraiah Baire	Kathmandu, Nepal	September 28 - October 01, 2023	FORCE-IICS-2023
5.	Prof. Dillip Kumar Chand	Bangkok, Thailand	February 18 - 22, 2024	The 9th Asian Conference on Coordination Chemistry (ACCC9)
6.	Prof. Ramesh Gardas	Stockholm, Sweden	August 28 - 31, 2023	Advanced Energy Materials & Technology Congress
7.	Prof. G Sekar	Budapest, Hungary	July 19 - 23, 2023	Halogen Bonding Catalysis for Organic Synthesis
8.	Prof. P Selvam	Sunshine Coast, Melbourne, Australia	August 28 - September 08, 2023	4th International Conference on Nanomaterials for Health, Energy and the Environment

4.5.3.6. Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Honours:					
1.	Prof. Kothandaraman R.	Nominated as Vice President of Society for Advancement of Electrochemical Science and Technology (SAEST)	CSIR-CECRI, Karaikudi, Tamil Nadu, India	Society for Advancement of Electrochemical Science and Technology (SAEST)	2023
2.	Prof. Pradeep T	Nominated as a Member of the Panel of Expert Committee of the Strategic Area Nanotechnology in Agriculture of the NASF, ICAR, New Delhi for 2023-25	LoI for the India-Israel Centre DARE and Director General, ICAR		June 05, 2023
		Eni Award 2023	The President of Italy	Work on Sustainable and Affordable Nanoscale Material for Removing Toxic Contaminants from Water Under the Award Category Advanced Environmental Solutions	October 16, 2023
		23rd Foreign Member from India	US National Academy of Engineering (NAE)	Elected for his Contributions to Cluster Chemistry and the Discovery and Implementation of Affordable Drinking Water Solutions	February 15, 2024
		Prof. M V Pylee Award 2023	Cochin University of Science and Technology (Cusat) by Padmabhushan Prof. M.V. Pylee, Former Vice-Chancellor of this University	Contributions as Excellent Educationalists, Outstanding Researchers, Institution Builders, and Visionary Scientists who Bridge the Gap Between Science and Society	2024

3.	Prof. P. Anbarasan	Dr. V J Philip Endowment Lecture	MCC, Chennai	Scientific Contribution	2023
4.	Prof. Indrapal Singh Aidhen	Lifetime Achievement Award	Association for Carbohydrate Chemists and Technologists India (ACCTI)	Major Contributions to Synthetic Carbohydrate Chemistry	2023
ii. Awards:					
1.	Prof. Kothandaraman R	Trend Setter Grant Award-2023	Energy Consortium, IIT Madras		2023
		CSR Gamechanger Award-2023	IIT Madras		2023
		SMC Bronze Medal	Society for Materials Chemistry		2023
2.	Prof. Md Mahiuddin Baidya	Bronze Medal Award	Society of Chirantan Rasayan Sanstha® (CRS)		2023
3.	Prof. Pradeep T	International Excellence Award of KIT in combination with the Fellowship of SCHROFF Foundation	Karlsruhe Institute of Technology (KIT), Germany		2023
		The National Water Award-2019 Best Prize	Government of India, in Recognition of the Massive Rain Water Harvesting Project; Initiated by Satsang which has significantly alleviated shortage of water in Satsang Nagar, Deoghar, Jharkhand		August 26, 2023
		International Medal for Materials Science and Technology Award	Materials Research Society of India (MRSI)		2023
		Gold Medal Award	Society of Chirantan Rasayan Sanstha® (CRS)		2023
4.	Prof. Ramesh L Gardas	Prof. SP Hiremath Memorial Award - 2023	The Indian Council of Chemists (ICC)	Recognition of his Contributions to Research and Teaching in Chemical Sciences	2023
5.	Prof. Arti Dua	Professor P K Bose Memorial Award	The 60th Annual Convention of Chemists at IIT Delhi		2023

4.5.3.7. Fellowships of Academies and Professional Societies:

Sl. No.	Name of Faculty	Year of Admission
AFIChemE :		
1.	Prof. Debashis Chakraborty (Associate Fellow of The Institution of Chemical Engineers, UK)	2023
FSFRC :		
1.	Prof. Debashis Chakraborty (Admitted as a (Fellow of the Science Frontier Research Council)	2023
FICS :		
1.	Prof. Debashis Chakraborty (Elected as a Life Fellow of Indian Chemical Society (FICS)	2023
FIAAM		
1.	Prof. Ramesh L Gardas (Fellow of the International Association of Advanced Materials (IAAM) in recognition of his contribution to Sustainable Materials and Technology)	2023

4.5.3.8. Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor, Member)	Journal Name
1.	Prof. M V Sangaranarayanan	Member of the Editorial Board of Current Opinion in Electrochemistry	Elsevier Publication, January 2024
2.	Dr. Soumen Ghosh	Early Career Board Member	Chemical Theory and Computation

4.5.4. Design and Development Activities:**4.5.4.1. New Facilities Added or Major Equipment Procured (Through the Institute's Financial Support):****4.5.4.1.1. The Following Two Existing Old NMR Instruments Were Upgraded With Accessories and New Probes:**

1.	Bruker AVNEO 500 MHz NMR Accessories replacement/ Auxiliary items with the liquid probe, & etc	US\$ 3,97,000.00
2.	Bruker AVNEO 400 MHz accessories replacement/ Auxiliary items with liquid & solid probe & etc	US\$ 3,82,500.00

4.5.4.1.2. High-End Instruments:

Sl. No.	Name of Equipment	Value (Rs. in Lakhs)
1.	High-Resolution Mass Spectrometry (HRMS)	228.50
2.	Single Crystal X-ray Diffraction (Single Crystal-XRD)	253.82
3.	Inductively Coupled Plasma-Optical Emission Spectroscopy	51.04
4.	Thermogravimetric Analysis-Differential Scanning Calorimetry (TGA-DSC)	114.37
5.	Gas Chromatography-Mass Spectrometry (GC-MS)	71.27
6.	Multiport BET Surface Area Analyzer (BET-Chemisorption Analyzer)	99.99
7.	Isothermal Calorimetry (ITC)	70.45

8.	Confocal RAMAN	104.63
9.	500 NMR (with Chiller & UPS)	497.34 (87.50)
10.	HR-TEM	662.29
Total		2241.20

4.5.4.1.3. (a) Facilities for the Promotion of Medicinal Chemistry Through Seed Grants:

Sl. No.	Instrument	Approximate Cost in INR (Lakhs) incl GST/IGST
1.	Flow-cytometer	42.25
2.	Protein Purification Chromatography System and Refrigeration	22.75
3.	CO2 Incubator With Accessories	6.50
4.	Refrigerated Incubator and Shaker	12.5
5.	Biosafety Cabinets	14.0
6.	-80 Freezer	8.20
7.	High-Speed Refrigerated Centrifuge with Rotors and Bottles	12.35
8.	Inverted Microscope	4.0
Total		122.55

(b)

1.	Schrodinger Software for Molecular Modeling, Design, and Docking for Drug Discovery	49.09
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4.5.4.1.4. UG & PG Lab Upgradation

Sl. No.	Instruments & Facilities	Total Approximate Value in Lakhs
1.	Near IR-UV-Visible Spectrometer	101.00
2.	IR Spectrometer	
3.	Fluorimeter	
4.	Guoy Balance	
5.	Millipore Water RO Plant	
6.	Rotavapour	
7.	Ice Machines	
8.	Other minor Instruments and Accessories	

4.5.5. Patents:

4.5.5.1. Patents Filed:

Indian Patents		
Sl. No.	Name of Faculty	Topic of Patent
1.	Prof. Kothandaraman R Anandhakumar Sukeri, Swati Panigrahi, Indian Patent, Year: 2023, IDF no. 2649,	Sonochemical Synthesis Of Functionalised And Hydride Inserted Borophene Nanosheets

2.	Kothandaraman Ramanujam	Electrode For Soluble Lead Acid Redox Flow Battery And Soluble Lead Acid Redox Flow Battery Comprising The Same
3.	Kothandaraman Ramanujam	Nafion-Free Hydrocarbon-Based Porous Membrane For Vanadium Redox Flow Battery Application
4.	Kothandaraman Ramanujam	Probe Sonication Converting Nitrates To Ammonia In Water
5.	Selvam P; Balasubramanian K K	Catalytic Hydrogenation Of Sugars To Corresponding Alcohols At Low Hydrogen Pressure
6.	Selvam P; Niket S Kaisare	Fes-1 And Fezm-5 Catalysts For Methanol Synthesis By Aqueous Phase Oxidation Of Methane
7.	Vidyasagar K	Noncentrosymmetric Layered Selenites And Tellurites Of Antimony(V) And Preparation Method Thereof
8.	Mahiuddin Baidya Md	Substituted 1,2-Benzisoxazole Compounds And Their Process Of Preparation
9.	Selvam P	Visible/Solar-Light-Driven Ordered Mesoporous TiO ₂ And Its TCPP-Functionalised Photocatalyst For Complete Mineralisation Of Pharmaceutical Contaminants In Water
10.	Pradeep T	A Method Of Identifying Authenticity Of Ayurvedic Preparations Using Hand-Held Raman Spectroscopy
11.	Indrapal Singh Aidhen	Unsaturated Anacardate Based Foaming Agent(s) For The Preparation Of Foam Concrete
12.	Ranga Rao G	A Process Of Hydrogen Generation From Metal Wastes
13.	Ranga Rao G	Process For CO ₂ Reduction And Catalyst Therefor
14.	Ranga Rao G	Catalyst Design By Solvent Free Method For Nitrogen Reduction To Ammonia Under Ambient Conditions
15.	Dhamodharan R	Solid-State, Low-Temperature Carbonisation Of Hydroxyl-Rich Polymers
16.	Govindasamy Sekar	Oxidative Cyclisation Of Aryldiynes To 3-Acyl-1-Indenones
17.	Debashis Chakraborty	Synthesis Of THF Coordinated Monomeric Group 13 Metal Alkoxide Adducts And Catalytic Activity Thereof
18.	Debashis Chakraborty	The ROCOP Of Epoxide And CO ₂ To Generate Aliphatic Polycarbonates Using Simple Organocatalyst

International Patents:

1.	Pradeep T	A Selective And Efficient Process For The Extraction Of Noble Metal Ions From Complex Mixtures
2.	Pradeep T	A Method To Transform Crystalline Minerals To Nanoparticles By Microdroplets
3.	Pradeep T	Material And Method For Sustainable And Affordable Atmospheric Water Harvesting
4.	Pradeep T	Vertically Aligned Nanoplates Of Atomically Precise Co ₆ S ₈ Cluster For Practical Arsenic Sensing
5.	Pradeep T	Method For Selective Extraction Of Gold By Niacin
6.	Pradeep T	Method For Selective Extraction Of Gold By Niacin
7.	Pradeep T	An Electrode System Based On Differential Oxidant Response For The Detection Of Free Chlorine
8.	Mahiuddin Baidya Md	Substituted 1,2-Benzisoxazole Compounds And Their Process Of Preparation

4.5.5.2. Patents Awarded:

Sl. No.	Name of Faculty	Topic of Patent
1.	Selvam P	Method for Using Bulk and Porous n-containing/n-doped Carbon and Carbon Nitrides as Heterogeneous Catalysts for Borrowing Hydrogen and Dehydrogenation Reactions
2.	Pradeep T	Vertically Aligned Nanoplates of Atomically Precise Co ₆ S ₈ Cluster for Practical Arsenic Sensing
3.	Pradeep T	A Compact, Modular and Scalable Continuous-flow Greywater Sink for Potable and Non-potable Uses
4.	Pradeep T	Reactivation of Silver Metal Particle-based Antimicrobial Compositions
5.	Pradeep T	A Modified Surface Condensation
6.	Pradeep T	An Electrode System based on Differential Oxidant Response for the Detection of Free Chlorine
7.	Pradeep T	Methods for Selective Visual Detection of TNT
8.	Pradeep T	A Method for Facile, Rapid and Industrially Scalable Preparation of Metal Hydroxide Composition
9.	Pradeep T	A Point-of-Care (poc) Amperometric Device for Selective Arsenic Sensing
10.	Pradeep T	A Luminescence-based Method of Detecting Arsenic Using Atomically Precise Noble Metal Nanocluster and Phosphine
11.	Pradeep T	A Method for Environmental Arsenic Detection and Public Awareness Using Human Cells
12.	Pradeep T	Method of Field Induced Photoionisation of Molecules Using Low Power Pointer Laser in Laser Assisted Paper Spray Ionisation Mass Spectrometry (lapsims)
13.	Pradeep T	A Method Of Detection Of Low Concentration Of Analytes By Superhydrophobic Pre-Concentration Paper Spray Ionisation Mass Spectrometry (SHPPSI MS)
14.	Pradeep T	Synthesis Of Protein Protected Luminescent Metal Clusters And Retaining The Bioactiity Of The Protein
15.	Pradeep T	Method of Fabricating a Conducting Cloth Based Breath Humidity Sensor and Applications Thereof
16.	Dhamodharan R	Green Processes for Extracting Chitin, Calcium cCarbonbate and Protein from Crustacean Shells
17.	Dhamodharan R	Green Process For Preparing Nano fibrillated Cellulose (NFC) And Nanocrystalline Cellulose (NCC) From Cellulose Pulp
18.	Govindasamy Sekar	Processes for Preparing Chiral 3,3-disubstituted Oxindoles
19.	Govindasamy Sekar	Enantio- and Diastereoselective Process for One-Step Synthesis of Enantioenriched Pyrrolo[1,2-d][1,4]thiazine-2-Carbaldehydes Core Using Chiral Organocatalyst
20.	Rama S Verma; Debashis Chakraborty	Metal-free Polyester Based Nano-Drug Carrier
21.	Dillip Kumar Chand	A Metallomicellar Catalyst for Sulfoxidation Reactions in Aqueous Medium and Desulfurisation of Model Diesel Under Aerobic Conditions
22.	Kothandaraman Ramanujam; Indrapal Singh Aidhen	Organic Catholyte Material For Aqueous Organic Flow Battery

23.	Kothandaraman Ramanujam; Varadaraju U V	A New Multilayer Sandwich Design of a Redox Flow Battery Cell
24.	Kothandaraman Ramanujam	Electrochemical Fixation And Conversion Of Nitrogen Into Ammonia By $ZnMn_2O_4$ Spinel Derived From Spent Battery
25.	Anbarasan Pazhamalai	Amine Promoted Synthesis of Hydroxymethylfurfural

4.5.6. Research and Consultancy:

4.5.6.1. Sponsored Research Projects: (Ongoing & New)

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in Lakhs)	Coordinators
1.	Design and Fabrication of High-Efficiency Large-Area Perovskite Solar Module	October 14, 2022 - October 13, 2025	SERB	10.05	Prof. Kothandaraman R
2.	Soluble Lead Acid Redox Flow Battery	March 31, 2023 - September 30, 2024	Advanced Research Centre for Powder Metallurgy & Materials, International	15.3744	
3.	Upscaling of the Zn-Chromium Oxynitride Photo Flow or Thin Film Supercapattery	March 31, 2023 - September 30, 2024	International Advanced Research Centre For Powder Metallurgy and New materials	15.0528	
4.	Ruthenium Oxo Complex Catalysed Site Selective Non-directed C-H Functionalisation of Hydrocarbons	October 19, 2022 - October 18, 2025	SERB	10.05	Prof. Jeganmohan M
5.	Metal-Catalyzed Three-component Assembling of Substituted Organic Molecules with π -Components and Nucleophiles or Electrophiles: An Efficient Route to Tetrasubstituted Alkenes and Heterocycles	August 01, 2023 - July 31, 2026	CSIR	11	
6.	DST's Nodal Center at IISER-Tirupati (Tirupati-Chennai-Bengaluru Cluster) for Development and Production of Key Starting Materials, Intermediates and Other Raw Materials that are required by the Health Care Sector	May 24, 2023 - May 23, 2024	DST	24.98472	Prof. Baskaran S (PI). CI -Prof. Sekar G, Prof. Anbarasan P, Prof. Jeganmohan M,

7.	Inspire Fellowship for Ms. Sangita Mondal - CY21D150	February 18, 2022 - February 17, 2027	DST	4.9244	Dr. Kartik Chandra Mondal
8.	Inspire Fellowship for Ms. Potham Sravani - CY18D131	March 04, 2019 - March 03, 2024	DST	20.62265	Prof. Kothandaraman R
9.	Inspire Fellowship for Mr. Siddique khan - CY18D130	March 06, 2019 - March 05, 2024	DST	20.5668	Prof. Beeraiah Baire
10.	Design and Synthesis of Novel Axial-Chiral Biisoquinoline-Pd Catalysts for New Asymmetric Domino Reactions and Their Application in the Synthesis of Biologically Active Chiral Spiro-Natural Products	July 07, 2023 - July 06, 2026	CSIR	11	Prof. Sekar G
11.	Inspire Fellowship for Ms. Shambavi C N - CY19D018	August 22, 2019 - August 21, 2024	DST	20.31149	Prof. Jeganmohan M
12.	Probing the in Singulo Mechanisms of Mycobacterium Tuberculosis's Novel Drug Targets, Molecular Motors of the Proteostasis Network Using a cCustom-built Optical-Tweezers	September 12, 2023 - September 09, 2026	Department of Biotechnology	75.47	Dr. Hema Chandra Kotamarthi (PI), Mr. Athi Narayanan N (CI)
13.	Inspire Fellowship for Ms. Christel Livia Mascarenhas - CY22D122	February 08, 2023 - February 07, 2028	DST	5.84	Dr. Kartik Chandra Mondal
14.	Inspire Fellowship for Ms. Anusree A K - CY22D135	February 16, 2023 - February 15, 2028	DST	5.84	Prof. Md Mahiuddin Baidya
15.	Inspire Fellowship for Mr. Suvam Saha - CY18D009	August 01, 2019 - July 31, 2024	DST	20.06	Prof. Sundargopal Ghosh
16.	Inspire Fellowship for Ms. Monalishaakter - CY19D018	August 23, 2019 - August 22, 2024	DST	20.85	Prof. Anbarasan P
17.	Orientation to NEP 2020	November 20 - December 19, 2023	UGC-DAE Consortium for Scientific Research	9.36	Prof. Edamana Prasad
18.	Inspire Fellowship for Mr. Fredy Joy - CY18D037	August 08, 2018 - August 07, 2023	DST	18.90	Prof. Rajakumar B

19.	Development of Methods for Modeling and Discovering Next Generation of Energy Materials	August 30, 2023 - August 29, 2028	DST	35.00	Dr. Soumen Ghosh
20.	Inspire Fellowship for Mr. Akshaya Kumar Sahu - CY19D019	August 30, 2019 - August 29, 2024	DST	19.10	Prof. Anbarasan P
21.	Group Monitoring Meeting PAC (Organic Chemistry) on 5-6th February 2024 at Indian Institute of Technology Madras	January 16 - July 15, 2024	SERB	13.26	Prof. Sekar G
22.	Inspire Fellowship for Ms. Ketaki Kar - CY19D055	September 05, 2019 - September 04, 2024	DST	20.87	Prof. Sundargopal Ghosh
23.	Exploring High Entropy Alloy Anodes for All-Solid-State Sodium-Ion Battery Applications (HASSB)	February 13, 2024 - February 12, 2027	SERB	31.94	Dr. T Palaniselvam
24.	Boron-doped Diamond Coated Corrosion-Resistant Carbon Materials for Electro-Organic Synthesis, Energy, and Clean Water Applications	January 24, 2024 - January 23, 2027	Ministry of Textiles	699.90	Prof. Kothandaraman R
25.	1kW.5kWh Redox Flow Battery with Anthraquinone Based Anolyte and Iron Catholyte: A Commercial Worthy India-Centric Solution for Grid-Scale Energy Storage	March 21, 2024 - March 20, 2026	DST	167.15	
26.	Inspire Fellowship for Ms. Santhoshini - CY23D038	August 21, 2023 - August 20, 2028	DST	5.84	
27.	Inspire Fellowship for Mr. Sudhin R -CY23D036	September 01, 2023 - August 31, 2028	DST	5.84	Dr. Sooraj K
28.	Inspire Fellowship for Ms. Arpita Sahoo - CY23D028	August 21, 2023 - August 20, 2028	DST	5.84	Dr. Arnab Rit
29.	Inspire Fellowship for Mr. Puspita Kumar - CY23D075	August 11, 2023 - August 10, 2028	DST	5.84	Prof. Edamana Prasad
30.	Inspire Fellowship for Ms. H K Sanjana - CY23D027	11.08.2023 to 10.08.2028	DST	5.84	Prof. Dillip Kumar Chand

31.	Developing a Sustainable Approach for the Dissolution and Extraction of Cobalt and Lithium from the Spent Li-ion Battery Cathode Materials Using Deep Eutectic Solvents	March 04, 2024 - March 03, 2027	SERB	65.10	Prof. Ramesh Gardas
32.	Synergistic N-Heterocyclic Carbene (NHC). Metal Catalysis for Cycloaddition and Heteroarylation Reactions: Asymmetric Synthesis of Valuable Organic Molecules	March 02, 2024 - March 01, 2027	SERB	47.41	Dr. Dawande Sudam Ganpat
33.	An Acid Catalysed Functionalisation of Csp ³ H Bonds, Employing Vinylic Carbocation Intermediate as the Tool: Rapid Approaches to Structurally Divergent Frameworks and Natural Products	February 15, 2024 - February 14, 2027	SERB	49.72	Prof. Beeraiah Baire
34.	Leveraging Metallacycles Through C-H, C-C, and C=C Activation: Applications in the Synthesis of High-Value Organic Scaffolds and Natural Products	March 02, 2024 - March 01, 2027	SERB	58.85	Prof. Md Mahiuddin Baidya
35.	New Synthetic Peptides for Targeting PCSK9 Towards Next Generation Anti-Hypercholesterolemic Drugs	February 15, 2024 - February 14, 2027	SERB	76.60	Prof. Muraleedharan K M (PI), Mr. Nitish R Mahapatra-008289, BT
36.	Nitrogen-doped Nanographene Saddles, Ribbons and Belts Embedding 5-7.7-5-7 Membered Conjoined Rings	March 02, 2024 - March 01, 2027	SERB	45.32	Prof. Venkatakrishnan P
37.	Synthesis, Structure, and Bonding of Inorganic E6 rings (E = B, Al or Bi) Stabilised by Group 4-6 Transition Metals	March 02, 2024 - March 03, 2027	SERB	78.21	Prof. Sundargopal Ghosh

4.5.6.2. Industrial Consultancy Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Prof. Muraleedharan K M	Optimisation, Development of Cost Effective, Eco-friendly and Pharmacopoeially Acceptable Synthesis of Moxifloxacin and the Key Starting Materials (Phase II)	Global Pharma Healthcare Pvt. Ltd.	19.40
2.	Prof. Pradeep T	Affordable Smart Mask for Online Health Monitoring	Venus Safety and Health Pvt. Ltd.	11.97
		Cryo-EM Facility	Common Code - Consultancy	59.00
		Cryo-EM Facility	Common Code - Consultancy	50.00

3.	Prof. Ramesh Gardas	Green Synthesis of Biologically Active Quinoline and Tetrahydroquinoline Derivatives in Ionic Liquid Using Aza Diels-Alder Reaction	Pfizer Healthcare India Pvt. Ltd.	64.90
4.	Prof. Sooraj K	An Automated Tool for Accurate pKa Prediction: Development of Computational Methodology and Graphical User Interface	Pfizer Inc	84.39
5.	Prof. Jeganmohan M	Synthesis of Substituted Benzene via Cyclootrimerization Reaction	Shell Technology India Pvt. Ltd.	86.73
		Etofenamate	Fleming Laboratories Ltd	6.14
6.	Prof. Sekar G	Economic and Catalytic Chemical Synthesis for the Acetylation, Esterification of Alcohols Using Carboxylic Acid	Ajmal Biotech Pvt. Ltd.	27.00
		Synthesis of Levodopa, Methyldopa and Carbidopa	Fleming Laboratories Ltd.	24.60
		Synthesis of Benzoic Acid Using Cu.Co or Mn Reusable Metal Nanocatalyst	Samnan Chemicals Pvt. Ltd.	15.60
7.	Prof. Anbarasan P	Preparation of Bismuth Subcitrate	Fleming Laboratories Ltd.	6.14
		Preparation of Sodium Diatrizoate Hydrate	Fleming Laboratories Ltd.	11.80
8.	Prof. Kothandaraman R	Development and Demonstration of Mg-S Battery Proof of Concept	Tumpudi Innovations Pvt. Ltd.	32.34
		Strategies Towards the Development of 10 kW. 50 kWh (2 Modules of 5kW. 50kWh) Vanadium Redox Flow Batteries for Commercial Applications	ONGC Energy Centre Trust	1053.70
		1kW.5kwh Redox Flow Battery With Anthraquinone Based Anolyte and Iron Catholyte: A Commercial Worthy India-Centric Solution for Grid Scale Energy Storage	Leep Edrive Pvt. Ltd.	5.90

4.5.6.3. Faculty Member's Participation With Other Institutions Under MoU:

Sl. No.	Name of Faculty	Participation Details	Name of University/ Institution Which Has MoU
1.	T Pradeep Prof. Raghunathan Rangaswamy Dean Global Engagement	Memorandum of Understanding for Academic Cooperation to Promote the Advancement of Learning Through Research, Exchange, and Collaboration in Teaching	IIT Madras and Ben-Gurion University of Negev, Beer-Sheva, Israel

4.5.6.4. Distinguished Visitors to the Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Prof. Werner Paulus, ICGM, University of Montpellier, CNRS, ENSCM	April 19, 2023	Guest Lecture
2.	Mr. Ranjith Sagar, Sales Director, OmniActive Health Technology, Bangalore	April 21, 2023	Guest Lecture
3.	Prof. A.M. Kannan, Arizona State University, USA	June 15, 2023	Guest Lecture
4.	Prof. Robert Hanson, St. Olaf College, Northfield, Minnesota, US	June 16, 2023	Guest Lecture
5.	Dr. Chinnakonda S Gopinath, FASc	June 23, 2023	Guest Lecture
6.	Prof. Sadagopan Krishnan, Oklahoma State University, USA	July 28, 2023	Guest Lecture
7.	Prof. A. R. Ravishankara FRS, Colorado State University	July 26, 2023	Guest Lecture
8.	Prof. Hadas Mamane, Adjunct Faculty, IITM & Head of Environmental Engineering Program, School of Mechanical Engineering, Faculty of Engineering, Tel-Aviv University	July 27, 2023	Guest Lecture
9.	Dr. Sabyasachi Rakshit, Associate Professor, Department of Chemical Sciences, Center for Protein Science, Design and Engineering, IISER-Mohali	August 18, 2023	Guest Lecture
10.	Dr. Barun Maity, Postdoctoral Researcher, Department of Chemistry and Chemical Engineering, Caltech, USA	October 26, 2023	Guest Lecture
11.	Dr. Mandar S Bodas- Customer Consultant, Elsevier	November 17, 2023	Special Lecture
12.	Dr. Ram Viswakarma, Distinguished Scientist CSIR, Council of Scientific & Industrial Research, New Delhi and, CSIR-Central Drug Research Institute, Lucknow, and Dr. Virupaksha Reddy Visiting Chair Professor at Department of Chemistry, IIT Madras	November 08, 2023	Special Lecture
13.	Prof. Richard N Zare, Department of Chemistry, Stanford University, Stanford, CA 94305 USA	December 14, 2023	Guest Lecture
14.	Prof. Simon Aldridge, Department of Chemistry, University of Oxford	December 19, 2023	Guest Lecture
15.	Prof. Marisa C Kozlowski, Department of Chemistry, University of Pennsylvania, United States	January 18, 2024	Guest Lecture
16.	Prof. Werner Paulus is Full Professor (PRCE) at the University of Montpellier (ICGM, UMR 5253)	January 17, 2024	Guest Lecture
17.	Dr. Yogesh G Shelke, Scientist, Medicinal Chemistry at Novo Nordisk, Boston, USA-02421	January 18, 2024	Guest Lecture
18.	Prof. Henrik Rudolph, Editor-in-Chief, Applied Surface Science (Elsevier)	February 05, 2024	Special Lecture
19.	Prof. Han Vinh Huynh, National University of Singapore	February 16, 2024	Guest Lecture
20.	Prof. Jerome Lacour, Department of Organic Chemistry, University of Geneva, Switzerland	February 22, 2024	Guest Lecture
21.	Prof. Suresh K Bhargava, Dean- Research and Innovation, Director - Centre for Advanced Materials and Industrial Chemistry (CAMIC) STEM College RMIT University, Melbourne	February 22, 2024	Special Lecture

4.5.7. Other Activities of the Department/Centre:

4.5.7.1. Departmental Activities:

- Chemistry In-House Symposium-2023 Conducted on 23rd August 2023 at ICSR, IIT Madras
- Resonance - A cultural program of the Department was organized on 17 April 2023 and on 11 September 2023.
- The existing 400 MHz & 500 MHz Nuclear Magnetic Resonance (NMR) Instruments have been upgraded with the accessories. 500 MHz NMR Instrument was Inaugurated by Director Prof. V Kamakotia on 31.01.2024. The upgradation of 400 MHz Instrument is in the process.

4.5.7.2. Socially Relevant Research Projects and Activities Carried Out by the Department:

Sl. No.	Faculty	Title of the Corporate and Social Responsibility Projects
1.	Prof. Dhamodharan R	Biodegradable Alternative to Elastomers/Rubber Products
2.	Prof. Kothandaraman Ramanujam	Converting Alkaline Batteries into source of Nutrients
3.	Prof. Pradeep T	Exploring the Ullman Cyclisation Reaction in Micro Droplets
4.	Prof. Pradeep T	Providing Drinking Water Kiosks Using CDI Technology in Multiple Locations
5.	Prof. Pradeep T	Support of Wastewater Based Epidemiology Facility at IIT Madras
6.	Prof. Pradeep T	Affordable Clean Water in Arsenic Affected Areas
7.	Prof. Pradeep T	An Accelerator Program
8.	Prof. Pradeep T	International Centre for Clean Water Research
9.	Prof. Pradeep T	Providing Drinking Water in Indian Villages
10.	Prof. Pradeep T	Cryo-Electron Microscopy

4.5.7.3. International Collaboration Achievements by the Department Faculty Visits:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit
1.	Prof. Selvam P	Delaware Energy Institute, University of Delaware, Newark, USA	June - July 2023	Visiting Professor
		Brisbane, Australia	September 01 - 05, 2023	International Visitor, School of Chemical Engineering, Brisbane
		The University of Newcastle, Newcastle, Australia	September 06 - 10, 2023	International Visitor - Senior Academic, Global Innovative Centre for Advanced Materials
2.	Prof. Kothandaraman Ramanujam	Australia	September 06 - 12, 2023	Visited Prof. Antonio Tricoli, University of Sydney, Using Joint Funding Bilateral Mobility Program of IITM Dean-Global Engagement for Initiating Research Collaboration Between IITM and University of Sydney
		Kathmandu, Nepal	September 28 - October 01, 2023	Interdisciplinary Initiative in Chemical Sciences

5.	Prof. Kothandaraman R	PhD Viva-Voce Examination	July 17, 2023. IIT Ropar
		Faculty Selection Interview Panel	July 26, 2023. PSG Tech, Coimbatore
6.	Dr. Yamijala Chaitanya Sharma	Attended a Conference & Workshop	July 24 - 28, 2023. IISC & JNC
7.	Prof. Archita Patnaik	DST/SERB TARE PAC Meeting, Varanasi, India	November 22 - 24, 2023
		Organised a Session at the International Conference on Optoelectronics and Bio-Inspired Materials	December 04 - 05, 2023. IIT Roorkee
8.	Prof. Debashis Chakraborty	International Conclave on Materials, Energy & Climate	December 18 - 20, 2023, New Delhi
9.	Prof. Rajakumar B	60th Annual Convention of Chemists 2023	December 20 - 21, 2023. , New Delhi
		Chemistry Association Inauguration Program, Chengannur, India	September 24 - 26, 2023
10.	Prof. Ramesh Gardas	XXXXII Annual Conference of Indian Council of Chemists	December 19 - 21, 2023. , Kota University, Rajasthan
11.	Prof. Sanjay Kumar	External Expert Member, Review & Promotion Committee, ISRO, Bangaluru	December 18, 2023
		Expert Member, Faculty Selection and Promotion, NIT Rourkela	March 11 - 13, 2024
12.	Prof. Jeganmohan M	23rd NOST Organic Chemistry Conference, Bhubaneswar, India	February 29 - March 03, 2024
13.	Prof. Sundar Gopal Ghosh	Indian Academy of Sciences Annual Meeting, BITS Pilani Goa, India	November 03, 2023
14.	Prof. S Baskaran	Expert Committee Member, National Biodiversity Authority (NBA) for scientific examination of certain materials /resources /chemicals used for research, commercialisation, bio-survey, and bio-utilisation and for obtaining Intellectual Property Rights for determining whether they fall under the purview of the definition of the biological resources under the Biological Diversity (Amendment) Act 2023 and participated in the discussion meetings	November 07, 2023 and January 31, 2024
		Expert Member, Monitoring Committee to review the progress of CSIR Mission Mode project on Identification of potential Locations across India for Seaweed Cultivation and their valorisation and participated in the 3rd meeting	October 19, 2023. CSIR-CSMCRI Research Station, Mandapam
		Expert Committee Member, ISC Technology Development Board-DST for the Project Demonstration Scale 2G Integrated Bioethanol; Discussion Meeting	January 23, 2024
		Served as an Expert Committee Member for considering the grant of Deemed to be University status to Avanthi Vidyapeeth, Vizianagaram, Andhra Pradesh and the meeting	August 30, 2023

		Served as an Expert Member in the Faculty Selection Committee Meeting	July 13, 2023. IIT Bhubaneswar
		Served as the DRDO-RAC Expert Committee Member for the Lateral Recruitment of Scientists	November 01 - 02, 2023. DRDO-RAC, New Delhi
		Served as a Faculty Selection Committee Member at Dr. B R Ambedkar National Institute of Technology, Jalandhar (NIT Jalandhar)	October 14, 2023
		Served as a Faculty Selection Committee Member at IISER, Thiruvananthapuram	December 21, 2023
		Served as a Member of the Selection Committee for the recruitment of faculty in the Department of Chemistry at IIT Kharagpur	January 06 - 07, 2024

4.5.7.5. Activities Initiated:

- Installation and commissioning of the procured high-end instruments are in the process as part of further strengthening the major research instrumental infrastructure.
- To this end, a project proposal to the tune of 15 crores has been submitted in April 2024 under the 'FIST-Project (Level-C R & D, the Ministry of Science & Technology, Government of India, to procure (i) Atomic Force Spectroscopy (AFM), (ii) Electron Spin Resonance Spectrometer (ESR), and (iii) X-Ray/Ultraviolet Photoelectron Spectroscopy (XPS-UPS)
- Further impetus is on developing instrumental and computational facilities to encourage studies and research activities towards medicinal Chemistry.
- The UG and PG Labs are strengthened and upgraded with new analytical instruments and accessories.
- The Department planned to introduce a BS-MS program in Chemistry in the academic year of 2025.

4.6 Department of Civil Engineering

1. Introduction

The Department of Civil Engineering has been in existence since the inception of IIT Madras in 1959. Since then, it has contributed to the nation's infrastructure development and human resource generation. The departmental activities include teaching, research, consultancy, and training. These activities are carried out under different disciplines,

administratively organized into six divisions, namely Building Technology Construction Materials & Management (BTCM), Environmental Engineering (EE), Hydraulics and Water Resources Engineering (HWRE), Geotechnical Engineering (GT), Structural Engineering (ST), and Transportation Engineering (TR). There are 14 well-equipped laboratories attached to these divisions.

2. Academic Programmes

The Department has postgraduate programmes leading to Dual Degree, M.Tech., M.S., and Ph.D. degrees in various disciplines of civil engineering in addition to the undergraduate B.Tech. programme in civil engineering. Also, the Department offers a user-oriented industry-sponsored post-graduate diploma in bridge engineering.

2.1. New Courses Introduced

Sl. No.	Course No.	Title
1.	CE5111	Geophysical Exploration Methods
2.	CE6017	Precast and Special Concrete Structures
3.	CE6018	Seismic data analytics
4.	CE7026	Displacement-based Earthquake Resistant Design of Structures
5.	CE5027	Mechanical Behaviour of Cement-Based Materials

2.2. Students on Roll as of September 2023 + M.S. & Ph.D. Admissions in January 2024

Programme	I Year 2023	II Year 2022	III Year 2021	IV Year 2020	V Year & others	Total
B.Tech.	116	126	113	103	6	464
Dual Degree	3	10	5	3	1	22
M.Tech.	119	83	Nil	Nil	Nil	202
M.S.	10	11	5	2	Nil	28
Ph.D.	28	38	41	67	90	264
Total	276	268	164	175	97	980

2.3. Students/Scholars Who Attended Conferences, Seminars and Symposia Abroad or in India

S. No	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
Abroad					
1	Devesh Kumar Jaiswal	CE20D024	New Zealand Society of Earthquake Engineering (NZSEE) 2023 Conference	April 19-21, 2023, Auckland, New Zealand	Institute Financial Assistance
2	Sreelakshmi S	CE17D030	Engineering Project Organization Conference and Ph.D. Day 2023	June 19-23, 2023, Berlin, Germany	Institute Financial Assistance

S. No	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
3	Wasim Niyaz Munshi	CE21D400	Seventh International Conference on Computational Modeling of Fracture and Failure of Materials and Structures (CFRAC 2023)	June 21-23, 2023, Prague, Czech Republic	Institute Financial Assistance
4	Sreelakshmi Srinivasan	CE20D077	77th RILEM (Réunion Internationale des Laboratoires et Experts des Matériaux, systèmes de construction et ouvrages) Annual Week and the 1st Interdisciplinary Symposium on Smart & Sustainable Infrastructures (ISSSI 2023)	September 4-8, 2023, Vancouver, Canada	Institute Financial Assistance
5	Keerthi VT	CE20D082	77th RILEM Annual Week and the 1st Interdisciplinary Symposium on Smart & Sustainable Infrastructures (ISSSI 2023)	September 4-8, 2023, Vancouver, Canada	Travel grant
6	Anupama VA	CE19D760	The International Congress on the Chemistry of Cement (ICCC) 2023	September 18-22, 2023, Bangkok	Prime Minister's Research Fellows (PMRF) Contingency
7	Gopika I	CE18D405	Institute of Electrical and Electronics Engineers (IEEE) International Conference on Sensors & Nanotechnology (SENNANO) 2023	September 26-27, 2023, Putrajaya, Malaysia	Institute Financial Assistance
8	Pavan Kumar Bhukya	CE19D772	Symposium on Energy Geotechnics 2023	October 3-5, 2023, TU Delft, Delft, Netherlands	Institute Financial Assistance
9	Nandini Adla	CE19D766	Symposium on Energy Geotechnics 2023	October 3-5, 2023, TU Delft, Delft, Netherlands	Institute Financial Assistance
10	Gaurav Chandra Bridhani	CE19D761	VIII International Conference of Particle-Based Methods (Particles 2023)	October 9-11, 2023, Milan, Italy	PMRF Contingency
11	Angel Jessieleena A	CE20D034	Society of Environmental Toxicology and Chemistry (SETAC) North America 44th Annual Meeting	November 12-16, 2023, Louisville, Kentucky, USA	Institute Financial Assistance
12	Aswin Giri J	CE19D039	Healthy Environments and Lives (HEAL) 2023 Conference	November 14-16, 2023, Australia (attended virtually)	No financial assistance
13	Sarup Das	CE20D036	Healthy Environments and Lives (HEAL) 2023 Conference	November 14-16, 2023, Australia (virtual)	No financial assistance
14	Chaithra S	CE22D055	Healthy Environments and Lives (HEAL) 2023 Conference	November 14-16, 2023, Australia (virtual)	No financial assistance

S. No	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
15	Ritik Anand	CE21S013	16th Annual International Conference on the Challenges in Environmental Science & Engineering (CESE-2023)	November 5-9, 2023, Duxton Hotel, Perth Australia	Institute Financial Assistance
16	Alakananda Ghosh	CE20D407	Challenges in Environmental Science & Engineering (CESE 2023)	November 5-9, 2023, Duxton Hotel, Perth, Australia.	Institute Financial Assistance
17	Kaviarasu K	CE19D023	The 26th Australasian Conference on the Mechanics of Structures and Materials (ACMSM26)	December 3-6, 2023, University of Auckland; New Zealand	Institute Financial Assistance
18	Akula Vishnu Vardhan	CE18D202	International Water Association (IWA) International Conference on Water and Wastewater Management with special focus on Developing Countries	December 3-8, 2023, Murdoch University, Western Australia	Institute Financial Assistance
19	Sai Sri Kusumanchi	CE20D200	77th RILEM Annual Week and the 1st Interdisciplinary Symposium on Smart & Sustainable Infrastructures (ISSSI 2023)	December 4-8, 2023, Vancouver, Canada	Institute Financial Assistance
20	Umeshkumar Mourya	CE17D015	11th International Conference on Advances in Steel Structures (ICASS' 2023)	December 5-7, 2023, Kuching, Malaysia	Institute Financial Assistance
21	Kaushik Bhattacharjee	CE20D008	Construction Industry and Construction Research Congress (CI & CRC) Joint Conference 2024	March 20-23, 2024, Des Moines, Iowa, USA	Institute Financial Assistance
22	Gopika I	CE18D405	Clean Indoor Air Forum 2024	March 18, 2024, Australian National University, Canberra, Australia	No financial assistance
23	Sreelakshmi S	CE17D030	CI & CRC Joint Conference 2024	March 21-23, 2024, Des Moines, Iowa, USA (virtual)	No financial assistance
India					
1	Anju Anna John	CE20D049	International Conference on Women in Electrochemistry (ICWEC-2023)	April 7-9, 2023, IISc Bengaluru	Institute Financial Assistance
2	Maanashi Tripathi	CE21D751	Workshop on Technical and Scientific Writing	May 15-19, 2023, IIT Madras, Chennai, Tamil Nadu	No financial assistance
3	Akula Vishnu Vardhan	CE18D202	Workshop on Technical and Scientific Writing	May 15-19, 2023, IIT Madras Chennai, Tamil Nadu	No financial assistance

S. No	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
4	Alakananda Ghosh	CE20D407	Workshop on Technical and Scientific Writing	May 15-19, 2023, IIT Madras, India.	Institute Financial Assistance
5	Shanmugaraj S	CE20D005	International Symposium on. Automation and Robotics in Construction 2023 (ISARC 2023)	July 3-9, 2023, Chennai	No financial assistance
6	Pooja	CE20D032	Workshop on Technical and Scientific Writing	July 17-21, 2023, IIT Madras Chennai, Tamil Nadu	No financial assistance
7	Amit Singh Chandel	CE20D035	Atmospheric Aerosol Measurements and Modeling over India: Past Decade, Current Status, and Challenges Ahead	July 26-28, 2023, College of Engineering Munnar, Kerala	Institute Financial Assistance
8	Roulo Dinesh	CE22D058	Real Time Flood Forecasting and Spatial Decision Support System (RTFF & SDSS) for Chennai Basin	August 24, 2023, IIT Madras, Tamil Nadu	No financial assistance
9	Bhadra Devadas	CE22D200	Water Security and Climate Adaptation Conference (WSCA) 2023	October 4-10, 2023, IIT Madras	No financial assistance
10	Angel Jessieleena A	CE20D034	Water Security and Climate Adaptation Conference (WSCA) 2023	October 4-7, 2023, IIT Madras	No financial assistance
11	Rajagopal MS	CE20D087	Water Security and Climate Adaptation Conference (WSCA) 2023	October 4-10, 2023, IIT Madras	No financial assistance
12	Akula Vishnu Vardhan	CE18D202	Transfer Workshop on 'How to Measure Water Security? Using the Water Security Assessment Tool (WATSAT)'	October 4-10, 2023, IIT Madras, India	No financial assistance
13	Yogita	CE20D037	Water Security and Climate Adaptation Conference (WSCA) 2023	October 4-10, 2023, IIT Madras, India	No financial assistance
14	Akula Vishnu Vardhan	CE18D202	Water Security and Climate Adaptation Conference (WSCA) 2023	October 4-10, 2023, IIT Madras, India	No financial assistance
15	Naveen SL	CE21D201	Water Security and Climate Adaptation Conference (WSCA) 2023	October 4-10, 2023, IIT Madras, India	Institute Fund
16	Ritik Anand	CE21S013	Water Security and Climate Adaptation Conference (WSCA) 2023	October 4-10, 2023, IIT Madras, India	No financial assistance
17	Mohammed Iqbal T	CE19D007	Transfer Workshop on 'How to Measure Water Security? Using the Water Security Assessment Tool (WATSAT)'	October 4-10, 2023, IIT Madras, India	No financial assistance
18	Mohammed Iqbal T	CE19D007	Water Security and Climate Adaptation Conference (WSCA) 2023	October 4-10, 2023, IIT Madras, India	No financial assistance

S. No	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
19	Pooja	CE20D032	Transfer Workshop on 'How to Measure Water Security? Using the Water Security Assessment Tool (WATSAT)'	October 4-10, 2023, IIT Madras, India	No financial assistance
20	Maanashi Tripathi	CE21D751	Transfer Workshop on 'How to Measure Water Security? Using the Water Security Assessment Tool (WATSAT)'	October 4-10, 2023, IIT Madras, India	No financial assistance
21	Pooja	CE20D032	1st International Conference on Water Security and Climate Adaptation (WSCA) 2023	October 4-10, 2023, IIT Madras, India	No financial assistance
22	Aakar Garg	CE22M006	Construction Technology Day by CTAI foundation (CTD 2023)	October 5, 2023, IIT Bombay, India	Institute Financial Assistance
23	Krunal Kshatriya	CE23M110	Construction Technology Day by CTAI foundation (CTD 2023)	October 5, 2023, IIT Bombay, India	No financial assistance
24	Anantharaam R	CE23M129	Construction Technology Day by CTAI foundation (CTD 2023)	October 5, 2023, IIT Bombay, India	Project Funding
25	Devansh Shah	CE23M012	Construction Technology Day by CTAI Foundation (CTD 2023)	October 5, 2023, IIT Bombay, India	Institute Financial Assistance
26	Bhairavi Sankhe	CE23M009	Construction Technology Day by CTAI Foundation (CTD 2023)	October 5, 2023, IIT Bombay, India	No financial assistance
27	Roulo Dinesh	CE22D058	One-day workshop on Urban Water Challenges	October 18, 2023, IIT Madras, Tamil Nadu	No financial assistance
28	Reshma R	CE19D758	Bridging the Knowledge Gap: Workshop on the Theory of Climate Change 2023	November 1-3, 2023, Kottayam	Institute Financial Assistance
29	Bhadra Devadas	CE22D200	Bridging the Knowledge Gap: Workshop on the Theory of Climate Change 2023	November 1-3, 2023, Kottayam	Institute Financial Assistance
30	Krunal Kshatriya	CE23M110	IGBC's Green Building Congress 2023	November 24, 2023, Chennai Trade Centre, Chennai	No financial assistance
31	Devansh Shah	CE23M012	IGBC's Green Building Congress 2023	November 24, 2023, Chennai Trade Centre, Chennai	No financial assistance
32	Bhairavi Sankhe	CE23M009	IGBC's Green Building Congress 2023	November 24, 2023, Chennai Trade Centre, Chennai	No financial assistance
33	Bhairavi Sankhe	CE23M009	6th Indian Lean Construction Conference (ILCC 2023)	November 26-30, 2023, Indian Habitat Centre, Delhi, India	Institute Financial Assistance

S. No	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
34	Krunal Kshatriya	CE23M110	6th Indian Lean Construction Conference (ILCC 2023)	November 26-30, 2023, Indian Habitat Centre, Delhi, India	Institute Financial Assistance
35	Devansh Shah	CE23M012	6th Indian Lean Construction Conference (ILCC 2023)	November 26-30, 2023, Indian Habitat Centre, Delhi, India	Institute Financial Assistance
36	Anju Anna John	CE20D049	Dive into Ecotoxicology: Zebrafish and Wastewater - workshop	November 27-28, 2023, IIT Madras in collaboration with SRM Institute of Science and Technology, Chennai	Institute Financial Assistance
37	Susan Eldhose	CE20D030	Workshop on Technical and Scientific Writing	November 27-December 1, 2023, IIT Madras	No financial assistance
38	Angel Jessieleena A	CE20D034	Dive into Ecotoxicology: Zebrafish and Wastewater - workshop	November 27-28, 2023, SRM University in collaboration with IIT Madras, Chennai	No financial assistance
39	Amit Singh Chandel	CE20D035	Workshop on Technical and Scientific Writing	November 27-December 1, 2023, IIT Madras	No financial assistance
40	G Venkata Koulini	CE21D050	Dive into Ecotoxicology: Zebrafish and Wastewater - workshop	November 27-28, 2023, IIT Madras in collaboration with SRMIST, Chennai	Indo-German Science & Technology Centre (IGSTC)
41	Dharani T	CE22M112	6th Indian Lean Construction Conference (ILCC 2023)	November 27-30, 2023, School of Planning & Architecture, New Delhi	Institute Financial Assistance
42	Kiruthika Eswari V	CE17D003	Dive into Ecotoxicology: Zebrafish and Wastewater - workshop	November 27-28, 2023, IIT Madras in collaboration with SRMIST, Chennai	No financial assistance
43	Meenaakshi Ponnoju	CE22M118	6th Indian Lean Construction Conference (ILCC 2023)	November 27-30, 2023, School of Planning & Architecture, New Delhi	Institute Financial Assistance
44	Pausali Pradhan	CE22S014	Dive into Ecotoxicology: Zebrafish and Wastewater - workshop	November 27-28, 2023, IIT Madras in collaboration with SRMIST, Chennai	IGSTC
45	Amit Singh Chandel	CE20D035	Workshop on AI Augmented Manuscript Writing & Publishing	December 4-7, 2023, IIT Madras	No financial assistance

S. No	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
46	Amit Singh Chandel	CE20D035	National Training Workshop on Climate Impacts of Carbonaceous Aerosols and Measurement	December 4-7, 2023, IITM Pune, Maharashtra	Institute Financial Assistance
47	Aswin Giri J	CE19D039	Indian International Conference on Air Quality Management 2023	December 4-8, 2023, IISc Bangalore	Institute Fund
48	Sarup Das	CE20D036	Indian International Conference on Air Quality Management 2023	December 4-8, 2023, IISc Bangalore	Institute Fund
49	Chaithra S	CE22D055	Indian International Conference on Air Quality Management (IICAQM 2023)	December 4-8, 2023, IISc Bangalore	No financial assistance
50	Gopika I	CE18D405	Indian International Conference on Air Quality Management (IICAQM 2023)	December 4-8, 2023, IISc Bangalore	No financial assistance
51	Naveen SL	CE21D201	Indian National Groundwater Conference 2023	December 5-6, 2023, IIT Hyderabad	Institute Fund
52	Rajagopal MS	CE20D087	Indian National Groundwater Conference	December 5-6, 2023, IIT Hyderabad	Institute Financial Assistance
53	Wasim Niyaz Munshi	CE21D400	Indian Society of Theoretical and Applied Mechanics (ISTAM) 2023	December 9-11, 2023, NIT Warangal	PMRF Contingency
54	Sreelakshmi Srinivasan	CE20D077	International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)	December 10-13, 2023, IIT Hyderabad, India	No financial assistance
55	Keerthi VT	CE20D082	International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)	December 10-13, 2023, IIT Hyderabad, India	Institute Financial Assistance
56	Shefali Aggarwal	CE22D005	International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)	December 10-13, 2023, IIT Hyderabad, India	Institute Financial Assistance
57	Arun Nair	CE20D010	Indian Aerosol Science and Technology Association 2024	December 12-14, 2023, Mumbai, India	Institute Financial Assistance
58	Arun Nair	CE20D010	Indian Aerosol Science and Technology Association 2024	December 12-14, 2023, Mumbai, India	Institute Financial Assistance
59	Amit Singh Chandel	CE20D035	Indian Aerosol Science and Technology Association 2024	December 12-14, 2023, Navi Mumbai, Maharashtra	Travel and Accommodation by ISTA Committee
60	Aishwarya Singh	CE19D770	Indian Aerosol Science and Technology Association (IASTA) National Conference 2023	December 12-14, 2023, Navi Mumbai, Maharashtra	PMRF contingency

S. No	Name of the Student/ Scholar	Roll No.	Name of the Conference/ Seminar/Symposium/Workshop	Date and Venue	Financial Assistance from
61	Tenkurala Srujana	CE21D043	Indian Geotechnical Conference	December 14-16, 2023	Institute Financial Assistance
62	Reshma R.	CE19D758	28th International Conference on Hydraulics, Water Resources and River Engineering (HYDRO 23)	December 21-23, 2023, NIT Warangal, India	PMRF Contingency
63	Anantharaam R	CE23M129	One-Day Workshop on Realizing Sustainability - Role of Contract and Law in Indian Construction by Technologies for Low Carbon & Lean Construction (TLC2)	January 31, 2024, IIT Madras, India	No financial assistance
64	Dharani T	CE22M112	One-Day Workshop on Realizing Sustainability - Role of Contract and Law in Indian Construction by Technologies for Low Carbon & Lean Construction (TLC2)	January 31, 2024, IIT Madras, India	No financial assistance
65	Krunal Kshatriya	CE23M110	One-Day Workshop on Realizing Sustainability - Role of Contract and Law in Indian Construction by Technologies for Low Carbon & Lean Construction (TLC2)	January 31, 2024, IIT Madras, India	No financial assistance
66	Devansh Shah	CE23M012	One-Day Workshop on Realizing Sustainability - Role of Contract and Law in Indian Construction by Technologies for Low Carbon & Lean Construction (TLC2)	January 31, 2024, IIT Madras, India	No financial assistance
67	Bhairavi Sankhe	CE23M009	One-Day Workshop on Realizing Sustainability - Role of Contract and Law in Indian Construction by Technologies for Low Carbon & Lean Construction (TLC2)	January 31, 2024, IIT Madras, India	No financial assistance
68	Danish Bashir	CE21D402	International Conference on Sustainable Materials for Engineering Applications (ICSMEA) 2024	February 1-2, 2024 IIT Madras	No financial assistance
69	Anju Anna John	CE20D049	SDG School 2024 by Maker's Asylum	February 5-16, 2024, Maker's Asylum Goa (Virtually)	Institute Financial Assistance
70	Roulo Dinesh	CE22D058	Climate Change Impacts on Reservoir Quantity and Quality: Concepts and Modelling	February 14-16, 2024, CWR, Anna University Chennai, Tamil Nadu	Science and Engineering Research Board (SERB)-sponsored
71	Pausali Pradhan	CE22S014	National Environment Conference (NEC 2024)	February 15-17, 2024, IIT Bombay	Academic section, IIT Madras
72	Anju Anna John	CE20D049	National Environment Conference (NEC 2024)	February 15-17, 2024, IIT Bombay	Institute Financial Assistance

73	Chaithra S	CE22D055	Asian Conference on Indoor Environmental Quality (ACIEQ 2023)	February 24, 2023, Delhi	No financial assistance
74	Akula Vishnu Vardhan	CE18D202	'Nature-based Water Management Techniques in Coastal Aquifers', CCRFB-Indo German Competence Centre for Riverbank Filtration	February 24-25, 2023, IIT Madras, Chennai.	No financial assistance
75	Mohammed Iqbal T	CE19D007	'Nature-based Water Management Techniques in Coastal Aquifers', CCRFB-Indo German Competence Centre for Riverbank Filtration'	February 24-25, 2023, IIT Madras, Chennai.	No financial assistance
76	Angel Jessieleena A	CE20D034	National Workshop on Microplastic Research	March 1-2, 2024, IITM Research Park	No financial assistance
77	Chaithra S	CE22D055	National Workshop on Microplastic Research	March 1-2, 2024, IITM Research Park, Chennai	PMRF contingency
78	Anupama VA	CE19D761	Annual PMRF symposium 2024	March 3-4, 2024, IIT Indore	No financial assistance
79	Aishwarya Singh	CE19D770	Annual PMRF symposium 2024	March 3-4, 2024, IIT Indore	PMRF contingency
80	Anju Anna John	CE20D049	All India Research Scholars' Summit (AIRSS) 2024	March 4-7, 2024, IIT Madras	No financial assistance
81	Pausali Pradhan	CE22S014	All India Research Scholars' Summit (AIRSS) 2024	March 4-7, 2024, IIT Madras	No financial assistance
82	G Venkata Koulini	CE21D050	All India Research Scholars Summit (AIRSS) 2024	March 4-7, 2024, IIT Madras	PMRF contingency
83	Bhadra Devadas	CE22D200	4th International Conference on River Corridor Research and Management RCRM 2024	March 7-9, 2024, IIT Guwahati, India	Institute Financial Assistance

2.4. Students/Scholars Who Won Outside Prizes and Awards

S. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded by
1.	Arun Nair	CE20D010	Second best lightning talk	Indian Aerosol Science and Technology Association 2024
2.	Amit Singh Chandel	CE20D035	Third Best Poster Presentation	Indian Aerosol Science and Technology Association 2024
3.	Sreelakshmi S	CE20D077	Best Paper Award	CARRS 2023, IIT Hyderabad
4.	G Venkata Koulini	CE21D050	Best technical presentation (poster)	All India Research Scholars Summit (AIRSS) 2024, IIT Madras
5.	Keerthi V T	CE20D082	RILEM PhD travel grant	77th RILEM Annual Week and the 1st ISSSI 2023, Vancouver, Canada
6.	Devansh Shah	CE23M012	Hackathon Winner at ILCC 2023, Delhi	Institute for Lean Construction Excellence (ILCE)
7.	Bhairavi Sankhe	CE23M009	Hackathon Winner at ILCC 2023, Delhi	Institute for Lean Construction Excellence (ILCE)
8.	Krunal Kshatriya	CE23M110	Hackathon Winner at ILCC 2023, Delhi	Institute for Lean Construction Excellence (ILCE)

9.	Adarsh Kumar	CE23M111	Hackathon Winner at ILCC 2023, Delhi	Institute for Lean Construction Excellence (ILCE)
10.	Dhairya Chavda	CE22M109	Hackathon Winner at ILCC 2023, Delhi	Institute for Lean Construction Excellence (ILCE)
11.	Rajagopal MS	CE20D087	Best Paper Award	Fifth Indian National Groundwater Conference (INGWC 2023), IIT Hyderabad

2.5. Name of Students/Scholars Who Won Institute Convocation/Institute Day Prizes

S. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1	Mrinal Bhaumik	CE19D757	Institute Research Awards	IIT Madras
2	Kaushik Jas	CE19D202	Institute Research Awards	IIT Madras
3	Shubham Raj	CE17D412	Institute Research Awards	IIT Madras
4	Vibhu Vilas Sharma	CE19B101	Larsen & Toubro Endowment Prize	Larsen & Toubro Ltd.
5	Yakkala Eswita	CE18B135	Dr. NR Dave Prize	Dr. N R Dave
6	Megha S Pradeep	CE21M007	Bhagyalakshmi And Krishna Ayengar Award	
7	Vineeth R	CE21M022	Institute Merit Prize	IIT Madras
8	Sai Sudhir B	CE21G510	Institute Merit Prize	IIT Madras
9	Inigo J	CE16D303	Ge Ecomagination Excellence Award	
10	Vaishali Choudhary	CE17D035	Ge Ecomagination Excellence Award	
11	Aayush Jain	CE21M056	K Devarajan Memorial Prize	K Devarajan
12	Megha S Narayanan	CE21M069	Rajnikant Gandhi Memorial Award	Prof. SR Gandhi, IIT Madras
13	Rohit Malik	CE21M075	Dronnadula Nagaratnam Reddy Award	Dr. Ram D Sriram
14	Vineeth R	CE21M022	Valli Anantharamakrishnan Merit Prize	Mallika Srinivasan, TAFE
15	Kaustav Ghosal	CE21M115	L&T Endowment Prize	Larsen & Toubro Ltd.
16	Paul Sigamani Moses	CE21M073	Prof Juergen Plaehn Prize	Prof Juergen Plaehn
17	Resmi G	CE13D050	Shree Gaayathree Devi Award	Prof. H Achyutha

3. Faculty and Their Activities

3.1. Faculty

Name and Qualifications	Major Areas of Specialisation
Professors:	
Dr. Benny Raphael, Ph.D. (University of Strathclyde, UK) (Head)	Building Technology Construction Materials and Management
Dr. Alagusundaramoorthy P, Ph.D. (IIT Madras)	Composite technology
Dr. Amlan Kumar Sengupta, Ph.D. (University of Missouri)	Structural engineering
Dr. Appa Rao G, Ph.D. (IISc. Bangalore)	Structural engineering
Dr. Arul Jayachandran, Ph.D. (IIT Madras)	Structural engineering
Dr. Arun Menon, Ph.D. (University of Pavia, Italy)	Structural engineering

Dr. Ashwin Mahalingam, Ph.D. (Stanford University)	Building Technology Construction Materials and Management
Dr. Balaji Narasimhan, Ph.D. (Texas A&M University)	Water resources engineering
Dr. Dali Naidu Arnepalli, Ph.D. (IIT Bombay)	Geotechnical engineering
Dr. Dodagoudar GR, Ph.D. (IIT Bombay)	Geotechnical engineering
Dr. Gitakrishnan Ramadurai, Ph.D. (Rensselaer Polytechnic institute)	Transportation engineering
Dr. Indumathi M Nambi, Ph.D. (Clarkson University)	Environmental engineering
Dr. Karthik K Srinivasan, Ph.D. (Texas, Austin)	Transportation engineering
Dr. Koshy Varghese, Ph.D. (Texas, Austin)	Building Technology Construction Materials and Management
Dr. Lelitha Devi, Ph.D. (Texas A&M)	Transportation engineering
Dr. Ligy Philip, Ph.D. (IIT Kanpur)	Environmental engineering
Dr. Manu Santhanam, Ph.D. (Purdue University)	Building Technology Construction Materials and Management
Dr. Meher Prasad A, Ph.D. (RICE)	Structural engineering
Dr. Mohan S, Ph.D. (IISc., Bangalore)	Water resources engineering
Dr. Murali Krishnan J, Ph.D. (IIT Madras)	Transportation engineering
Dr. Murty BS, Ph.D. (Washington State University)	Water resources engineering
Dr. Murty CVR, Ph.D. (California Institute of Technology)	Structural engineering
Dr. Nageswara Rao B, Ph.D. (Iowa University)	Structural engineering
Dr. Radhakrishna G Pillai, Ph.D. (Texas A&M University)	Building Technology Construction Materials and Management
Dr. Raghukanth STG, Ph.D. (IISc Bangalore)	Structural engineering
Dr. Ramamurthy K, Ph.D. (IIT Madras)	Building Technology Construction Materials and Management
Dr. Ravindra Gettu, Ph.D. (Northwestern)	Building Technology Construction Materials and Management
Dr. Robinson RG, Ph.D. (IISc., Bangalore),	Geotechnical engineering
Dr. Rupen Goswami, Ph.D. (IIT Kanpur)	Structural engineering
Dr. Sachin S Gunthe, Ph.D. (IITM Pune)	Atmospheric chemistry and physics
Dr. Saravanan U, Ph.D. (Texas A&M)	Structural engineering
Dr. Satish Kumar SR, D. Engineering (Nagoya University)	Structural engineering
Dr. Satyanarayana KN, Ph.D. (Director, IIT Tirupati)	Building Technology Construction Materials and Management
Dr. Shiva Nagendra SM, Ph.D. (IIT Delhi)	Environmental engineering
Dr. Sivanandan R, Ph.D. (Virginia Tech.)	Transportation engineering
Dr. Subhadeep Banerjee, Ph.D. (NUS, Singapore)	Geotechnical engineering
Dr. Sudheer KP, Ph.D. (IIT Delhi)	Water resources engineering
Dr. Thyagaraj T, Ph.D. (IISc Bangalore)	Geotechnical engineering
Dr. Vidya Bhushan Maji, Ph.D. (IISc Bangalore)	Geotechnical engineering
Dr. Venu Chandra, Ph.D. (IIT Kanpur)	Hydraulics and water resources engineering

Associate Professors:	
Dr. Atul Narayanan, Ph.D. (Texas A&M)	Transportation engineering
Dr. Bhargava Rama Chilukuri, Ph.D. (Georgia Institute of Technology, Atlanta, Georgia, USA)	Transportation engineering
Dr. S Mathava Kumar, Ph.D. (IIT Madras)	Environmental engineering
Dr. Piyush Chaunsali, Ph.D. (University of Illinois at Urbana-Champaign, USA)	Building Technology Construction Materials and Management
Dr. Sivakumar Palaniappan, Ph.D. (Arizona State University)	Building Technology Construction Materials and Management
Dr. Soumendra Nath Kuiry, Ph.D. (IIT Kharagpur)	Hydraulics and water resources engineering
Assistant Professors:	
Dr. Alagappan P, Ph.D. (Texas A&M University, USA)	Structural engineering
Dr. Aslam Kunhi Mohamed, Ph.D. (EPFL, Switzerland)	Building Technology Construction Materials and Management
Dr. Chandan Sarangi, Ph.D. (IIT Kanpur)	Environmental engineering
Dr. Chandrasekhar Annavarpu, Ph.D. (Duke University, USA)	Geotechnical engineering
Dr. Keerthana K, Ph.D. (IISc Bangalore)	Building Technology Construction Materials and Management
Dr. Lakshmi Priya, Ph.D. (Georgia Institute of Technology)	Structural engineering
Dr. Mohanakrishnan Logan Ph.D. National University of Ireland, Galway	Environmental engineering
Dr. Murali Jagannathan Ph.D., Indian Institute of Technology Bombay	Building Technology Construction Materials and Management
Dr. Nikhil Bugalia, Ph.D. (University of Tokyo, Japan)	Building Technology Construction Materials and Management
Dr. Phanisri Pradeep Pratapa, Ph.D. (Georgia Institute of Technology, Atlanta, USA)	Structural engineering
Dr. Ramesh Kannan K, Ph.D., IISc Bangalore	Geotechnical engineering
Dr. Sreeparvathy Vijay IISc Bangalore	Hydraulics and water resources engineering
Dr. Subbarao Pichuka, Ph.D. IIT Kharagpur	Hydraulics and water resources engineering
Dr. Surender Singh, Ph.D., IIT Roorkee	Transport engineering
Dr. Tanushree Parsai (Ph.D., Indian Institute of Technology, Delhi, India)	Environmental engineering
Dr. Tarun Naskar, Ph.D., Indian Institute of Science, Bangalore	Geotechnical engineering
Dr. Venkatraman Srinivasan, University of Illinois Urbana Champaign, USA	Environmental engineering
Adjunct Faculty:	
Dr. Alessandro Flora	Geotechnical engineering
Dr. Carlo Giovanni Lai	Geotechnical engineering
Dr. Carmen Andrade Perdriz	Building Technology Construction Materials and Management
Dr. M S Mohan Kumar	Hydraulics and water resources engineering
Dr. Parama Roy	Building Technology Construction Materials and Management

Dr. Raghavan Srinivasan	Hydraulics and water resources engineering
Dr. Sharad K Jain	Hydraulics and water resources engineering
Dr. Shweta Yadav	Environmental engineering
Dr. Sotiris Vardoulakis	Environmental engineering
Dr. Uwe Schlink	Environmental engineering
Distinguished Professors:	
Dr. Mark Alexander	Building Technology Construction Materials and Management
Dr. Mirosław J. Skibniewski	Building Technology Construction Materials and Management
Dr. Surendra P Shah	Building Technology Construction Materials and Management
Dr. V Chandrasekar	Hydraulics and water resources engineering
Professors of Practice:	
Dr. Davuluri Srinagesh	Structural engineering
Dr. K Radhakrishna	Structural engineering
Dr. PG Venkatram	Structural engineering
Dr. Pawan Labhasetwar	Environmental engineering
Dr. Raghavan N	Building Technology Construction Materials and Management
Visiting Faculty:	
Dr. Tachwan Kim	Building Technology Construction Materials and Management
Dr. Elango Lakshman	Hydraulics and water resources engineering
Dr. Hemanta Doloi	Building Technology Construction Materials and Management
Dr. Mrinali Rochlani	Hydraulics and water resources engineering

3.2. Short-term Courses, Workshops, Seminars, Symposia and Conferences organized by Faculty Members

S. No.	Name of Faculty	Title	Institution	Period
Conference				
1	Dr. Benny Raphael	International Symposium on Automation and Robotics in Construction (ISARC) 2023	IIT Madras Research Park	July 3-8, 2023
Meetings				
1	Dr. Indumathi Nambi	World Sustainability Day	IIT Madras	October 26, 2023
2	Dr. Indumathi Nambi	Stakeholders' meeting for textile dyeing units in Tirupur and Inauguration of Pilot plant for colour, salt and organics removal	Kunnampalayam CETP, Tirupur	December 1-2, 2023
Seminars				
1	Dr. Gitakrishnan Ramadurai Dr. Lelitha Devi V Dr. Bhargava Rama Chilukuri	Traffic Engineering and Transport Planning: Bridging Theory and Practice	Industrial Consultancy & Sponsored Research (IC&SR) building, IIT Madras	April 28-29, 2023

2	Dr. Venkatraman Srinivasan	Food security under climate change and technological transformations, by Prof. Oula Ghannoum, Western Sydney University	IIT Madras	March 26, 2024
3	Dr. Phanisri Pradeep Pratapa	Experiments on Origami Metamaterials, by Prof. Diego Misseroni, University of Trento, Italy	Structural Engineering Lab, IIT Madras	March 28, 2024
Short term Courses:				
1	Dr. Mathava Kumar	GIAN Course: Algal and Bacterial Bioreactor Systems Design for Sustainable Wastewater Treatment (Foreign Faculty: Prof. Chandra S Theegala, Louisiana State University, USA)	IIT Madras	December 4-9, 2023
2	VB Maji and RG Robinson	'Geotechnical Investigation and Foundation Design' for Indian Oil Corporation Ltd. (IOCL) Executives	IIT Madras	February 21-23, 2024
Special Lecture:				
1	Dr. Shiva Nagendra SM	Special Talk: Air Quality Management Lecture (AQML) series on 'Ventilation strategies for reduction of airborne transmission in indoor environment'	Webex	March 24, 2023
2	Dr. Shiva Nagendra SM	Air Quality Management Lecture (AQML) series on 'Exploring Personal Exposure to Airborne Contaminants Using Wearable Passive Samplers'	Webex	April 21, 2023
Workshop:				
1	Dr. Manu Santhanam	Workshop on Advances in 3D Concrete Printing	IC&SR Auditorium, IIT Madras	March 17-18, 2023
2	Dr. Shiva Nagendra SM	Focus group workshop on 'Renewable Energy, Climate Change and Rural Health in South India'	IIT Madras	April 13, 2023
3	Dr. Ravindra Gettu	Workshop on Capacity Building for the Design and Execution of Precast Segmental Fibre Reinforced Concrete Tunnel Lining	IC&SR Auditorium, IIT Madras	April 18, 2023
4	Dr. Ligy Philip	Joint celebrations of World Environment Day: Workshop titled 'Combating pollution for a sustainable healthy environment and green energy' and panel discussion on 'Lifestyle adaptation for clean energy and sustainable environment'	TTJ Auditorium, IC&SR, IIT Madras	June 5, 2023
5	Dr. Keerthana Kirupakaran	One-Day Workshop on Experimental Stress Analysis	IIT Madras	June 28, 2023
6	Dr. Sachin S Gunthe	Atmospheric Aerosol Measurements and Modeling over India: Past decade, current status, and challenges ahead	IIT Madras's NABHA Laboratory at College of Engineering Munnar, Munnar, Kerala	July 26-28, 2023
7	Dr. Indumathi M Nambi	Dive into Ecotoxicology: Zebra fish and Wastewater	SRM University. Kattankulathur, Chennai	November 27-28, 2023
8	Dr. Shiv Nagendra SM	Clean Energy for Healthy Environments and Lives in India (CE4HEAL-India)	IIT Madras	November 29, 2023

9	Dr. R Sivanandan Dr. Karthik K Srinivasan Dr. J Murali Krishnan Dr. Lelitha Devi Vanajakshi Dr. Gitakrishnan Ramadurai Dr. SP Atul Narayan Dr. Bhargava Rama Chilukuri Dr. Surender Singh	National Workshop on 'Recent Advances in Pavement and Traffic Engineering'	IC&SR, IIT Madras	December 1-2, 2023
10	Dr. Venkatraman Srinivasan	South India Plant Systems Modeling Workshop	IISER Trivandrum	January 7-13, 2024
11	Dr. Manu Santhanam Dr. Ashwin Mahalingam Dr. Nikhil Bugalia Dr. Piyush Chaunsali Dr. Benny Raphael Dr. Radhakrishna G Pillai Dr. K Ramamurthy Dr. Ravindra Gettu Dr. Keerthana Kirupakaran Dr. Sivakumar Palaniappan Dr. Koshy Varghese Dr. Surender Singh Dr. Aslam Kunhi Mohamed Dr. Ramesh Kannan Dr. Prashant Rawat Dr. R Vinu	3rd International Workshop on Technologies for Low-Carbon and Lean Construction	IIT Madras	January 28-31, 2024

3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences and Training Events Attended by Faculty Members in Academic Institutions and Public Sector Undertakings

S. No.	Coordinator(s)	Title	Venue	Period
Conferences				
1	Dr. Phanisri Pradeep Pratapa	Engineering Mechanics Institute (EMI) Conference of the American Society of Civil Engineers (ASCE)	Atlanta, USA	June 6-9, 2023
2	Dr. Keerthana Kirupakaran	International Conference on Interdisciplinary Approaches in Civil Engineering for Sustainable Development (IACESD - 2023): Keynote speaker, Jyothi Institute of Technology, Bangalore	Jyothi Institute of Technology, Bangalore	July 7-8, 2023
3	Dr. Mathava Kumar	Desalination, Brine Management and Water Recycling 2023 (DesaltM 23) (Keynote Speaker), IIT Bombay	IIT Bombay	July 21-22, 2023
4	Dr. Venkatraman Srinivasan	The Endangered Himalaya	Delhi	August 5, 2023

5	Dr. Benny Raphael	The Sixth International Conference on Soft Computing, Machine Learning and Optimisation in Civil, Structural and Environmental Engineering (CIVIL-COMP-OPTI 2023)	Pécs, Hungary	August 25-28, 2023
6	Dr. Piyush Chaunsali	77th RILEM Week and 1st Interdisciplinary Symposium on Smart & Sustainable Infrastructures	Vancouver, Canada	September 4-8, 2023
7	Dr. Manu Santhanam	77th RILEM Week and 1st Interdisciplinary Symposium on Smart & Sustainable Infrastructures	Vancouver, Canada	September 4-8, 2023
8	Dr. Keerthana Kirupakaran	11th International Conference on Fracture Mechanics of Concrete and Concrete Structures (FraMCoS-XI): Paper presentation, IISc Bangalore	IISc Bangalore	September 10-14, 2023
9	Dr. Piyush Chaunsali	16th International Congress on the Chemistry of Cement	Bangkok, Thailand	September 18-22, 2023
10	Dr. R. Sivanandan	9th Conference on Transportation Systems Engineering and Management (CTSEM 2023)	NIT-Warangal (Keynote Address: Online)	October 12-14, 2023
11	Dr. Venkatraman Srinivasan	12th International workshop on Sap Flow	Rotorua, New Zealand	October 31-November 3, 2023
12	Dr. Mathava Kumar	16th Annual International Conference on the Challenges in Environmental Science & Engineering (CESE2023)	Perth, Australia (In-person)	November 5-9, 2023
13	Dr. Indumathi M Nambi	SETAC 44th North America Annual Meeting	Louisville, Kentucky, USA	November 11-16, 2023
14	Dr. Murali Jagannathan	Indian Lean Construction Conference	New Delhi, India	November 27-30, 2023
15	Dr. Piyush Chaunsali	6th International Conference on Smart Villages and Rural Development (online)	University of Melbourne (Australia)	December 5, 2023
16	Dr. PS Lakshmi Priya	Structural Engineering Convention, 2023	VNIT, Nagpur	December 7-9, 2023
17	Dr. Radhakrishna G Pillai	CARRS - International conference on condition assessment, repair and rehabilitation of structures	IIT Hyderabad	December 11-13, 2023
18	Dr. Subbarao Pichuka	Keynote Speaker at the 28th International Conference on Hydraulics, Water Resources, River and Coastal Engineering (HYDRO 2023)	NIT Warangal	December 21, 2024
19	Dr. Arun Menon	Keynote Speaker at National Conference on Conservation and Management of Built Heritage of Maharashtra	Department of Archaeology and Museums, Government of Maharashtra	January 8-9, 2024
20	Dr. Venkatraman Srinivasan	International Conference on Future of Water Resources (Presented by my student Antriksh Srivastava)	IIT Roorkee	January 18-20, 2024

21	Dr. Amlan Kumar Sengupta	Presented keynote lecture at the Indian Concrete Institute (ICI) international symposium 'Innovative World of Concrete'	Jadavpur University and ICI Kolkata Centre	January 18, 2024
22	Dr. Manu Santhanam Dr. Ravindra Gettu Dr. Radhakrishna Pillai Dr. Keerthana Kirupakaran Dr. Koshy Varghese	Gordon Research Conference 2024	Ventura Beach, California, USA	February 25-29, 2024
Meetings				
1	Dr. B Nageswara Rao	Selection Committee Meeting for Assistant Professor in the Department of Civil Engineering at IIT Jammu	IIT Jammu	September 22-23, 2023
2	Dr. B Nageswara Rao	Ph.D. defense seminar of Mr. Eshwar Kuncham (D19047)	A-11 SCENE Conference Room, 5th Floor, North Campus, IIT Mandi	September 29, 2023
3	Dr. Lakshmi Priya P S	Meeting of CED 37 BIS	Virtual	October 9, 2023
4	Dr. Piyush Chaunsali	22nd Technical Committee Meeting of Clay and Stabilized Soil Products for Construction Sectional Committee - CED 30	Virtual	October 20, 2023
5	Dr. B Nageswara Rao	Ph.D. Viva voce exam of Ms. Roopa Kuri, SRN: 01PE18RCV002	School of Civil Engineering, Karnatak Lingayat Education (KLE) Technological University, Vidyanagar, Hubli - 580 031	October 27, 2023
6	Dr. Lakshmi Priya P S	Structural Stability Research Council executive committee meeting	Virtual for international participants	October 31, 2023
7	Dr. Amlan K. Sengupta	External Examiner for Ph.D. Viva Voce Examination of Mr. P Gautham Reddy	IIT Roorkee	November 14, 2023
8	Dr. P S Lakshmi Priya	Structural Stability Research Council executive committee meeting	Online	November 16, 2023
9	Dr. Arun Menon	Earthen Architecture Initiative Experts Meeting	Getty Conservation Institute, Los Angeles, USA	December 5-8, 2023
10	Dr. B Nageswara Rao	External Examiner for Ph.D. Viva Voce Examination of Mr. Somnath Karmakar (Roll No: 518MA1003), National Institute of Technology Rourkela	Online	December 18, 2023
11	Dr. B Nageswara Rao	External Examiner for Ph.D. Viva Voce Examination of Ms. Vedatrayee Acharya (Regd. No. 18DR0150), Indian Institute of Technology (ISM), Dhanbad	Online	December 20, 2023

12	Dr. Arun Menon	External Examiner for Ph.D. Viva Voce Examination of Mr. Nikhil P. Zade (Roll No: 517CE1007)	National Institute of Technology Rourkela	December 20, 2023
13	Dr. Venkatraman Srinivasan	Invited Talk: 'Strategies to optimize C4 crop water use efficiency under climate change'	Kerala Agricultural University, Vellayani, Kerala.	January 6, 2024
14	Dr. Subbarao Pichuka	Keynote Lecture for the SERB-sponsored All India Council for Technical Education (AICTE) Training and Learning (ATAL) Academy's Faculty Development Programme (FDP): 'Applications of Downscaling Techniques for Assessing the Hydrological Extremes under Changing Climate'	SASTRA University, Thanjavur, Tamilnadu.	December 15, 2023
15	Dr. Lakshmi Priya	BIS Meeting	IIT Madras	January 16, 2024
16	Dr. Subbarao Pichuka	BIS Meeting	IIT Madras	January 16, 2024
17	Dr. Lakshmi Priya	SSRC Committee on education	Online	February 26, 2024
Symposia				
1	Dr. Murali Jagannathan	AI Research Summit, IIT Bombay	IIT Bombay	August 19, 2023
2	Dr. PS Lakshmi Priya	Structural Health Monitoring of Bridges in India - A Way Forward	IIT Madras	December 11, 2023
3	Dr. Arun Menon	International Symposium on Geotechnical Aspects of Heritage Structures (ISGHS 2024)	NIT Tiruchirappalli, Indian Geotechnical Society - Trichy Chapter and International Society for Soil Mechanics and Geotechnical Engineering (ISSMGE)	February 14-16, 2024
Training Events				
1	Dr. Venkatraman Srinivasan	Nurturing Future Leadership Program, IIM Calcutta	IIM Calcutta	March 18-24, 2024
2	Dr. Murali Jagannathan	Teaching Learning Centre FDP, IIT Madras	IIT Madras	January 8-9, 2024
3	Dr. Mohanakrishnan Logan	Teaching Learning Centre FDP, IIT Madras	IIT Madras	January 8-9, 2024
Workshops				
1	Dr. Venkatraman Srinivasan	XII International Workshop on Sap Flow, Rotorua, New Zealand	New Zealand	October 31-November 3, 2023
2	Dr. Venkatraman Srinivasan	International Climate Research Conclave (ICRC 2023), IIT Bombay	IIT Bombay	May 26-27, 2023

3	Dr. Indumathi M Nambi	India-UK Workshop on Environmental Antimicrobial Resistance. Presented report on Monitoring and Controlling Superbugs in the environment - Adyar River	Mumbai	November 29-December 5, 2023
4	Dr. R Sivanandan	Presentation on 'Can Driving Behaviour be Modified through Real-Time Alerts?' during the Inaugural Session at the National Workshop on Recent Advances in Pavement and Traffic Engineering	IIT Madras	December 1-2, 2023
5	Dr. Murali Jagannathan	Train the Trainers Writing Workshop, IIT Madras	IIT Madras	January 2-7, 2024

3.4. Special Lectures Delivered by Faculty in Other Institutions

S. No.	Name of Faculty	Topic of Lecture	Institution	Date
1	Dr. Murali Jagannathan	Escalation Clauses - Case Study Discussion	L&T Institute of Project Management, Vadodara	December 21, 2023
2	Dr. Venkatraman Srinivasan	Strategies to optimize C4 crop water use efficiency	Department of Agronomy, Kerala Agricultural University, Velayani	January 6, 2024
3	Dr. Murali Jagannathan	Indian Contract Act and Types of Contract	National Institute of Construction Management and Research (NICMAR) University, Pune	February 2, 2024
4	Dr. Murali Jagannathan	GCC and Standard Form Contracts	IIT Bombay, Mumbai	March 6, 2024
5	Dr. Murali Jagannathan	Lean Construction	Sathyabama University, Chennai	March 12, 2024
6	Dr. Phanisri Pradeep Pratapa	Geometric mechanics and homogenization of origami tessellations	Princeton Advanced Manufacturing Initiative (PAMI) Series, Princeton University, USA	March 18, 2024
7	Dr. Mohanakrishnan Logan	Technology Innovation in Compressed Biogas (CBG): Potential, Technology, Policy, Operations and Economics	Anil Agarwal Environment Training Institute, Tijara, Rajasthan	March 21, 2024
8	Dr. Murali Jagannathan	Managing Fixed-Price Contracts in IT Industry	L&T Institute of Project Management, Chennai	March 22, 2024
9	Dr. Tarun Naskar	Subsurface imaging using IITM wave	IIT Kanpur	April 30, 2024

Special Lectures Delivered by Other Faculty from Other Institutions

S. No.	Name of Faculty	Topic of Lecture	Institution	Date
1	Dr. Antti P Hyvarinen	Understanding atmospheric aerosols and clouds over Arctic Finland and India	Head of Atmospheric Science Division, Finnish Meteorological Institute (FMI), Finland	March 10, 2023
2	Dr. Anibal Cesar Maury-Ramirez	Sustainable Building Materials towards Circular Economy in Construction	Invited lecturer, Ghent University (Belgium)	March 15, 2023

3	Dr. Johan CI Kuylenstierna	Air Quality Management Lecture (AQML) series on 'Developing action on Short-Lived Climate Pollutants (SLCPs) with the Climate and Clean Air Coalition and assessing the cost of inaction on air pollutants and SLCPs'	Webex Meeting	May 26, 2023
4	Dr. Rakesh Teja Konduru, Scientist	Guest lecture on 'Seamless Predictability of the Rainfall Systems by Employing Ultra-High Resolution Computational Simulations and its Applications'	RIKEN Center for Computational Sciences, Kobe, Japan	June 13, 2023
5	Prof. Richard D	Air Quality Management Lecture (AQML) series on "Increases in Ambient Air Pollution in Singapore during the Hungry Ghost Festival and other Events Involving Burning"	Webex Meeting	June 16, 2023
6	Dr. Shweta Yadav, Assistant Professor	Centre for Atmospheric and Climate Sciences (CACS; an IIT Madras IoE initiative) is organizing the following talk: 'Unveiling Climate Uncertainty: The Crucial Role of Ice Nucleating Particles in Aerosol-Cloud-Climate Interaction'	Central University of Jammu, Jammu and Kashmir	June 22, 2023
7	Prof. Anand Puppala	Expansive Soils and Stabilization Challenges	Texas A&M, USA	July 7, 2023
8	Dr Amory Lovins	Deepening the Energy Transformation	Co-founder and Chairman Emeritus of RMI (formerly the Rocky Mountain Institute)	September 6, 2023
9	Dr. Rajesh Rajamani	Alumni Lecture on 'Nonlinear Observers and Everyday Applications in Motion Estimation'	Benjamin YH Liu-TSI Endowed Chair Professor, University of Minnesota, and Associate Director (Research) of the Minnesota Robotics Institute, USA	September 14, 2023
10	Prof. Colin Scott & Prof. Tom Curran's proposed visit to IITM.	Meeting Discussion of high-level talks, student exchange, and semester/study abroad opportunities	University College Dublin, Ireland	October 3, 2023
11	Dr. Solomon SR Gidigas	The Extent of Deterioration of a Mechanically Stabilised Lateritic Base Course After Design Life and Its Implications for Rehabilitation: A Case Study of Kumasi City Roads, Ghana	Senior Lecturer, Department of Geological Engineering, Kwame Nkrumah University of Science and Technology (KNUST), Ghana. Visiting Faculty, Department of Civil Engineering, IITM	September 21, 2023
12	Dr. Arvind K Nema	Assessment of air pollution, induced stress, tolerance, and accumulated PM on the selected indigenous plant species in Delhi NCR	Professor and Head, Department of Civil Engineering, Indian Institute of Technology (IIT) Delhi, New Delhi	September 22, 2023

13	Dr. Uwe Schlink	GIAN course on Urban Air Quality Assessment, Modelling, And Management	Helmholtz Centre for Environmental Research GmbH - UFZ, Germany	September 25-29, 2023
14	Dr. Ramesh Srinivasan	Systems approach to developing a sustainable solid waste management system	San Jose State University, USA	October 11, 2023
15	Mr. Jeyaprakash Elango	Shoring Works - Construction Challenges: Case Studies from Bahrain	General Manager, Keller Grundbau GmbH, Bahrain	December 22, 2023, 5:30 PM
16	Dr. Eric Bescher	Performance of Belitic-Calcium Sulfoaluminate Cement Concrete	Adjunct Professor, University of California	December 26, 2023
17	Mr. Rajender Bhattarai	Austin's 100-Year Water and Wastewater Plan: Resilient, Reliable, and Sustainable to Address the Effects of Climate Change	United States of America	January 24, 2024
18	Prof. Balaji Rajagopalan	Bayesian Hierarchical Models for Hydroclimate Risk Assessment and Management	Department of Civil, Environmental and Architectural Engineering, University of Colorado, Boulder, USA	February 8, 2024
19	Dr. KE Seetharam	Career guidance and interaction session	Dr. Seetharam has worked in the development sector at the ADB and is currently serving as a senior consultant on many infrastructure development projects in our country.	February 26, 2024
20	Prof. Chandra Bhat	Career guidance and interaction session	Prof. Chandra Bhat is Joe J King Chair in Engineering at The University of Texas at Austin	February 26, 2024
21	Dr. Giulia MB Viggiani	Artificial Ground Freezing in Underground Construction	Professor of Infrastructure Geotechnics, National Research Facility for Infrastructure Sensing Department of Engineering, Cambridge University	February 12, 2024

3.5. Visits Abroad by Faculty

S No.	Faculty	Country Visited	Date	Purpose of Visit	Funding From
1	Dr. Manu Santhanam	Mauritius	March 30-April 2, 2023	Site visit and inspection at underpass at Caudan Waterfront, Mauritius	With financial assistance from Project
2	Dr. Ashwin Mahalingam	Sydney, Australia	April 3-4, 2023	Visit as visiting researcher to attend and present a paper at the 9th International Megaprojects 'Theory meets practice' workshop	With financial assistance from Cumulative Professional Development Allowance (CPDA)

3	Dr. Phanisri Pradeep Pratapa	USA	April 20-May 22, 2023	Visit to Princeton University for research collaboration, NJ	With financial assistance from Project
4	Dr. Arul Jayachandran S	North Carolina, USA	April 11-14, 2023	Paper presentation at Structural Stability Research Council (SSRC 2023) Annual Stability Conference in Charlotte	With Institute financial assistance from CPDA
5	Dr. Lakshmi Priya PS	North Carolina, USA	April 12-14, 2023	Paper presentation and chair a session at Structural Stability Research Council - Annual Stability Conference (ASC) in conjunction with NASCC (North American Steel Construction Conference) at Charlotte	With financial assistance from CPDA
6	Dr. STG Raghukanth	Vienna, Austria	April 23-28, 2023	Oral presentation at European Geophysical Union (EGU), General Assembly	With Institute financial assistance from CPDA
7	Dr. SM Shiva Nagendra	Australia	April 27-May 11, 2023	Visit the National Centre for Epidemiology and Population Health, Australian National University, Canberra, Australia	With Institute financial assistance from CPDA & Project
8	Dr. Ligy Philip	Tanzania	April 30-May 10, 2023	Visit to Zanzibar as a delegate of IIT Madras	With financial assistance from Project
9	Dr. Phanisri Pradeep Pratapa	USA	May 23-June 5, 2023	Visit to Michigan Technological University to conduct collaborative academic research	With financial assistance from Project
10	Dr. Atul Narayan SP	Hong Kong	May 22-24, 2023	Paper presentation in Advances in Materials and Pavement Performance Prediction (AM3P) conference	With Institute financial assistance from CPDA
11	Dr. J Murali Krishnan	Hong Kong	May 22-24, 2023	Paper Presentation at Advances in Materials and Pavement Performance Prediction (AM3P) Conference	With Institute financial assistance from CPDA
12	Dr. Koshy Varghese	Spain	May 18-29, 2023	To deliver a seminar on Low Carbon and Lean Construction in Naska. AI, Barcelona, and Research Collaboration with Faculty of Engineering in Bilbao	With financial assistance from Project
13	Dr. Mathava Kumar S	Hong Kong, China	May 31-June 3, 2023	To attend and present a paper at the International Conference on Solid Waste 2023 Waste Management in Circular Economy and Climate Resilience (ICSWHK2023)	With Institute financial assistance from CPDA
14	Dr. Phanisri Pradeep Pratapa	USA	June 6-9, 2023	To attend ASCE Engineering Mechanics Institute Conference 2023, Georgia Tech University, Atlanta, Georgia	With Institute financial assistance from CPDA

15	Prof. B Nageswara Rao	USA	June 11-16, 2023	Paper presentation at the 15th International Conference on Fracture - ICF15, Atlanta, Georgia	With Institute financial assistance from CPDA & Project
16	Dr. Balaji Narasimhan	Brazil	June 10-17, 2023	Research Discussion in the area of Sustainable Urban Drainage System at Universidade Presbiteriana Mackenzie, Sao Paulo	With Institute financial assistance from CPDA
17	Dr. Venkataraman Srinivasan	Singapore	June 5-9, 2023	To attend the inaugural Asia Fellowship Programme and intensive one-week programme at the college of Design and Engineering, National University of Singapore	With financial assistance from Project
18	Dr. Ashwin Mahalingam	Berlin	June 20-23, 2023	Paper presentation at Engineering Project Organization Conference (EPOC) 2023	With Institute financial assistance from CPDA
19	Dr. AS Chandrasekhar	Prague, Czech Republic	June 21-23, 2023	To present a paper presentation at the 7th International Conference on Computational Modeling of Fracture and Failure of Materials and Structures at Prague	With financial assistance from Project
20	Dr. Indumathi M Nambi	Boston, USA	June 20-23, 2023	Poster presentation at the AEESP Research and Education Conference 2023	With financial assistance from project
21	Dr. Tarun Naskar	Utah State University, USA	July 1-September 31, 2023	To establish a research collaboration between IITM and USU	Institute of Eminence (IoE) Faculty Outbound Mobility Programme
22	Dr. BS Murty	United Kingdom	July 3-7, 2023	To participate in 'Nature- Based Solutions Living Lab: Co- Designing Workshop' at Anglia Ruskin University, Chelmsford Campus	With financial assistance from Project
23	Dr. Aslam Kunhi Mohammed	Switzerland	July 15-22, 2023	To serve as a member of the jury in the private defense of Mir ZigaCasar at EPFL, Switzerland	With financial assistance from Project
24	Dr. Ashwin Mahalingam	Colombia	July 8-21, 2023	Invited to teach in the Uniandes Graduate Summer School at the University of Andes, Bogota, Colombia	Without Institute financial assistance
25	Dr. Elango Lakshmanan	Berlin, Germany	July 22-26, 2023	To participate in the 2023 International Association of Hydrological Sciences (IAHS) Steering Committee meeting at Technical University.	Without Institute financial assistance
26	Dr. Elango Lakshmanan	Berlin	July 10-20, 2023	To attend the Panta Rhei Symposium and to present a paper at the 28th General Assembly of the International Union of Geodesy and Geophysics (IUGG), GFZ German Research Centre for Geoscience, Berlin	Without Institute financial assistance
27	Dr. Elango Lakshmanan	Dresden, Germany	July 13, 2023	Invited speaker at the International Summer School Managed Aquifer Recharge (MARISS) 2023	Without Institute financial assistance

28	Dr. Elango Lakshmanan	Berlin	July 21-August 4, 2023	Visit to Free University Berlin and Hydrological fieldwork	Without Institute financial assistance
29	Dr. Ravindra Gettu	USA	August 15-16, 2023	Visit to the University of Washington, Seattle	With financial assistance from Project
30	Dr. Ravindra Gettu	USA	August 17-September 2, 2023	Private visit to USA	Without Institute financial assistance
31	Dr. Tarun Naskar	University di Pavia, Italy	October 1-December 27, 2023	To establish a research collaboration between IITM and University di Pavia	Young Faculty Mobility Grant, IITM
32	Dr. Ravindra Gettu	Vancouver, BC, Canada	September 4-8, 2023	To attend the 77th RILEM Annual Week 2023 as a Keynote Speaker at the Interdisciplinary Symposium on Smart and Sustainable Infrastructures (ISSSI) 2023	With financial assistance from CPDA & Project
33	Dr. Subhadeep Banerjee	Astana, Kazakhstan	August 14-18, 2023	Paper Presentation at the 17th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering 2023 (17 ARC)	With Institute financial assistance from CPDA
34	Dr. Subhadeep Banerjee	Almaty	August 19, 2023	Technical tour in connection with the 17th Asian Regional conference on Soil Mechanics and Geotechnical Engineering 2023 (17 ARC)	With financial assistance from Project
35	Dr. Benny Raphael	Pécs, Hungary	August 28-September 1, 2023	Paper presentation at CIVIL-COMP-OPTI 2023, Sixth International Conference on Soft Computing, Machine Learning and Optimisation in Civil Structural and Environmental Engineering	With Institute financial assistance from CPDA & Project
36	Dr. Surender Singh	Vancouver, BC, Canada	September 4-8, 2023	Paper presentaion at RILEM week 2023, 1st Interdisciplinary Symposium on Smart & Sustainable Infrastructure, Vancouver	With financial assistance from CPDA
37	Dr. Manu Santhanam	Canada	September 4-11, 2023	Paper presentation at the 1st Interdisciplinary Symposium on Smart and Sustainable Infrastructures (ISSSI 2023), which is a part of the 77th RILEM Annual week	With Institute financial assistance from CPDA & Project
38	Dr. Aslam Kunhi Mohamed	Vancouver, BC, Canada	September 4-8, 2023	To attend the 77th RILEM Week and to present a paper at the 1st Interdisciplinary Symposium on Smart & Sustainable Infrastructures (ISSSI 2023)	With financial assistance from CPDA & Project
39	Dr. Piyush Chunsali	Bangkok, Thailand	September 18-22, 2023	To present a paper at the 16th International Congress on the Chemistry of Cement 2023 (ICCC2023)	With financial assistance from Project
40	Dr. Aslam Kunhi Mohamed	Bangkok, Thailand	September 18-22, 2023	To present a paper at the 16th International Congress on the chemistry of Cement 2023 (ICCC2023)	With Institute financial assistance from CPDA & Project

41	Dr. Koshy Varghese	Tokyo, Japan	September 30-October 4, 2023	To attend the Japan-India Universities Forum Organized by Japan Science and Technology Agency (JSTA) at Tokyo, Japan as a representative of Indian Institute of Technology Madras	With Institute financial assistance
42	Dr. Subbarao Pichuka	Dhaka, Bangladesh	October 14-16, 2023	To present a paper at the 9th International Conference on Water & Flood Management	With Institute financial assistance
43	Dr. Ligy Philip	Tanzania	October 21-November 9, 2023	To visit the Indian Institute of Technology Madras, Zanzibar Campus	With financial assistance from Project
44	Dr. Venkatraman Srinivasan	New Zealand	October 31-November 3, 2023	To present a paper at the 12th International Workshop on Sap Flow 2023	With Institute financial assistance from CPDA
45	Dr. S Mathava Kumar	Australia	November 5-9, 2023	Oral Presentation at the 16th Conference for Challenges in Environmental Science and Engineering (CESE 2023) Perth	With financial assistance from CPDA
46	Dr. Ligy Philip	Dresden, Germany	October 16-18, 2023	Invited for a presentation at the International Riverbank Filtration Conference 2023 and a review on the ongoing Connect-CCRBF project at the University of Applied Sciences (HTWD)	With financial assistance from Project
47	Dr. Ravindra Gettu	United Kingdom	November 7-10, 2023	Research Collaboration at Brunel University, Cambridge University, and Imperial College	With financial assistance from Project
48	Dr. Nikhil Bugalia	London, United Kingdom	November 7-10, 2023	Collaborative research and discussion on developing low-carbon cementitious materials and recycling of C&D (construction and demolition) waste in the department of Civil & Environmental Engineering Brunel University	With financial assistance from Project
49	Dr. Nikhil Bugalia	Cambridge, United Kingdom	November 11-13, 2023	To deliver a talk at the Digital Roads of Future Program, University of Cambridge	With financial assistance from Project
50	Dr. Nikhil Bugalia	Australia	November 30-December 17, 2023	To visit the University of Technology Sydney (UTS) Australia as a Key Technology Partner Visiting Fellow	With financial assistance from Project
51	Dr. Nikhil Bugalia	Melbourne, Australia	December 8-11, 2023	Meeting with Prof. Hemanta Doloi at the University of Melbourne	With financial assistance from Project
52	Dr. Elango Lakshmanan	China	November 30-December 10, 2023	Visit to Sun Yan Sen University, Guangzhou and Chang'an University, Xian	Without Institute financial assistance
53	Dr. Ligy Philip	Rwanda	December 10-14, 2023	To visit the 7th IWA Water development Congress, Kigali, Rwanda	With financial assistance from CPDA and Project

54	Dr. Elango Lakshmanan	North Qatar	December 12-14, 2023	To attend the preliminary meeting for a consultancy project on Groundwater Protection and water Conversation for North Qatar	Without Institute financial assistance
55	Dr. Ravindra Gettu	France	January 22-23, 2024	To attend RILEM Presidency Meeting, Gustave Eiffel University	With financial assistance from Project
56	Dr. Lelitha Devi V	Washington DC, USA	January 7-11, 2024	Paper presentation at Transportation Research Board (TRB), Annual Meeting, Washington	With financial assistance from CPDA
57	Dr. J Murali Krishnan	Washington DC, USA	January 7-11, 2024	To attend the 103rd Transportation Research Board (TRB) annual meeting at Washington	With financial assistance from CPDA and Project
58	Dr. Ashwin Mahalingam	Washington DC, USA	January 12-14, 2024	To attend the Pan IIT Global Conference 2024 at Washington DC	With financial assistance from Project
59	Dr. Koshy Varghese	Vung Tau, Vietnam	January 17-18, 2024	Keynote Speaker at the 5th International Conference on Energy, Infrastructure and Environment Research 2024 (EIER2024)	With financial assistance from Project
60	Dr. Manu Santhanam	California, USA	February 25-March 1, 2024	Invited speaker at the 2024 meeting of Advanced Materials for Sustainable Infrastructure Development at Ventura Beach Marriot	With financial assistance from Project
61	Dr. Radhakrishna G Pillai	California, USA	February 25-March 1, 2024	To attend the 2024 meeting of Advanced Materials for Sustainable Infrastructure Development at Ventura Beach Marriot	With financial assistance from Project
62	Dr. Nikhil Bugalia	USA	March 7, 2024	To attend a Lecture and Collaboration Meeting with EFS at Dubai	With financial assistance from Project
63	Dr. Nikhil Bugalia	USA	March 8-11, 2024	Meeting with professors from US universities at Stanford University Campus, USA	With financial assistance from Project
64	Dr. Nikhil Bugalia	USA	March 12-15, 2024	Meeting at Arizona State University, New York	With financial assistance from Project
65	Dr. Nikhil Bugalia	USA	March 16-18, 2024	Visit New York university	With financial assistance from Project
66	Dr. Nikhil Bugalia	USA	March 18-20, 2024	Visit Purdue University, Indianapolis	With financial assistance from Project
67	Dr. Nikhil Bugalia	USA	March 20-23, 2024	To attend the Construction Research Congress (CRC) conference in Des Moines, Iowa	With financial assistance from Project
68	Dr. Arul Jayachandran S	USA	March 19-22, 2024	Paper presentation at the Structural Stability Research Council (SSRC) 2024 Annual Stability Conference in San Antonio, Texas	With Institute financial assistance from CPDA

69	Dr. Lakshmi Priya P S	San Antonio, USA	March 19-22, 2024	To present a paper at SSRC 2024 Annual Stability Conference	With financial assistance from CPDA
70	Dr. Koshy Varghese	Des Moines, Iowa, USA	March 20-23, 2024	To attend the Construction Institute & Construction Research Congress (CI & CRC) Joint Conference 2024	With financial assistance from CPDA
71	Dr. Ravindra Gettu	Italy	April 9, 2024	To attend the RILEM Spring Convention Bureau Meeting at the Polytechnic University of Milan	With financial assistance from Project
72	Dr. Ravindra Gettu	Italy	April 10-12, 2024	To attend RILEM Spring Conference at Milan	With Institute financial assistance from CPDA
73	Dr. Sachin S Gunthe	Austria	April 14-19, 2024	Paper presentation at the European Geosciences Union (EGU) General Assembly 2024	With financial assistance from CPDA and Project

3.6. Honours and Awards Obtained by Faculty

Awards					
S. No.	Name of Faculty	Name of Award	Awarded by	Awarded for	Date of Award
1	Dr. Devdas Menon	Published the books 'Structural Analysis' (third edition) & 'The Awakening of Shvetaketu'	Nil	Nil	Nil
2	Dr. Subhadeep Banerjee Dr. Boominathan	Paper selected as Editor's Choice paper	Indian Geotechnical Journal	Best paper in foundation Engineering in 2023	OCT 2023
3	Dr. Ravindra Gettu	Lifetime Achievement Award	1st Interdisciplinary Symposium on Smart & Sustainable Infrastructures (ISSSI), Vancouver	Outstanding scientific work in the field and excellent contributions to RILEM Society	September 4-8, 2023
4	Dr. Chandan Sarangi	EMSL large scale research project award	Department of Energy of the USA for the year 2024.	A competitive award. Out of the 32 teams, the submission from IIT Madras is the only selection from a university outside of the USA to receive this award	Nov 2023
5	Dr. B.S. Murty	PC Varghese Institute Chair	Instituted by alumni and well-wishers of IIT Madras		Nov 2023

6	Dr. Vidhya Bhushan Maji	Innovative Instrument Design award	Indian Geotechnical Society (IGS) recognition	The IGS recognised our PhD scholar's setup with the Innovative Instrument Design award, conferred with the IGS-Mr. HC Verma Diamond Jubilee Award	December 14, 2023
7	Dr. Sachin S Gunthe	Highly cited researcher with research impact globally and domestically	Nature	For publishing a series of influential and highly cited papers exploring the composition, formation and distribution of airborne pollutants called aerosols	December 13, 2023
8	Dr. T Thyagaraj	1st Prize in Best Reviewer of 2022 (from Non-Editorial Board Members)	Indian Geotechnical Journal	The award is based on the contribution to the Indian Geotechnical Journal	December 16, 2023
9	Dr. Radhakrishna G Pillai	CII National Award on Corrosion Management Practices 2023	Confederation of Indian Industry (CII)	Category 10: Best Case Study on Research for New Technologies and Innovation in Corrosion Management.	December 18-19, 2023
10	Dr. Ligy Philip	Prestigious VASVIK (Vividhlaxi Audyogik Samshodhan Vikas Kendra) award	Vividhlaxi Audyogik Samshodhan Vikas Kendra	Awarded in the category of 'Environmental Engineering'	January 19, 2024

3.7. Journal Editorial Boards

S. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1	Dr. Radhakrishna G Pillai	Associate Editor	Journal of Sustainable and Resilient Infrastructure, Taylor & Francis
2	Dr. Piyush Chaunsali	Associate Editor	Journal of Materials in Civil Engineering (ASCE)
3	Dr. Manu Santhanam	Editorial Board	Cement and Concrete Composites
4	Dr. Manu Santhanam	Associate Editor	Journal of Materials in Civil Engineering (ASCE)
5	Dr. Manu Santhanam	Associate Editor	Journal of Sustainable Cement Based Materials
6	Dr. Manu Santhanam	Associate Editor	Advances in Cement Research
7	Dr. Manu Santhanam	Associate Editor	Indian Concrete Journal
8	Dr. Sachin S Gunthe	Editorial Advisory Board	ES&T Air
9	Dr. Ligy Philip	Editorial Advisory Board	Member of American Chemical Society (ACS) Environmental Science and Technology (ES&T) Engineering
10	Dr. Ligy Philip	Associate Editor	Environmental Earth Sciences (EES) Journal, Springer

11	Dr. Ligy Philip	Editor- in -Chief	H2Open Journal (International Water Association - IWA)
12	Dr. Subhadeep Banerjee	Associate Editor	Indian Geotechnical Journal, Springer
13	Dr. Balaji Narasimhan	Editorial board Member	Hydrology Research
14	Dr. Sachin S Gunthe	Editorial Advisory Board	American Chemical Society's Environmental Science and Technology
15	Dr. Benny Raphael	Associate Editor	Automation in Construction Journal (Elsevier)
16	Dr. Benny Raphael	Editorial board member	Frontiers in Built Environment Journal

4. Design and Development Activities

4.1. New Facilities Added or Major Equipment Procured

S. No.	Name of Equipment	Value (INR)
1	Keysight EDU34450A: Digital multimeter, 5.5 digit	71,857
2	Original Schmidt N rebound hammer sensor	1,35,000
3	3 KVA Numeric Valura 72VFM Pro Online UPS with battery rack and Exide battery: 6 nos.	61,000
4	Unbranded revolving chair with arm tilt working with torsion bar mechanism	92,045
5	5 MP C-MOS camera for microscope use	47,200
6	Hitachi 1.5 ton TR inverter split AC 4 Star with R410A refrigerant	56,189
7	Hitachi 1.5 ton TR inverter split AC 4 Star with R410A refrigerant	56,189
8	APC BR1500G power saving back UPS	18,591
9	Stanley Trolley 300 kg platform PC 528 model	9150
10	TP-Link 8 Port 10/100Mbps	798
11	Corsair 4000D Intel Core i7-13700 16 Core/24T	161896
12	Corsair 4000D Intel Core i7-13700 16 Core/24T	161896
13	HP Z2 Tower G9 workstation with P27 GH monitor	165878.5
14	HP Z2 Tower G9 workstation with P27 GH monitor	165879
15	Dell G15-5530 GN553085Y001	149950
16	Fully automatic grinder/polisher single-pressure	450694
17	HP Z2 Tower G9 workstation	153813
18	Customized commercial plywood table	22109
19	KROST cordless tile installation machine	4499
20	BenQ GW2790 27-inch FHD monitor	11800
21	BenQ GW2790 27-inch FHD monitor	23600
22	Microprocessor-based orbital shaker 16 flask with digital RPM & timer display	36,332
23	Laptop-Lenovo ThinkPad x 13 Laptop 1st Gen	1,62,431
24	HP All-in-one Cro407in 68.6Cm (27) Desktop PC	76,450
25	HP LaserJet 329dw MFP Printer	37,950
26	Hitachi 1.5TR inverter split AC 5 Star with R410A refrigerant	54,000
27	Cable, wire, installation charges, copper pipe	6,868

28	Lenovo Q Seies 24" FHD IPS monitor	13,924
29	ECPC700435 parameters PH/MV/COND/ TDS with cond. cell//PH glass electrode	95,580
30	2.5 ton hand pallet truck	20,950
31	HP 68.6 cm (27) All-in-one Desktop	87,642
32	Orbital Incubator Shaker	2,39,540
33	DFM-09, Radiosonde sensors	99000
34	Membrane filtration setup with pump	47,790
35	LG refrigerator (446 litres' capacity)	59,000
36	PH meter digital with TDs, EC and temperature portal dual sensor	12,390
37	Lenovo ThinkPad Laptop	1,32,900
38	HP All-in-one PC	74,175
39	HP All-in-one CR0407 in 68.6CM (27) Desktop PC	1,49,279
40	HP LaserJet MF	46,006
41	200mm (8") Electromagnetic Flow Meter-Integral	45,755
42	10-metre GI triangular tower lightning arrestor-earthing kit	1,09,150
43	Nvidia Zotac RTX 4090-24GB graphics card	1,90,500
44	LG 32UN650 4K IPS panel	32,450
45	14-inch MacBook Pro 512GB SSD - silver	1,45,774
46	Intel Core i9-13900K processor and others	1,30,500
47	Epson EB 982W projector	2,43,148
48	Asus Prime Z 790-p WiFi-CSM DDR5 motherboard	1,30,500
49	Haier 42 L 5-star Minibar single door refrigerators (HRD-55KS)	9,999
50	Samsung 27" curved monitor VGA+HDMI	42,496
51	Sony Bravia FW-75BZ30L: 4K(3840x2160)	1,76,640
52	Standalone face-based door access	1,49,860
53	HP Pro Tower 280 GP Desktop	2,26,408
54	KWT098-Writing Table-M11/M27	24,540
55	Sony Bravia FW-75BZ30L: 4K (3840x2160)	1,76,640
56	HP Laptop with extended warranty	94,811
57	HP Pro Tower 280 GP Desktop	1,50,939
58	48x24 (30' high) table made of finger joint wooden sheet	21,895
59	HP Pavilion Laptop 15-eg2036TU 39.6 cm	81,047
60	Mitutoyo digital Vernier callipers	5,695
61	Essae electronic weighing scale capacity	25,164
62	Dell Precision 3260 CFF CTO Base	2,28,986
63	Customised chairs with long handrest for research scholars	1,30,508
64	New workstation table with 18mm tabletop	24,190
65	Provided and fixed new workstation table	24,190
66	HP Workstation with Intel Core i5	2,09,400
67	HP Workstation with Intel Core i5	2,09,400

68	HP Workstation with Intel Core i5	2,09,400
69	HP Workstation with Intel Core i5	2,09,400
70	Dell Precision 3260 CFF CTO Base	47,790
71	Heavy-duty racks containing 3 layers	2,48,980
72	HP Pro Tower 400 G9 PCI Desktop PC	2,39,190
73	HP Laptop Inter Core i5-12th Generation	83,950
74	Nilkamal Chair	4,950
75	Pallet Trolly Nylon Wheel	21,240
76	Catalyst 9200L 48-Port data 4x1G Network	1,41,819
77	TML Displacement Transducer Tupe #SDP-200 E	2,12,400
78	Bandsaw Machine (9-inch)	41,595
79	HP Workstation with Intel Core i7-13700 Processor	1,60,969
80	HP 280 G9 Desktop Intel Core i5	84,950
81	Dell S Series 27-inch full HD Panel	10,881
82	HP Workstation with Intel Core i9 12900K	4,55,999
83	Chair-revolving K Series Batch: 424 Computer Chair	82,187
84	Conference Table & Pop-up Switch Box	70,800
85	Sieve shaker	57,450
86	Exide Class A or B /74Ah/48Ah lead acid starter batteries	92,330
87	Exide Class A or B /132Ah/64Ah lead acid starter batteries	1,29,150
88	Exide Class A or B /74Ah/48Ah lead acid starter batteries	79,184
89	Aggregate impact testing machine	23,010
90	Numeric 1000v UPS	6,500
91	Exide Class A or B /132Ah/64Ah lead acid starter batteries	1,41,800
92	2.5x1.5 computer table	5,015
93	Decibel meter (Risepro): Digital sound level meter	4,318
94	UTL online UPS of rating 10.0 KVA without backup	74,951
95	C9200L-24T-4G-E: Catalyst 9200L 24-Port Ada 4x1G network	1,86,032
96	Btali oil-free compressor: BT50 0FACHS 1400 power	40,710
97	C9200L-24T-4G-E: Catalyst 9200L 24-Port Ada 4x1G network	93,017
98	Canon Multifunction Machines (MFM), Canon IR ADV DX 4835 with DADF and Toner	3,54,440
99	Network switch C9200L-24-port PoE+, 4X1G, network essentials with secondary power total PoE; power should be 740w	1,75,820
100	Steel wooden wired visitor chair for BSB 324	66,906
101	Shure WL185-X colour mike	17,051
102	Chappal stand size 8x3 primes & putty enamel paint	10,827
103	Ahuja 16 WPA wall speaker	14,764
104	Ahuja amplifier: DPA-770 and Studio master cordless mic	20,200
105	Logitech wireless mouse	3,000
106	Network switch C9200L-24-port PoE+, 4X1G, network essentials with secondary power total PoE; power should be 740w	1,75,820

107	HP Workstation with Intel Core i7 12700 processor	2,48,304
108	HP Workstation with Intel Core i7 12700 processor	2,48,304
109	HP Workstation with Intel Core i7 12700 processor	2,42,720
110	HP Workstation with Intel Core i7 12700 processor	2,42,720
111	HP Workstation with Intel Core i7 12700 processor	1,21,360
112	HP Workstation with Intel Core i7 12700 processor	1,21,360
113	Eureka Forbes Compact 700 watts powerful suction & blower vacuum cleaner	1,850
114	AO Smith P5 Water Purification System	59,100
115	HP Workstation with Intel Core i7 12700 Processor	242525.4
116	HP Workstation with Intel Core i7 12700 Processor	242525.4
117	HP laser colour computer printer for A4	70,244

4.2. Patents

4.2.1. Patents Filed

S. No.	Name of Faculty	Topic of Patent
1	Dr. Bhargava Rama Chilukuri	Real-Time Assignment and Operation of Dedicated Lanes for Connected Automated Vehicles
2	Dr. Tarun Naskar	Method For Analysis of Soil Sub-Surface
3	Dr. Arun Menon	Retrofit System and Method for Improved Structural Performance of Traditional Composite Floors
4	Dr. Indumathi M Nambi	System and Method for Rapid and Water-Less Faecal Matter Treatment for Onsite Safe Sanitation.
5	Dr. Lelitha Devi V	Traffic Signal Control
6	Dr. Lelitha Devi V	Techniques for Classification of Traffic Congestion
7	Dr. Gitakrishnan Ramadurai	An Artificial Intelligence (AI) Based System and Method of Estimating Traffic Count
8	Dr. Manu Santhanam	Superplasticizer and Workability Retention Agent for Concrete and Mortar with Limestone Calcined Clay Cement
9	Dr. Piyush Chaunsali Dr. Manu Santhanam	Hydraulic Cement of Biomass Ash and Waste Glass Activated with Calcium Oxide and Sodium Carbonate
10	Dr. Jaganathan Senthilnathan	Spiral Filter Cartridge for Enhanced Fluid Treatment
11	Dr. Srinivasan Chandrasekaran Dr. Meher Prasad A	A Device for Harvesting Energy and a System Thereof
12	Dr. Indrapal Singh Aidhen Dr. Ramamurthy K	Unsaturated Anacardate Based Foaming Agent(s) for the Preparation of Foam Concrete
13	Dr. Srinivasan Chandrasekaran Dr. Meher Prasad A	Power Take-Off Mechanism Configurable in a Wave Energy Harvesting Device
14	Dr. Bobby George Dr. Ligy Philip	A Continuous Automated System and Method for Sensing of Nitrite in Water
15	Dr. Chakravarthy SR Dr. Ravindra Gettu	Vacuum System for High-Speed Transportation

4.2.2. Patents Awarded

S. No.	Name of Faculty	Topic of Patent
1	Dr. Arul Jayachandran S	Aiyya Dand: Economical and Durable Pallets to Transport Steel Coils or Similar Goods.
2	Dr. Ligy Philip	An Apparatus for Washing Machine Rinse Water Treatment and Reuse
3	Dr. Benny Raphael	Strain Based Wireless Sensor Network to Monitor Launching Girder Operations in Bridge Construction Using Incremental Launching Method
4	Dr. Shree Ram R	Foldable and Portable Prefabricated Structures and Methods of Fabrication Thereof
5	Dr. Shree Ram R	Foldable Houses using Telescopic Walls and Frame
6	Dr. Gaurav Lodha	Advanced Electrolarynx. A Biomechatronic Device for Voice Rehabilitation of Laryngectomees
7	Dr. Indumathi M Nambi	Bifunctional Rotating Drum Electrode Device and Method for Treatment of Persistent Organic Pollutants
8	Dr. Lelitha Devi V	Prediction of Travel Time of Vehicles
9	Dr. Shiva Nagendra SM	Road Dust Collector System
10	Dr. Shiva Nagendra SM	Air Pollution Control System
11	Dr. Indumathi M Nambi	Environmentally Friendly Catalytic Depolymerization Focusing on Managing Plastic Waste at Source
12	Dr. Lelitha Devi V	Bus Travel Time Prediction Capturing Non-Linear Spatial Correlations Using Support Vector Machines
13	Dr. Indumathi M Nambi	Energy Efficient Process for the Separation of Oil from Oil Storage Tank Bottom Sludge
14	Dr. Lelitha Devi V	System and Method for Estimating Reliable Corridor Level Travel Time Estimation Using Probe Vehicle Data
15	Dr. Lelitha Devi V	Model-Based Travel Time Prediction
16	Dr. Radhakrishna G Pillai	Flowable, Pre-Blended Cementitious Grout with Resistance to Bleeding and Soft grout for Structural and Geotechnical Applications
17	Dr. Lelitha Devi V	A Seasonal Modelling Based Method for Capturing Spatio-Temporal Correlations for Dynamic Bus Travel Time Prediction
18	Dr. Lelitha Devi V	Transit Signal Priority at a Multi-Phase Intersection
19	Dr. Benny Raphael	A Climbing Robotic System for Automated Construction of Structural Frames of Buildings and Method Thereof Buildings and Method Thereof
20	Dr. Lelitha Devi V	Estimating Delay and Managing Traffic
21	Dr. Lelitha Devi V	A Method and System for Predicting a Vehicle's Travel Time
22	Dr. Benny Raphael	A 3-D Printed Waffle Slab Assembly and Method Thereof
23	Dr. Ramesh Kannan Kandasami	Physical Modeling and Real-Time Recording of Fracture Propagation in Geo-Materials Using a Fracture Capture Simulator
24	Dr. Benny Raphael	A System and Method For 3D Printing Building Structures
25	Dr. Lelitha Devi V	Adaptive Traffic Signal Control
26	Dr. Bobby George Dr. Ligy Philip	A Planar Coil Based Water Level and Quality Monitoring System
27	Dr. Chandraraj K Dr. Dali Naidu Arnepalli	Method For Production of Molds from Cotton Micro Dust Waste and its Reinforcement with Sand
28	Dr. Sridharakumar Narasimhan Dr. Sreenivasa Murthy B	System And Method for Providing Monitoring and Control of a Supply in a Cyber-Physical Environment

5. Research and Consultancy

5.1. Sponsored Research Projects (Ongoing & New)

Ongoing					
S. No.	Title	Period	Agency Name	Total Value (in INR lakh)	Coordinators
1	Centre for Sustainable Treatment, Reuse and Management for Efficient, Affordable and Synergistic Solutions for Water (WATER-IC for SUTRAM of EASY WATER)	October 23, 2018-June 30, 2024	Department of Science & Technology	893.57	Dr. Ligy Philip Dr.Sarathi R Dr. Shankar Narasimhan S Dr. Murty BS Dr. Balaji Srinivasan Dr. Ravindra Gettu Dr. Balaji Narasimhan Dr. Sridharakumar Narasimhan Dr. Bobby George
2	Wastewater Treatment Technologies and Sensors	October 23, 2018-June 30, 2024	Department of Science & Technology	179.15	Dr. Ligy Philip Dr.Sarathi R Dr. Bobby George
3	Centre for Sustainable Treatment, Reuse and Management for Efficient, Affordable and Synergistic Solutions for Water (WATER-IC for SUTRAM of EASY WATER)	October 23, 2018-June 30, 2024	Department of Science & Technology	27.50	Dr. Ligy Philip Dr.Pradeep T
4	Sustainable Drainage Systems and Water Management	October 23, 2018-June 30, 2024	Department of Science & Technology	38.68	Dr. Balaji Narasimhan Dr.Murty BS
5	Identifying Best Available Technologies for Decentralized Wastewater Treatment and Resource Recovery for India	March 11, 2020-December 31, 2024	Department of Science & Technology	164.53	Dr. Ligy Philip
6	Antimicrobial resistance (AMR) Flows: Antimicrobials and Resistance from Manufacturing Flows to People: Joined up Experiments, Mathematical Modelling and Risk Analysis	December 11, 2020-December 10, 2024	Department of Biotechnology	104.20	Dr. Soumendra Nath Kuiry Dr. Indumathi Manivannan Nambi Dr. Balaji Narasimhan
7	Integrating Hydrology and Agriculture with Livelihood Issues: Development of Climate Change Adaptation Approaches for Sustainable Water management in Humid Tropical Kerala	March 12, 2021-June 11, 2024	Science and Engineering Research Board	5.50	Dr. Balaji Narasimhan

8	Effect-based Monitoring Demonstrates Efficiency of Electrically driven Water Treatment Processes to Remove Salts and Micropollutants from Process Water (EfectroH2O)	October 21, 2020-June 20, 2024	Indo German Science & Technology Centre	140.01	Dr. Indumathi Manivannan Nambi
9	Assessment of Hydrological Impacts due to Climate Change and Development of Best Irrigation and Crop Management Strategies that Increase Resilience: Cauvery and Tamiraparani River Basins: Phase II	May 7, 2021-June 30, 2024	Indian Council of Agricultural Research	42.85	Dr. Balaji Narasimhan
10	Use of Low-Grade Limestone in Binary and Ternary Cementitious Binders for Concrete	December 21, 2021-December 20, 2024	Science and Engineering Research Board	53.46	Dr. Manu Santhanam Dr. Piyush Chaunsali
11	A Generalized Rate Type Model for Fatigue Damage	February 21, 2022-February 16, 2025	Science and Engineering Research Board	6.60	Dr. Alagappan Ponnalagu
12	Fracturing Process in Rocks with Preexisting Flaws Under Uniaxial and Biaxial Compression	January 21, 2022-January 20, 2025	Science And Engineering Research Board	42.24	Dr. Vidya Bhushan Maji
13	Effect of Electric Vehicles (EVs) and EV Lanes on Road Capacity and Fundamental Diagrams	March 15, 2023-March 14, 2026	Science and Engineering Research Board	20.54	Dr. Bhargava Rama Chilukuri
14	A Comprehensive Framework for the Quantification of Workability of Bituminous Mixtures Using Rheology, Tribology and Surface Tension	February 23, 2023-February 22, 2026	Science and Engineering Research Board	42.57	Dr. Murali Krishnan J Dr. Atul Narayan SP
15	Development of a Novel Limited Channel Surface Wave Test Method	February 20, 2023-February 19, 2026	Science and Engineering Research Board	42.06	Dr. Tarun Naskar Dr. Subhadeep Banerjee
16	Electrical and electrochemical modelling for routine, non-destructive testing of cathodic protection system in reinforced concrete structures	February 17, 2023-February 16, 2026	Science and Engineering Research Board	37.34	Dr. Radhakrishna G Pillai Dr. Lakshman Neelakantan Dr. Sankaran Aniruddhan

17	Carbonation-induced corrosion and service life of steel-concrete systems with limestone calcined clay cement (LC3) and corrosion inhibitors	January 2, 2023-January 1, 2025	Science and Engineering Research Board	22.37	Dr. Radhakrishna G Pillai
18	Electrochemical advanced oxidation processes for the destruction of PFAS in water	February 1, 2023-January 31, 2025	Science and Engineering Research Board	22.37	Dr. Indumathi Manivannan Nambi
19	Development of Ultra-High-Performance Concretes (UHPCs) for Road/Bridge Infrastructure in Urban Areas	July 29, 2022-July 28, 2024	Kerala Highway Research Institute	37.10	Dr. Surender Singh Dr. Radhakrishna G Pillai Dr. Manu Santhanam
20	Structural Health Monitoring and Assessment of Concrete Bridge Girders	March 13, 2023-March 12, 2026	Ministry of Road Transport and Highways	1192.00	Dr. Saravanan U Dr. Meher Prasad A
21	Unnat Bharat Abhiyan Subject Expert Group (SEG): Sanitary & Solid Waste Management	September 23, 2022-March 31, 2026	Ministry of Education	33.19	Dr. Indumathi Manivannan Nambi Dr. Murty B S
22	Physics Informed Neural Networks for Modeling Heterogeneous Subsurface Systems	March 15, 2022-March 14, 2025	ExxonMobil Upstream Research Company	22.21	Dr. Chandra Annavarapu
23	Examining the impact of aerosol, urbanization, and irrigation on extreme rainfall occurrences over India using cloud-resolving simulations	October 1, 2022-September 30, 2024	Asia-Pacific Network for Global Change Research (APN)	57.11	Dr. Chandan Sarangi Dr. Soumendra Nath Kuiry
24	Assessment of Salt-Deterioration Damage in Stone Monuments Along the Eastern Coast of India	March 21, 2023-April 30, 2024	Department of Science and Technology	31.51	Dr. Manu Santhanam Dr. Arun Menon
25	Innovation in Science Pursuit for Inspired Research (INSPIRE) Fellowship for Mr. Ankit Patel (CE20D094)	July 22, 2021-July 21, 2026	Department of Science and Technology	12.47	Dr. Sachin S Gunthe
26	Sustainable Earthquake Resistant 3D-Printed Concrete Housing from Laboratory Testing to Industrial Application	July 13, 2023-July 12, 2025	Department of Science and Technology	7.77	Dr. Manu Santhanam
27	A Novel Framework for High Volume Utilization of Biomass Ash in Structural Materials	February 28, 2024-February 27, 2027	Science and Engineering Research Board	31.87	Dr. Piyush Chaunsali Dr. Aslam Kunhi Mohamed

28	Study of compaction mechanics of bituminous mixtures and applications in 3-D paving	March 12, 2024– March 11, 2027	Science and Engineering Research Board	45.16	Dr. Atul Narayan S P Dr. Ramesh Kannan K
29	Elucidating the Role of Mineralogy, Aggregate-Mortar Bonding, and Comminution Mechanism on the Quality of Recycled Concrete Aggregates for Rigid Pavement Applications	January 5, 2024– January 4, 2027	Science and Engineering Research Board	45.55	Dr. Surender Singh
30	Improving the Performance of Ballasts to Support High-speed Rail Tracks	July 26, 2023–July 25, 2025	Scheme for Promotion of Academic and Research collaboration	54.30	Dr. Ramesh Kannan K Dr. Subhadeep Banerjee
31	Influence of Curving Methods on the Design of Horizontally Curved Steel I-Girders	March 12, 2024– March 11, 2027	Science And Engineering Research Board	75.61	Dr. Lakshmi Priya P S
32	Investigating the Mechanics of Bursting and Spalling Fracture in Steel Fibre Reinforced Concrete (SFRC) for Tunnel Applications	January 19, 2024– January 18, 2026	Science And Engineering Research Board	24.22	Dr. Keerthana Kirupakaran
33	Centre for Atmospheric and Climate Sciences for Sindhu Central University (SCU) activity coordination	May 24, 2023–May 23, 2025	Ministry of Education	670.27	Dr. Sachin S Gunthe
34	A LIDAR (light detection and ranging) scanning integrated with GIS (Geographic Information System) technology to optimize the construction and demolition waste supply chain for urban areas in India	June 20, 2023–June 19, 2026	Ministry of Education	74.90	Dr. Nikhil Bugalia Dr. Koshy Varghese Dr. Benny Raphael Dr. Ashwin Mahalingam Dr. Sivakumar Palaniappan
35	Low-Cost Road Dust Collector Operated with Solar Power to Manage Solid Waste and Air Pollution	June 20, 2023–June 19, 2026	Ministry of Education	36.66	Dr. Shiva Nagendra SM
36	Mentor for Sindhu Central University	October 3, 2023– October 2, 2024	Ministry of Education	1157.00	Dr. Sachin S Gunthe
37	Showcasing rapid construction technology using 3D printing	May 1, 2023–April 30, 2024	Bureau of Police Research and Development	148.50	Dr. Manu Santhanam Dr. Piyush Chaunsali

38	Nanocem working group on atomistic simulations	January 17, 2024-January 16, 2025	ETH Zurich	14.09	Dr. Aslam Kunhi Mohamed
39	Recycling Kerala Highways	March 1, 2024-August 31, 2026	Kerala Highway Research Institute	90.00	Dr. Murali Krishnan J
40	Zero Emission Catalytic Pyrolysis of Multi-layer Plastic Waste (MLP) to Value Added Products - A Circular Economy Approach	December 1, 2023-November 30, 2025	Centre for High Technology	65.36	Dr. Indumathi Manivannan Nambi
Sanctioned					
1	Showcasing rapid construction technology using 3D printing	May 1, 2023-April 30, 2024	Bureau of Police Research and Development	148.49527	Dr. Manu Santhanam Dr. Piyush Chaunsali
2	Coordination and conducting the courses for the establishment of Sindhu Central University (SCU)	May 24, 2023-May 23, 2025	Ministry of Education	100	Dr. Sachin S Gunthe
3	How will Godavari basin respond in terms of rainfall distribution and streamflow variation owing to climate change?	December 22, 2020-June 21, 2023	Science and Engineering Research Board	19.9789	Dr. Subbarao Pichuka
4	Low-Cost Road Dust Collector Operated with Solar Power to Manage Solid Waste and Air Pollution	June 20, 2023-June 19, 2026	Ministry of Education	36.66	Dr. Shiva Nagendra SM
5	A LIDAR scanning integrated with GIS technology to optimize the Construction and Demolition waste supply chain for urban areas in India	June 20, 2023-June 19, 2026	Ministry of Education	74.9	Dr. Nikhil Bugalia Dr. Koshy Varghese Dr. Ashwin Mahalingam Dr. Sivakumar Palaniappan Dr. Benny Raphael
6	Assessment of Salt-Deterioration Damage in Stone Monuments Along the Eastern Coast of India	March 21, 2023-March 20, 2024	Department of Science and Technology	31.5056	Dr. Manu Santhanam Dr. Arun Menon
7	INSPIRE Fellowship for Ms. Christi Jose (CE17D304)	May 12, 2018-May 11, 2023	Department of Science and Technology	21.86228	Dr. Sachin S Gunthe
8	INSPIRE Fellowship for Mr. Ankit Patel (CE20D094)	July 22, 2021-July 21, 2026	Department of Science and Technology	9.8488	Dr. Sachin S Gunthe

9	Improving the Performance of Ballasts to Support High-speed Rail Tracks	July 26, 2023-July 25, 2025	Scheme for Promotion of Academic and Research collaboration	54.30065	Dr. Ramesh Kannan K Dr. Subhadeep Banerjee
10	Sustainable Earthquake Resistant 3D-Printed Concrete Housing from Laboratory Testing to Industrial Application	July 13, 2023-July 12, 2025	Department of Science and Technology	7.77462	Dr. Manu Santhanam
11	INSPIRE Fellowship for Ms. Vaishali Choudhary (CE17D035)	January 31, 2018-January 30, 2023	Department of Science and Technology	24.43	Dr. Ligy Philip
12	Elucidating the Role of Mineralogy, Aggregate-Mortar Bonding, and Comminution Mechanism on the Quality of Recycled Concrete Aggregates for Rigid Pavement Applications	January 5, 2024-January 4, 2027	Science and Engineering Research Board	45.55	Dr. Surender Singh
13	Zero Emission Catalytic Pyrolysis of Multi-layer Plastic Waste (MLP) to Value Added Products - A Circular Economy Approach	December 1, 2023-November 30, 2025	Centre for High Technology	65.36	Dr. Indumathi Manivannan Nambi
14	Nanocem working group on atomistic simulations	January 17, 2024-January 16, 2025	ETH Zurich	14.09	Dr. Aslam Kunhi Mohamed
15	Investigating the Mechanics of Bursting and Spalling Fracture in Steel Fibre Reinforced Concrete (SFRC) for Tunnel Applications	January 19, 2024-January 18, 2026	Science And Engineering Research Board	24.22	Dr. Keerthana Kirupakaran
16	A Novel Framework for High Volume Utilization of Biomass Ash in Structural Materials	February 28, 2024-February 27, 2027	Science and Engineering Research Board	31.87	Dr. Piyush Chaunsali Dr. Aslam Kunhi Mohamed
17	Study of compaction mechanics of bituminous mixtures and applications in 3-D paving	March 12, 2024-March 11, 2027	Science and Engineering Research Board	45.16	Dr. Atul Narayan SP Dr. Ramesh Kannan K
18	Influence of Curving Methods on the Design of Horizontally Curved Steel I-Girders	March 12, 2024-March 11, 2027	Science And Engineering Research Board	75.61	Dr. Lakshmi Priya PS
19	Recycling Kerala Highways	March 1, 2024-August 31, 2026	Kerala Highway Research Institute	90.00	Dr. Murali Krishnan J

5.2. Industrial Consultancy Projects (Ongoing & New)

S. No	Name of the Faculty	Title	Industry	Total Value (in INR lakh)
Sanctioned				
1	Dr. Apparao G	Vetting of Structural Drawings of 25.00 MLD (Minimal Liquid Discharge) STP (Sewage Treatment Plant) at Biharsharif, Bihar under Smart City Mission	Bhugan Infracon Private Limited	4.13
2	Dr. Venu Chandra Dr. Sriram V	Proof checking of 2D model study in connection to development of ferry terminal at Guwahati gateway ghat, Assam	L&T Geostructure Private Limited	5.9
3	Dr. Mohan S Dr. Robinson RG	Environmental audit of TSDF (Treatment Stabilization Disposal Facilities) Virudhunagar 22-23	Re Sustainability IWM Solutions Limited	7.67
4	Dr. Mohan S Dr. Robinson RG	Monitoring of construction of secured landfill at TSDF Virudhunagar Cell 2A	Re Sustainability IWM Solutions Limited	10.03
5	Dr. Saravanan U	Checking and Vetting of Fully Structural Standalone GRP Liner Pipes for Rehabilitation	NDT Technologies Private Limited	0.649
6	Dr. Apparao G	Performance Studies on Non-shrink Cementitious Grout for RC (Reinforced Concrete) Structural Applications	Teemage Builders Private Limited	5.31
7	Dr. Satish Kumar S Rajaram	Proof Checking of Design of Solar Tracking Systems at Nokh and Khavda	NEXTracker India Private Limited	3.54
8	Dr. Phanisri Pradeep Pratapa	Structural Vetting of 3D printed guest house at IITM	Tvasta Manufacturing Solutions Private Limited	1.77
9	Dr. Meher Prasad A	Testing of Precast India Connector Bars	Precast India Infrastructures Private Limited	7.08
10	Dr. Subhadeep Banerjee	Investigation on the causes of settlement while execution of the embankment work between Dharmadam bridge and Balam underpass and to propose remedial measures for rectification of the damaged portion	EKK Infrastructure Limited	8.85
11	Dr. Meher Prasad A	Proof checking of Centre dining and OAT block at Estancia Campus	Estancia IT Park Private Limited	7

12	Dr. Shiva Nagendra SM	Monitoring of air quality and management using CYCLOFINE air purifier	Kerala State Pollution Control Board	6.6375
13	Dr. Meher Prasad A	Chennai Metro Rail Limited (CMRL) Phase II proof checking & approval of special span structures	Chennai Metro Rail Limited	37.76
14	Dr. Meher Prasad A	Design and Construction of Carithas ROB in Kottayam District	Uralungal Labour Contract Co-op Society Limited	9.44
15	Dr. Meher Prasad A Dr. Balaji Narasimhan Dr. Rupen Goswami Dr. Arul Jayachandran S Dr. Subhadeep Banerjee Dr. Venu Chandra	Proof Consultancy Services of Design and Construction of Elevated Viaduct and Formations of Length 25.578km of Corridor-2 of Bengaluru Suburban Railway Project (BSRP) Karnataka, Project (CR2).	Larsen & Toubro Limited	413
16	Dr. Robinson RG Dr. Subhadeep Banerjee	Proof checking of design of stone columns in the flare unit at Numaligarh Refinery Limited (NRL) Assam	Keller Ground Engineering India Private Limited	4.13
17	Dr. Apparao G	Design of Concrete Mixes of M10, M30, M35 & M40 Grades using Ultratech and Dalmia Cements	Globe Civil Projects Private Limited	6.136
18	Dr. Saravanan U	Load transfer test and dynamic load test of 4T15 and 12T15 anchorage system.	Utracon Structural Systems Private Limited	28
19	Dr. Satish Kumar S Rajaram	Project Sea Bird: MWC-04 Covered Dry Berth	Larsen & Toubro Limited	2.95
20	Dr. Radhakrishna G Pillai	Chloride threshold and service life of reinforced concrete systems with stainless steel bars in various binders and exposed to specific conditions.	Sunflag Iron & Steel Company Limited	14.16
21	Dr. Apparao G	Proof checking of design of PEB (pre-engineered steel) sheds	Nova Engineering Service LLP	3.54
22	Dr. Apparao G	Design of Bridge across Nagavali near Balasarevu in Srikakulam Dist., AP.	Contec Syndicate Private Limited	3.54
23	Dr. Meher Prasad A Dr. Subhadeep Banerjee	Proof checking for CMRL Phase II Corridor 4: Detailed design and drawing of the Kodambakkam Metro Station between Ch Km 8+500 and 8+800	MM S.P.A	41.3
24	Dr. Satish Kumar S Rajaram	Proof Checking of PEB Design for Haitian Plastic Machineries Pvt Ltd	RN Peb Services LLP	6.37436

25	Dr. Ravindra Gettu	Design and approval of the fibre concrete mixes for a rigid pavement at Combat Vehicles Research & Development Establishment (CVRDE)	Quick Builders	4.72
26	Dr. Alagusundaramoorthy P	Condition Assessment and Repair and Rehabilitation of the Fire Affected Structural Elements in the Surgical Block in the Government Medical College at Kottayam	Jatan Constructions Private Limited	13.0508
27	Dr. Meher Prasad A	Proof checking of composite preheater building	G Tech Consulting Engineers and Architecture	3.54
28	Dr. Satish Kumar S Rajaram	Proof checking design of solar tracking systems	Aarvi Encon Limited	3.54
29	Dr. Satish Kumar S Rajaram	Proof checking of PEB Design for SIPCOT (State Industries Promotion Corporation of Tamil Nadu) Vallam Vadagal at Chennai	CR Narayana Rao Consultants Private Limited	4.06605
30	Dr. Satish Kumar S Rajaram	Proof checking of RCC (Reinforced Cement Concrete) building and PEB design for M/s TDS Lithium Ion Battery	SMCC Construction India Limited	3.54
31	Dr. Subhadeep Banerjee Dr. Murty CVR Dr. Tarun Naskar	Investigation of Ground Subsidence and Building Cracks at Pratiksha Nagar, Sion, Maharashtra	BG Shirke Construction Technology Private Limited	37.2054
32	Dr. Meher Prasad A	Proof checking of CMR One by Karlan	Karlan Constructions LLP	26.6562
33	Dr. Tarun Naskar Dr. Subhadeep Banerjee	Project at Custom Enclave plot, Wadala, Mumbai: Seeking expert opinion and consultancy on proposed foundations for buildings	BG Shirke Construction Technology Private Limited	4.72
34	Dr. Meher Prasad A	Proof checking of development of Government Medical College, Pariyaram	Sumanam Engineering Services Consultant	5.9
35	Dr. Alagusundaramoorthy P	Review and Vetting of the PEB Design for Anjanpura BMRCL (Bangalore Metro Rail Corporation Limited) Metro Depot Project in Bengaluru	ALFA PEB Limited	3.127
36	Dr. Radhakrishna G Pillai	Assessment of residual capacity of corroded steel bars: Vizhinjam port project	Howe Engineering Projects (India) Private Limited	5.9
37	Dr. Alagusundaramoorthy P	Review of the Analysis and Design and Vetting of the Documents and Drawings of the proposed AIG Hospital Blocks in Hyderabad	AIG Hospitals	35.4

38	Dr. Alagusundaramoorthy P	Testing and Analyzing of Timber Materials for Structural Applications	Venturer Modular Private Limited	5.015
39	Dr. Alagusundaramoorthy P	Review of the Structural Design Calculations and Vetting the Drawings of a 11.44 MLD Capacity Sewage Treatment Plant Construction Project for Tindivanam	Eco Protection Engineers Private Limited	5.31
40	Dr. Alagusundaramoorthy P	Drawings of Barrage, RCC Pump Houses, Delivery Chambers and Electrical Buildings for Masalia and Ranishwar Lift Irrigation Scheme in Jharkhand State	Larsen & Toubro Limited	34.0725
41	Dr. Alagusundaramoorthy P	Condition Assessment and Repair and Rehabilitation of Jodhiyasi CWR for TM02 Project	Larsen & Toubro Limited	26.0898
42	Dr. Arul Jayachandran S	Checking the PEBs of projects 15138 and 16004 for M/s Interarch Building Products Pvt Ltd	Interarch Building Products Private Limited	8.3544
43	Dr. Arul Jayachandran S	Proof checking the design of TP module - IA-PB-16062, and ZF Commercial - IA-PB-16072 for M/s Interarch Building Products Pvt Ltd	Interarch Building Products Private Limited	13.216
44	Dr. Arul Jayachandran S	Vetting of PEB designs for five projects for M/s Interarch Building Products Pvt Ltd	Interarch Building Products Private Limited	25.4998
45	Dr. Ravindra Gettu	Construction Material and Technology Evaluation	Tata Steel Limited	7.08
46	Dr. Dali Naidu Arnepalli	Consultancy Service for Raising Ash Dykes Height Beyond R9 of TSTPP Stage-II at NTPC (National Thermal Power Corporation) Kaniha.	NTPC Limited	11.8
47	Dr. Meher Prasad A	Construction of four/six lane access-controlled expressway from Gurha Baildaran to Junction with Jammu Ring Road (NH-244A) near Jakh village, (468+100 to km 503+250) of Delhi Amritsar Katra Expressway	Vishwa Samudra Engineering Private Limited	11.8
48	Dr. Raghukanth STG	Ground motions for carrying out time history analysis	SP Singla Constructions Private Limited	10.62
49	Dr. Phanisri Pradeep Pratapa	Structural Design Vetting - Two-Tier Bharathi Park OHT	Centre for Urbanization Buildings & Environment (CUBE)	3.835

50	Dr. Subhadeep Banerjee	Review the design proposals from vendors and validate the design of stone columns	L&T Technology Services Limited	3
51	Dr. Arul Jayachandran S	Construction of 4 new bridges: Submitting DD for vetting 4 bridges	Tirupur City Municipal Corporation	6.38
52	Dr. Dali Naidu Arnepalli	Proof Checking of Design and Drawings for the Construction of the Elevated Highway along with the Avinashi Road in Coimbatore City from Goldwins to Upplipalayam km 147/100 to 157/200 of (SHU-52) with Polymeric Strip Reinforced Soil Walls as Approach	KNRCL Constructions Limited	11.8
53	Dr. Mathava Kumar S	No increase in pollution load study for change in product mix without increase in total production capacity for Greenstar Fertilizers Limited at Thoothukudi	Greenstar Fertilizers Limited	18.408
54	Dr. Raghukanth STG	Site-specific earthquake design parameters for the oneness project at Omkareshwar	L&T Construction Buildings & Factories	7.08
55	Dr. Venu Chandra	Checking/Validating the C-Value (Hazen-Williams Coefficient) of cement mortar lined ductile iron pipes	Jindal Saw Limited	6.785
56	Dr. Phanisri Pradeep Pratapa Dr. Alagappan Ponnalagu	Study of Proof Butt Repairs at HVF Avadi	Heavy Vehicles Factory Avadi	9.92
57	Dr. Vidya Bhushan Maji Dr. Dodagoudar GR	Kollimalai HE projects: Weir 2 - Opinion on the alternate proposal of rockfill design for left flank	Tamil Nadu Generation and Distribution Corporation Limited	3.068
58	Dr. Meher Prasad A	Proof checking and vetting of structural components of Fintech Tower - including certification	Tamil Nadu Industrial Development Corporation Limited	26.20544
59	Dr. Apparao G	Proof Checking of Design of PEB Sheds at Various Places in India	Sonne Infrastructure Private Limited	8.85
60	Dr. Mathava Kumar S	No Increase in Pollution Load Study for SPIC Ltd. at Thoothukudi	Southern Petrochemical Industries Corporation	18.408
61	Dr. Apparao G	Proof checking of designs of bridges between Chikkamangalur and Hadihalli	Kored Infratech private Limited	11.8

62	Dr. Venu Chandra	Vetting and approval of mechanical drawings, documents including surge analysis pertaining to UP-II projects, i.e. Ballia 2 in Uttar Pradesh	L&T Construction Water and Effluent Treatment IC	17.11
63	Dr. Venu Chandra	Vetting and approval of mechanical drawings and documents pertaining to UP-II projects, i.e. Firozabad in Uttar Pradesh	L&T Construction Water and Effluent Treatment IC	20.06
64	Dr. Venu Chandra	Rural piped water supply project pertaining to 544 villages of Raghunathpur, Tirtol, Kujang and Ersama blocks in Jagatsinghpur District, Odisha.	L&T Construction Water and Effluent Treatment IC	10.03
65	Dr. Indumathi Manivannan Nambi	Vetting of design and documents of Jagatsinghpur WTPS (Scheme A - 79.3 MLD and Scheme B-3.95 MLD)	L&T Construction Water and Effluent Treatment IC	3.54
66	Dr. Meher Prasad A	Proof checking of redevelopment of Chennai Egmore Railway Station	DEC Infrastructures & Projects (India) private Limited	47.2
67	Dr. Meher Prasad A	Proof checking of construction of a four/six lane access-controlled expressway from Junction with Pathankot-Gurdaspur Road (NH-54) near Balsua to Junction with Hiranagar Road near village Gurha Baildaran (km 423+500 to km 468+100) in the state of Punjab	Megha Engineering and Infrastructures Limited	3.835
68	Dr. Phanisri Pradeep Pratapa	Vetting of design and documents of Jagatsinghpur WTPS	Larsen & Toubro Limited	14.16
69	Dr. Subhadeep Banerjee	Geotechnical interpretation report for HPL (Haldia Petrochemicals Limited) project, Cuddalore	Josmar Consulting Engineers	9.44
70	Dr. Satish Kumar S Rajaram	Proof Checking of Design of Composite Structure	Navayuga Engineering Company Limited	15
71	Dr. Apparao G	Proof checking of design of RoBs at Hassan	SRC Infra Developers Private Limited	7.67
72	Dr. Murali Krishnan J	Training On the Use of Polymer-Modified Bitumen in Defense Airfield Pavements for Utilization Within the Military Engineering Services	Ministry of Defense	17.7

73	Dr. Robinson RG Dr. Subhadeep Banerjee	Review and suggestions of settlement monitoring at Cochin Import Terminal, Puthuvypin, Kochi	Keller Ground Engineering India Private Limited	9.44
74	Dr. Meher Prasad A	Proof Checking Construction of Oottara River Bridge in Palakkad District	Roads and Bridges Development Corporation of Kerala Limited	5.31
75	Dr. Alagusundaramoorthy P	Construction of 350 quarters for Port employees and also to facilitate and reserve land for the future expansion of the Port in Nuabazar area	Paradip Port Authority	10.35
76	Dr. Alagusundaramoorthy P	Condition Assessment of Cauvery Old Bridge RHS at km 318.600 to km 319.230 at Padalur Trichy Section of NH 38	Trichy Padalur Tollways Private Limited	42.067
77	Dr. Satish Kumar S Rajaram	Proof checking design of PEBs for DP World and Terex	Metal Scope (India) Private Limited	2.8600014
78	Dr. Meher Prasad A	Third-party proof check of structural design & drawings for L&T commercial tower at Powai Mumbai	Larsen & Toubro Limited	53.1
79	Dr. Satish Kumar S Rajaram	Proof checking of RC buildings for Cuttack Railway Station	URC Construction Private Limited	27.14
80	Dr. Satish Kumar S Rajaram	Proof checking of RC buildings for Maa Samaleshwari temple development at Sambalpur	URC Construction Private Limited	4.72
81	Dr. Satish Kumar S Rajaram	Proof Checking of RC buildings for AIIMS Bhubaneshwar	URC Construction Private Limited	5.9
82	Dr. Satish Kumar S Rajaram	Proof checking of PEB design for M/s. ICF at Chennai	Lendi Associates	3.54
83	Dr. Shiva Nagendra SM	Review of EIA report of development of Greenfield Vadhavan Port	Jawaharlal Nehru Port Trust	7.08
84	Dr. Satish Kumar S Rajaram	Proof checking design of PEB for TS-2040 Railway Manufacturing Unit at Kazipet	Pennar Industries Limited	2.6
85	Dr. Meher Prasad A	Design & Piers in the Major Bridge No. 611	Rail Vikas Nigam Limited	7.08
86	Dr. Satish Kumar S Rajaram	Proof Checking of PEB Design for Mahindra and Mahindra at Pune	Zamil Steel Buildings India Private Limited	8.5
87	Dr. Manu Santhanam Dr. Radhakrishna G Pillai	Condition Assessment and Possible Repair Strategies for Jains Westminster Apartments	Jain Housing	94.4
88	Dr. Apparao G	Vetting of Civil Drawings and Revision of Works of Pothireddypadu Head Regulator	Megha Engineering and Infrastructures Limited	5.9

89	Dr. Arul Jayachandran S	Proof checking and project guidance during construction period of GCC (Greater Chennai Corporation) project 'Construction of flyover along South Usman Road and CIT Nagar 1st Main Road in Div-136 & 141, Zone-X by Design, Engineering, Procurement and Construction (DEPC) method'	SPL Infrastructure Private Limited	29.5
90	Dr. Alagusundaramoorthy P	Analysis and Design and Preparation of GFC Drawings for Sump and Pump Room for TNUHDB (Tamil Nadu Urban Habitat Development Board), Tirunelveli Division	Tamil Nadu Urban Habitat Development Board	3.54
91	Dr. Alagusundaramoorthy P	Structural Peer Review Consultancy Services for the Residential Project for Railways at Majestic in Bangalore	Bagmane Texworth Private Limited	7.375
92	Dr. Alagusundaramoorthy P	Assessing the Capacity of the Proposed Construction of the Yatri Nivas Building at Madurai for HR&CE (Hindu Religious and Charitable Endowments), Tamil Nadu Government	Ashok Construction	3.127
93	Dr. Alagusundaramoorthy P	Stability Check of Vignesh Homes in SK Amber Residential and Apartment Building at Valasaravakkam	Vignesh Homes - SK Amber	2.655
94	Dr. Satish Kumar S Rajaram	Proof Checking of Composite Building for IIM Kochi	Chendur Infrastructure Private Limited	2.5
95	Dr. Alagusundaramoorthy P	Review of the Analysis and Design of the Barrage Across River Cauvery at Karur in Tamil Nadu	Sri Pathy Associates Private Limited	3.54
96	Dr. Alagusundaramoorthy P	Review of the Analysis and Design and Vetting of Drawings of the Redevelopment of Vaigai Tamil Nadu Illam of Tamil Nadu House at New Delhi	DK and Associates	9.735
97	Dr. Alagusundaramoorthy P	Review of the Analysis and Design and Optimize the Design for the Proposed Construction of the Kalyan Amusement Park at Villivakkam in Chennai	CK Entertainments Private Limited	5.605
98	Dr. Subhadeep Banerjee	Review of High Strain Dynamic Pile load test report for Inter-Model IWT Terminal at Kalughat, Bihar (IWAI)	Sanjay Construction Company	3.54

99	Dr. Subhadeep Banerjee	Geotechnical Advisor for PS Vaanya at Rajarhat	MNU Consultants Private Limited	5.9
100	Dr. Meher Prasad A	Consultancy services for proof checking of design of landside buildings towards development of the Uthiru Thila Falhu (UTF) Ekatha harbour project in Maldives	Rail Vikas Nigam Limited	16.52
101	Dr. Meher Prasad A	PWD 001-38: Construction of Peruman Bridge Connecting Peruman and Manrothuruthu across Astammudi Lake - Design of Extra Dosed Mid Span.	Kerala Road Fund Board	9.44
102	Dr. Meher Prasad A	Bagmane Solarium City Flyover Project, Bangalore, Karnataka	Bagmane Developers Pvt. Ltd.	4.72
103	Dr. Subhadeep Banerjee Dr. Robinson RG	Ground improvement project for the Snacks Production Greenfield Facility in Nalbari, Assam	Keller Ground Engineering India Private Limited	23.6
104	Dr. Subhadeep Banerjee Dr. Vidya Bhushan Maji	Study to ascertain water ingress incident during construction of cross-passage in East West Metro Corridor at Kolkata	Kolkata Metro Rail Corporation Limited	23.6
105	Dr. Koshy Varghese	Study of Construction Schedule for FRFCF (Fast Reactor Fuel Cycle Facility) Project for HCC	Hindustan Construction Company Limited	7.788
106	Dr. Meher Prasad A	HAD Chandigarh (3D printing & precast) proof checking/ vetting of structural design and drawings	Larsen & Toubro Limited	4.6771896
107	Dr. Soumendra Nath Kuiry	Preparation of Detailed Project Report (DPR) for formulating a ring main system consisting of existing/new transmission mains connecting existing water treatment plants and water distribution stations in Chennai city for CMWSS (Chennai Metropolitan Water Supply and Sewerage) Board	Chennai Metropolitan Water Supply & Sewerage Board	21.24
108	Dr. Saravanan U	Fatigue testing on anchorage system and analysis of the data	Dynamic Prestress (I) Pvt. Ltd.	36.108
109	Dr. Phanisri Pradeep Pratapa	Providing Structural Design Vetting Services for Skywalk Integrating Suburban Railway with Kilambakkam Bus Terminal	Centre for Urbanization Buildings & Environment (CUBE)	2.95
110	Dr. Meher Prasad A	Proof checking of structure design of project: Residence of Dreamsmiths Exim	Dreamsmiths Exim Private Limited	3.30014

111	Dr. Satish Kumar S Rajaram	Proof Checking Building Design for Veritas Data Center	Constructure Designs Private Limited	10
112	Dr. Apparao G	Proof Checking of Design of Warehouse Building at Bangalore	Fabex Steel Structures Private Limited	5.015
113	Dr. Meher Prasad A	CMRL Phase - 2 Proof checking & approval of critical span designs	Chennai Metro Rail Limited	35.4
114	Dr. Apparao G	Proof checking of design of PEB warehouse building for TVS Industrial & Logistics Pvt. Ltd at Pilaipakkam, Tamil Nadu	Fabex Steel Structures Private Limited	8.85
115	Dr. Meher Prasad A	Reconstruction of Manora Amdar Niwas for Maharashtra Legislature at Nariman Point, Mumbai	Larsen & Toubro Limited	57.038403
116	Dr. Meher Prasad A	Proof checking of Axis Bank Centre for Mathematics and computing and vetting of soil investigation report	Tata Consulting Engineers Limited	6.7732
117	Dr. Thyagaraj T	Recommendations for Ground Improvement for IPS-1, Parallel Carrier System to RGLC Phase-III, Rajasthan	L&T Construction Water and Effluent Treatment IC	3.894
118	Dr. Meher Prasad A	Proof checking of Design, Drawings for Construction of HL Bridge over river Subarnarekha at 36th km on Haldipada NH-16 to West Bengal etc., in the state of Odisha for works Department, Government of Odisha through EPC Mode	L&T Geo Structure Private Limited	8.85
119	Dr. Manu Santhanam	Evaluation of 3D print mixture formulations	MYK Laticrete India Private Limited	4.425
120	Dr. Satish Kumar S Rajaram	Proof Checking of Design of RC & Steel Buildings for Amrit Bharat Scheme	M Mohandoss	5.4
121	Dr. Satish Kumar S Rajaram	Proof checking of bridge design for forming of bypass to Sivagangai at Madurai.	Tamil Nadu Highways Department	2.4
122	Dr. Alagusundaramoorthy P	Stability Check of the Super Mart Atrium Roof in Tex Valley at Erode	N DOT Dorwin Facade Solutions Private Limited	2.95
123	Dr. Alagusundaramoorthy P	Review of the Civil Engineering Design and Drawings for Parallel Carrier System to RGLC Phase-III for PHED - Jodhpur, Rajasthan	L&T Construction Water and Effluent Treatment IC	4.2008
124	Dr. Balaji Narasimhan Dr. Elango Lakshmanan	Groundwater Protection and Water Conservation for North Qatar	Geo Marine solutions Private Limited	18.88

125	Dr. Mathava Kumar S	Design adequacy and performance assessment studies for existing effluent treatment plant (ETP) at Central Diary (Aavin), TCMPF Ltd. (Tamil Nadu Cooperative Milk Producers Federation Limited, Madhavaram, Chennai	The Tamil Nadu Co-Operative Milk Producers Federation Limited	2.95
126	Dr. Subhadeep Banerjee	Peer review of riverbank protection scheme of Bhagalpur BWSP (Bhagalpur Water Supply Project) 02 project	VA Tech Wabag Limited	4.72
127	Dr. Mohan S	Environmental Audit of TSDf (Treatment, Storage, and Disposal Facility) site at Gumidipoondi 2023-24	Re Sustainability IWM Solutions Limited	8.26
128	Dr. Mohan S	Ground Water Pollution Assessment Study	Re Sustainability IWM Solutions Limited	5.31
129	Dr. Alagusundaramoorthy P	Plate Load Test on the Compacted Soil	Tamil Nadu Trade Promotion Organization	17.7
130	Dr. Alagusundaramoorthy P	Technical Guidance and Inspection of Repair and Rehabilitation of the Fire Damaged Surgical Block in the Government Medical College at Kottayam	Jatan Constructions Private Limited	12.4844
131	Dr. Alagusundaramoorthy P	Reanalysis of the Skylight Roof Frame as per the Revised Topology and Check the Retrofitting Scheme	Erode Textile Mall Private Limited	2.95
132	Dr. Murali Krishnan J	Mix Design with RAP (Reclaimed Asphalt Pavement)	Asphalt Roadworks Private Limited	5.9
133	Dr. Alagusundaramoorthy P	NDTs and PDTs on the Columns and Beams, Structural Analysis and Design Proof Checking for IOCL Divisional Office Building	Nanda & Associates Architects	9.8825
134	Dr. Phanisri Pradeep Pratapa	Structural design proof checking for Ganjam water supply project	L&T Construction Water and Effluent Treatment IC	17.7
135	Dr. Subhadeep Banerjee Dr. Meher Prasad A	Design Check and Analysis of Underpass for Chandigarh University	VH Shri Enterprise	4.72
136	Dr. Phanisri Pradeep Pratapa	Structural design proof checking for water supply schemes in towns of Tanzania	L&T Construction Water and Effluent Treatment IC	19.765
137	Dr. Satish Kumar S Rajaram	Proof Checking Design of Complete Infrastructure Package for Vizag 07 Project for EPIL	Centre for Urbanization Buildings & Environment (CUBE)	17.435125

138	Dr. Satish Kumar S Rajaram	Proof Checking of Design of RC Buildings for Upgradation of Katpadi Railway Station	Engineering Projects (India) Limited	13.246727
139	Dr. Satish Kumar S Rajaram	Proof Checking Design of New Domestic Terminal Building at Rajamundry Airport	Renaatus Projects Private Limited	7.08
140	Dr. Alagusundaramoorthy P	Analysis and Design of International Hostel and Academic Block at CSIR-CLRI (Council of Scientific & Industrial Research-Central Leather Research Institute) in Adyar, Chennai	Office of the Executive Engineer	4.425
141	Dr. Alagusundaramoorthy P	Analysis and Design of Overhead RCC Water Tank and Issue of Drawings for Construction	Office of the Executive Engineer	4.425
142	Dr. Alagusundaramoorthy P	Condition Assessment and Exploration of the Possibility for Repair and Rehabilitation of Residential Quarters in CLRI Adyar in Chennai	Office of the Executive Engineer	2.36
143	Dr. Apparao G	Design of Precast I-Girder Bridges along CPRR at Ch. 4+700	Tata Projects Limited	8.85
144	Dr. Alagusundaramoorthy P	Review of the Analysis and Design and Vetting the Drawings of Canopies, Cable End Wall and Sliding Partitions for TNTPO (Tamil Nadu Trade Promotion Organisation) in Chennai	Tamil Nadu Trade Promotion Organisation	10.62
145	Dr. Soumendra Nath Kuiry Dr.Subhadeep Banerjee	Seepage and hydraulic design analysis for the RCB across Bharathapuzha in Kankakkadavu	Kerala Irrigation Infrastructure Development Corporation Limited	9.44
146	Dr. Alagusundaramoorthy P	Inspection of the strengthening work of the existing Admin building at Foreshore Terminal in Chennai	Indian Oil Corporation Limited	12.39
147	Dr. Phanisri Pradeep Pratapa	Structural design proof checking for Chittorgarh water supply project	L&T Construction Water & Effluent Treatment IC	17.7
148	Dr. Alagusundaramoorthy P	Vetting of structural design and drawing for our proposed 15 MLD capacity Sewage Treatment Plant structures at Dubrayapet, Puducherry	Eco Protection Engineers Private Limited	5.31
149	Dr. Alagusundaramoorthy P	Structural Stability for the Existing DG Slab Foundations for Increasing up to G+5 Structures	National Payment Corporation of India	12.98

150	Dr. Satish Kumar S Rajaram	Proof Checking Design of PEB for M/s GMR Aerospace and Industrial Park at Hyderabad	Bheemaa Infra Solutions Pvt. Ltd.	8.496
151	Dr. Alagusundaramoorthy P	Condition Assessment of the Columns in the Ground Floor of the Proposed Data Centre Building in Ambattur at Chennai	Bearys Properties and Developments Private Limited	3.0208
152	Dr. Apparao G	Proof Checking of Design: Major Bridges in AP (at Koyyuru & Rampachodavarm)	SRC Infra Developers Private Limited	7.08
153	Dr. Satish Kumar S Rajaram	Proof Checking Design of PEB for Ola at Hosur 2S2122	Zamil Steel Buildings India Private Limited	8.02341
154	Dr. Satish Kumar S Rajaram	Proof Checking Design of PEB for SKH Metal at Sonipath (Job 2470)	Everest Industries Limited	7.1499976
155	Dr. Alagusundaramoorthy P	Condition Assessment of Stilt+7 Type-II Quarters 1 and 2 in South Colony at Integral Coach Factory in Chennai	Koneru Constructions Private Limited	67.024
156	Dr. Murali Jagannathan	Conducting a study on the measures to reduce contractual arbitrations in Military Engineering Services	Military Engineer Services	9.999
157	Dr. Meher Prasad A	Proof checking of structure design of project - residence of Dreamsmiths Exim Pvt. Ltd.	Dreamsmiths Exim Private Limited	3.3001414
158	Dr. Meher Prasad A	Proof checking of KLC III- Construction of a multi-storied residential apartment at MLA Hostel after demolishing the existing Pamba including multi-level car parking at MLA Hostel Campus	Uralungal Labour Contract Co-op Society Ltd.	5.074
159	Dr. Satish Kumar S Rajaram	Proof Checking Design of PEBs for RVNL and SNJ	Pennar Industries Limited	3.981
160	Dr. Murali Krishnan J	Mix design for dense graded thin overlay	Mahua Bharatpur Expressways Limited	7.08
161	Dr. Alagusundaramoorthy P	Structural soundness for human habitation for ESIC (Employees' State Insurance Corporation) buildings in Chennai Region	Employees State Insurance Corporation	20.308166
162	Dr. Gitakrishnan Ramadurai	Impact of Institute of Driving and Traffic Research	Maruti Suzuki India Limited	4.956
163	Dr. Soumendra Nath Kuiry	LE22M876 - EPC work for Northern Link Pipeline Project	Larsen & Toubro Limited	4.13
164	Dr. Meher Prasad A	SPR city - SKY Tower	SPR Construction Private Limited	27.7536
165	Dr. Meher Prasad A	144-room men's hostel, 216-room nurses' hostel, 96-rooms girls' hostel & ICER building	Civil Consultants	15.624911

166	Dr. Satish Kumar S Rajaram	Proof Checking Design of PEBs for RVNL Main and Old scope	Pennar Industries Limited	15
167	Dr. Balaji Narasimhan Dr. Elango Lakshmanan	Amaala Pump Well Project	Larsen & Toubro Limited Construction Water and Effluent Treatment IC	4.13
168	Dr. Meher Prasad A	Construction of Green Field Six Lane Extadosed Cable Bridge over River Ganga near Kacchi Dargarh on NH-30 to near Bidupur in District - Vaishali on NH-103 at Patna in the State of Bihar	DAEWOO E&C Larsen & Toubro	3.54
169	Dr. Surender Singh	Testing of Light Weight Aggregates	Prosift Enterprises Private Limited	3.54
170	Dr. Venu Chandra	Water Supply Project of 648 villages (Block Begun-142, Bhainsorgarh-82, Gangrar-98, Chittaurgarh-215, Bhadesar-45 & Nimbahera-66) of Dist. Chittorgarh from Chambal River under Jal Jeevan Mission (Package-I).	L&T Construction Water and Effluent Treatment IC	5.31
171	Dr. Venu Chandra	Vetting and approval of mechanical drawings and surge analysis documents pertaining to Execution of Mega PWS (Pipe Water Scheme) in 11 Blocks of Ganjam district, Odisha	L&T Construction Water and Effluent Treatment IC	15.34
172	Dr. Robinson RG Dr.Subhadeep Banerjee	Expert opinion for cut/fill soil properties for runways at greenfield Vishakhapatnam airport	Larsen & Toubro Limited	3.54
173	Dr. Meher Prasad A	Construction of AIIMS Rewari, Haryana	Larsen & Toubro Limited	70.8
174	Dr. Meher Prasad A	Review of structural design and stability of the existing buildings checking at Plot No.18, 19 and 20, Ambit IT Park Road, Ambattur Chennai - 600056	Chettinad Academy of Research and Education	73.632
175	Dr. Arul Jayachandran S	Proof checking the augmentation of MLSP and DT3 Tower at DLF Downtown at Taramani, Chennai	Buro Engineers (India) Private Limited	18.88
176	Dr. Indumathi Manivannan Nambi	Vetting BEP and drawings of WTPs Ganjam Scheme 1 (137.37 MLD) & Scheme 2 (12.25 MLD)	L&T Construction Water and Effluent Treatment IC	3.54

177	Dr. Meher Prasad A	Assessment & Analysis Report for Erected Girders (Span ID 361 P 16 to 19 & Girder Nos. 361GR 16, 361GR 18) of MAHSR-C4 Package	Larsen & Toubro Limited, Construction Heavy Civil Infrastructure	10.62
178	Dr. Mohan S	Environmental Audit of TSDF Facility at Bargur	Re Sustainability IWM Solutions Limited	7.67
179	Dr. Satish Kumar S Rajaram	Proof Checking of PEB for M/s Maxcable India Pvt. Ltd. at Chennai	Metal Scope (India) Private Limited	2.9736
180	Dr. Alagusundaramoorthy P	Inspection of the Collapsed Facia Concrete Solid Blocks on the Geogrid Reinforced Segmental Soil Wall System in the Approach Ramp of the ROB at KM 324+100 (RHS) Approach Slab and Remedial Measures	Trichy Padalur Tollways Private Limited	21.37275
181	Dr. Satish Kumar S Rajaram	Proof checking of bridge design for formation of western bypass road between Aruppukottai and Virudhunagar railway station	Tamil Nadu Highways Department, Tirunelveli	3.776
182	Dr. Satish Kumar S Rajaram	Re-Development of Kozhikodu Railway Station	Rank Projects and Development Pvt. Ltd.	30.443
183	Dr. Apparao G	Proof checking of design of piers and foundation of a bowstring girder at km 389/31-33 of Kazipet-Vijayawada Section	Rockeira Engineering Pvt. Ltd.	5.9
184	Dr. Saravanan U	Fatigue testing of 3 types of anchorage systems	Dynamic Prestress (I) Pvt. Ltd.	33.984
185	Dr. Saravanan U	Fatigue testing of 19DP15 anchorage systems	Dynamic Prestress Projects & Services Pvt. Ltd.	12.744
186	Dr. Subhadeep Banerjee	Analysis of shoring piles for Hinduja Leyland Finance	Hinduja Leyland Finance	4.72
187	Dr. Dali Naidu Arnepalli	Review & Assessment of Designs Prepared for Ground Improvement at Machilipatnam Port - Reg.	Machilipatnam Port Development Corporation Limited	4.72
188	Dr. Meher Prasad A	Proof checking of construction of EWS houses and infra works at Navade & Kharkopar, Navi Mumbai.	Larsen & Toubro Limited	47.800325
189	Dr. Meher Prasad A	Proof checking of structural and geotechnical investigation of proposed International Cricket Stadium at Varanasi, Uttar Pradesh	Uttar Pradesh Cricket Association	22.6796

190	Dr. Arul Jayachandran S	Load Carrying Capacity Testing of KL-700 (8 tests)	Tata Bluescope Steel Private Limited	5.9999932
191	Dr. Saravanan U	Design approval test for dual gauge PSC 60 kg switch expansion joint sleeper	Afcons-KPTL JV	7.63
192	Dr. Arun Menon Dr.Subhadeep Banerjee	Inspection Audit and Certification for Wesley School (Heritage) Building	Chennai Metro Rail Limited	2.36
193	Dr. Dali Naidu Arnepalli	Proof Checking of Design and Drawings of Reinforced Soil Wall for the Construction of VUP at Chainage 515+580 of six lane Project from Belgaum to Sankeshwar Bypass of NH-48 in the State of Karnataka - Reg.	Ashoka Buildcon Limited	4.72
194	Dr. Alagusundaramoorthy P	Review of the Analysis and Design and Vetting the Structural Design Documents and Drawings of 188 Nos. (S+9) tenements and Allied Infrastructure at Vembuliamman Koil Scheme, Chennai for TNUHDB	Centre for Urbanization Buildings & Environment (CUBE)	2.9399346
195	Dr. Alagusundaramoorthy P	Proof Checking and Vetting of Structural Design Documents and Drawings of 02 Nos. Residential Blocks of (S+6) for TNUHDB Vaniyapuram Scheme	Centre for Urbanization Buildings & Environment (CUBE)	3.4916318
196	Dr. Alagusundaramoorthy P	Proof Checking of Structural Drawings of Residential Blocks of TNUHDB Project, Goyathoppu	Centre for Urbanization Buildings & Environment (CUBE)	6.431
197	Dr. Robinson RG Dr. Aravind Kumar Chandiran	Proof checking and checking of land fill construction	Re Sustainability IWM Solutions Limited	10.03
198	Dr. Satish Kumar S Rajaram	Proof Checking Design of Building for Foxcon Honhai Technologies India	K n K Infra	20.000009
199	Dr. Satish Kumar S Rajaram	Proof checking design of PEB Warehouse	Intertouch Metal Buildings Private Limited	3.83736
200	Dr. Robinson RG	Design of PVD (prefabricated vertical drain) and soil improvement for KIIFB	KIIFCON Private Limited	4.72
201	Dr. Saravanan U	Fatigue load test	Deevin Seismic Systems Private Limited	16.992
202	Dr. Saravanan U	Fatigue test for liner less fastening assembly	Patil Rail Infrastructure Private Limited	5.9

203	Dr. Tarun Naskar	Carrying Out Multi-Channel Analysis of Surface Waves (MASW) at Lower Reservoir	Sri Siddharth Infratech & Services (I) Private Limited	3.54
204	Dr. Alagusundaramoorthy P	Vetting of Civil & Structural Design and Drawings for Amawar WSS Project, UP	Larsen & Toubro Limited, Construction	6.49
205	Dr. Alagusundaramoorthy P	Vetting of Civil and Structural Design and Drawings for Gurmura & Panari WSS Project, UP	Larsen & Toubro Limited, Construction	7.4222
206	Dr. Alagusundaramoorthy P	Vetting of Civil and Structural Engineering Design and Drawings for Boudh Kandhamal WSP Odisha	Larsen & Toubro Limited, Construction	17.11
207	Dr. Alagusundaramoorthy P	Vetting of Civil and Structural Design and Drawings for Rajghat MVS (Multi Village Scheme) project, Madhya Pradesh	Larsen & Toubro Limited, Construction	22.4318
208	Dr. Alagusundaramoorthy P	Vetting of Civil and Structural Design and Drawings for Madikheda MVS project, Madhya Pradesh	Larsen & Toubro Limited, Construction	14.4904
209	Dr. Alagusundaramoorthy P	Consultancy Work for Proof Checking of the 3D Structural Models of the Bamboo Orchids Suspended Ceiling and Their Support Systems at LGBI Airport for Guwahati International Airport Limited	Guwahati International Airport Limited	23.880002
210	Dr. Alagusundaramoorthy P	Review and Vetting and Approval of Civil & Structural Design Drawings for Khordha WSP Odisha	Larsen and Toubro Limited, Construction	11.8
211	Dr. Meher Prasad A	Shivarampur (Design Ch. 55+002) to village Ramnagar (Design Ch.109+324) at NH-119D under Bharatmala Pariyojana in state of Bihar on HAM Mode	Megha Engineering & Infrastructure Limited	4.72
212	Dr. Alagusundaramoorthy P	Vetting and Approval of Civil & Structural Design Drawings for Kendrapara Aul & Rajkanika WSP Odisha	Larsen & Toubro Limited, Construction	11.4342
213	Dr. Alagusundaramoorthy P	Vetting of Civil & Structural Design and Drawings for Agar Malwa MVS project, Madhya Pradesh	Larsen and Toubro Limited, Construction-2026	10.7616

Ongoing				
1	Dr. Apparao G	Design of Special Concretes for Precast Construction Chennai Light House Project	BG Shirke Construction Technology Private Limited	4.838
2	Dr. Venu Chandra	Execution of Rural Piped Water Supply Projects of Rajghat Dam Multi-Village Scheme pertaining to Ashok Nagar & Guna District	L&T Construction Water and Effluent Treatment IC	11.21
3	Dr. Venu Chandra	Construction of Gond Deosar Multi Village Rural Water Supply Scheme for Villages in Singrauli District of Madhya Pradesh	L&T Construction Water and Effluent Treatment IC	5.9
4	Dr. Rupen Goswami	OTM Accommodation & CGOM for Coast Guard at Puducherry	Central Public Works Department Division No II Pondicherry	22.42
5	Dr. Nageswara Rao B	Proof checking of design & drawings of bridges in connection with Chhattisgarh Railway Project in the state of Chhattisgarh	Ircon International Limited	39.2468
6	Dr. Venu Chandra	Vetting and approval of hydraulic, mechanical drawings and documents, surge analysis pertaining to Rural Piped Water Supply Projects of Rasulpur & Danagadi blocks of Bargarh district, Odisha	KEC International Limited	11.21
7	Dr. Radhakrishna G Pillai Dr. Surender Singh Dr. Piyush Chaunsali	High Performance Concretes for Nuclear Power Plants in Coastal Regions - Corrosion & Service Life Assessments	Indira Gandhi Centre for Atomic Research	35.4
8	Dr. Manu Santhanam Dr. Ashwin Mahalingam	TPQAS to Light House Projects - MoHUA (Ministry of Housing & Urban Affairs)	Building Materials & Technology Promotion Council	450.54369
9	Dr. Venu Chandra	Vetting and approval of mechanical drawings and documents pertaining to Khordha WSS, Odisha	L&T Construction Water and Effluent Treatment IC	7.08
10	Dr. Venu Chandra	Vetting and approval of mechanical drawings and documents pertaining to Khendrapada II WSS, Odisha	Larsen and Toubro Limited Construction Water and Effluent Treatment IC	7.08
11	Dr. Satish Kumar S Rajaram	Proof checking design of PEB and RCC Buildings for M/s Indian Oil Corp. Ltd.	Ocean Life Spaces India Private Limited	64.97792

12	Dr. Atul Narayan SP	Laboratory characterization of the effect of a new additive on the nature and performance of bitumen	Arcishmaan Elements Private Limited	12.095
13	Dr. Venu Chandra	Consultancy services for 25, 7, 15.25 and 7.75 MLD SPS at Biharsharif, Bihar	Bhugan Infracon Private Limited	4.72
14	Dr. Venu Chandra	Vetting and approval of mechanical drawings and documents pertaining to Boudh Kandhamal WSS, Odisha	Larsen & Toubro Limited Construction Water and Effluent Treatment IC	11.505
15	Dr. Murali Krishnan J	Mix Design and Structural Design for Six-laning of National Highway using Cold Central Plant Recycling	Cube Highways Technologies Private Limited	21.83
16	Dr. Thyagaraj T	Foundation Recommendations for the proposed RO-DM Plant at IOCL Barauni, Bihar	Larsen & Toubro Limited	8.26
17	Dr. Meher Prasad A Dr. Subhadeep Banerjee	Proof Checking of Design & Drawings for Mumbai-Ahmedabad High Speed Rail Project.	National High Speed Rail Corporation Limited	329.515
18	Dr. Ligy Philip	Carrying out mass balance of mercury in the treatment processes of contaminated soil in Hindustan Unilever Limited, Kodaikanal	Hindustan Unilever Limited	43.483
19	Dr. Meher Prasad A Dr. Prakash Maiya M Dr. Benny Raphael Dr. Sarathi R Dr. Robinson RG Dr. Raghavan V Dr. Arul Jayachandran S Dr. Krishna Vasudevan Dr. Rupen Goswami Dr. Subhadeep Banerjee Dr. Arun Menon Dr. Dhiman Chatterjee	Proof checking of Indore-Metro project viaduct 14+488 to 25+415 including nine (9) stations (Package IN-03) and seven (7) metro stations (Package IN-02).	Rail Vikas Nigam Limited	324.5
20	Dr. Venu Chandra	Multi-village scheme covering all the rural habitations of Dharwad, Hubli, Kundgol, Navalgund & Kalaghatagi taluks in Dharwad district	Larsen & Toubro Limited Construction	11.8
21	Dr. Alagusundaramoorthy P Dr. Satish Kumar S Rajaram	Providing Comprehensive Consultancy Services for Retrofitting and Waterproofing of Parking Basement in AIIMS at Raipur	All India Institute of Medical Sciences Raipur (CG)	93.0194

22	Dr. Meher Prasad A	Proof checking of detailed design and drawings for superstructure, substructure, foundation (including geotech report) bearings & erection scheme for 1 no. of ROB & 1 no. of major bridge of Ganga Expressway Project	L&T Construction -Transportation Infrastructure IC	17.7
23	Dr. Radhakrishna G Pillai Dr. Keerthana Kirupakaran Dr. Saravanan U	Technical advice for condition assessment and development of durable repair strategies for the parapets of the elevated structures of the Hyderabad Metro Rail Limited (HMRL)	Larsen & Toubro Limited- Construction- Heavy Civil Infrastructure	23.6
24	Dr. Apparao G	Proportioning of I-crete Mixes for High Workability	Navodaya Sciences Private Limited	8.85
25	Dr. Robinson RG Dr. Subhadeep Banerjee	Proof Checking Geotechnical Design for Installation of Piles and Ground Improvement at Crude Oil Import Terminal	Keller Ground Engineering India Private Limited	15.34
26	Dr. Meher Prasad A	Proof checking of construction of HL Bridge over Mangala River connecting the road between Sterling Resort and Shamuka Beach Project at Puri in Odisha	Ashirbad Eng & Construction Private Limited	5.9
27	Dr. Meher Prasad A	Proof checking of Ampa Hotels & Branded Residences	Ampa Home Build Private Limited	35.4
28	Dr. Radhakrishna G Pillai	Ampa Hotels & Branded Residences	Ampa Home Build Private Limited	21.24
29	Dr. Meher Prasad A	Proof checking of construction of terminal and revering infrastructure at Guwahati Gateway Ghat, Assam	L&T Geostructure Private Limited	23.6
30	Dr. Indumathi Manivannan Nambi	Vetting of Detailed project report, Salem Yarn Coloring Park	Salem Yarn Coloring Park Private Limited	11.8
31	Dr. Soumendra Nath Kuiry.	Masalia Ranishwar lift irrigation: Pumping system and water requirements calculation	Larsen & Toubro Limited	7.08
32	Dr. Venu Chandra	Review and approval of hydraulic designs/calculation in connection to Poola Subbaiah Veligonda Project, Andhra Pradesh	The Principal Accountant, General (Audit, Andhra Pradesh)	7.08
33	Dr. Radhakrishna G Pillai	Effect of CAC Corrobit OCI Plus on the service life of reinforced concrete systems exposed to specific conditions	Concrete Additives & Chemicals Private Limited	31.86
34	Dr. Satish Kumar S Rajaram	Proof Checking of PEB for M/s Maxcable India Pvt. Ltd. at Chennai	Metal Scope (India) Private Limited	2.9736

35	Dr. Saravanan U	Fatigue testing of 3 types of anchorage systems	Dynamic Prestress (I) Pvt Ltd	33.984
36	Dr. Alagusundaramoorthy P	Review of the Analysis and Design and Vetting the Drawings of Canopies, Cable End Wall, and Sliding Partitions for TNTPO in Chennai	Tamil Nadu Trade Promotion Organisation	10.62
37	Dr. Satish Kumar S Rajaram	Proof Checking Design of PEBs for RVNL (Rail Vikas Nigam Ltd.) Main and Old Scope	Pennar Industries Limited	15
38	Dr. Satish Kumar S Rajaram	Proof Checking Design of PEBs for RVNL and SNJ	Pennar Industries Limited	3.981
39	Dr. Subhadeep Banerjee Dr. Robinson RG	Ground improvement project for the Snacks Production Greenfield Facility in Nalbari, Assam	Keller Ground Engineering India Private Limited	23.6
40	Dr. Subhadeep Banerjee	Geotechnical Advisor for PS Vaanya at Rajarhat	MNU Consultants Private Limited	5.9
41	Dr. Satish Kumar S Rajaram	Proof Checking Design of Complete Infrastructure Package for Vizag 07 Project for EPIL (Engineering Projects (India) Ltd.)	Centre for Urbanization Buildings & Environment (CUBE)	17.435125
42	Dr. Phanisri Pradeep Pratapa	Providing Structural Design Vetting Services for Skywalk Integrating Suburban Railway with Kilambakkam Bus Terminal	Centre for Urbanization Buildings & Environment (CUBE)	2.95
43	Dr. Venu Chandra Dr. Sriram V	Proof checking of 2D model study in connection to development of ferry terminal at Guwahati gateway ghat, Assam	L&T Geostructure Private Limited	5.9
44	Dr. Phanisri Pradeep Pratapa	Structural Vetting of 3D printed guest house at IITM	Tvasta Manufacturing Solutions Private Limited	1.77
45	Dr. Meher Prasad A Dr. Amlan K Sengupta	Testing of Precast India Connector Bars	Precast India Infrastructures Private Limited	22.42
46	Dr. Meher Prasad A	CMRL Phase 2 Proof checking & approval of Critical span designs	Chennai Metro Rail Limited	35.4
47	Dr. Radhakrishna G Pillai	Chloride threshold and service life of reinforced concrete systems with stainless steel bars in various binders and exposed to specific conditions	Sunflag Iron & Steel Company Limited	14.16

48	Dr. Alagusundaramoorthy P	Condition Assessment and Repair and Rehabilitation of the Fire Affected Structural Elements in the Surgical Block in the Government Medical College at Kottayam	Jatan Constructions Private Limited	13.0508
49	Dr. Alagusundaramoorthy P	Technical Guidance and Inspection of Repair and Rehabilitation of the Fire Damaged Surgical Block in the Government Medical College at Kottayam	Jatan Constructions Private Limited	17.2339
50	Dr. Subhadeep Banerjee Dr. Tarun Naskar Dr. Murty CVR	Investigation of Ground Subsidence and Building Cracks at Pratiksha Nagar, Sion, Maharashtra	BG Shirke Construction Technology Private Limited	37.2054
51	Dr. Tarun Naskar Dr. Subhadeep Banerjee	Project at Custom Enclave plot, Wadala, Mumbai: Seeking expert opinion and consultancy on proposed foundations for buildings	BG Shirke Construction Technology Private Limited	4.72
52	Dr. Meher Prasad A	Proof checking of CMR One by Karlan	Karlan Constructions LLP	26.6562
53	Dr. Alagusundaramoorthy P	Review of the structural design calculations and vetting the drawings of 11.44 MLD capacity sewage treatment plant construction project for Tindivanam	Eco Protection Engineers Private Limited	5.31
54	Dr. Alagusundaramoorthy P	Vetting of structural design and drawing for our proposed 15 MLD capacity sewage treatment plant structures at Dubrayapet, Puducherry	Eco Protection Engineers Private Limited	5.31
55	Dr. Alagusundaramoorthy P	Drawings of Barrage, RCC Pump Houses, Delivery Chambers and Electrical Buildings for Masalia and Ranishwar Lift Irrigation Scheme in Jharkhand State	Larsen & Toubro Limited	34.0725
56	Dr. Alagusundaramoorthy P	Condition Assessment and Repair and Rehabilitation of Jodhiyasi CWR for TM02 Project	Larsen & Toubro Limited	26.0898
57	Dr. Phanisri Pradeep Pratapa Dr. Alagappan Ponnalagu	Study of Proof Butt Repairs at HVF Avadi	Heavy Vehicles Factory Avadi	9.92
58	Dr. Vidya Bhushan Maji Dr. Dodagoudar GR	Kollimalai HE projects: Weir 2 - Opinion on the alternate proposal of Rockfill design for left flank	Tamil Nadu Generation and Distribution Corporation Limited	3.068

59	Dr. Venu Chandra	Vetting and approval of Mechanical drawings, documents including surge analysis pertaining to "UP-II projects i.e. Ballia 2 in Uttar Pradesh	L&T Construction Water and Effluent Treatment IC	17.11
60	Dr. Venu Chandra	Vetting and approval of Mechanical drawings and documents pertaining to "UP-II projects i.e. Firozabad in Uttar Pradesh	L&T Construction Water and Effluent Treatment IC	20.06
61	Dr. Venu Chandra	Rural piped water supply project pertaining to 544 villages of Raghunathpur, Tirtol, Kujang and Ersama blocks in Jagatsinghpur District, ODISHA.	L&T Construction Water and Effluent Treatment IC	10.03
62	Dr. Indumathi Manivannan Nambi	Vetting of design and documents of Jagatsinghpur WTPS (Scheme A - 79.3 MLD and Scheme B - 3.95 MLD)	L&T Construction Water and Effluent Treatment IC	3.54
63	Dr. Meher Prasad A Dr. Arul Jayachandran S	Proof checking of Redevelopment of Chennai Egmore Railway Station	DEC Infrastructures & Projects (India) private Limited	47.2
64	Dr. Meher Prasad A	Proof checking of Construction of four/six lane access-controlled expressway from Junction with Pathankot-Gurdaspur Road (NH-54) near Balsua to Junction with Hiranagar Road near village Gurha Baildaran (km 423+500 to km 468+100) in the state of Punjab	Megha Engineering and Infrastructures Limited	3.835
65	Dr. Subhadeep Banerjee	Peer review of riverbank protection scheme of Bhagalpur BWSP-02 project	VA Tech Wabag Limited	4.72
66	Dr. Mohan S	Ground Water Pollution Assessment Study	Re Sustainability IWM Solutions Limited	5.31
67	Dr. Alagusundaramoorthy P	NDTs and PDTs on the Columns and Beams, Structural Analysis and Design Proof Checking for IOCL Divisional Office Building	Nanda & Associates Architects	9.8825
68	Dr. Phanisri Pradeep Pratapa	Structural design proof checking for Ganjam water supply project	L&T Construction Water and Effluent Treatment IC	17.7
69	Dr. Subhadeep Banerjee Dr. Meher Prasad A	Design Check and Analysis of Underpass for Chandigarh University	VH Shri Enterprise	4.72
70	Dr. Phanisri Pradeep Pratapa	Structural design proof checking for water supply schemes in towns of Tanzania	L&T Construction Water and Effluent Treatment IC	19.765

71	Dr. Meher Prasad A Dr. Rupen Goswami Dr. Venu Chandra Dr. Balaji Narasimhan Dr. Subhadeep Banerjee Dr. Arul Jayachandran S	Proof consultancy services of design and construction of elevated viaduct and formations of length 25.578km of Corridor-2 of Bengaluru Suburban Railway Project (BSRP) Karnataka, Project (CR2).	Larsen & Toubro Limited	413
72	Dr. Satish Kumar S Rajaram	Proof Checking of Design of RC Buildings for Upgradation of Katpadi Railway Station	Engineering Projects (India) Limited	13.246727
73	Dr. Satish Kumar S Rajaram	Proof Checking Design of New Domestic Terminal Building at Rajamundry Airport	Renaatus Projects Private Limited	7.08
74	Dr. Apparao G	Design of Precast I-Girder Bridges Along CPRR (Chennai Peripheral Ring Road) at Ch. 4+700	Tata Projects Limited	8.85
75	Dr. Phanisri Pradeep Pratapa	Structural design proof checking for Chittorgarh water supply project	L&T Construction Water & Effluent Treatment IC	17.7
76	Dr. Alagusundaramoorthy P	Structural Stability for the Existing DG Slab Foundations for Increasing up to G+5 Structures	National Payment Corporation of India	12.98
77	Dr. Satish Kumar S Rajaram	Proof Checking Design of PEB for M/s GMR Aerospace and Industrial Park at Hyderabad	Bheemaa Infra Solutions Pvt. Ltd.	8.496
78	Dr. Alagusundaramoorthy P	Condition Assessment of the Columns in the Ground Floor of the Proposed Data Centre Building in Ambattur at Chennai	Bearys Properties and Developments Private Limited	6.2658
79	Dr. Satish Kumar S Rajaram	Proof checking Design of PEB for SKH Metal at Sonipath (Job 2470)	Everest Industries Limited	7.1499976
80	Dr. Satish Kumar S Rajaram	Proof checking Design of PEB for Ola at Hosur 252122	Zamil Steel Buildings India Private Limited	8.02341
81	Dr. Alagusundaramoorthy P	Condition Assessment of Stilt+7 Type-II Quarters 1 and 2 in South Colony at Integral Coach Factory in Chennai	Koneru Constructions Private Limited	67.024
82	Dr. Murali Jagannathan	Conducting a study on the measures to reduce contractual arbitrations in Military Engineering Services	Military Engineering Services	9.999
83	Dr. Meher Prasad A	Proof checking of KLC III - Construction of a multi-storied residential apartment at MLA hostel after demolishing existing Pamba including multi-level car parking at MLA hostel campus	Uralungal Labour Contract Co-op Society Ltd.	5.074

84	Dr. Murali Krishnan J	Mix Design for Dense Graded Thin Overlay	Mahua Bharatpur Expressways Limited	7.08
85	Dr. Alagusundaramoorthy P	Structural soundness for human habitation for ESIC buildings in Chennai region	Employees State Insurance Corporation	20.308166
86	Dr. Soumendra Nath Kuiry	LE22M876 - EPC (engineering, procurement, and construction) work for Northern Link Pipeline Project	Larsen & Toubro Limited	4.13
87	Dr. Meher Prasad A	SPR city - SKY Tower	SPR Construction Private Limited	27.7536
88	Dr. Meher Prasad A	144-room men's hostel, 216-room nurses' hostel, 96-room girls' hostel & ICER building	Civil Consultants	15.624911
89	Dr. Balaji Narasimhan Dr. Elango Lakshmanan	Amaala Pump Well Project	Larsen & Toubro Limited Construction Water and Effluent Treatment IC	4.13
90	Dr. Meher Prasad A	Construction of Green Field Six Lane Extadosed Cable Bridge over River Ganga near Kacchi Dargarh on NH-30 to near Bidupur in District - Vaishali on NH-103 at Patna in the State of Bihar.	DAEWOO E&C Larsen & Toubro	3.54
91	Dr. Venu Chandra	Water Supply Project of 648 Villages (Block Begun-142, Bhainsorgarh-82, Gangrar-98, Chittaurgarh-215, Bhadesar-45 & Nimbahera-66) of Dist. Chittorgarh from Chambal River under Jal Jeevan Mission (Package-I)	L&T Construction Water and Effluent Treatment IC	5.31
92	Dr. Venu Chandra	Vetting and approval of mechanical drawings and surge analysis documents pertaining to Execution of Mega PWS in 11 Blocks of Ganjam district, Odisha	L&T Construction Water and Effluent Treatment IC	15.34
93	Dr. Robinson RG Dr. Subhadeep Banerjee	Expert opinion for cut/fill soil properties for runways at greenfield Vishakhapatnam airport	Larsen & Toubro Limited	3.54
94	Dr. Meher Prasad A	Construction of AIIMS Rewari, Haryana	Larsen & Toubro Limited	70.8
95	Dr. Meher Prasad A	Review of structural design and stability of the existing buildings checking at Plot No. 18, 19 and 20, Ambit IT Park Road, Ambattur Chennai - 600056	Chettinad Academy of Research and Education	73.632

96	Dr. Arul Jayachandran S	Proof checking the augmentation of MLSP and DT3 Tower at DLF Downtown at Taramani, Chennai	Buro Engineers (India) Private Limited	18.88
97	Dr. Indumathi Manivannan Nambi	Vetting BEP and drawings of WTPs Ganjam Scheme 1 (137.37 MLD) & Scheme 2 (12.25 MLD)	L&T Construction Water and Effluent Treatment IC	3.54
98	Dr. Meher Prasad A	Assessment & Analysis Report for Erected Girders (Span ID 361 P 16 to 19 & Girder Nos. 361GR 16, 361GR 18) of MAHSR-C4 Package	Larsen & Toubro Limited, Construction Heavy Civil Infrastructure	10.62
99	Dr. Mohan S	Environmental Audit of TSDF Facility at Bargur	Re Sustainability IWM Solutions Limited	7.67
100	Dr. Satish Kumar S Rajaram	Proof checking of bridge design for formation of western bypass road between Aruppukottai and Virudhunagar railway station	Tamil Nadu Highways Department, Tirunelveli	3.776
101	Dr. Satish Kumar S Rajaram	Re-Development of Kozhikodu Railway Station	Rank Projects and Development Pvt Ltd	30.443
102	Dr. Apparao G	Proof checking of design of piers and foundation of a bowstring girder at km 389/31-33 of Kazipet-Vijayawada Section	Rockeira Engineering Private Limited	5.9
103	Dr. Saravanan U	Fatigue testing of 19DP15 anchorage systems	Dynamic Prestress Projects & Services Pvt. Ltd.	12.744
104	Dr. Subhadeep Banerjee	Analysis of shoring piles for Hinduja Leyland Finance	Hinduja Leyland Finance	4.72
105	Dr. Dali Naidu Arnepalli	Review & Assessment of Designs Prepared for Ground Improvement at Machilipatnam Port - Reg.	Machilipatnam Port Development Corporation Limited	4.72
106	Dr. Meher Prasad A	Proof checking of construction of EWS Houses and infra works at Navade & Kharkopar, Navi Mumbai.	Larsen & Toubro Limited	47.800325
107	Dr. Meher Prasad A	Proof checking of structural and geotechnical investigation of proposed International Cricket Stadium at Varanasi, Uttar Pradesh	Uttar Pradesh Cricket Association	22.6796
108	Dr. Arul Jayachandran S	Load Carrying Capacity Testing of KL-700 (8 tests)	Tata Bluescope Steel Private Limited	5.9999932
109	Dr. Saravanan U	Design approval test for dual gauge PSC 60 kg switch expansion joint sleeper	Afcons-KPTL JV	7.63

110	Dr. Arun Menon Dr. Subhadeep Banerjee	Inspection Audit and Certification for Wesley School (Heritage) Building	Chennai Metro Rail Limited	2.36
111	Dr. Dali Naidu Arnepalli	Proof Checking of Design and Drawings of Reinforced Soil Wall for the Construction of VUP at Chainage 515+580 of Six Laning Project from Belgaum to Sankeshwar Bypass of NH-48 in the State of Karnataka - Reg.	Ashoka Buildcon Limited	4.72
112	Dr. Alagusundaramoorthy P	Review of the Analysis and Design and Vetting the Structural Design Documents and Drawings of 188 Nos. (S+9) Tenements and Allied Infrastructure at Vembuliamman Koil Scheme, Chennai for TNUHDB	Centre for Urbanization Buildings & Environment (CUBE)	2.9399346
113	Dr. Alagusundaramoorthy P	Proof Checking and Vetting of Structural Design Documents and Drawings of 02 Nos. Residential Blocks of (S+6) for TNUHDB Vaniyapuram Scheme	Centre for Urbanization Buildings & Environment (CUBE)	3.4916318
114	Dr. Alagusundaramoorthy P	Proof Checking of Structural Drawings of Residential Blocks of TNUHDB Project, Goyathoppu	Centre for Urbanization Buildings & Environment (CUBE)	6.431
115	Dr. Robinson RG Dr. Aravind Kumar Chandiran	Proof checking and checking of land fill construction	Re Sustainability IWM Solutions Limited	10.03
116	Dr. Satish Kumar S Rajaram	Proof Checking Design of Building for Foxcon Honhai Technologies India	K n K Infra	20.000009
117	Dr. Satish Kumar S Rajaram	Proof checking design of PEB warehouse	Intertouch Metal Buildings Private Limited	3.83736
118	Dr. Robinson RG	Design of PVD and soil improvement for KIIFB	KIIFCON Private Ltd	4.72
119	Dr. Saravanan U	Fatigue load test	Deevin Seismic Systems Private Limited	16.992
120	Dr. Saravanan U	Fatigue test for liner less fastening assembly	Patil Rail Infrastructure Private Limited	5.9
121	Dr. Tarun Naskar	Carrying out Multi-Channel Analysis of Surface Waves (MASW) at Lower Reservoir	Sri Siddharth Infratech & Services (I) Private Limited	3.54
122	Dr. Alagusundaramoorthy P	Vetting of Civil & Structural Design and Drawings for Amawar WSS Project, UP	Larsen & Toubro Limited, Construction	6.49

123	Dr. Alagusundaramoorthy P	Vetting of Civil and Structural Design and Drawings for Gurmura & Panari WSS Project, UP	Larsen & Toubro Limited, Construction	7.4222
124	Dr. Alagusundaramoorthy P	Vetting of Civil and Structural Engineering Design and Drawings for Boudh Kandhamal WSP, Odisha	Larsen & Toubro Limited, Construction	17.11
125	Dr. Alagusundaramoorthy P	Vetting of Civil and Structural Design and Drawings for Rajghat MVS Project, Madhya Pradesh	Larsen & Toubro Limited, Construction	22.4318
126	Dr. Alagusundaramoorthy P	Vetting of Civil and Structural Design and Drawings for Madikheda MVS Project, Madhya Pradesh	Larsen & Toubro Limited, Construction	14.4904
127	Dr. Alagusundaramoorthy P	Consultancy Work for Proof Checking of the 3D Structural Models of the Bamboo Orchids Suspended Ceiling and Their Support Systems at LGBI Airport for Guwahati International Airport Limited	Guwahati International Airport Limited	23.880002
128	Dr. Alagusundaramoorthy P	Review and Vetting and Approval of Civil & Structural Design Drawings for Khordha WSP, Odisha	Larsen and Toubro Limited, Construction	11.8
129	Dr. Meher Prasad A	Shivarampur (Design Ch.55+002) to village Ramnagar (Design Ch.109+324) at NH-119D under Bharathmala Pariyojana in state of Bihar on HAM Mode	Megha Engineering & Infrastructure Limited	4.72
130	Dr. Alagusundaramoorthy P	Vetting and Approval of Civil & Structural Design Drawings for Kendrapara Aul & Rajkanika WSP Odisha	Larsen & Toubro Limited, Construction	11.4342
131	Dr. Alagusundaramoorthy P	Vetting of Civil & Structural Design and Drawings for Agar Malwa MVS Project, MP	Larsen and Toubro Limited, Construction	10.7616
132	Dr. Subhadeep Banerjee	Geotechnical Interpretation Report for HPL Project, Cuddalore	Josmar Consulting Engineers	9.44
133	Dr. Murali Krishnan J	Training On the Use of Polymer-Modified Bitumen in Defence Airfield Pavements for Utilization Within the Military Engineering Services	Ministry of Defence	17.7
134	Dr. Robinson RG Dr. Subhadeep Banerjee	Review and suggestions of settlement monitoring at Cochin Import Terminal, Puthuvypin, Kochi	Keller Ground Engineering India Private Limited	9.44

135	Dr. Alagusundaramoorthy P	Condition Assessment of Cauvery Old Bridge RHS at km 318.600 to km 319.230 at Padalur Trichy Section of NH 38	Trichy Padalur Tollways Private Limited	42.067
136	Dr. Alagusundaramoorthy P	Inspection of the Collapsed Facia Concrete Solid Blocks on the Geogrid Reinforced Segmental Soil Wall System in the Approach Ramp of the ROB at KM 324+100 (RHS) Approach Slab and Remedial Measures	Trichy Padalur Tollways Private Limited	27.14
137	Dr. Manu Santhanam Dr. Radhakrishna G Pillai	Condition Assessment and Possible Repair Strategies for Jains Westminster Apartments	Jain Housing	94.4
138	Dr. Alagusundaramoorthy P	Analysis and Design and Preparation of GFC (Good for Construction) Drawings for Sump and Pump Room for TNUHDB Tirunelveli Division	Tamil Nadu Urban Habitat Development Board	3.54
139	Dr. Alagusundaramoorthy P	Structural Peer Review Consultancy Services for the Residential Project for Railways at Majestic in Bangalore	Bagmane Texworth Private Limited	9.21875
140	Dr. Alagusundaramoorthy P	Review of the Analysis and Design and Vetting of the Drawings of the Redevelopment of Vaigai Tamil Nadu Illam of Tamil Nadu House at New Delhi	DK and Associates	9.735
141	Dr. Subhadeep Banerjee	Review of High Strain Dynamic Pile Load Test Report for Inter-Model IWT Terminal at Kalughat, Bihar (IWAL)	Sanjay Construction Company	3.54
142	Dr. Meher Prasad A	PWD 001-38: Construction of Peruman Bridge Connecting Peruman and Manrothuruthu Across Astammudi Lake Design of Extra Dosed Mid Span	Kerala Road Fund Board	9.44
143	Dr. Meher Prasad A	Bagmane Solarium City Flyover Project, Bangalore, Karnataka	Bagmane Developers Pvt. Ltd.	4.72
144	Dr. Subhadeep Banerjee Dr. Vidya Bhushan Maji	Study to ascertain water ingress incident during construction of cross-passage in East West Metro Corridor at Kolkata	Kolkata Metro Rail Corporation Limited	23.6
145	Dr. Koshy Varghese	Study of Construction Schedule for FRFCF Project for HCC	Hindustan Construction Company Limited	7.788
146	Dr. Meher Prasad A	HAD Chandigarh (3D printing & precast) proof checking/ vetting of structural design and drawings.	Larsen & Toubro Limited	4.6771896

147	Dr. Meher Prasad A	Proof checking of structure design of project: Residence of Dreamsmiths Exim	Dreamsmiths Exim Private Limited	3.30014
148	Dr. Meher Prasad A	Proof checking of structure design of project: Residence of Dreamsmiths Exim Pvt. Ltd	Dreamsmiths Exim Private Limited	3.3001414
149	Dr. Meher Prasad A	Reconstruction of Manora Amdar Niwas for Maharashtra Legislature at Nariman Point, Mumbai	Larsen & Toubro Limited	57.038403
150	Dr. Meher Prasad A	Proof checking of Axis Bank Centre for Mathematics and computing and vetting of soil investigation report	Tata Consulting Engineers Limited	6.7732
151	Dr. Thyagaraj	Recommendations for Ground Improvement for IPS-1, Parallel Carrier System to RGLC Phase-III, Rajasthan	L&T Construction Water and Effluent Treatment IC	3.894
152	Dr. Meher Prasad A	Proof checking of Design, Drawings for Construction of HL Bridge over river Subarnarekha at 36th km on Haldipada NH-16 to West Bengal etc., in the state of Odisha for Works Department, Government of Odisha through EPC Mode	L&T Geo Structure Private Limited	8.85
153	Dr. Manu Santhanam	Evaluation of 3D print mixture formulations	MYK Laticrete India Private Limited	4.425
154	Dr. Satish Kumar S Rajaram	Proof Checking of Design of RC & Steel Buildings for Amrit Bharat Scheme	M Mohandoss	5.4
155	Dr. Satish Kumar S Rajaram	Proof checking of bridge design for forming of bypass to Sivagangai at Madurai.	Tamil Nadu Highways Department	2.4
156	Dr. Balaji Narasimhan Dr. Elango Lakshmana	Groundwater Protection and Water Conservation for North Qatar	Geo Marine solutions Private Limited	18.88
157	Dr. Alagusundaramoorthy P	Review of the Civil Engineering Design and Drawings for Parallel Carrier System to RGLC (Rajiv Gandhi Lined Canal) Phase-III for PHED (Public Health Engineering Department) Jodhpur, Rajasthan	L&T Construction Water and Effluent Treatment IC	4.2008
158	Dr. Venu Chandra	Checking/Validating the C-Value (Hazen-Williams Coefficient) of cement mortar lined ductile iron pipes	Jindal Saw Limited	6.785
159	Dr. Phanisri Pradeep Pratapa	Vetting of design and documents of Jagatsinghpur WTPS	Larsen & Toubro Limited	14.16

5.3. Research Based Industrial Consultancy Projects (Ongoing & New)

S. No.	Name of Faculty	Title	Industry	Amount (in INR lakh)
Ongoing				
1	Dr. Nageswara Rao B	Structural Design & Inspection of 100 M SS FM Tower at AIR (All India Radio) Adilabad	All India Radio	7.475
2	Dr. Ligy Philip	Water filtration performance of Saint-Gobain ceramic membranes	Saint-Gobain India Private Limited (Research & Development)	105.6066316
3	Dr. Alagusundaramoorthy P Dr. Satish Kumar S Rajaram	Analysis and Design and Evaluation of Elastomeric and Metal Bearings for Infrastructure Applications	Hevea Rubber Technologies Private Limited	22.656
4	Dr. Ravindra Gettu Dr. Piyush Chaunsali	Development Of Binders For E-Glass Reinforcement	Lafarge Centre De Recherche	88
5	Dr. Soumendra Nath Kuiry Dr. Sannasiraj SA Dr. Murty BS Dr. Balaji Narasimhan Dr. Sudheer KP	Hydrodynamic study for the scheme - Kuttanad Package - Flood management programme - Development of the Thottappally leading channel	Irrigation Department Government of Kerala	162.84
6	Dr. Murali Krishnan J	Characterization of the Laboratory Rutting Performance and Interfacial Bond Strength of Glasgrid Reinforced Bituminous Mixtures	Saint-Gobain Research India Limited	37.3588
7	Dr. Chandan Sarangi	Study the impact of light absorbing particles on snow cover of Western Himalaya	Defense Research Geoinformatics Establishment	48.8995776
8	Dr. Ravindra Gettu	LCCA/LCA (Life-cycle cost analysis/life cycle assessment) for the comparison of different methods of recycling concrete	Global Cement and Concrete Association	17
9	Dr. Dodagoudar GR	Finite element analysis and design of foundations: Verification and validation studies	K Kumar Raja Projects Private Limited	11.8
10	Dr. Balaji Narasimhan	Design and Monitoring of Water Harvesting, Recharge and Discharge Systems	Ooze Architects	14.28
11	Dr. Ashwin Mahalingam	Empowering Marginalized Youth to Acquire New Skills & Knowledge for Better Livelihoods:	Initiative fur Neue Bildung e.V	63.79989
12	Dr. Ligy Philip	Investigation of Water Treatment Technology	Toray Industries, Inc	66.8289245
13	Dr. Venkatraman Srinivasan	Combined flood and drought mitigation through rapid groundwater recharge in karst aquifers	Project Office District Rural Development Agency	69.12558

14	Dr. Apparao G Dr. Raghukanth STG	Quasi-static Cyclic Tests on RC Shear Walls With and Without Corrosion Effect	Bhabha Atomic Research Centre	49.265
15	Dr. Rupen Goswami Dr. Meher Prasad A Dr. Radhakrishna G Pillai Dr. Subhadeep Banerjee Dr. Koshy Varghese Dr. Manu Santhanam Dr. Piyush Chaunsali Dr. Robinson RG	Optimization of High-Speed Railway (HSR) Viaduct Design	High Speed Railways Innovation Centre Trust	90.624
16	Dr. Alagappan Ponnalagu Dr. Meher Prasad A Dr. Rupen Goswami	Professional consultancy services for proof checking of blast proof door subjected to UNDEX (underwater explosion)	Larsen & Toubro Limited	27.73
17	Dr. Radhakrishna G Pillai Dr. Piyush Chaunsali Dr. Ravindra Gettu Dr. Manu Santhanam	Carbonation and Carbonation-Induced Corrosion in Concretes with Various Supplementary Cementitious Materials	Holcim Innovation Center	19.0095
18	Dr. Piyush Chaunsali Dr. Manu Santhanam	CO2 Sequestration in Concrete with Supplementary Cementitious Materials	Reliance Industries Limited	59
19	Dr. Shiva Nagendra SM	Source Apportionment, Emission Inventory and Carrying Capacity Studies for Nellore City under National Clean Air Program Clean Air Mission	Andhra Pradesh Pollution Control Board	82.6
20	Dr. Arul Jayachandran S	Structural Glass Research and Testing Facility - Phase 3	Glazing Society of India	44.2727993
21	Dr. Shiva Nagendra SM	Real-Time Environmental Monitoring and Management System for Jawaharlal Nehru Port Authority	Jawaharlal Nehru Port Authority	876.96774
22	Dr. Nikhil Bugalia Dr. Ashwin Mahalingam	Case-study for Asian Development Bank Institute (ADB) on Adoption of Building-Information Modelling (BIM) for National Capital Region Transport Corporation Limited, India	Asian Development Bank Institute	9.822
23	Dr. Ligy Philip	Performance Evaluation of salt-based Electro chlorination Plant Installed by Hydrapure Technologies Pvt. Ltd.	Hydrapure Technologies Private Limited	7.08
24	Dr. Dodagoudar GR	Analysis and design of ash dykes for disposal of fly ash - Phase II	Sri Damodaram Sanjeevaiah Thermal Power Station, Andhra Pradesh Southern Power Distribution Company Limited (APSPDCL)	4

25	Dr. Shiva Nagendra SM	Local air quality management plan for Chennai city using sensor-based hyper local monitoring	Environmental Defense Fund	44.198
26	Dr. Ligy Philip Dr. Muraleedharan VR Dr. Murty BS	Assessment of Implementation of Single Use Plastics (SUP) ban in the 12 identified Eco-sensitive areas in Tamil Nadu	Tamil Nadu Pollution Control Board	24.7446
27	Dr. Ligy Philip	Lab-scale Study of ETP (effluent treatment plant)-treated water at Electrosteel Castings Ltd., Srikalahasti, Andhra Pradesh	Electrosteel Castings Limited	3.54
28	Dr. Ligy Philip	Evaluating The Suitability of Chilly Spent as A Boiler Fuel	Synthite Industries Private Limited	2.95
29	Dr. Ligy Philip Dr. Murty BS Dr. Sridharakumar Narasimhan Dr. Mathava Kumar S Dr. Tanushree Parsai	Providing Technical Advisory Services to WATCO by IITM on Water Quality Assurance in all the cities of the state of Odisha	Water Corporation of Odisha	164.846
30	Dr. Balaji Narasimhan Dr. Soumendra Nath Kuiry	Supervisory Consultancy for Real-time Flood Forecasting System	Tamil Nadu Urban Infrastructure Financial Services Limited	80.24
31	Dr. Ligy Philip	Preparation of Bacteriological H2S Strips	Green Environment Innovation and Marketing India Pvt. Ltd.	3.54
32	Dr. Alagappan Ponnalagu	Analysis of blast resistant door	Ovis Equipments Private Limited	2.95
33	Dr. Alagappan Ponnalagu	Blast loading on framed structures	National Institute of Technology Calicut	0.59
34	Dr. Balaji Narasimhan	Carrying out hydrological study for canal re-routing at Chennai Petroleum Corporation Limited (CPCL) Cauvery Basin Refinery (CBR) project site, Nagaipattinam	Chennai Petroleum Corporation Limited	21.24
35	Dr. Ligy Philip	Certification of the Performance of Biofilters	IEC Fabchem Limited	2.655
36	Dr. Indumathi Manivannan Nambi	Ennore Oil Spill Assessment	Department of Environment and Climate Change, Tamil Nadu	140.0040028
37	Dr. Ashwin Mahalingam Dr. Sriram V Dr. Murali K Dr. Satyanarayanan Seshadri Dr. Venkatraman Srinivasan	Roundtable on Implementation of Floating Photovoltaics	GlZ (Deutsche Gesellschaft für Internationale Zusammenarbeit)	8.496

38	Dr. Subhadeep Banerjee Dr. Tarun Naskar Dr. D Srinagesh	Seismic studies with regard to PVNR and KTK OC-III Exp. projects of SCCL	Singareni Collieries Company Ltd	17.7
39	Dr. Sivakumar Palaniappan Dr. Ashwin Mahalingam	Key Technology Partnerships Seed Funding Scheme (2023)	University of Technology Sydney	1.76847
40	Dr. Ligy Philip	Testing the Performance of Electro-Chlorination-based Disinfection Systems	Harambh Chemicals Private Limited	5.31
41	Dr. Murali Krishnan J	Development of Mix Design Methodologies for Dense Graded Emulsified Asphalt Mixtures	Astchem Technologies	5.9
42	Dr. Ligy Philip Dr. Murty BS	Advisory from IIT Madras team for Water Body Rejuvenation in K Thangamalur GP, Vilathikulam Block, Thoothukudi District, TN	HCL Foundation	2.34938
43	Dr. Indumathi Manivannan Nambi Dr. Venkatraman Srinivasan Dr. Santosh Kumar Sahu Dr. Gitakrishnan Ramadurai Dr. Satyanarayanan Seshadri Dr. Mohanakrishnan Logan Dr. Ashwin Mahalingam Dr. Aravind Kumar Chandiran Dr. Rajnish Kumar Dr. Venkatarathnam G	Making Koyambedu Market Complex as Plastic-Free and Carbon Neutral	Tamil Nadu Pollution Control Board	135.7
Sanctioned				
1	Dr. Arul Jayachandran S	Structural Glass Research and Testing Facility - Phase 3	Glazing Society of India	44.27279925
2	Dr. Nikhil Bugalia Dr. Ashwin Mahalingam	Case-study for Asian Development Bank Institute (ADBI) on Adoption of Building-Information Modelling (BIM) for National Capital Region Transport Corporation Limited, India	Asian Development Bank Institute	9.822
3	Dr. Ligy Philip	Provide treatment train for municipal wastewater at Electrosteel Castings Ltd., Srikalahasti, Andhra Pradesh	Electrosteel Castings Limited	5.782
4	Dr. Ligy Philip	Performance Evaluation of salt-based Electro chlorination Plant Installed by Hydrapure Technologies Pvt. Ltd.	Hydrapure Technologies Private Limited	7.08
5	Dr. Ligy Philip Dr. Murty BS	Advisory from IIT Madras team for Water Body Rejuvenation in K Thangamalur GP, Vilathikulam Block, Thoothukudi District, TN	HCL Foundation	2.34938

6	Dr. Ligy Philip	To conduct the water audit and feasibility analyses of recycling and reuse of wastewater generated in the plant.	Strides Pharma Science Limited	3.894
7	Dr. Balaji Narasimhan	Field Survey during Floods to Collect Floodmark	Pacific Consultants Corporation Limited	22.51121
8	Dr. Indumathi Manivannan Nambi Dr. Venkatarathnam G Dr. Ashwin Mahalingam Dr. Gitakrishnan Ramadurai Dr. Satyanarayanan Seshadri Dr. Aravind Kumar Chandiran Dr. Rajnish Kumar Dr. Santosh Kumar Sahu Dr. Venkatraman Srinivasan Dr. Mohanakrishnan Logan	Making Koyambedu Market Complex as Plastic-Free and Carbon Neutral	Tamil Nadu Pollution Control Board	135.7
9	Dr. Shiva Nagendra SM	Local air quality management plan for Chennai city using sensor-based hyper local monitoring	Environmental Defense Fund	44.198
10	Dr. Ligy Philip Dr. Shiva Nagendra SM	To identify VOC (volatile organic compound) sources in IAL facility and long-term ambient VOC study within premises of Indian Additives Limited (IAL), Manali, Chennai - 600 068	Indian Additives Limited	4.13
11	Dr. Ligy Philip	Testing the Performance of Electro-Chlorination-based Disinfection Systems	Harambh Chemicals Private Limited	5.31
12	Dr. Sivakumar Palaniappan Dr. Ashwin Mahalingam	Key Technology Partnerships Seed Funding Scheme (2023)	University of Technology Sydney	1.76847
13	Dr. Murali Krishnan J	Development of Mix Design Methodologies for Dense Graded Emulsified Asphalt Mixtures	Astchem Technologies	5.9
14	Dr. Dodagoudar GR	Analysis and design of ash dykes for disposal of fly ash - Phase II	Sri Damodaram Sanjeevaiah Thermal Power Station, APSPDCL	3.99999999
15	Dr. Ligy Philip Dr. Muraleedharan VR- Dr. Murty BS	Assessment of Implementation of Single Use Plastics (SUP) ban in the 12 identified Eco-sensitive areas in Tamil Nadu	Tamil Nadu Pollution Control Board	24.7446
16	Dr. Ligy Philip	Lab-scale study of ETP-treated water at Electrosteel Castings Ltd., Srikalahasti, Andhra Pradesh	Electrosteel Castings Limited	3.54
17	Dr. Shiva Nagendra SM	Real-Time Environmental Monitoring and Management System for Jawaharlal Nehru Port Authority	Jawaharlal Nehru Port Authority	876.96774

18	Dr. Ligy Philip	Evaluating The Suitability of Chilly Spent as a Boiler Fuel	Synthite Industries Private Limited	2.95
19	Dr. Ligy Philip Dr. Murty BS Dr. Sridharakumar Narasimhan Dr. Mathava Kumar S Dr. Tanushree Parsai	Providing Technical Advisory Services to WATCO by IITM on Water Quality Assurance in all the cities of the state of Odisha.	Water Corporation of Odisha	164.846
20	Dr. Balaji Narasimhan Dr. Soumendra Nath Kuiry	Supervisory Consultancy for Real-Time Flood Forecasting System	Tamil Nadu Urban Infrastructure Financial Services Limited	80.24
21	Dr. Ligy Philip	Preparation of Bacteriological H2S Strips	Greenenvironment Innovation and Marketing India Pvt Ltd	3.54
22	Dr. Alagappan Ponnalagu	Analysis of blast resistant door	Ovis Equipments Private Limited	2.95
23	Dr. Alagappan Ponnalagu	Blast loading on framed structures	National Institute of Technology Calicut	0.59
24	Dr. Balaji Narasimhan	Carrying out hydrological study for canal re-routing at Chennai Petroleum Corporation Limited (CPCL) Cauvery Basin Refinery (CBR) project site, Nagaipattinam	Chennai Petroleum Corporation Limited	21.24
25	Dr. Ligy Philip	Certification of the Performance of Biofilters	IEC Fabchem Limited	2.655
26	Dr. Ashwin Mahalingam Dr. Sriram V Dr. Murali K Dr. Satyanarayanan Seshadri	Roundtable on Implementation of Floating Photovoltaics	GIZ	8.496
27	Dr. Indumathi Manivannan Nambi	Ennore Oil Spill Assessment	Department of Environment and Climate Change, Tamil Nadu	140.0040028
28	Dr. Subhadeep Banerjee Dr. Tarun Naskar Dr. D Srinagesh	Seismic studies with regard to PVNR and KTK OC-III Exp. projects of SCCL	Singareni Collieries Company Ltd	17.7

5.4.Retainer Consultancies (Ongoing & New)

Sl. No	Name of Faculty	Title	Industry	Amount (in INR lakh)
Sanctioned				
1	Dr. Arun Menon	Consultancy Services for General Maintenance and Upkeep of St. Andrew's Church, Egmore	St. Andrew's Church	1.18

2	Dr. Murali Krishnan J	Consultancy Services for Capacity Enhancement of Highways Research Station	Highways Department Chennai Kanyakumari Industrial Corridor Project	271.348
Ongoing				
1	Dr. Radhakrishna G Pillai	Technical Advice for the Condition Assessment and Electro-chemical Repair of Reinforced Concrete Structures	Structural Specialties and Projects India Private Limited	28.32
2	Dr. Murali Krishnan J	Consultancy Services for Capacity Enhancement of Highways Research Station	Highways Department Chennai Kanyakumari Industrial Corridor Project	271.348

5.5.Faculty Members' Participation with Other Institutions Under MoU

S. No.	Name of Faculty	Participation Details	Name of University/Institution which has MoU
1	Dr. BS Murty Dr. Sannasiraj	Faculty Champion	IITM - RWTH Aachen - TU Dresden, Joint Masters in 'Water Security and Global Change'
2	Dr. Aslam Kunhi Mohamed	Faculty Champion	Ecole Polytechnique Federale de Lausanne, Switzerland. This is approved by Senate and will be signed soon
3	Dr. J. Murali Krishnan Dr. Saravanan	Faculty Champion	Charles University Prague, Czech Republic (Renewal MoU)
4	Dr. Benny Raphael Dr. Selvam Dr. Srinivas Chakravarthy	Faculty Champion	University of Western Sydney, Australia (Renewal MoU)
5	Dr. Koshy Varghese	Faculty Champion	Tohoku University, Japan (Renewal MoU)
6	Dr. Koshy Verghese	Faculty Champion	Shinshu University, Japan (Renewal MoU)

6. Distinguished Visitors to the Department

S. No.	Visitor's name and Designation	Date of Visit	Purpose of Visit
1	Dr. Antti P Hyvarinen Head of Atmospheric Science Division, Finnish Meteorological Institute (FMI), Finland	March 10, 2023	Delivered a special lecture on the topic of 'Understanding atmospheric aerosols and clouds over Arctic Finland and India'
2	Dr. Rakesh Teja Konduru Scientist RIKEN Center for Computational Sciences, Kobe, Japan	June 13, 2023	Delivered a special lecture on the topic of 'Seamless Predictability of the Rainfall Systems by Employing Ultra-High Resolution Computational Simulations and its Applications'
3	Dr. Shweta Yadav Assistant Professor Central University of Jammu, Jammu and Kashmir	June 22, 2023	Delivered a special lecture on the topic of 'Unveiling Climate Uncertainty: The Crucial Role of Ice Nucleating Particles in Aerosol-Cloud-Climate Interaction'
4	Dr Amory Lovins Co-founder and Chairman Emeritus of RMI (formerly the Rocky Mountain Institute)	September 6, 2023	Delivered an Alumni Lecture on 'Nonlinear Observers and Everyday Applications in Motion Estimation'

5	Dr. Rajesh Rajamani Benjamin YH Liu/TSI Endowed Chair Professor, University of Minnesota Associate Director (Research) of the Minnesota Robotics Institute, USA	September 14, 2023	Delivered an Alumni Lecture on 'Nonlinear Observers and Everyday Applications in Motion Estimation'
6	Prof. Colin Scott University College Dublin, Ireland	October 3, 2023	Meeting Discussion of high-level talks, student exchange, and semester/study abroad opportunities
7	Prof. Tom Curran University College Dublin, Ireland	October 3, 2023	Meeting Discussion of high-level talks, student exchange, and semester/study abroad opportunities
8	Dr. Solomon SR Gidigas Senior Lecturer, Department of Geological Engineering, Kwame Nkrumah University of Science and Technology (KNUST), Ghana. Visiting Faculty, Department of Civil Engineering, IITM	September 21, 2023	Delivered a special talk titled 'The Extent of Deterioration of a Mechanically Stabilised Lateritic Base Course After Design Life and Its Implications for Rehabilitation: A Case Study of Kumasi City Roads, Ghana'
9	Dr. Uwe Schlink UFZ, Germany	September 25-29, 2023	Delivered a special lecture on 'GIAN course on Urban Air Quality Assessment, Modelling, and Management'
10	Dr. Ramesh Srinivasan San Jose State University, USA	October 11, 2023	Delivered a special lecture on 'Systems approach to developing a sustainable solid waste management system'
11	Mr. Jeyaprakash Elango General Manager, Keller Grundbau GmbH, Bahrain	December 22, 2023	Delivered a special lecture on 'Shoring Works - Construction Challenges: Case Studies from Bahrain'
12	Dr. Eric Bescher Adjunct Professor, University of California,	December 26, 2023	Delivered a special lecture on 'Performance of Belitic Calcium Sulfoaluminate Cement Concrete'
13	Dr. KE Seetharam Senior Consultant	February 26, 2024	Career guidance and interaction session
14	Professor Chandra Bhat Joe J King Chair in Engineering at The University of Texas at Austin	February 26, 2024	Career guidance and interaction session
15	Giulia MB Viggiani Professor of Infrastructure Geotechnics, National Research Facility for Infrastructure Sensing Department of Engineering, Cambridge University	February 12, 2024	Delivered a special lecture on 'Artificial Ground Freezing in Underground Construction'

7. Other Activities of the Department/Centre

7.1. Activities Initiated

Major Infrastructure Developments made in the Department

- The Environmental Engineering (EE) and Hydraulics and Water Resources Engineering (HWRE) divisions have been shifted to the new Academic Complex (NAC II). The respective labs of the divisions have also been shifted to NAC II.
- Refurbishing of the new Visveswaraya Seminar Hall (VSH) in Building Science Block (BSB) is under progress.
- Reorganisation of the labs in Building Science Block (BSB) in ground and first floor have been carried out.
- Online and offline classes have been enabled in all the classrooms.

4.7. Department of Computer Science and Engineering

1. Academic Programmes

B.Tech., M.Tech., M.S., Ph.D.

1.1. Students On Roll as of September 2023 + M.S. & Ph.D. Admissions in January 2024

Programme	I year	II Year	III Year	IV Year	V Year & others	Total
B.Tech.	95	99	86	87	7 & 8	382
Dual Degree					3 + 2	5
M.Tech.	69	91	1			161
M.S.	22	14	11	3	1	51
Ph.D.	13	9	17	15	20	74
Total	208	218	109	93	22	673

1.2. Students/Scholars Who Attended Conferences, Seminars and Symposia Abroad or in India:

S. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/ Seminar / Symposia / Workshop	Date and Venue	Financial Assistance from
Abroad					
1.	Arihant Samar		IEEE/IFIP (International Federation for Information Processing) Network Operations and Management Symposium (NOMS),	May 8-12, 2023, Miami, USA	Not known
2.	Saurabh K Jain	CS21S043	In Efficient Deep Learning for Computer Vision, Computer Vision and Pattern Recognition (CVPR 2023) Workshops; (Attended Online)	June 2023, Vancouver, Canada	Ministry of Education (MoE)/Half Time Research Assistantship (HTRA)
3.	Keerthi K	CS17D013	Dependable Systems and Networks	June 2023, Porto, Portugal	TCS Fellowship
4.	Sandip Saha	CS20S044	Dependable Systems and Networks	June 2023, Porto, Portugal	Not known
5.	Adwait P Parsodkar	CS20D404	International Conference in Case-Based Reasoning (ICCBR) 2023	July 17-20, 2023, Aberdeen, UK	Prime Minister's Research Fellows (PMRF)/MoE
6.	Keerthi K, Nikhilesh Kumar Singh	CS17D013 CS17D203	Conference on Cryptographic Hardware and Embedded Systems (CHES) 2023	September 9-15, 2023, Prague, Czech Republic	Travel Grant from CHES

7.	Keerthi K, Nikhilesh Kumar Singh, and Sandip Saha	CS17D013 CS17D203 CS20S044	Embedded Systems Week (ESWEEK) 2023	September 17, 2023, Hamburg, Germany	
8.	Nikhilesh Kumar Singh	CS17D203	Invited Talk at Ruhr University Bochum	September 21, 2023, Bochum, Germany	Not known
9.	Ishika Gupta	CS20S057	INTERSPEECH 2023	August 20-24, 2023, Dublin	Not known
10.	Keerthi K, Nikhilesh Kumar Singh	CS17D013 CS17D203	CHES 2023	September 9-15, 2023, Prague, Czech Republic	Not known
11.	Prasoon Mishra	CS20S028	High Performance, Edge And Cloud computing (HiPEAC) 2024	January 17-19, 2024, Munich, Germany	Project
12.	Anusha Prakash, Umesh S	EE17D039	Institute of Electrical and Electronics Engineers (IEEE) Workshop on Automatic Speech Recognition and Understanding (ASRU) 2023	December 16-23, 2023, Taiwan	Not known
13.	Neha Kuntewar, Anoop SKM	CS21D408 CS18D003	25th International Conference on Descriptive Complexity of Formal Systems (DCFS 2023),	Not known	Not known
14.	Rajesh Pandian, Somesh Singh	CS16D003 CS14D406	Genetic and Evolutionary Computation Conference (GECCO) 2023	Not known	Not known
15.	Girija Limaye	CS17D006	34th International Workshop on Combinatorial Algorithms (IWOCA) 2023	June 7-10, 2023, Tainan, Taiwan (Online talk)	None
16.	Santhini KA	CS18D013	32nd International Joint Conference on Artificial Intelligence (IJCAI) 2023	August 19-25, 2023, Macao, China	MSR, IJCAI, MHRD
17.	Keshav Ranjan	CS19D007	49th International Workshop on Graph Theoretic Concepts in Computer Science (WG) 2023,	June 20-30, 2023, Fribourg, Switzerland	MoE
18.	Kunir, M, Chawla, S, Chandrasekar, S, Jay, D	CS19D010	29th Association for Computing Machinery (ACM) Special Interest Group on Knowledge Discovery in Data (SIGKDD) Conference on Knowledge Discovery Data Mining (KDD 2023)	Not known	Not known

19.	Aniswar Krishnan, Gauravdeep Shami, Marc Lyonnais and Rodney Wilson	CS18B050	IEEE NetSoft Workshop on Network Automation and Data Plane Programmability (NetData)	June 2023, Madrid, Spain	Not known
20.	Shreesha G Bhat	CS18B103	Formal Methods in Computer-Aided Design (FMCAD) 2023	Not known	Not known
21.	Binoy Saha	CS19S024	10th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2023)	December 2023, ISI Kolkata	Not known
22.	Shagnik Pal, Nikhilesh Singh, Rainer Leupers, Farhad Merchant	CS17D203	TASER 2023 (Topics in hArdware SEcurity and RISC-V)	Not known	Not known
23.	Rahul Vashisht	CS18D006	European Conference on Artificial Intelligence (ECAI) 2023	Not known	Not known
24.	Omkar Dhawal, V. Daryl Maier, Vijay Saraswat	CS21D202	IBM TechXchange 2023	Not known	Not known
25.	Vakada Naveen	CS20S012	Advanced Concepts for Intelligent Vision Systems (ACIVS) 2023 Kumamoto, Japan (Online presentation)	21-22, August 2023,	Not known
26.	Keerthi K.	CS17D013	CHES 2023	Prague, Czech Republic	Not known
27.	Shagnik Pal, Nikhilesh Singh, Rainer Leupers, Farhad Merchant	CS17D203	TASER and CHES 2023	Prague, Czech Republic	Not known
28.	Nikhilesh Singh, Karthikeyan Renganathan, Jithin Jose, Ralph Mader	CS17D203	ACM Special Interest Group on Embedded Systems (SIGBED) International Conference on Embedded Software (EMSOFT) (ESWEEK 2023)	Not known	Not known
29.	Ishika Gupta	CS20S057	INTERSPEECH 2023 (S&T)	Not known	Not known
30.	Rahul Vashisht	CS18D006	ECAI 2023	Not known	Not known
31.	Keerthi K, Nikhilesh Kumar Singh	CS17D013 CS17D203	CHES 2023	9th to 15th Sep, 2023, Prague, Czech Republic	Not known
32.	Keerthi K, Nikhilesh Kumar Singh, and Sandip Saha	CS17D013 CS17D203 CS20S044	ESWEEK 2023	17th Sep, 2023, Hamberg, Germany	Not known

33.	Nikhilesh Kumar Singh	CS17D203	Invited Talk at RUB	21st Sep, 2023, Bochum, Germany	Not known
34.	Ishika Gupta	CS20S057	INTERSPEECH 2023	Dublin, Aug 20-24 2023	Not known
35.	Aditya Agrawal	CS20S026	32nd International Conference on Parallel Architectures and Compilation Techniques (PACT) 2023	October 21 to 25, 2023, Austria	Project
36.	Rahul Verma	CS20S038	IEEE Future Networks World Forum 2023,	Nov. 13-15, Baltimore, MD, USA	Not known
37.	Rahul Verma, Gauravdeep Shami, Marc Lyonnais, Rodney Wilson	CS20S038	Supercomputing 2023	November 14-16, 2023, Denver, Colorado, USA	Not known
38.	Paloma T Lima, Daniel Lokshtanov, Saket Saurabh, Roohani Sharma		ACM-SIAM (Society for Industrial and Applied Mathematics) Symposium on Discrete Algorithms (SODA24)	January 7-10, 2024, Alexandria, Virginia, USA	Not known
39.	David Peleg, Srikanth Ramachandran		Conference on Principles of Distributed Systems (OPODIS) 2023	6-8 December 2023, Tokyo, Japan	Not known
40.	David Harris		41st International Symposium on Theoretical Aspects of Computer Science (STACS 2024)	Clermont-Ferrand March 12-14, 2024	Not known
41.	Manoj Lenka	CS22S008	IEEE 22nd International Conference on Pervasive Computing and Communications (PerCom 2024)	March 11-15, 2024, Biarritz, France	HTRA
42.	Ritwiz Kamal	CS21D700	European Molecular Biology Laboratory (EMBL) Symposium on AI and biology	March 12-15, 2024, Heidelberg, Germany	Not known
43.	Sergio Cabello, Michael Kaufmann, Saket Saurabh, Roohani Sharma, Yushi Uno, Alexander Wolff		19th Scandinavian Symposium on Algorithm Theory (SWAT) 2024	Not known	Not known
44.	Girish Balakrishnan, Sankardeep Chakarborti, Kunihiro Sadakane	CS19D012	19th Scandinavian Symposium on Algorithm Theory (SWAT) 2024	Not known	Not known

45.	Sahil	CS20S017	37th FLAIRS (Florida AI Research Society) Conference	May 19-21, 2024, Florida, USA	Not known
India					
1.	Nikhilesh Kumar Singh	CS17D203	SemiCon India 2023	July 26-28, 2023, Gandhinagar	Not known
2.	Reetwik Das, Ritwik Badola, Mahesh G	CS20D402 CS22S016 CS22S009	13th International Conference on Security, Privacy, and Applied Cryptographic Engineering (SPACE) 2023	December 13-17, 2023, IIT Roorkee	Not known
3.	Ishika Gupta	CS20S057	25th International Conference on Speech and Computer (SPECOM 2023)	November 29 to December 1, 2023, IIT Dharwad	Not known
4.	Ullas A, R Govindarajan	Computer Science and Automation, IISc Bangalore	High Performance Computing (HiPC) 2023	December 18-21, 2023	Not known
5.	Ramanujan MS		43rd IARCS (Indian Association for Research in Computing Science) Annual Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS) 2023	December 18-20, 2023, IIIT Hyderabad, Telangana	Not known

1.3. Students/Scholars Who Won Outside Prizes and Awards

S. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize awarded by
1.	Sadbhavana Babar	CS18S029	Biswajit Sain and Avisekh Bhattacharjee Memorial Award for best MS thesis in CSE - 2022-23.	
2	Riya Verma	CS21D012	Tata Consultancy Services (TCS) fellowship grant	TCS Innovation
3	Ashwina Kumar, Nibedita Behera	CS20D016	Qualcomm Innovation Fellowship India 2023	Not known
4	M Sai Aryan Reddy, Kaustubh Miglani, Vineet Kumar Dhandharia	CS19B030 CS19B060 CS19B047	Selected for 46th International Collegiate Programming Contest (ICPC) World Finals	ICPC
5	Yash Bhagwat, Nisanth D, Teja Dronadula	EP19B021 CS20B057 CS20B026	Selected for 47th ICPC World Finals	ICPC
6	Tarun Kumar	CS15D017	Distinguished Reviewer Award CASES 2023. Best PhD in Data Sciences—Institute award	Not known

7	Nikhilesh Kumar Singh	CS17D203	Keshav Ranganath (KR) award (July–November 2023)	Not known
8	Nilesh Subramanian	CS20D300	Contemporary perspectives in Computational Biology (Poster Presentation) February 19–20, 2024, Institute of Mathematical Sciences, Chennai	Not known
9	Pallavi Borkar	CS22D202	CROSSING Doctoral Scholarship at Technical University of Darmstadt, Germany	Not known
10	VP Brintha	CS18D017	Women Leading IITM 2024 Award	Not known
11	Aditya Dalwadi	CS22S005	Post Graduate Fellowships in IITM Pravartak	IITM Pravartak
12	DVV Narayana	CS22S004	Post Graduate Fellowships in IITM Pravartak	IITM Pravartak

1.4. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

S. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Name of Donor
1	Madhanraj Kanagarathinam	CS20D200	IIT Madras Bro. C Selvam Endowment Fund Prize (Institute Day 2024)	Dean (Alumni & Corporate Relations, A&CR)'s Office

2. Faculty and Their Activities

2.1. Faculty

Name and Qualifications	Major areas of specialisation (only 3 areas)
Professors: 17	
Anurag Mittal	Computer vision, multi-camera vision systems, sensor planning
Chandra Sekhar C	Neural networks, kernel methods, computer architecture
Janakiram D	Large scale distributed systems, cloud and grid computing, big data systems
Jayalal Sarma MN	Structural & computational complexity theory, circuit complexity, lower bounds
John Augustine	Distributed algorithms, optimisation algorithms, computational geometry
Kamakoti V	Software aspects of VLSI design, cluster computing, high-performance computing
Krishna Nandivada V	Compilers, program analysis, programming languages
Krishnamoorthy Sivalingam	Wireless networks, sensor networks, optical networks
Madhu Mutyam	Memory subsystem design, network-on-chip architectures, shared resource management.
Narayanaswamy NS	Analysis of algorithms, parameterized complexity theory, artificial intelligence
Ravindran B	Machine learning, reinforcement learning, social network analysis

Rupesh Nasre	Compilers, parallelization.
Shweta Agrawal	Cryptography and information theory
Siva Ram Murthy C	Ad hoc wireless networks, parallel and distributed computing, real-time systems
Sreenivasa Kumar P	Database systems, semi-structured data and XML, data mining
Sukhendu Das	Visual perception - computer vision, digital image processing
Sutanu Chakraborti	Information retrieval, memory-based reasoning, machine learning.
Krishna Nandivada V [Head]	Compilers, program analysis, programming languages
Associate Professors: 6	
Chester Rebeiro	Hardware security, operating system security, cryptography
Manikandan Narayanan	Bioinformatics, systems biology, data science
Meghana Nasre	Graph theory, algorithms, matching with preferences
Mitesh Khapra	Statistical machine translation, text analytics
Prashanth LA	Reinforcement learning, stochastic optimisation, multi-armed bandits
Raghavendra Rao BV	Structural aspects of arithmetic and Boolean circuits, computation on algebraic and combinatorial structures, combinatorial commutative algebra.
Assistant Professor: 10	
Aishwarya Thiruvengadam	Cryptography, security, and privacy
Akanksha Agrawal	Parameterized complexity, computational geometry
Arun Rajkumar	Machine learning, rank aggregation, statistical learning
Ayon Chakraborty	Mobile systems, wireless sensing
Chandra Shekar L	Deep learning, reinforcement learning, stochastic approximation and large-scale Markov decision processes
Gopalakrishnan Srinivasan	Computer architecture, machine learning
Harish Guruprasad Ramaswamy	Machine learning, learning theory and optimisation.
Kartik Nagar	Automated formal verification, program analysis, programming languages
Nishad Bharat Kothari	Graph theory, matching theory, combinatorial optimisation
Yadu Vasudev	Algorithms, especially sublinear algorithms and computational complexity theory
Visiting Faculty: 1	Shay Kutten
Emeritus Scientist/ Emeritus Professor: 1	Hema A Murthy
Scientific Officers / Engineers:	NIL

2.2. Short-term Courses, Workshops, Seminars, Symposia, and Conferences Organised by Faculty Members

S. No.	Coordinator(s)	Title	Date & Venue
Conferences			
1.	B Ravindran, Arun Rajkumar	First CeRAI Workshop on Responsible AI for India	Not known

2.	John Augustine (Vice-General Chair), Ayon Chakraborty (Local Organization Chair), and Krishna Sivalingam (Finance Chair)	International Conference on Distributed Computing and Networking (ICDCN), 2024, IIT Madras	January 4-7, 2024
3.	Sutanu Chakraborti (Programme co-chair)	31st International Conference on Case-Based Reasoning, Aberdeen, Scotland	July 17-20, 2023
Symposia			
1.	Krishna M Sivalingam	Technical Program Co-Chair, Annual IEEE Global Communications Conference (GLOBECOM) - IoT & Sensor Networks Symposium	December 4-7, 2023, Malaysia
Workshops			
1.	Sukhendu Das	Learning Issues in Visual Object Recognition	July 19, 2023, IIT Jodhpur. Part of the Eighth National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG'23)
2.	Krishna Nandivada	CSEDU Compiler Design Course	July 13-18, 2023, IIT Madras
3.	Rupesh Nasre	Programming AMD GPUs with Hip	October 9-14, 2023
4.	Rupesh Nasre	Programming Intel GPUs with Sycl	October 16-21, 2023
5.	Rupesh Nasre	OpenMP Programming	October 21-November 25, 2023
6.	Rupesh Nasre	High Performance Computing	October 31-December 7, 2023
7.	Rupesh Nasre	Scientific Computing on GPUs with OpenACC	November 4-25, 2023
8.	Rupesh Nasre	CUDA Programming	November 13-27, 2023
9.	Rupesh Nasre	High Performance Computing (HPC) Research Week	November 20-25, 2023
10.	Rupesh Nasre	National Supercomputing Mission (NSM)-KLA Course on GPU Programming	December 11-15, 2023, online
11.	Kartik Nagar	Workshop on Research Highlights in Programming Languages	December 18-20, 2023, IIIT Hyderabad
12.	Chester Rebeiro	Program Co-Chair, 24th International Conference on Cryptology in India (Indocrypt 2023)	December 9-13, 2023, BITS Goa
13.	Hema A Murthy	Scheme for Promotion of Academic and Research Collaboration (SPARC) Workshop: EEG Signals and Cognition	January 8-10, 2024
14.	Chester Rebeiro	Workshop on Hardware-based Attacks and Defenses	March 7-8, 2024, IIT Madras Pravartak
Short term Course:			
1.	Nishad Kothari	Matching Theory (short course offered at IIT Indore)	As part of: Advanced Instructional School (AIS) in Algorithmic Graph Theory (AGT) at IIT Indore

2.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, and Training Sessions attended by Faculty in Academic institutions and Public Sector Undertakings

S. No.	Name of Faculty	Title	Institution	Period & Venue
Workshop:				
1.	Sukhendu Das	MARRS: Modern Backbones Assisted Co-training for Rapid and Robust Semi-Supervised Domain Adaptation	(CVPRW '23) Workshops Vancouver, Canada.	June 2023
2.	Ayon Chakraborty	On-Device Deep Learning for IoT-based Wireless Sensing	WiSense workshop @IEEE Percom 2024, Biarritz, France	Not known
Conference:				
1.	Jayalal Sarma	On Separating Words Problem over Groups	25th International Conference on Descriptive Complexity of Formal Systems (DCFS 2023),	July 2023
2.	Girija Limaye, Meghana Nasre	Optimal cost-based allocations under two-sided preferences	34th International Workshop on Combinatorial Algorithms (IWOCA) 2023,	June 2023
3.	Meghana Nasre	Matchings under one-sided Preferences with soft quotas	32nd International Joint Conference on Artificial Intelligence (IJCAI) 2023,	August 2023
4.	Meghana Nasre	Critical Relaxed Stable Matchings with two-sided Ties	49th International Workshop on Graph Theoretic Concepts in Computer Science (WG) 2023,	June 2023
5.	Ravindran, B	Optimizing Traffic Control with Model-Based Learning: A Pessimistic Approach to Data-Efficient Policy Inference	29th ACM SIGKDD Conference on Knowledge Discovery Data Mining (KDD 2023)	Not known
6.	Sutanu Chakraborti	Group Fairness in Case-Based Reasoning	31st International Conference on Case Based Reasoning (ICCBR) 2023	July 17-20, 2023
7.	Sutanu Chakraborti	The Case for Circularities in Case-Based Reasoning	31st International Conference on Case Based Reasoning (ICCBR) 2023	July 17-20, 2023
8.	Krishna M. Sivalingam	Flow classification for network security using P4-based Programmable Data Plane switches	IEEE NetSoft Workshop on Network Automation and Data Plane Programmability (NetData)	June 2023, Madrid, Spain
9.	Kartik Nagar	Automating Cutoff-based Verification of Distributed Protocols	Formal Methods in Computer-Aided Design (FMCAD) 2023	October 23-27, 2023, Ames, Iowa, USA

10.	Sukhendu Das	Conditioning Covert Geo-Location (CGL) Detection on Semantic Class Information	ISI Kolkata	Not known
11.	Harish Ramaswamy	Learning Dynamics of Attention	ECAI 2023.	Not known
12.	V. Krishna Nandivada	Enhancing Productivity with Hot Code Replace: Stability and Incremental Analyses	IBM TechXchange 2023	October 2023, Las Vegas
13.	C Chandra Sekhar	Descriptive and coherent paragraph generation for image paragraph captioning using vision transformer and post-processing	ACIVS 2023	August 21-22, 2023, Kumamoto, Japan (Online presentation)
14.	Chester Rebeiro	FaultMeter: Quantitative Fault Attack Assessment of Block Cipher Software	CHES 2023	September 9-15, 2023, , Prague, Czech Republic
15.	Harish G Ramaswamy	Learning Dynamics of Attention Models	European Conference on Artificial Intelligence (ECAI) 2023	Not known
16.	V Krishna Nandivada	UWOmpro: UWomp++ with Point-to-Point Synchronization, Reduction and Schedules	PACT 2023	October 21 to 25, 2023, Austria
17.	Akanksha Agrawal	Approximately Interpolating Between Uniformly and Non-uniformly Polynomial Kernels	FSTTCS 2023	Not known
18.	Hema A Murthy	Towards Developing State-of-the-Art TTS Synthesisers for 13 Indian Languages with Signal Processing aided Alignments	ASRU 2023	Not known
19.	Hema A Murthy	E-TTS: Expressive text-to-speech synthesis for Hindi using Data Augmentation	SPECOM 2023	November 29 to December 1, 2023, IIT Dharwad
20.	V. Krishna Nandivada	COWS for High Performance: Cost Aware Work Stealing for Irregular Parallel Loop	HiPEAC 2023	January 17-19, 2024, Munich, Germany
21.	Krishna M. Sivalingam	VNF Placement based on Resource Usage Prediction using Federated Deep Learning Techniques	IEEE Future Networks World Forum 2023	November 13-15, 2023, Baltimore, Maryland, USA
22.	Krishna M. Sivalingam	(Demo) Anomaly Detection based on ML algorithms implemented in a Programmable Data Plane Switch	Supercomputing 2023	November 14-16, 2023, Denver, Colorado, USA

23.	Akanksha Agrawal, John Augustine	Local Problems in the SUPPORTED Model	OPODIS 2023	December 6-8, 2023
24.	Hema A Murthy	Towards developing state of the art speech synthesisers for 13 Indian languages with Signal Processing aided alignments	ASRU 2023	December 16- 20 2023
25.	N.S. Narayanaswamy.	A faster algorithm for Vertex Cover parameterized by solution size	41st International Symposium on Theoretical Aspects of Computer Science (STACS 2024)	March 12-14, 2024, Clermont- Ferrand
26.	Akanksha Agrawal	Eliminating Crossings in Ordered Graphs	19th Scandinavian Symposium on Algorithm Theory (SWAT) 2024	June 12-14, 2024, Helsinki, Finland
27.	N S Narayanaswamy	Succinct Data Structure for Chordal Graphs with Bounded Vertex Leafage	19th Scandinavian Symposium on Algorithm Theory (SWAT) 2024	June 12-14, 2024, Helsinki, Finland
28.	P Sreenivasa Kumar	Bridging the Knowledge Gap: Improving BERT models for answering MCQs by using Ontology- generated synthetic MCQA Dataset	37th FLAIRS (Florida AI Research Society) Conference	May 19-21, 2024

2.4. Special Lectures Delivered by Faculty in Other Institutions

S. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Nishad	Graph Classes Arising from the Perfect Matching Polytope	DA-IICT Gandhinagar, CALDAM Indo-Dutch Pre-Conference School on Algorithms and Combinatorics	February 7, 2023
2.	Chester Rebeiro	Hardware Security and Side Channel Analysis Trends in AI and Cybersecurity Panelist in 'Nerds talking to Nerds about RISC-V' conference Hardware Security and Side Channel Analysis Trusted Execution Environments: Keeping secrets safe in a computer	Keynote talk at HaK IoT, Hyderabad Southern Naval Command, Goa RISC-V Conference, Bangalore IEEE SoC MP Chapter IEEE Circuits and Systems Society (CAS), Bangalore Chapter	March 20, 2023 March 10, 2023 April 6, 2023 April 30, 2023 March 2, 2023
3.	C Chandra Sekhar	Lectures on Machine Learning Techniques Talk on Deep Learning Models for Image, Video and Text Processing	RBI Staff College, Chennai VelTech University, Chennai	February 6-8, 2023 March 25, 2023
4.	Manikandan Narayanan	Looking & seeing beyond standard RNAseq applications: Invited lecture at JNCASR Hands- on Workshop on RNA-seq and Data Analysis	Jawaharlal Nehru Center for Advanced Scientific Research (JNCASR), Bengaluru	May 11, 2023

5.	C Chandra Sekhar	Visual Question Answering and Commonsense Reasoning: Challenges and Deep Learning based Approaches	Keynote talk at IEEE International Conference on Electronic Systems Devices and Computing (ESDC), IIIT Sri City	May 5, 2023
6.	Chester Rebeiro	Hardware Security	Invited talk at IIIT Kottayam	May 9, 2023
7.	B Ravindran	Brave New World of AI Are Models Trained on Indian Legal Data Fair?	Shri Santhanam Memorial Lecture, Tiruchirapalli Ashoka University	May 5, 2023 May 1, 2023
8.	Aishwarya Thiruvengadam	Analysis of Classical Block Cipher Designs	Nanyang Technological University (NTU) Singapore	May 23
9.	Manikandan Narayanan	Taking two roads to predict mediators of inter-organ communication: The literature and omics (data mining) routes	Indian Institute of Science (IISc), Bangalore	June 3, 2023
10.	Sukhendu Das	Training in Deep Learning, for Computer Vision tasks - Issues with Sample size, Annotations. LIVOR workshop	Eighth National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG 2023), IIT Jodhpur	July 19, 2023
11.	Chester Rebeiro	Panelist, De-anonymizing the Darknet - Need and feasibility; Legal Frameworks - Need for Global Collaboration; G20: International conference on Crime and Security in the Age of NFT's, AI and the Metaverse	Delhi	July 14, 2023
12.	Krishna Nandivada	Challenges in Analyzing and Optimizing Parallel Programs	Invited talk. Gandhi Institute of Technology and Management (GITAM) University, Vizag	June 29, 2023
13.	Krishna Nandivada	Challenges in Analyzing and Optimizing Parallel Programs (invited talk)	Gayatri Vidya Parishad, Vizag	June 30, 2023
14.	Rupesh Nasre	Parallel Graph Algorithms	LLVM Social Bangalore (online)	June 17, 2023
15.	Rupesh Nasre.	Demo Lecture for CS1111	Ask IITM, CRC	June 17, 2023
16.	Akanksha Agrawal	Computing Square Colorings	Recent Trends in Algorithms, NISER Bhubaneswar	July 27, 2023
17.	Nishad Kothari	On the History, Significance and Equivalent Formulations of the Four Color Theorem	Department of Computer Science and Automation (CSA), IISc	January 12, 2024
18.	Jayalal Sarma	Demo Lecture for JEE top 200 group, Advanced Instructional School (AIS) on Algorithmic Graph Theory (AGT)	IIT Indore	Not Known

19.	Manikandan Narayanan	Distinguishing causation from correlation among noisily-measured and non-linearly coupled genes (invited talk)	IMSc (Computational Biology), Chennai	July 21, 2023
20.	Sukhendu Das	Training for Computer Vision tasks – a few case studies with shallow and Deep Learning models	Pimpri Chinchwad College of Engineering (PCCoE), Pune	September 12, 2023
21.	C Chandra Sekhar	Visual Question Answering and Commonsense Reasoning: Challenges and Deep Learning based Approaches	12th International Conference on Advanced Computing (ICoAC 2023), Madras Institute of Technology (MIT), Chennai	August 19, 2023
22.	V. Krishna Nandivada	Challenges in Realizing Efficiency in Parallel Programs	NSM HPC Research Week	November 23, 2023
23.	Chester Rebeiro	Trusted Computing Environments on RISC-V Microprocessors	Workshop on Technology Trends in Cyber Security (WORTICS) 2023	November 17, 2023
24.	C.Chandra Sekhar	Deep Learning Models for Image, Video and Text Processing	Shiv Nadar University, Chennai	October 4, 2023
25.	C. Chandra Sekhar	Advances in Deep Learning Models	Faculty Development Program (FDP) at Mangalore University	November 22, 2023
26.	Sutanu Chakraborti	Towards peaceful coexistence of "natural" and "artificial" intelligence	'Role of Science and Technology in building a sustainable future: Global Perspective'	November 18, 2023 (online)
27.	N S Narayanaswamy	Theory of NP Completeness	FDP on 'Delivery of Design and Analysis of Algorithms with Mathematical Perspective' at SRM University. Organized by Prof. Venkatesh Raman of IMSc.	January 23-24
28.	Chester Rebeiro	Compiler Assisted Automatic Security Countermeasures for Embedded Crypto-Systems	Keynote Talk, VLSID 2024, Kolkata	January 9, 2024
29.	John Augustine	Byzantine resilient gathering of anonymous mobile agents	Invited talk, MAC 2023	December 9, 2023
30.	John Augustine	Introduction to Blockchain and Hedera	Workshop on Blockchain assisted Cyber Physical systems, Shiv Nadar University, Chennai.	December 1, 2023
31.	Sukhendu Das	Training for Computer Vision tasks – a few case studies with shallow and Deep Learning models	PCCoE, Pune	September 12, 2023

32.	C Chandra Sekhar	Visual Question Answering and Commonsense Reasoning: Challenges and Deep Learning based Approaches	ICoAC 2023 Conference, MIT Chennai	August 19, 2023.
33.	Rupesh Nasre	Parallel Graph Algorithms	IIIT Sri City (virtual)	March 28
34.	Kartik Nagar	Certified Mergeable Replicated Data Types	ISI Chennai	February 22
35.	Chester Rebeiro	Security Challenges of COTS and Possible Solutions	FDP in CyberSecurity, Shiv Nadar University, Chennai	March 28, 2024
36.	Chester Rebeiro	Fault Attacks on Neural Networks	IIT Madras	March 22, 2024
37.	Chester Rebeiro	Panelist: Rethinking Embedded System Software for Security	CDAC Hyderabad, Technology Symposium,	February 13, 2024
38.	C Chandra Sekhar	Lectures at FDP on Deep Learning Models and Applications	GITAM Hyderabad	March 23-25 , 2024
39.	Akanksha Agrawal	Hybrid Parameterizations for Graph Problems	Preconference School, 10th Annual International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2024)	February 13, 2024
40.	Shweta Agrawal	Cryptography: The Art of Paradox	ACM India's Pingala Interactions in Computing (PIC), Mysuru	February 4-6, 2024
41.	Shweta Agrawal	Introduction to cryptography	CMI	February 18
42.	Shweta Agrawal	Advances in Cryptography	IIT Bombay,	March 9
43.	Shweta Agrawal	Post Quantum Cryptography	CAMS IITM Fintech Innovation Lab (CIFIL), IIT Madras	February 26
44.	Shweta Agrawal	Computing on distributed encrypted data	Microsoft Research (MSR), Bengaluru	March 29
45.	Shweta Agrawal	Exploring the future of cybersecurity	TCS Research, Online	March 19
46.	Manikandan Narayanan	"Contemporary perspectives in Computational Biology" meeting, Invited Speaker	Institute of Mathematical Sciences	February 20, 2024

2.5. Visits Abroad by Faculty

S. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding from
1.	Akanksha Agrawal	Germany	April 16-21, 2023	Dagstuhl Seminar, New Frontiers of Parameterized Complexity in Graph Drawing	Not known

2.	Krishna M Sivalingam	Miami, USA	May 8-12, 2023	Conference Paper Presentation @ NOMS 2023	CPDA / Project
3.	Manikandan Narayanan	Seattle, USA	May 24-25, 2023	Bill and Melinda Gates Foundation grant-related meeting for MOMI (Multi-Omics for Mother-Infants Outcomes) Consortium	Not known
4.	Aishwarya Thiruvengadam	NTU Singapore	May 17-24	Workshop and Research Visit	Not known
5.	V Krishna Nandivada	Las Vegas, USA	September 10-15, 2023	Attending IBM TechXchange	Not known
6.	V Krishna Nandivada	Vienna, Austria	October 2023	Attending PACT 2023	CPDA/Project
7.	Krishna M. Sivalingam	Baltimore, Denver	November 10-21, 2023;	Attending IEEE IEEE Future Networks World Forum (FNWF) 2023, Supercomputing 2023 and IEEE International Conference on Computer Communications (INFOCOM) 2024 Technical Program Committee (TPC) Meeting	CPDA / Project
8.	Akanksha Agrawal	University of Bergen, Bergen, Norway	December 7 to 15, 2023	Research visit and a member of Ph.D. thesis evaluation committee	Not known
9.	Akanksha Agrawal	Virginia, USA	January 7 to 10, 2024	Attending the conference SODA 2024	Not known
10.	John Augustine	Tokyo, Japan	December 6-10, 2023	Attending OPODIS 2023 and MAC 2023	Not known
11.	Chester Rebeiro	Prague, Czech Republic	September 2023	Attending CHES 2023	
12.	Krishna M Sivalingam	Kuala Lumpur, Malaysia	December 4-7, 2023	Attending IEEE Globecom 2023	CPDA / Project

2.6. Honours and Awards Obtained by Faculty

S. No.	Name of Faculty	Name of Award	Awarded by	Awarded for	Date of award
Awards:					
1.	Akanksha Agrawal	Veena and Induprakas Keri Faculty Fellowship Associate Editor for the journal Acta Informatica	IIM Journal	Research Not Known	April 2023

2.	Akanksha Agrawal	Class of 1991 CSE Award	IITM	Research	Not known
3.	V Krishna Nandivada	Distinguished Reviewer Award CASES	Not known	Service to PC	2023
4.	Akanksha Agrawal	Selected for ACM Eminent Speaker Program	Not known	Not known	(2024-2026)
5.	Shweta Agrawal	Selected as Laureate for Inaugural edition of ACM India's 'Pingala Interactions in Computing'	Not known	Not known	Not known
6.	Chester Rebeiro	IIT Pravartak Fellow	IITM Pravartak		2023-24

2.7. Fellowships of Academies and Professional Societies

S. No.	Name of faculty	Year of Admission
INAE:		
1.	Krishnamoorthy Sivalingam	2015
2.	Siva Ram Murthy	Not known
3.	Ravindran B	Not known
4.	Janakiram D	Not known
Others:		
5.	Krishnamoorthy Sivalingam	2014 (IEEE Fellow)

2.8. Journal Editorial Boards

S. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1.	B. V. Raghavendra Rao	Not known	Algorithmica
2.	Hemalatha Munusamy and C Chandra Sekhar	Not known	Applied Intelligence
3.	Akanksha Agrawal	Associate Editor	Acta Informatica
4.	Rupesh Nasre.	Associate Editor	Concurrency and Computation: Practice and Experience
5.	Balaraman Ravindran, Manikandan Narayanan	Not known	PLOS Computational Biology 19(4): e1011022. 2023
6.	Akanksha Agrawal	Not known	Information Processing Letters (accepted for publication)
7.	Sukhendu Das	Not known	
8.	Hema A Murthy	Not known	Springer Sadhana
9.	Hema A Murthy	Not known	Journal of New Music Research, Taylor and Francis
10.	Krishna Nandivada	Associate Editor	ACM TACO
11.	Harish G Ramaswamy,	Not known	JMLR
12.	Akanksha Agrawal	Not known	J. Artif. Intell. Res.
13.	Hema A Murthy	Not known	IEEE Access Nov 2023
14.	NS Narayanaswamy	Not known	Discrete Mathematics & Theoretical Computer Science

3. Design and Development Activities

3.1. Brief and specific details of Processes, Instruments, Equipment, or Software Designed and Developed

StarPlat: In this project funded by the National Supercomputing Mission and Qualcomm, Rupesh Nasre's group has developed a domain-specific language (DSL) for graph algorithms. One can specify a graph algorithm in this DSL at a high level, and the code generators generate parallel code from it for different backends. Currently, the compiler is able to generate code for OpenMP (multi-core CPU), MPI (for a distributed setup), CUDA (for NVIDIA GPUs), OpenACC (accelerators), Sycl (Intel GPUs) and OpenCL (multiple computing platforms) from the same algorithmic specification. The language is mature enough to specify simple graph algorithms such as single-source shortest paths, page rank, betweenness centrality, and triangle counting. Multiple ways in which the group is taking this forward are: improving the efficiency of the generated codes, supporting complex graph algorithms requiring concurrent data structures, supporting more backends such as multi-GPU/Hip, supporting more dynamic graphs, etc. The work is patented and has been made publicly available.

3.2. New Facilities Added or Major Equipment Procured:

S. No.	Name of Equipment	Value (in INR lakh)
1	Server with AMD GPUs	31

3.3. Patents

3.3.1 Patents Filed

S. No.	Name of Faculty	Topic of Patent
1.	Krishna Nandivada Venkata	P202200031US01, Split-scalarization of thread-local objects in optimized object code
2.	Chester Rebeiro	System and method for interlaced memory tagging (202441024486)
3.	Chester Rebeiro	Framework for non-intermediary international financial messages exchange between CBDC networks (202441009307)
4.	Ayon Chakraborty	On-Device deep learning for IoT based wireless sensing applications (202441017442)
5.	Ayon Chakraborty	A system and method for mapping indoor spaces in real-time (202441040240)

3.3.2 Patents Awarded

Sl. No.	Name of Faculty	Topic of Patent
1.	Krishna M Sivalingam	Method of performing route lookup as part of the egress pipeline
2.	Rupesh Nasre	System and method for automatic parallel code generation for graph algorithms for multiple target architectures
3.	Chester Rebeiro and V Kamakoti	System and method for facilitating behavioral analysis of malwares (436435)
4.	Krishnamoorthy Sivalingam and Balaji Srinivasan	Method of searching through Ternary Content Addressable Memory (TCAM) and system thereof (No. 11,605,429)
5.	Chester Rebeiro, V Kamakoti	System and method for malware detection by Cross-Dimensional Behavioural Analysis (202241007976)
6.	Chester Rebeiro	A device and a method for gaining access of a network (202241053753)

7.	Chester Rebeiro	System and method to estimate the maximum runtime interference on embedded systems (IDF 2637)
8.	Chester Rebeiro	Method and electronic device for mitigating micro-architectural side-channel attack by dynamic resource allocation, Patent No. 495535, 06-01-2024
9.	Chester Rebeiro	A cache timing attack resistant prefetching system 496669
10.	P Sreenivasa Kumar, Rupesh Nasre	507098 A system and method for bug identification and fault localization through domain-ontology
11.	Krishnamoorthy Sivalingam	Data Packet Processing and Transmission in a Network

4. Research and Consultancy

4.1. Sponsored Research Projects (Ongoing & New)

S. No.	Title	Period	Funding Agency	Amount (in INR lakh)	Coordinators
1.	StarPlat: A Versatile DSL for Graph Analytics	1 year	Qualcomm	10	Rupesh Nasre
2.	Secure Data Sharing	0.5 year	Aqfer	13	Aishwarya T
3.	EEG and Cognition	2 years	Department of Science & Technology (DST) - SPARC	62	Hema A Murthy
4.	Realizing Zero Trust Security in Emerging Energy Infrastructure	1 year	IIT M	6.67	Chester Rebeiro, John Augustine, Aishwarya Thiruvengadam
5.	Cyber Innovation Center at NACIN	5 years	National Academy of Customs, Indirect Taxes & Narcotics (NACIN)	1,642	Chester Rebeiro
6.	AI for Cybersecurity	1.6 year	Ministry of Electronics and Information Technology (MEITY) (under NSM Initiative)	46	Chester Rebeiro and B. Ravindran
7.	Design and Development of Secure Environments	1 year	LG Soft	40	Chester Rebeiro
8.	Hardware Firewall with Shakti	1.5 year	Saptang Labs	20	Chester Rebeiro

4.2. Research Based Industrial Consultancy Projects (Ongoing & New)

S. No.	Name of faculty	Title	Industry	Amount (in INR lakh)
1.	S Das	Wheel Alignment using Stereo Cameras	Manatec, Pondicherry	15.07
2	Krishna M. Sivalingam	Federated Machine Learning for Network Elements using Programmable Data Plane Environments	Ciena USA	108.41
3	Krishna M Sivalingam	Orchestration for Network Slicing in 5G Networks based on SDN/NFV Concepts (Listed as CSR)	VMWare USA	76.54

5. Distinguished Visitors to the Department

S. No.	Visitor's Name and Designation	Date of Visit	Purpose of Visit
1.	Y Narahari	Not Known	Meet the faculty and give a talk
2.	Arani Bhattacharya	Not Known	Meet the faculty and give a talk
3.	Rajendra Kumar	Not Known	Meet the faculty and give a talk
4.	Shreyas Kiran Pai	Not Known	Meet the faculty and give a talk
5.	Sumanta Ghosh	Not Known	Meet the faculty and give a talk
6.	Sri AravindaKrishnan Thyagarajan	Not Known	Meet the faculty and give a talk
7.	Venkata Krishna Koundinya Pillutla	Not Known	Meet the faculty and give a talk
8.	Tarun Mangla	Not Known	Meet the faculty and give a talk
9.	Shreyas Kiran Pai	Not Known	Meet the faculty and give a talk
10.	Karthik Swaminathan, IBM Research	November 28, 2023	Invited talk
11.	Cecil J, Oklahoma State University	November 14, 2023	Invited Talk, collaboration discussions
12.	Valerie King	December 10, 2023 - January 8, 2024	Research Collaboration (IoE Visiting Faculty Fellow)
13.	Bruce Kapron	December 10, 2023 - January 8, 2024	Research Collaboration (IoE Visiting Faculty Fellow)
14.	Leslie Valiant	January 5, 2024	Keynote Speaker, ICDCN 2024
15.	Lata Narayanan	January 4-12, 2024	Research Collaboration (along with ICDCN)
16.	William Kumar Moses Jr.	January 4-9, 2024	Research Collaboration (along with ICDCN)
17.	Chetan Kamath	Not Known	Faculty Candidate
18.	Krishna Vedantam	Not Known	Faculty Candidate
19.	Ashish Mishra	Not Known	Faculty Candidate
20.	N Gopalakrishna	Not Known	Faculty Candidate
21.	Srinivas Narayana, Rutgers Univ, USA	July 4, 2023	Faculty Candidate
22.	Suresh Jagannathan	March 19 2024	Talk
23.	Shriram Krishnamurthi	February 14 2024	Talk
24.	Byrav Ramamurthy	March 22 2024	Talk
25.	Abhiram Ravi, Google (Mountain View, CA, USA)	March 1, 2024	Seminar Talk
26.	Yael Kalai, MIT & MSR	February 7-8, 2024	Research visit and talk
27.	Venkata Koppula, IIT Delhi	March 24 to 27, 2024	Research visit
28.	Prashant Vasudevan, NUS	February 27, 2024	Research visit

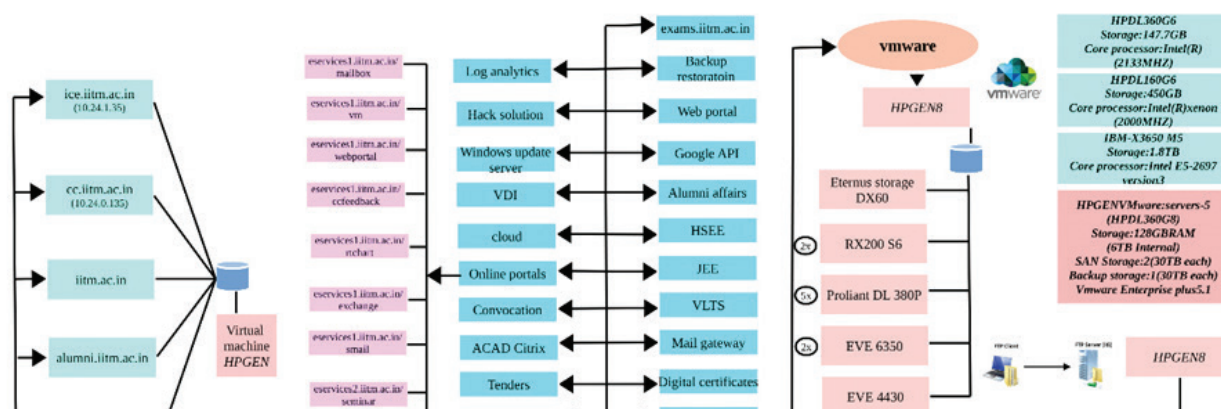
4.8. Wadhvani School Of Data Science And Artificial Intelligence

4.8.1. Introduction

The Indian Institute of Technology Madras (IIT Madras) has successfully launched the Wadhvani School of Data Science and AI (artificial intelligence) with an endowment of INR 110 crore from Mr. Sunil Wadhvani, CEO of Mastech, Inc. and IGATE, and a proud alumnus of IITM. A memorandum of understanding (MoU) was signed on January 30, 2024 between Mr. Sunil Wadhvani and Prof. V Kamakoti, Director, IIT Madras, in the presence of faculty, students, alumni and researchers. Founded in 2024, the school brings together several faculty with expertise in various areas of data science and AI to collaborate on impactful problems of direct relevance to the society. The school is home to the 18th and newest department

It has several affiliated research centres, such as the Robert Bosch Centre for Data Science and Artificial Intelligence (RBCDSAI), Centre for Responsible AI

(CeRAI), Centre for Integrative Biology and Systems medicine (IBSE), AI4Bharat, and a vibrant research ecosystem, with several interest groups focused on exciting areas. The school also will offer a B.Tech. in AI & Data Analytics, an M.Tech. in Data Science and AI, and multiple programmes for international students. Prof. Balaraman Ravindran, Head of the Department, highlights that 'the school will enable close collaboration between domain experts and AI researchers to enable solutions that integrate AI with existing domain knowledge and approaches. Our degree programs will nurture the students to primarily think of interdisciplinary design and data-driven problem-solving. Overall, our vision is to create an environment for globally competitive research and teaching, and ultimately place the school amongst the top centres in the world for research in three key areas, with special emphasis on AI for Healthcare, in the Indian context.'



(Department of Data Science and AI) at IIT Madras.

Academic Programmes

- B.Tech. in AI & Data Analytics
- M.Tech. in Data Science & AI
- Joint M.Sc. in Data Science and AI with the University of Birmingham
- International Interdisciplinary Masters Programme (I2MP)
- Interdisciplinary Dual Degree in Data Science (IDDD DS)
- Web-enabled M.Tech, in Industrial AI
- M.S & Ph.D. programmes.

Faculty and their Major Areas of Specialisation

Name and Qualifications	Major Areas of Specialisation
Professors	
Dr. Balaraman Ravindran, Ph.D. [Head]	Machine learning, reinforcement learning, social network analysis, data and text mining
Dr. Arun Tangirala, Ph.D.	Process systems engineering, process control, identification and monitoring/fault detection & diagnosis, network reconstruction, sparse modelling and control, multi-scale analysis and modelling, control loop performance monitoring, and fuel cell systems engineering
Dr. Balaji Srinivasan, Ph.D.	Fluid dynamics, turbulence in compressible and hypersonic flows, computation of rarefied flows, numerical analysis, high performance computing
Dr. Ganapathy Krishnamurthi, Ph.D.	Multi-modal pre-clinical imaging system and medical image processing
Dr. Gitakrishnan Ramadurai, Ph.D.	Dynamic traffic assignment, transportation network modelling, intelligent transportation systems, and pedestrian safety
Dr. Karthik Raman, Ph.D.	Metabolic network analysis, computational modelling, simulation of biological systems/networks, systems and synthetic biology, metabolic engineering (strain improvement through in silico modelling), high-performance GPGPU computing (general purpose computing on graphics processing units) for systems biology
Dr. Nandan Sudarsanam, Ph.D.	Data mining/machine learning, applied statistics, and algorithmic & heuristic approaches to problem solving
Dr. Raghunathan Rengaswamy, Ph.D.	Fault Detection and Diagnosis (FDD), development of Sensor Placement (SP), algorithms for FDD, and fuel cells
Associate Professors	
Dr. Mitesh Khapra, Ph.D.	Statistical machine translation, text analytics, deep learning, crowdsourcing
Assistant Professors	
Dr. Arun Rajkumar, Ph.D.	Machine learning, rank aggregation, and statistical learning
Dr. Chandrashekar Lakshminarayanan, Ph.D.	Reinforcement learning, stochastic control, and deep learning
Harish Guruprasad Ramaswamy, Ph.D.	Machine learning, learning theory, and optimisation
Dr. Krishna Pillutla, Ph.D.	Privacy and robustness in ML/AI
Dr. Nirav Bhatt, Ph.D.	Data analysis, process systems engineering and kinetic modelling
Dr. Lakshmi Narasimhan Theagarajan, Ph.D.	Wireless communication - physical layer algorithms and analysis; information theory - coding and system analysis; and statistical signal processing - distributed detection and estimation
Dr. Sivaram Ambikasaran, Ph.D.	Numerical linear algebra, approximation theory, and computational statistics

4.9. Department of Electrical Engineering

1. Introduction

The Department of Electrical Engineering is one of the largest departments in IIT Madras, and carries out teaching, research, and technology development in the frontier areas of Communications, Signal Processing, Networks, Power Systems, Power Electronics Microgrids, Integrated Circuits and Systems, Microelectronics, Micro-electromechanical systems (MEMS), Very-large-scale Integration (VLSI), Radio Frequency (RF), Photonics, Biomedical Devices, Control and Optimisation. The department has initiated the following Centres of Excellence that are recognised nationally for research and development:

- AMOLED Research Centre
- Brain Centre
- Center for Battery Engineering and Electric Vehicles (CBEEV)
- Centre of Excellence in Wireless Technology (CEWiT)
- Centre for NEMS and Nanophotonics
- Healthcare Technology Innovation Centre (HTIC)
- National 5G Testbed
- Programmable Photonic ICs
- Speech Technologies in Indian Languages
- **6G:** Sub-THz Wireless comm. with IRS

As part of the Institute of Eminence initiative, the following centres of excellence and research centres have been established in the department:

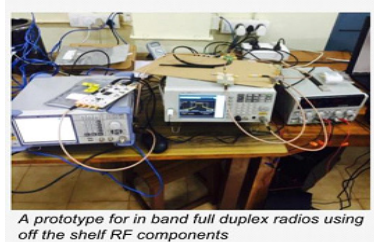
- Advanced Memory and Computing
- Computer Vision
- Gallium Nitride Research and Development
- Healthcare and Assistive Technologies

- Photonic Integrated Circuits
- Quantum Information, Communications, and Computing
- RF, Analog, and Mixed Signal ICs

The collaborative efforts of the department are currently grouped under the following areas of research:

EE1: Communications and Signal Processing

Communications and networks: This research group focuses on cutting-edge problems in wireless communications and networks, including mathematical modelling, analysis, designing of new algorithms and prototyping using test beds. Their interests span physical-layer aspects, modulation and coding, scheduling and rate adaptation, estimation and detection, resource allocation and optimisation, network control, information theory, 4G/5G technology and standards, LTE systems, MIMO systems, cognitive radios, mobile IP, optical backbone networks and software-defined radios and networks. **Image and speech signal processing:** This research group's focus is on image processing and computer vision, including image deblurring and dehazing, underwater imaging, image and video matting, HDR, face recognition, 3D geometry inpainting and depth from motion blur. They work on developing novel computational cameras and mathematical frameworks for their analysis as well as deep learning architectures for solving various image processing and computer vision problems. The Speech research group works mainly on Automatic Speech Recognition (ASR) for Indian languages, deep learning methods for speech recognition, and multilingual speech recognition.



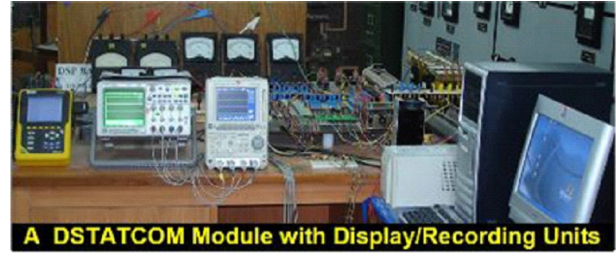
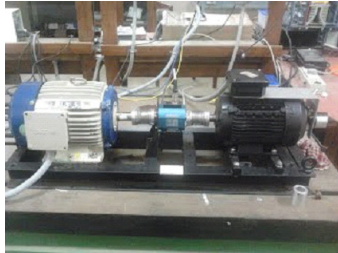
A prototype for in band full duplex radios using off the shelf RF components

Image enhancement:

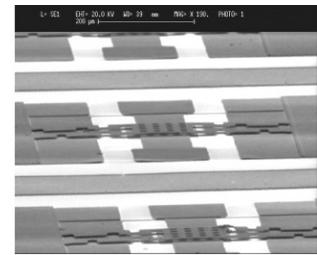
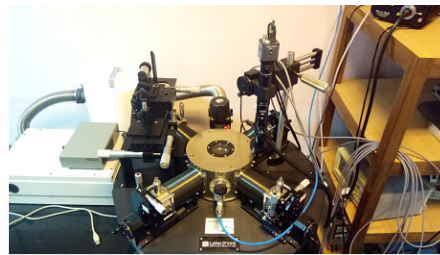


EE2: Power Systems, Power Electronics and High Voltage

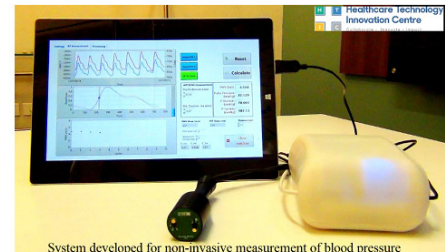
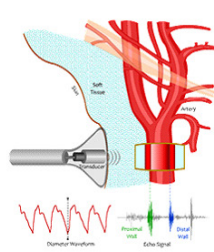
The group is actively involved in research related to powering electronics-based motor drives, grid integration of renewable energy sources with a focus on solar and wind, power quality issues and mitigation techniques, smart grids, power systems' modelling and analysis, energy markets, nanotechnology, condition monitoring of power apparatus adopting multi fusion sensor techniques, sterilisation of liquid foods, and effluent treatment.

**EE3: Microelectronics and MEMS**

The Microelectronics group focuses on the design, simulation, modelling, fabrication and testing of micro- and nano-scale electronic components and systems. The Microelectronics and MEMS Lab in the department is well-equipped for semiconductor device and MEMS fabrication, characterisation, modelling and simulation. It has Class-100 and Class-1000 clean rooms, which house its major facilities including a mask writer, double-sided lithography facility, substrate bond aligner, LPCVD for polysilicon deposition, PECVD for dielectrics, diffusion furnaces, e-beam metallisation unit and RIE for dry etching.

**EE4: Electronic System Design and Instrumentation**

The Electronic System Design and Instrumentation group focuses on addressing the challenges and complexity of automation in industrial structures and manufacturing systems. Nowadays, diverse areas such as the energy systems, infrastructure management, transportation systems, and medicine are increasingly becoming reliant on progress in this discipline. The recent efforts of the group have been in biomedical instrumentation, healthcare, power networks, sensors for automotive and transport applications, and cyber-physical systems.

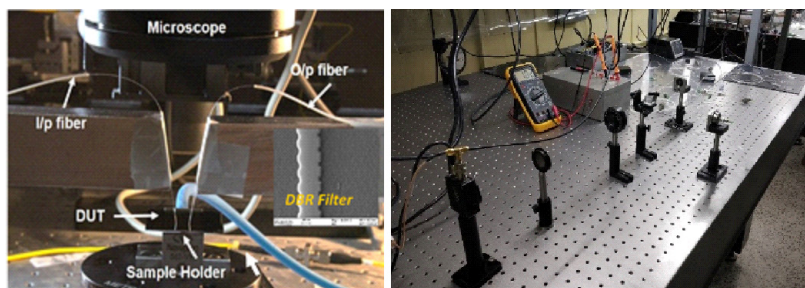
**EE5: RF and Photonics**

The group focuses on applications in a variety of interdisciplinary areas such as radar systems, satellite imaging, fibre and free-space classical and quantum technologies, optoelectronic devices, lasers, signal processing, metrology and sensing, microwave remote sensing, and microwave imaging. Research activities include design, analysis and synthesis of devices, components, and aspects of system and network design. The group designs, fabricates, and analyses various kinds of silicon photonic, plasmonic

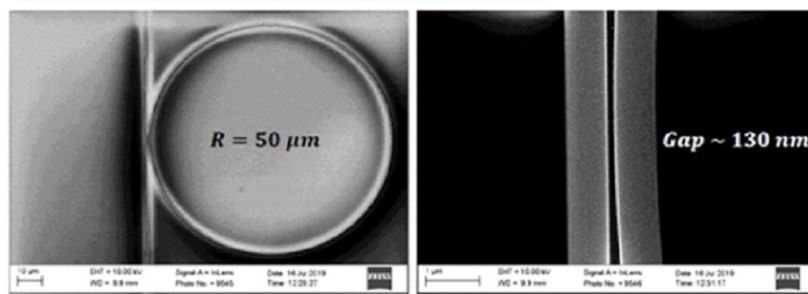
and diffractive optic devices. In addition to physical devices, research on Tbps optical communication systems with advanced modulation formats, optical signal processing and quantum communication are also investigated. The group also does active research on discrete and distributed fibre sensors, high-power fibre lasers operating at different wavelengths, narrow-line lasers and pulsed lasers. In the radio or microwave realm, work is ongoing on aspects of satellite remote sensing, inverse microwave imaging, computational electromagnetics, and radio over fibre

millimetre wave communications for radar systems, optical fronthauling for 5G networks. There are active research collaborations with several international universities such as the Optoelectronic Research Centre Southampton, University of Rochester, University of Melbourne and the University of Glasgow

to name a few, and with different Indian industries including Sterlite Technologies, LightMotif, and Forbes Marshall. The group receives research funding from different government agencies, the Defence Research and Development Organisation (DRDO), and industry partners.

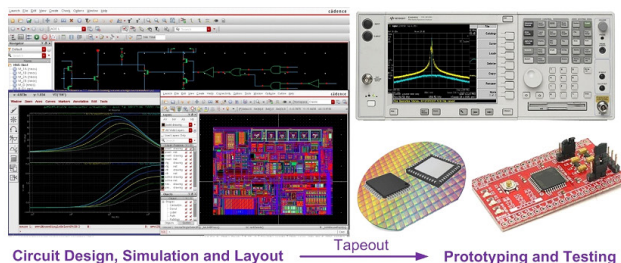
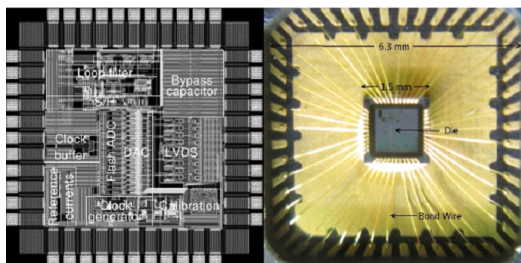


Microring Resonators @ IIT Madras



EE6: Integrated Circuits and Systems

This group deals with various aspects of designing integrated circuits and embedded systems. The group has highly experienced faculty in analog/mixed signal and digital integrated circuits (ICs), VLSI CAD (computer-aided design) and embedded systems with a track record of driving full chip products right from concept to design, tapeout, prototyping and testing. The areas of research of this group include analog, mixed signal and RF, analysis and simulation of noise in circuits, high-speed ADCs (analog-to-digital converters), digital signal processor (DSP) architectures, field-programmable gate arrays (FPGAs), mapping of algorithms, and reconfigurable computing..



2.Academic Programmes

2.1.New Courses introduced:

S. No.	Course No.	Title
1	EE5333	Introduction to Physical Design Automation
2	EE8016	Reliability in Power Electronics (GIAN)
3	EE5348	OLED Display Technology
4	EE5343	Solar Cell Device Physics and Materials Technology
5	EE5005	Microelectronics Lab

2.2.New lab(s) established:

Optical & Wireless Simulation and Modelling (OWSM) Lab, established on April 27, 2023.

2.3.Students On Roll as of September 2023 + M.S. & Ph.D. admission in January 2024

Programme	I Year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	166	170	147	119	8	610
Dual Degree			3	16	24	43
M.A.						
M.Sc.						
M.Tech.	91	63			2	156
M.B.A.						
M.S.	41	47	66	33	4	191
Ph.D.	24	36	46	48	99	253
Total	322	316	262	216	137	1253

2.4.Students/Scholars Who Attended Conferences, Seminars and Symposia Abroad and in India

S. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposium/Workshop	Date & Venue	Financial Assistance from
1	Pratyasha Priyadarshini	EE18S045	European Conference on Integrated Optics 2023	April 2023	Project
2	Arnab Goswami	EE17D011	European Conference on Integrated Optics 2023	April 2023	Department
3	Ashitosh Velamuri	EE18D042	European Conference on Integrated Optics 2023	April 2023	Project
4	Arnab Goswami	EE17D011	Quantum Information Techniques with Photonic Devices workshop in Dharamshala	April 2023	Department
5	Mrudula K	EE19D017	2023 NSF/TIF PI meeting workshop	May 2023	Project
6	Valliammai Ramanathan	EE21D201	Padova Quantum Communication School (QCOMMS) 2023	May 2023	Project
7	Nilesh Sharma	EE20D060	Padova Quantum Communication School (QCOMMS) 2023	May 2023	Project
8	Thool Asmita SanjayRao	EE19D011	European Materials Research Society (E-MRS) Spring Meeting 2023	May 2023	Department
9	Anand K	EE20S133	6th International Conference on Optics, Photonics and Lasers (OPAL' 2023)	May 2023	Project
10	Anirban	EE19D022	Institute of Electrical and Electronics Engineers (IEEE) International Magnetism Conference (INTERMAG 2023)	March 2023	Department

11	Veena P	EE19D208	11th International Conference on Power Electronics-Energy Conversion Congress & Expo Asia (ICPE 2023-ECCE Asia)	May 2023	Project
12	Ashitosh Velamuri	EE18D042	Conference on Lasers and Electro-Optics® (CLEO) 2023	May 2023	Project
13	Avik Mukhopadhyay	EE21D002	Joint Telematics Group (JTG) Summer School 2023	June 2023	Project
14	Kaushik Senthoo R	EE15D042	JTG Summer School 2023	June 2023	Project
15	Yelamarty Siva Satya Krishna	EE16D206	JTG Summer School 2023	June 2023	Project
16	Gokularam M	EE17D400	JTG Summer School 2023	June 2023	Project
17	Madhusudan Kumar Sinha	EE16D028	JTG Summer School 2023	June 2023	Project
18	Goli Nagamani	EE22S085	JTG Summer School 2023	June 2023	Project
19	Sai Dinesh Kancharana	EE20D401	JTG Summer School 2023	June 2023	Project
20	Kumar Rohan	EE22S003	JTG Summer School 2023	June 2023	Project
21	Bharati K	EE20D700	JTG Summer School 2023	June 2023	Project
22	Bhupender Singh	EE22S006	JTG Summer School 2023	June 2023	Department
23	Krishnakumar	EE19D410	JTG Summer School 2023	June 2023	Project
24	Uthira Kalyani G	EE19D404	JTG Summer School 2023	June 2023	Project
25	Valliamai Ramanathan	EE21D201	JTG Summer School 2023	June 2023	Project
26	Arpit Kumar	EE22S086	JTG Summer School 2023	June 2023	Project
27	Karthik Shenoy	EE21D405	American Control Conference 2023	June 2023	Project
28	Leena Gautam	EE21D011	22nd IEEE International Conference on Dielectric Liquid	June 2023	Department
29	Girish VV	EE21S066	45th Annual International Conference of the IEEE Engineering in Medicine and Biology Society	June 2023	Project
30	Aakansha	EE18D405	IEEE/CVF (Computer Vision Foundation) Conference on Computer Vision and Pattern Recognition 2023	June 2023	Department
31	Onkar Ganesh Bhakare	EE21S058	23rd International Conference on Environment and Electrical Engineering (EEEIC 2023)	June 2023	Department
32	Aakansha	EE18D405	Recognition 2023	June 2023	Department
33	Joshitha	EE19D701	Recognition 2023	June 2023	Project
34	Partha Sarathi Mohapatra	EE18D703	13th International Society of Dynamics Games Workshop	June 2023	Project
35	Aditya Sanjiv Kanade	EE20S086	2023 IEEE International Conference on Acoustics, Speech and Signal Processing	June 2023	Department
36	Soumyajit Chakraborty	EE21S112	21st European Control Conference (ECC) 2023	June 2023	Project

37	Rejitha Raveendran	EE17D016	Cyber-Physical Systems Summit (CyPhySS) 2022	June 2023	Project
38	Krishnakumar	EE19D410	Association for Computing Machinery (ACM) SIGMETRICS / International Federation for Information Processing (IFIP) Performance 2022	June 2023	Project
39	Rama Seshan C	EE17D402	European Control Conference 2023	June 2023	Department
40	Rejitha Raveendran	EE17D016	80th Device Research Conference (DRC 2022)	July 2023	Project
41	Susan Thomas	EE20D751	Photonics 2023	July 2023	Project
42	Jerin Geogy Gorgy	EE20D029	Photonics 2023	July 2023	Project
43	Mathu Mathi M	EE21S072	Photonics 2023	July 2023	Project
44	Sagi Shiva	EE21D045	Photonics 2023	July 2023	Project
45	Sreeraj P Nambiar	EE21S022	Photonics 2023	July 2023	Department
46	Swarna Parvathi	EE18D416	Photonics 2023	July 2023	Department
47	Arnab Goswami	EE17D011	Photonics 2023	July 2023	Project
48	Jaswanthi	EE19D700	International Symposium on Information Theory	July 2023	Project
49	Shital Sheshrao Yelne	EE20S052	45th Annual International Conference of the IEEE Engg. In Medicine and Biology Society	July 2023	Department
50	Navya Rose George	EE20D014	45th Annual International Conference of the IEEE Engg. In Medicine and Biology Society	July 2023	Department
51	Nimmi Sudarsan	EE20D055	45th Annual International Conference of the IEEE Engg. In Medicine and Biology Society	July 2023	Department
52	Sreeraj SJ	EE17D033	European Quantum Electronics Virtual Conference	July 2023	Department
53	Anik Kumar Paul	EE18D030	Mathematical Theory of Network System 2023	July 2023	Department
54	Rahul S	EE16D031	AIMTRONICS 2022	July 2023	Project
55	Kanaka Joy	EE17D407	Electronics System-Integration Technology Conference 2022	July 2023	Project
56	Rahul M	EE17D202	IEEE 44th International Engineering in Medicine and Biology Conference	July 2023	Project
57	Bitata Sarkar	EE21S059	IECON 2023	August 2023	Department
58	Satwik Komma	EE21S090	IECON 2023	August 2023	Project
59	Gowri Prasad R	EE19D702	International Society for Music Information Retrieval (ISMIR) 2023	August 2023	Project
60	Prasikaa Shree S	EE21D700	21st International Symposium on Modeling and Optimization in Mobile, Ad hoc, and Wireless Networks (WiOpt 2023)	August 2023	Project

61	Kanimozhi	EE20D301	ICOM 2023	September 2023	Project
62	Thangabalan B	EE18D039	2023 International Symposium on Electrical Insulating Materials (ISEIM)	September 2023	Department
63	Gandlurei Parameswarreddy	EE21D027	2023 International Symposium on Electrical Insulating Materials (ISEIM)	September 2023	Department
64	Mridula	EE20D053	2023 International Symposium on Electrical Insulating Materials (ISEIM)	September 2023	Department
65	K Ganesan	EE21D066	2023 International Symposium on Electrical Insulating Materials (ISEIM)	September 2023	Project
66	Thangabalan B	EE18D039	2023 International Symposium on Electrical Insulating Materials (ISEIM)	September 2023	Department
67	Naveen Kumar Pothapakula	EE19D015	Society of Photographic Instrumentation Engineers (SPIE) Photonics West	October 2023	Project
68	Sudarsan Majumder	EE17D409	IEEE Sensors 2023	October 2023	Department
69	Nimitha Muraleedharan	EE22D024	IEEE International Conference on Recent Advances in Systems Science and Engineering (RASSE) 2023	November 2023	Project
70	Sai Dinesh Kancharana	EE20D401	IIT Kanpur Intensive Training School on PYTHON for Machine Learning, Neural Networks and Deep Learning	December 2023	Project
71	Anupuruvadraju Naga Sampath Kumar	EE20D025	IEEE International Transportation Electrification Conference (ITEC) India 2023	December 2023	Project
72	N Arjun Sarathy	EE16D411	2023 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy	December 2023	Project
73	Shubham Paul	EE19D407	IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS 2023)	December 2023	Project
74	Anil Kumar Paul	EE18D030	62nd IEEE Conference on Decision and Control, December 13-15, 2023, Singapore	December 2023	Department
75	Anupuruvadraju Naga Sampath Kumar	EE20D025	IEEE ITEC India 2023	December 2023	Project
76	Abhishek Krishnan	EE22S300	International Confluence Conference on Startups and Innovation	December 2023	Project

77	Sally Khaidem	EE20D041	Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP)	December 2023	Project
78	Shivani Bathla	EE17D037	Conference on Neural Information Processing Systems	December 2023	Department
79	Nishant Singh	EE22S084	Winter School on Speech and Audio Processing (WISSAP) 2023	December 2023	Project
80	Anil Kumar Paul	EE18D030	62nd IEEE Conference on Decision and Control, December 13-15, 2023, Singapore	December 2023	Department
81	Geethakrishnan P	EE21D069	Workshop on Recent Advances in Photonics (WRAP) 2023	December 2023	Project
82	Muvvala Venkata Akhil	EE20S132	IEEE ANTS 2023	December 2023	Project
83	Sreeraj P Nambiar	EE21S022	SPIE Photonics West	December 2023	Department
84	Bhupender Singh	EE22S006	IIT Kanpur Intensive Training School (ITS) on PYTHON for Machine Learning, Neural Networks and Deep Learning	December 2023	Department
85	Kumar Rohan	EE19D421	IIT Kanpur Intensive Training School on PYTHON for ML, Neural Network & Deep Learning	December 2023	Department
86	Kishore Kumar S	EE22D036	2nd International IEEE Applied Sensing Conference (IEEE APSCON 2024)	January 2024	Project
87	Nilesh Sharma	EE20D060	16th International Conference on Communication Systems & Networks	January 2024	Project

2.5.Students/Scholars Who Won Outside Prizes and Awards

S. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded by
1	Mathu M Murugavel	EE21S072	Optica Women Scholars prize for 2023	
2	Kishore Kumar	EE22D036	1st Prize: Investigation of Different Demodulation Schemes for Raman-Optical Time Domain Reflectometry	Annual Conference of Indian Society for Non-Destructive Testing (NDE 2023), Pune
3	Anand VP	EE22D064	3rd Prize: Intrusion and Leakage Monitoring of Oil and Gas Pipelines using Hybrid DAS-DTS Fiber Optic Technology (DAS: distributed acoustic sensor; DTS: distributed temperature sensor)	NDE 2023, Pune
4	Sourodeep Roy	EE19D414	Best Poster award for Mimicking biological functions using PECVD SiO _x -based RRAMs	International Workshop

5	Varun M	EE20B149	Team Anveshak placed as Runner-up in the International Rover Challenge 2024 and Excellence Award for their exemplary performance in the autonomous navigation mission and scored the highest points in the Business Plan Presentation and Project Management event.	January 2024
6	Nikhil S	EE20B090		
7	Manomukil T	EE20B075		

2.6.Students/Scholars who won Convocation/Institute Day Prizes

S. No.	Name of the Student/ Scholar	Roll No.	Name of Prize
1	Sooraj MS	EE17D055	Dr. Girish Reddy Award
2	Neethy Sasikumar	EE18D043	Dr. Girish Reddy Award
3	Narendra Deconda	EE18D200	Dr. Girish Reddy Award
4	Balaji Vijayakumar	EE19D202	Dr. Girish Reddy Award
5	Shubham Paul	EE19D407	Dr. Girish Reddy Award
6	Rajarshi Basu	EE19D412	Dr. Girish Reddy Award
7	Chinara Kuldip	EE19D413	Dr. Girish Reddy Award
8	Rohan V Madnani	EE19D421	Dr. Girish Reddy Award
9	Anil Ringne	EE20D018	Dr. Girish Reddy Award
10	Nambala Ramsai N	EE20D056	Dr. Girish Reddy Award
11	Nilesh Sharma	EE20D060	Dr. Girish Reddy Award
12	Sai Swetha Manonmayee	EE21S002	Dr. Girish Reddy Award
13	Sai Shiva Sreenivasa	EE21D045	Dr. Girish Reddy Award
14	Abhijeet Ajitkumar	EE18B121	Dr. Girish Reddy Award
15	Karthik Shency	EE21D405	Dr. Girish Reddy Award
16	Kunal Layed	EE19D411	Jay Giri Award
17	Sai Gautham Ravipati	EE19B053	President of India Prize
			Bharat Ratna M
			Visvesvaraya Memorial Prize
			Siemens Prize
18	Sreekar Sai Ranganathan	EE18B154	Philips India Prize
19	Chejarla Narendra Sai Kumar	EE21M015	Siemens Prize
20	Ashfan Ahamed	EE18B126	Prof Achim Bopp Prize
21	Naachiket Khameshwar	EE21M029	Valadi Krishna Sarma Balaji & Savithri Balaji Award
22	Karthikeyan M	EE18S050	TS Vedagiri Memorial Award
23	Himanshu Goyel	EE19S025	TS Vedagiri Memorial Award
24	Bommisetty Lokesh	EE18D701	Best Ph.D. Thesis in Data Sciences
25	Rohit Choudhary	EE20S002	Institute Research Award 2023-24 for M.S. (July-November)
26	Sriprabha R	EE19D013	Institute Research Award 2023-24 for Ph.D. (July-November)

27	Amizhtan SK	EE19D207	Institute Research Award 2023-24 for Ph.D. (July-November)
28	Mannam Veera Narayana	EE18D302	Institute Research Award 2023-24 for Ph.D. (January-May)
29	Debdutta Basu	EE21S074	Institute Research Award 2023-24 for M.S. (January-May)

3. Faculty and Their Activities

3.1. Faculty

Name and Qualifications	Major areas of specialisation
Professors:	
Dr. Nagendra Krishnapura (Head)	Analog circuits
Dr. Amitava Das Gupta	Semiconductor devices and MEMS
Dr. Andrew Thangaraj	Signal processing, communication
Dr. Anil Prabhakar	Photonics, magnonics, assistive technologies
Dr. Anjan Chakravorty	Semiconductor devices
Dr. Aravind R	Signal processing, communication
Dr. Arun D Mahindrakar	Digital control and systems theory
Dr. Anbarasu Manivannan	Nanoelectronics, non-volatile random-access memory (NVRAM), phase change memory
Dr. Balaji Srinivasan	Fibre laser and sensors
Dr. Bhaskar Ramamurthi	Signal processing, communication
Dr. Bijoy Krishna Das	Silicon photonics
Dr. Bobby George	Instrumentation and measurements
Dr. David Koilpillai R	Signal processing, communication
Dr. Deepa Venkitesh	Photonics, optical communication
Dr. Deleep R Nair	Semiconductor devices and MEMS
Dr. Devendra Jalihal	Signal processing, communication
Dr. Enakshi Bhattacharya	MEMS, biosensors and semiconductor devices
Dr. Gaurav Raina	Communication networks, control systems
Dr. Giridhar K	Signal processing, communication
Dr. Harishankar Ramachandran	Plasma, RF electromagnetics
Dr. Jagadeesh Kumar V	Instrumentation and measurements
Dr. Kalyan Kumar B	Power systems
Dr. Karmalkar Shreepad	Semiconductor devices
Dr. Krishna Vasudevan	Power electronics
Dr. Lakshminarasamma N	Power electronics
Dr. Mahesh Kumar	Power systems
Dr. Mohanasankar S	Biomedical devices
Dr. Nandita Das Gupta	Semiconductor devices
Dr. Nitin Chandrachoodan	Digital systems and architectures
Dr. Rajagopalan AN	Image processing
Dr. Ramkrishna Pasumarthy	Control theory

Dr. Sarathi R	High voltage
Dr. Shanthi Pavan	Analog circuits
Dr. Shanti Bhattacharya	Optics
Dr. Shanti Swarup K	Power systems
Dr. Sridharan K	Control systems and digital architecture
Dr. Srikrishna Bhashyam	Signal processing, communication
Dr. Srirama Srinivas	Power electronics
Dr. Sheetal Kalyani	Machine learning for communications
Dr. Umesh S	Speech processing
Dr. Vinita Vasudevan	Digital systems and VLSI
Dr. Venkatesh TG	Communication networks
Dr. Sankaran Aniruddhan	Analog and RF circuits
Dr. Krishna Prasanna Jagannathan	Optical networks
Dr. Radhakrishna Ganti	Communications systems
Associate Professors:	
Dr. Ananth Krishnan	Computational electromagnetics
Dr. Arun Pachai Kannu	Signal processing, communication
Dr. Bharath Bhikkaji	Control theory
Dr. Debdutta Ray	Semiconductor devices and organic LEDs (light-emitting diodes)
Dr. Kamalesh Hatua	Power electronics
Dr. Krishna S	Power systems
Dr. Kaushik Mitra	Image processing
Dr. Manivasakan R	Communication systems
Dr. Ramalingam CS	Speech processing
Dr. Soumya Dutta	Semiconductor devices and organic electronic devices
Dr. Uday Khankhoje	Inverse problems, computational electromagnetics, remote sensing
Dr. Venkatesh Ramaiyan	Wireless networks
Dr. Pradeep Kiran Sarvepalli	Classical and quantum coding theory
Dr. Rachel Kalpana Kalaimani	Control theory
Dr. Saurabh Saxena	Analog and mixed signal circuits, clock generators, SerDes (Serialiser/Deserialiser)
Assistant Professors:	
Dr. Arun Karuppaswamy B	Power electronics
Dr. Avhishek Chatterjee	Communication networks
Dr. Shivananju BN	Instrumentation and nano-bio-photonics
Dr. Bhaswar Chakrabarti	Micro and nanoelectronics, neuromorphic computation
Dr. Bharadwaj Satchidanandan	
Dr. Janakiraman Viraraghavan	Digital systems and architectures
Dr. Jayaraj Joseph	Medical devices, instrumentation, image-free ultrasound
Dr. Mathiazhagan C	Analog circuits
Dr. Puduru Viswanadha Reddy	Control, theory and game theory
Dr. Qadeer Ahmad Khan	Digital system, low power design
Dr. Sudharsanan Srinivasan	Diode lasers, integrated photonics

Dr. Lakshmi Narasimhan Theagarajan	
Dr. Rahul Harishchandra Meshram	
Dr. Sayak Dutta Gupta	
INSPIRE Faculty:	
Dr. Kota Srinivas Reddy	
Ramalingaswami Fellow:	
Dr. Ramya Balachandran	Image-guided surgery, medical image processing
Adjunct Faculty:	
Dr. Klutto Milleth J	
Dr. Ravikumar CP	
Dr. Sanjay Bhat	
Dr. Sivathanu Pillai	
Dr. Vijaysekhar Chellaboina	
Visiting Faculty:	
Dr. MA Atmanand	
Dr. Mahesh S Illindala	
Dr. Subhas Mukhopadhyay	
Dr. Mihail Bota	
Professor of Practice:	
Dr. Rajeswaran G	
Emeritus Scientists/Emeritus Professors:	
Dr. Ashok Jhunjunwala	Optical communication, computer networks, wireless communication
Dr. Christopher S	Radar signal processing
Scientific Officer/Engineer:	
Jeyasutha Avudai Thangam	

3.2.Short-term Courses, Workshops, Seminars, Symposia and Conferences Organised by Faculty Members

S. No.	Coordinator(s)	Title	Period
Conferences			
1	Dr. Radhakrishna Ganti, tutorial workshop organiser	National Conference on Communications 2024	February 28-March 1, 2024
2	Dr. Pradeep Kiran Sarvepalli, tutorial workshop organiser	National Conference on Communications 2024	February 28-March 1, 2024
3	Dr. Radhakrishna Ganti, Finance & Sponsorship	National Conference on Communications 2024	February 28-March 1, 2024
4	Dr. Andrew Thangaraj, Finance & Sponsorship	National Conference on Communications 2024	February 28-March 1, 2024
5	Dr. Krishna Jagannathan, General Co-chair	National Conference on Communications 2024	February 28-March 1, 2024
6	Dr. Uday Khankhoje, General Co-chair	National Conference on Communications 2024	February 28-March 1, 2024

7	Dr. Srikrishna Bhashyam, Technical Program Committee co-chair	National Conference on Communications 2024	February 28- March 1, 2024
8	Dr. Sheetal Kalyani, Technical Program Committee co-chair	National Conference on Communications 2024	February 28- March 1, 2024
9	Dr. Lakshmi Narasimhan Theagarajan, Technical Program Committee co- chair	National Conference on Communications 2024	February 28- March 1, 2024
10	Dr. Sudharsanan Srinivasan, Technical Program Committee co- chair	National Conference on Communications 2024	February 28- March 1, 2024
11	Dr. Venkatesh Ramaiyan, Technical Program Committee co-chair	National Conference on Communications 2024	February 28- March 1, 2024
12	Dr. Arun Pachai Kannu, local arrangements	National Conference on Communications 2024	February 28- March 1, 2024
13	Dr. Avhishek Chatterjee, local arrangements	National Conference on Communications 2024	February 28- March 1, 2024
14	Dr. Srinivas Reddy Kota, local arrangements	National Conference on Communications 2024	February 28- March 1, 2024
15	Dr. Rahul Harishchandra Meshram, Registration Chair	National Conference on Communications 2024	February 28- March 1, 2024
16	Dr. Pradeep Kiran Sarvepalli, Co-Organiser	Workshop on Quantum Information and Quantum Communication 2024, co-located with the 30th National Conference on Communications (NCC 2024).	February 29, 2024
17	Dr. Avhishek Chatterjee, Co-Organiser	Workshop on Quantum Information and Quantum Communication 2024, co-located with NCC 2024.	February 29, 2024
18	Dr. MA Atmanand	Policy requirements for sustainable utilisation of the ocean in the World Ocean Science Congress	February 27- March 1, 2024
Workshops			
1	Dr. Bhaswar Chakrabarti	International Workshop on the Physics of Semiconductor Devices (IWPSD) 2023, IIT Madras Research Park	December 14-17, 2023
2	Dr. Deepa Venkitesh	First Outreach program as a part of Advanced Optical Communication (AOC) Testbed Workshop on Optical Communication, Raman Hall, IIT Madras Research Park	December 18-22, 2023

3.3.Short-term Courses, Workshops, Seminars, Symposia, Conferences and Training Events Attended by Faculty Members in Academic Institutions and Public Sector Undertakings

S. No.	Coordinator(s)	Title	Institution	Period
Workshops				
1	Dr. Lakshmi Narasimhan Theagarajan	Modeling of Energy Efficient Waveforms and Systems for B5G (Beyond 5G) Communications	National Institute of Technology (NIT) Trichy	July 8, 2023

2	Dr. Sayak Dutta Gupta	XXII International Workshop on Physics of Semiconductor Devices (IWPSD) 2023	IIT Madras Research Park Chennai	December 14-17, 2023
3	Dr. Soumya Dutta	XXII International Workshop on Physics of Semiconductor Devices (IWPSD) 2023	IIT Madras Research Park Chennai	December 14-17, 2023
4	Dr. Deleep R Nair	XXII International Workshop on Physics of Semiconductor Devices (IWPSD) 2023	IIT Madras Research Park Chennai	December 14-17, 2023
5	Dr. Debdutta Ray	XXII International Workshop on Physics of Semiconductor Devices (IWPSD) 2023	IIT Madras Research Park Chennai	December 14-17, 2023
6	Dr. Enakshi Bhattacharya	XXII International Workshop on Physics of Semiconductor Devices (IWPSD) 2023	IIT Madras Research Park Chennai	December 14-17, 2023
7	Dr. Bhaswar Chakrabarti	XXII International Workshop on Physics of Semiconductor Devices (IWPSD) 2023	IIT Madras Research Park Chennai	December 14-17, 2023
8	Dr. Lakshmi Narasimhan Theagarajan	Train the Trainers	IIT Madras Chennai	January 2-7, 2024
9	Dr. Soumya Dutta	Envision 2023 Workshop	IIT Madras Research Park Chennai	January 4-5, 2024
10	Dr. Pradeep Kiran Sarvepalli	Workshop on quantum computing at Yugam 2024	Kumaraguru College of Technology, Coimbatore	March 20, 2024

Seminars

1	Dr. MA Atmanand	Thrust Areas and Challenges for Indigenous Development of Futuristic Defense Technologies	New Delhi	May 25, 2023
2	Dr. Lakshmi Narasimhan Theagarajan	Modeling of Energy Efficient Waveforms and Systems for B5G Communications	NIT Trichy	July 8, 2023
3	Dr. Shanti Swarup K	Artificial Intelligence I and Machine Learning in Power System Applications	Jawaharlal Nehru Technological University (JNTU) College of Engineering Kakinada	August 5, 2023
4	Dr. Soumya Dutta	Microelectronics-Compatible Soft Material-based Devices: Science and Technology	Kyushu University, Fukuoka, Japan	November 25-December 2, 2023
5	Dr. Shanti Swarup K	Cyber Physical Systems Security in Power System Operation and Control	Electrical Engineering Department, Indian Institute of Science	January 20, 2024

Conferences

1	Dr. Shanthi Bhattacharya	Photonics 2023	Bengaluru	August 5-8, 2023
2	Dr. Sarathi R	Science and Engineering Research Board (SERB) - Promoting Opportunities for Women in Exploratory Research (POWER) Mobility Grant	Varanasi	November 2-3, 2023
3	Dr. Anil Prabhakar	Emerging Topics in Quantum Technologies	Palakkad	November 2-4, 2023

4	Dr. Qadeer Ahmad	IEEE Asia Pacific Conference On Circuits And Systems (APCCAS 2023) and the Asia-Pacific Conference On Postgraduate Research In Microelectronics And Electronics (PRIMEAsia 2023).	Hyderabad	November 18-22, 2023
5	Dr. Nagendra Krishnapura	2023 IEEE Asia Pacific Conference on Circuits And Systems (APCCAS)	Hyderabad	November 22, 2023
6	Dr. Ananth Krishnan	Micro Nano Sensor Technology Summit	Bengaluru	November 21-24, 2023
7	Dr. K Shanti Swarup	TRAFOTECH (Transformer Technology) Conference on Regulation of Voltage for Power Transmission Networks using OLTC and Variable Shunt Reactor	New Delhi	November 23-24, 2023
8	Dr. Shanti Swarup K	10th International Conference on Power Systems	Bangladesh	December 13-15, 2023
10	Dr. Rahul Harishchandra Meshram	IEEE 7th Conference on Information and Communication Technology (CICT 2023), PDPM IITDM	Jabalpur	December 15-17, 2023
11	Dr. Arunkumar D Mahindrakar	9th Indian Control Conference	Visakhapatnam	December 19-23, 2023
12	Dr. Rahul Harishchandra Meshram	COMSNETS 2024 conference (16th International conference on Communication Systems and Networks)	Bangalore	January 3-4, 2024
13	Dr. Enakshi Bhattacharya	Panellist for the round-table discussion on 'Gender Disparity in Science (in India)', Nature Conference 'Nanomaterials in biomedical applications'	Manipal	February 26-27, 2024
Symposia				
1	Dr. Enakshi Bhattacharya	IEEE Region 10 Section Chapter Symposium	Goa	December 1-3, 2023
2	Dr. Shanti Swarup K	Co-Creation - Cybersecurity Research Community for Transmission and Grid Operations	Electrical Engineering Department, Indian Institute of Science	January 20, 2024

3.4.Special Lectures Delivered by Faculty in Other Institutions

S. No.	Name of Faculty	Topic of Lecture	Institution	Date
1	Prof. Anil Prabhakar	Spintronics and Quantum Information	Institute of Spintronics and Quantum Information, Poznan, Poland	April 20, 2023
2	Prof. Balaji Srinivasan	Distributed Fibre Sensors	Indian Society for Non-destructive Testing, Jamshedpur	May 18, 2023

3	Prof. Balaji Srinivasan	Distributed Fibre Sensors in the 3rd International Conference on Advances in Computing, Embedded and Secure Systems		May 18, 2023
4	Prof. Balaji Srinivasan	Distributed acoustic sensing using nerves of glass"	Indian Society for Advancement of Materials and Process Engineering (ISAMPE) Bengaluru	May 18, 2023
5	Dr. Deepa Venkitesh	Dublin as an invited speaker at the 10th Annual Siegman International School on Lasers	Dublin City University	July 18-24, 2023
6	Dr. Bhaswar Chakrabarti	Invited virtually and attended an International Conference		June 29- July 1, 2023
7	Dr. Enakshi Bhattacharya	IEEE Distinguished Lectures	University of Texas, University of Costa Rica (all in the USA)	July 5, 12, 13 & 18, 2023
8	Dr. Shanti Swarup K	Power System Expansion Planning and Forecasting, South Area We Power SAR100 Regional Knowledge Hub, Asian Institute of Technology, Online Seminar	Bangkok	August 3-4, 2023
9	Dr. Bobby George	Talk at the 20th Anniversary Symposium of the Chair of Medical Information Technology	RWTH Aachen University, Germany	September 9-17, 2023
10	Dr. Anbarasu Manivannan	European Phase Change and Ovonic Symposium as a programme Committee Member and Guest Lecture	Sapienza University of Rome, Italy	September 17-19, 2023
11	Dr. Shanti Swarup K	'Intelligent Energy Management Systems in Smart Power Grids and Networks', National Seminar on Smart Cities: Translation Research and Professional Leadership	Government Engineering College, Barton Hill, Thiruvananthapuram	February 16-17, 2024
12	Dr. Pradeep Kiran Sarvepalli	Almost 30 years of quantum coding theory: An incomplete review	2nd International Coding Theory Seminar, India (Online)	March 2024
13	Dr. MA Atmanand	Intergovernmental Oceanographic Commission Regional Committee for the Central Indian Ocean (IOCINDIO), UNESCO meeting organized as part of Silver Jubilee of INCOIS, Hyderabad on 'IOCINDIO contributions to the UN Decade: The road from Chennai to Barcelona'		February 2024
14	Dr. Lakshmi Narasimhan Theagarajan	Mathematical foundations of AI/ML	ISRO, Thiruvananthapuram	March 2024
15	Dr. Puduru Viswanadha Reddy	Generalized Open-loop Nash Equilibria in Discrete-time Dynamic Games with Coupled Affine Inequality Constraints	Mathematical Institute, Siruseri, Chennai (organized jointly by the Indian Statistical Institute (ISI) Chennai and Chennai Mathematical Institute (CMI) in the honor of late Prof. T. Parthasarathy)	March 18-19, 2024

3.5. Visits Abroad by Faculty

S. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding from
1	Dr. Deepa Venkitesh	California	May 7-12, 2023	CLEO conference at San Jose Convention Centre for oral presentation	Project
2	Dr. Anil Prabhakar	Berlin	May 8-May 12, 2023	TU-Cottbus	Project
3	Dr. Deepa Venkitesh	USA	May 15-20, 2023	University of Nebraska-Lincoln for Research Collaboration	Project
4	Dr. Ramakrishna Pasumarthy	California	May 17-June 10, 2023	Joint research on 'Control of Brain Circuits'	Project
5	Dr. Nagendra Krishnapura	USA	May 18, 19, & 22, 2023	Three seminars at the University of California Davis, Meta (Facebook), and Columbia University	Project
6	Dr. Lakshminarasamma	London	May 19-21, 2023	2023 IEEE Industry Applications Society (IAS) Global Conference on Emerging Technologies (GlobConET) at Loughborough University	Project
7	Dr. Shanthi Pavan	California	May 21-25, 2023	IEEE International Symposium on Circuits and Systems 2023 for paper presentation	Project
8	Dr. Nagendra Krishnapura	California, USA	May 21-25, 2023	International Symposium on Circuits and Systems (ISCAS) 2023 for paper presentation	Project
9	Dr. Nitin Chandrachoodan	California	May 21-25, 2023	IEEE International Symposium on Circuits and Systems (ISCAS) 2023 at Monterey for poster presentation	Project
10	Dr. Anil Prabhakar	Hannover	May 21-28, 2023	Leibniz University	Project
11	Dr. Deepa Venkitesh	USA	May 22-23, 2023	National Science Foundation (NSF)-Technology Innovation Hub Workshop for US-Indian collaborative Grant Awardees	Project
12	Dr. Ramakrishna Pasumarthy	California	May 31-June 2, 2023	2023 American Control Conference at San Diego	Project
13	Dr. T. Andres Edwin Raj	Taiwan	June 26-30, 2023	Paper presentation at IEEE International Symposium on Information Theory	Project
14	Dr. T. Andres Edwin Raj	Taiwan	June 26-30, 2023	IEEE International Symposium on Information Theory	Project
15	Dr. Bijoy Krishna Das	Busan, Korea	July 10-14, 2023	Optica Advanced Photonics Congress for paper presentation	Project
16	Dr. Bijoy Krishna Das	Korea	July 10-14, 2023	Optica Advanced Photonics Congress, Busan, for paper presentation	Project
17	Dr. Bijoy Krishna Das	ETRI, South Korea	July 15, 2023	To explore research collaboration in the area of Integrated Quantum Photonics	Project
18	Dr. Shanthi Pavan	NTHU, Taiwan	August 13-18, 2023	NHTU Joint Workshop	Project

19	Dr. S Umesh	Dublin, Ireland	August 20-24, 2023	Interspeech 2023 Conference	Project
20	Dr. Venkatesh Ramaian	Singapore	August 24-27, 2023	21st International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt 2023) for a paper presentation	Project
21	Dr. Lakshmi Narasimhan Theagarajan	Singapore	August 24-27, 2023	21st International Symposium on Modeling and Optimization in Mobile, Ad Hoc and Wireless Networks (WiOpt 2023) for a paper presentation	Project
22	Dr. Pradeep Kiran Sarvepalli	Brest France	September 4-9, 2023	12th International Symposium on Topics in Coding at IMT Atlantique, Oceanopolis, for a paper presentation	Project
23	Dr. Lakshmi Narasimhan Theagarajan	Canada	September 5-8, 2023	IEEE International Symposium on Personal, Indoor and Mobile Radio Communications	Project
24	Dr. Shanthi Pavan	Lisbon, Europe	September 10-16, 2023	European Solid State Circuits Conference (ESSCIRC) & European Solid State Device Research Conference (ESSDERC) 2023 for a paper presentation	Project
25	Dr. Saurabh Saxena	Lisbon, Portugal	September 11-14, 2023	European Solid State Circuits Conference (ESSCIRC) & European Solid State Device Research Conference (ESSDERC) 2023	Project
26	Dr. Anil Prabhakar	Washington, USA	September 17-22, 2023	IEEE International Conference on Quantum Computing and Engineering	Project
27	Dr. Krishna Jagannathan	Torino, Italy	September 18-22, 2023	European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases (ECML PKDD 2023)	Project
28	Dr. Sarathi R	Shimane, Japan	September 20-28, 2023	2023 International Symposium on Electrical Insulation Materials (ISEIM 2023) for paper presentation	Project
29	Dr. Sankaran Aniruddhan	Vienna, Austria	October 20-November 1, 2023	IEEE SENSORS 2023 Conference	Project
30	Dr. Enakshi Bhattacharya	Vienna, Austria	October 29-November 1, 2023	IEEE SENSORS 2023 Conference	Project
31	Dr. Mohanasankar S	USA	October 16-22, 2023	Research Collaboration	Project
32	Dr. Shanti Bhattacharya	Germany	October 18-22, 2023	11th Humboldt Award Winners Forum at the Alexander von Humboldt Foundation, Kranz Parkhotel Bonn, Germany	Project
33	Dr. Shanti Bhattacharya	Belgrade, Serbia	March 20-22, 2024	2nd International Conference on Innovative Materials in Extreme Conditions, IMEC 2024	Project

3.6. Honours and Awards Obtained by Faculty

S. No.	Name of Faculty	Name of Award	Awarded by	Awarded for	Date of Award
1	Dr. Avhishek Chatterjee	Young Faculty Recognition Award (YFRA) 2023	Indian Institute of Technology Madras		2023
2	Dr. Anjan Chakravorty	Best Teacher Award	Indian Institute of Technology Madras	Excellence in Teaching	2023
3	Dr. Saurabh Saxena	IITM-King's College London Partnership Collaboration Award (PCA) 2023	Indian Institute of Technology Madras	Ultra-Low-Power CMOS Frequency Generator for Artificial Intelligence of Things (AIoT)	2023
4	Dr. Bhaswar Chakrabarti	Best Poster Award	XXII International Workshop on the Physics of Semiconductor Devices (IWPSD 2023), IIT Madras	Effect of SiO _x deposition temperature on RRAM behavior in memristors	January 2024
5	Dr. AN Rajagopalan	Best Paper Award	Artificial Intelligence with Biased or Scarce Data (AIBSD) Workshop, 38th Annual Association for the Advancement of Artificial Intelligence (AAAI) Conference, Vancouver, Canada	Semi-supervised implicit augmentation for data-scarce VQA.	February 2024
6	Dr. Janakiraman	Faculty Partnership Award	IBM India Systems Development Lab (ISDL)	In-Memory Computing: Large Range Multiply Accumulate Circuit Architectures	2024
7	Dr. Mohanasankar S	Mukta Pai Faculty Fellow Award	Indian Institute of Technology Madras		
8	Dr. Ashok Jhunjhunwala	13th Forbes India Leadership Awards 2024	President of IIT Madras Research Park and IIT Madras Incubation Cell	Ecosystem Enabler	March 2024

3.7. Journal Editorial Boards

S. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1	Dr. Saurabh Saxena	Associate Editor	IEEE Solid-State Circuit Letters
2	Dr. Atmanand	Panellist	World Ocean Science Congress

Editorial Board

S. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1	Dr. Shanthi Pavan	Associate Editor	IEEE Solid-State Circuits Society

4. Design and Development Activities

4.1. Patents

4.1.1. Patents Awarded

Sl. No.	Name of Faculty	Topic of Patent
1	Dr. Bobby George	Mannequin-based training system and simulator for ophthalmic sub-tenon anesthesia
2	Dr. Mohanasankar S	Mannequin-based training system and simulator for ophthalmic sub-tenon anesthesia
3	Dr. Lakshminarasamma	Device and method for obtaining programmable output voltage
4	Dr. Kaushik Mitra	An imaging system and a method for Fourier ptychographic microscopy
5	Dr. Shanti Bhattacharya	An imaging system and a method for Fourier ptychographic microscopy
6	Dr. Shanti Bhattacharya	System and method for full-resolution Fourier domain OCT imaging
7	Dr. Soumya Dutta	PMMA gate dielectric-based patterned bottom-gate bottom-contact type organic thin film transistor
8	Dr. Nagendra Krishnapura	A method of producing a linear current signal in a baseband voltage-to-current (V-I) converter
9	Dr. Ashok Jhunjunwala	Swapping of chillers for air-conditioning of electric vehicles
10	Dr. Ashok Jhunjunwala	Combination of fixed and swappable batteries for electric vehicle batteries for electric vehicles
11	Dr. Lakshminarasamma N	A system and method for obtaining bipolar voltage output
12	Dr. Lakshminarasamma N	Bi-directional reconfigurable gain circuit for power converter application
13	Dr. Shanthi Pavan	Continuous-time delta sigma modulators with a plurality of switched capacitor return-to-zero digital to analog converters
14	Dr. Bobby George	A sensing device for monitoring breathing rate
15	Dr. Bobby George	A non-intrusive magnetically coupled sensor for measuring liquid level
16	Dr. Jagadeesh Kumar V	A non-intrusive magnetically coupled sensor for measuring liquid level
17	Dr. Bobby George	A method and system to remotely regulate the temperature inside a parked vehicle
18	Dr. Bobby George	A planar coil-based water level and quality monitoring system
19	Dr. Ligy Philip	A planar coil-based water level and quality monitoring system
20	Dr. Bobby George	A 3D printed biomechanical electrolarynx device for voice rehabilitation of laryngectomies
21	Dr. Nilesh Jayantilal Vasa	Method for mask-less laser-assisted hybrid etching for interdigitated electrodes in semiconductor devices and device thereof
22	Dr. Soumya Dutta	Method for mask-less laser-assisted hybrid etching for interdigitated electrodes in semiconductor devices and device thereof
23	Dr. Deepa Venkitesh	Method and recirculating look system for long haul transmission in optic communication I
24	Dr. Bobby George	System and method for determining activities of a user
25	Dr. Kaushik Mitra	Mini glove based gesture recognition device
26	Dr. Qader Ahmad Khan	Smart pad for hot and cold therapy with power recycling
27	Dr. Bhaskar Ramamurthi	Method for beam steering in multiple-input multiple-output system
28	Dr. Ashok Jhunjunwala	Passive thermal management system of Li-ion battery box
29	Dr. Bhaskar Ramamurthi	Methods for computing high-resolution channel state information for multiple-input multiple output (MIMO) systems

30	Dr. Bhaskar Ramamurthi	Methods to reduce number of blind decoding attempts done by a user equipment
31	Dr. Bobby George	An instrumentation system with a fully non-intrusive probe for ac voltage measurement
32	Dr. Bobby George	A smart remotely operated fire-fighting hose
33	Dr. Amitava Das Gupta	Method of varying resonant frequency in capacitance type radio frequency (RF) micro-electro-mechanical system (MEMS) switches
34	Dr. Anil Prabhakar	Tactile printer

5. Research and Consultancy

5.1. Sponsored Research Projects (Ongoing & New)

Sl. No.	Title	Period	Funding Agency	Amount (in INR lakh)	Co-ordinators
1	Memory, ecology, and sustainability	April 2023		5.00	Dr. Devendra Jalihal
2	BLAC motor waveform Test	April 2023		10.00	Dr. Krishna Vasudevan
3	High Frustrated - Consultancy	April 2023		50.00	Dr. Devendra Jalihal
4	Development of fibre optic-based intrusion and leak detection	April 2023		569.00	Dr. Balaji Srinivasan
5	Affordable automatic cover-slipper for histopathology slides	April 2023	IITM Pravartak Technologies Foundation	147.14	Dr. Mohanasankar S
6	Centre for Programmable Photonic Integrated Circuits	May 2023		5.00	Dr. Bijoy Krishna Das
7	Perspectives in nonlinear dynamics	May 2023		10.00	Dr. Devendra Jalihal
8	4th BHS-PAC Monitoring Meeting at Indian Institute of Technology, Madras, May 18-19, 2023	May 2023	Science and Engineering Research Board	13.2	Dr. Sarathi R
9	Efficient cost-saving friendly Power to X (PtX) Converter	June 2023	Department of Science & Technology	153.45	Dr. Krishna Vasudevan
10	Development of 6G THz testbed with orbital angular momentum and multiplexing, under the TTDF (Telecom Technology Development Fund) scheme of Universal Service Obligation Fund (USOF)/DoT	June 2023	Department of Telecommunications (DoT)	909.12	Dr. Radhakrishna Ganti
11	Development of advanced optical communication Testbed	June 2023	Department of Telecommunication	16845.41	Dr. Deepa Venkitesh
12	Travel grant for attending CVPR (Computer Vision and Pattern Recognition conference)	June 2023	Google Asia Pacific Private Limited	2.475	Dr. Rajagopalan A N
13	Data-driven methods in systems and control theory	June 2023	Department of Science and Technology	112.40	Dr. Mousumi Mukherjee

14	Integrated Quantum Detector at Room Temperature (IQDART)	July 2023	Indian Space Research Organization	27.60	Dr Sudharsanan Srinivasan
15	Multi-task learning and metal-learning techniques for Magnetic Resonance Image Regression methods: reconstruction and dynamic contrast enhanced MRI image to image translation.	July 2023	Science and Engineering Research Board	44.23	Dr. Mohanasankar S
16	Low-voltage solid-state DC circuit breaker	July 2023		10.00	Dr. Arun Karuppaswamy
17	Condition monitoring of transformers adopting multi fusion sensor technique adopting embedded technique with secured data processing	July 2023	Central Power Research Institute	80.18	Dr. Sarathi R
18	Security and estimation of secret key rate for differential phase shift measurement devices independent quantum key distribution protocol	July 2023	I-HUB Quantum technology foundation	5.24	Dr. Anil Prabhakar
19	The PAC Evaluation meeting of Engineering Science-EECE scheme scheduled to be held at Indian Institute of Technology Madras, Chennai on August 3-4,2023	July 2023	Science and Engineering Research Board	32.62	Dr. Sarathi R
20	Framework for resource allocation in large wireless networks	August 2023		5.0	Dr. Lakshmi Narasimhan Theagarajan
21	Intelligent approaches to design and building intelligent reflecting surfaces for 6G applications	August 2023		49.9	Dr. Uday Khankhoje
22	Construction of a brain data computing facility	August 2023		150.0	Dr. Mohanasankar S
23	Defect detection in low-resolution observations	August 2023		20.5	Dr. AN Rajagopalan
24	Automatic sizing of wires for analog/mixed signal	August 2023		5.0	Dr. S Ramprasath
25	Optimized mobile surgical unit for cataract surgeries in remote areas	August 2023	IITM Pravartak Technologies Foundation	115.71	Dr. Mohanasankar S
26	Establishment of 5G gNB at the Indian Railways Institute of Signal Engineering and Telecommunications (IRISET), Secunderabad'	August 2023	Indian Railways Institute of Signal Engineering & Telecommunications	905.00	Dr. Radhakrishna Ganti
27	Hybrid model-based and data-driven methods for wireless communication	September 2023		49.8	Dr. Srikrishna Bashyam

28	Generalised sparse regression codes for multi-user and multi-antenna channels	September 2023		49.2	Dr. Arun Pachai Kannu
29	Preliminary design review (PDR) and critical design review (CDR) services for plectrical projects	September 2023		24.00	Dr. Krishna Vasudevan
30	Advance power electronics & motor drive systems	September 2023		15.7	Dr. Srirama Srinivasan
31	Neuromorphic touch sensor array for affordable clinical rehabilitation	September 2023	IITM Pravartak Technologies Foundation	40.43	Dr. Soumya Dutta
32	Augmented reality for physiological monitoring of players	September 2023	IITM Pravartak Technologies Foundation	122.14	Dr. Mohanasankar S
33	Port and harbour engineering	October 2023		60.00	Dr. Devendra Jalihal
34	Consultancy service for power electronics products	October 2023		9.0	Dr. Kamalesh Hatua
35	Cellular-resolution multimodal imaging of foetal brains: Prenatal ultrasound to whole brain histology	October 2023		333.0	Dr. Mohanasankar S
36	BLOOM programme	October 2023		20.00	Dr. Devendra Jalihal
37	Next-generation digital learning platform (e-Vishwa Vidyalaya)	October 2023		100	Dr. Sarathi R
38	Digital Skills Academy	October 2023		150.0	Dr. Devendra Jalihal
39	Circuits of Exchange and Indian Ocean Hinterlands, c.1400-1800	October 2023		10.0	Dr. Devendra Jalihal
40	Setting up a high-precision calibration laboratory: Electro-technical - Phase II	October 2023		10.0	Dr. Anbarasu Manivannan
41	IEEE International Conference on Computer Vision (ICCV 2023)	October 2023	Google Asia Pacific Private Limited	1.99	Dr. Rajagopalan AN
42	Optimal Energy Management and Pricing Strategies for Microgrids Enabled by Data Analytics and Machine Learning	November 2023		6.84	Dr. Shanti Swarup K
43	Unmanned Aerial Vehicles (Theory and Practice)	November 2023		5.0	Dr. Devendra Jalihal
44	Dive into Eco-toxicology: Zebra Fish and Wastewater	November 2023		5.0	Dr. Devendra Jalihal
45	Structural Health Monitoring of Bridges - The way forward	November 2023		5.0	Dr. Devendra Jalihal
46	Thermal and vibration sensing module development for ATMs	November 2023		7.50	Dr. Bobby George
47	Google India travel grant for the thirty-seventh Annual Conference on Neural Information Processing Systems (NeurIPS 2023) 2023	November 2023	Google Asia Pacific Private Limited	2.50	Dr. Vinita Vasudevan

48	Boosting Positive Segments for Weakly-Supervised Audio-Visual Video Parsing (Google India travel grant for ICCV 2023)	November 2023	Google Asia Pacific Private Limited	1.99	Dr. Rajagopalan A N
49	'Design & Development of "DHWANI": Advanced Indigenous Mixed-signal Bluetooth-enabled Hearing Aids', to be implemented jointly by the Centre for Development of Advanced Computing (C-DAC) Thiruvananthapuram and IIT Madras	November 2023	Ministry of Electronics & Information Technology	305.0	Dr. Nagendra Krishnapura
50	Testing of electronic controller for Grundfos pumps	November 2023		4.0	Dr. Anbarasu Manivannan
51	Project Leadership and Management Development Program (PLMDP-2)	November 2023		15.00	Dr. Devendra Jalihal
52	Coating solutions for emissions reduction, enhanced energy efficiency, and reliability of coal-based thermal power plants	November 2023		2.0	Dr. Devendra Jalihal
53	Advanced Electronics Manufacturing: SMT (Surface-mount Technology) Fabrication	November 2023		5.0	Dr. Devendra Jalihal
54	Drops, Sprays and Atomisation	November 2023		15.00	Dr. Devendra Jalihal
55	Development of an Optical Fibre-based Distributed Acoustic Sensor for Underwater Applications	December 2023	Naval Research Board	46.31	Dr. Balaji Srinivasan
56	Non-von Neumann computing with magnons	December 2023		4.00	Dr. Anil Prabhakar
57	Ultra-Low-Power CMOS Frequency Generator for Artificial Intelligence of Things (AIoT)	December 2023		5.00	Dr. Saurabh Saxena
58	Center for Decentralised Power System (CDPS): Phase II	December 2023		600.00	Dr. Devendra Jalihal
59	Electronics Photonics Design Automation (EPDA) for ADS	December 2023		50.00	Dr. Bijoy Krishna Das
60	Design and development of a high-power dual active bridge feeding a load of constant power characteristics	December 2023		17.00	Dr. Lakshminarasamma N
61	Biosensors	December 2023		50.00	Dr. Balaji Srinivasan
62	Two-day programme on Condition Monitoring of Power Systems	December 2023		3.00	Dr. Devendra Jalihal

63	Certification course on Strategy Formulation and Data Visualisation	December 2023		5.00	Dr. Devendra Jalihal
64	Capacity Building for Scientific Road Crash Investigation	December 2023		7.00	Dr. Devendra Jalihal
65	MicroSIM for modelling microstructure evolution	January 2024		4.80	Dr. Devendra Jalihal
66	Energy Finance Conference India	January 2024		3.00	Dr. Devendra Jalihal
67	Bump methodology for semiconductor wafers	January 2024		21.00	Dr. Rajagopalan A N
68	Mobile Medical Device Calibration (MMDC) facility	January 2024		150.00	Dr. Anbarasu Manivannan
69	2023 IEEE International Symposium on Information Theory (ISIT)	January 2024	Science and Engineering Research Board	1.07	Dr. Kota Srinivas Reddy
70	49th Annual Conference of the IEEE industrial electronics Society (IES)	January 2024	Science and Engineering Research Board	0.74	Dr. Kamalesh Hatua
71	High-performance multiphase PMSM (permanent magnet synchronous motor) drives for marine propulsion systems	February 2024	Naval Research Board	46.00	Dr. Srirama Srinivas
72	Flight model of IITMSAT (IIT Madras Satellite)	February 2024		28.00	Dr. David Koilpillai
73	Indigenous 5G Testbed	February 2024		774.00	Dr. Radhakrishna Ganti
74	Design and fabrication of an RF oscillator based on a piezoelectric MEMS resonator	February 2024	Science and Engineering Research Board	57.89	Dr. Deleep R Nair
75	Fundamental Limits of Noisy Quantum Information Systems	February 2024	Science and Engineering Research Board	20.94	Dr. Avhishek Chatterjee
76	Broadband and ultrafast photodetection based on two-dimensional perovskite material-coated optical fibre Bragg grating device	February 2024	Science and Engineering Research Board	51.02	Dr. Shivananju B N
77	Sensor system and methods for driver state analysis	February 2024		35.00	Dr. Bobby George
78	Support for equipment at IIT Madras Sudha Gopalakrishnan Brain Centre	February 2024		30.00	Dr. Mohanasankar S
79	Design of filters for selective beam shaping using meta-optics	February 2024		21.00	Dr. Shanti Bhattacharya
80	Servicing, Testing and Design Development of Electronics Products	February 2024		10.00	Dr. Anbarasu Manivannan

81	Generation of low-timing jitter clocks and RF generation using photonic methods	March 2024		180.00	Dr. Deepa Venkitesh
82	Modelling analysis, design and implementation of wide-band high-power sonar power amplifier	March 2024	Naval Research Board	46.71	Dr. Lakshminarasamma N
83	Integrated surgical platform with navigation, robot, simulation & training for total knee arthroplasty	March 2024		2508.00	Dr. Mohanasankar S
84	Study on MVDC (medium-voltage direct current) distribution system	March 2024		2.00	Dr. Kamalesh Hatua
85	Optimising Oceans: Strategic Risk Management and Economic Modelling for Enhancing Offshore Wind Energy Systems in India and Australia - A Study on Transmission Corridor Routing, Power Trading Dynamics, and Legal Frameworks in Wind Energy Conversion	March 2024		7.00	Dr. Shanti Swarup K
86	CSR grant from Mistral Solutions Pvt. Ltd.	March 2024		25.00	Dr. David Koilpillai
87	Qualcomm Innovation Fellowship India 2019	March 2024	Qualcomm India Private Limited	10.93	Dr. David Koilpillai
88	Facility for validation of converter and controller design	March 2024		2.00	Dr. Mahesh Kumar
89	SWAYAM Industry Vertical 3.0 towards development of webpage/portal and for maintenance of website and cloud	March 2024	Ministry of Education	500.00	Dr. Sarathi R

5.2. Industrial Consultancy Projects (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (in INR lakh)
1	Dr. Bijoy Krishna Das	Centre for Programmable Photonic Integrated Circuits and Systems		5.90
2	Dr. Bijoy Krishna Das	Centre for Programmable Photonic Integrated Circuits and Systems		5.00
3	Dr. David Koilpillai	IITMSAT ground station	Ocwen Financial Solutions Private Limited	12.25
4	Dr. Mohanasankar S	DDN scholarship programme	DataDirect Networks (DDN) India Private Limited	90.00
5	Dr. Mohanasankar S	CSR support for IITM Brain Centre	Wipro Foundation	300.00
6	Dr. Anbarasu Manivannan	Testing of electronic controller for Grundfos pumps	Grundfos Pumps India Private Limited	5.25

7	Dr. Mohanasankar S	High-resolution imaging of whole human brains	Prazim Trading and investment company private Limited	300.00
8	Dr. David Koilpillai	CSR grant	Mistral Solutions Private Limited	25.00
9	Dr. Mohanasankar S	Support for equipment at IIT Madras Sudha Gopalakrishnan Brain Centre	Ford Motor Company Private Limited	30.00

5.3. Research-Based Industrial Consultancy Projects (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (in INR lakh)
1	Dr. Balaji Srinivasan	Development of fibre optic-based intrusion and leak detection for gas pipelines	GAIL India Limited	672.59
2	Dr. Qadeer Ahmad Khan	Wireless sensor for smart tyres	Smart Wheels LLC	6.56
3	Dr. Rajagopalan AN	Defect detection in low-resolution observations	KLA Corporation	20.50
4	Dr. Uday Khankhoje	Intelligent approaches to designing and building Intelligent Reflecting Surfaces for 6G applications	Qualcomm Technologies, Inc	49.88
5	Dr. Srikrishna Bashyam	Hybrid model-based and data-driven methods for wireless communication	Qualcomm Technologies Inc	49.80
6	Dr. Arun Pachai Kannu	Generalized sparse regression codes for multi-user and multi-antenna channels	Qualcomm Technologies Inc	49.20
7	Dr. Mohanasankar S	Cellular-resolution multimodal imaging of foetal brains: Prenatal ultrasound to whole-brain histology	Bill and Melinda Gates Foundation	332.60
8	Dr. Giridhar K	Highly Efficient and Reliable One-way Communication (HEROC) System	Aeronautical Development Agency	48.85
9	Dr. Anil Prabhakar	Photonic and electronic integrated circuits	Quanfluence Private Limited	200.00
10	Dr. Bobby George	Thermal and vibration-sensing module development for ATMs	Vortex Engineering Private Limited	8.85
11	Dr. Bijoy Krishna Das	Electronics Photonics Design Automation (EPDA) for ADS	Keysight Technologies International India Private Limited	59.00
12	Dr. Lakshminarasamma N	Design and development of high-power dual active bridge feeding a load of constant power characteristics	Ametek Instruments India Private Limited	21.56
13	Dr. Rajagopalan AN	Bump methodology for semiconductor wafers	KLA Corporation	21.00
14	Dr. Lakshminarasamma N	Design and development of interleaved non-isolated converter feeding a load of constant power characteristics	Ametek Instruments India Private Limited	19.47
15	Dr. Mohanasankar S	AI algorithms that can automatically generate content to populate a project design document	Zasti Inc	41.10

16	Dr. Shanti Bhattacharya	Design of filters for selective beam shaping using meta-optics	KLA Tencor Software India Private Limited	20.82
17	Dr. Janakiraman Viraraghavan	In memory computing	IBM Corporation	8.31
18	Dr. Bobby George	Sensor system and methods for driver state analysis	Ielektron Technologies Engineering Private Limited	40.71
19	Dr. Mahesh Kumar	Facility for validation of converter and controller design	Tractors And Farm Equipment Limited	2.27
20	Dr. Deepa Venkitesh	Generation of low-timing jitter clocks and RF generation using photonic methods	Defence Research & Development Organization	212.91

5.4. Retainer Consultancies (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (in INR lakh)
1	Dr. Sudharsanan Srinivasan	Photonic IC design and characterisation	Quanfluence Private Limited	7.08
2	Dr. Sankaran Aniruddhan	5G+ millimetre wave reference design	Cadence Design Systems (India) Private Limited	12.00
3	Dr. Giridhar K	IoT Hub based on LoRa (Sub-1Ghz RF)	Apexon (Technosoft Consulting LLP)	5.00
4	Dr. Krishna Vasudevan	PDR and CDR services for electrical projects	Defence Machinery Design Establishment	28.32
5	Dr. Kamalesh Hatua	Development of PMSM motor and control for strategic applications	Defence Machinery Design Establishment	43.33
6	Dr. Srirama Srinivas	Advance power electronics & motor drive systems	Eubix Technologies Private Limited	18.60
7	Dr. Kamalesh Hatua	Consultancy service for power electronics products	Schneider Electric India Private Limited	10.62
8	Dr. Nagendra Krishnapura	Integrated circuit design for sensor interface applications	Meta Platforms Technologies, LLC	16.78
9	Dr. Shanti Swarup K	Power offtake risk analysis for offshore wind projects	Energistyrelsen (The Danish Energy Agency)	6.09

5.5. Faculty Members' Participation with Other Institutions under MoU

S. No.	Name of Faculty	Participation Details
1.	Dr. Deleep R Nair	XLIM Laboratory at University of Limoges and Campus Universitaire Brive on joint research collaboration between CNRS-XLIM and IITM from July 13-25, 2023
2	Dr. Anjan Chakravorty	XLIM Laboratory at University of Limoges and Campus University Brive on joint research collaboration between CNRS-XLIM and IITM from July 13-25, 2023
3	Dr. Bharath Bhikkaji	KTH Royal Institute of Technology, Sweden for Research and Education collaboration between IITM and KTH Stockholm from August 20-26, 2023
4	Dr. Sarathi R	KTH Royal Institute of Technology, Sweden to discuss a Research and Education Collaboration between IITM and KTH Stockholm from August 19-31, 2023

6.Distinguished Visitors to the Department

S. No.	Visitor's Name and Designation	Date of Visit	Purpose of Visit
1	Dr. Chitu Singh, CEO & President of LeapFrog Semiconductor	April 17, 2023	Towards Next-generation AI-enhanced DSP Chiplet for 5G and Beyond
2	Dr. Raghuram Narayan from Intel	June 26, 2023	Intel Optical Interconnect Technologies for Data Centre Networks
3	Dr. Chihaya Adachy from Kyushu University	June 26, 2023	Hyperfluorescent OLEDs aimed at high-performance blue emission
4	Dr. Subhanshu Gupta from Washington State University	July 4, 2023	Reimagining Millimetre-Wave Planar Antenna
5	Dr. Ashutosh Sabharwal from Rice University	July 13, 2023	The Next-generation Wireless will be 'Multifunction'
6	Dr. Suryanarayana Sankagiri from EPFL Switzerland	July 31, 2023	The Robustness of Blockchains to Network Delays
7	Dr. Siva Theja Magulury from Georgia Tech	August 1, 2023	Finite-time Convergence Guarantees of Contractive Stochastic Approximation: Mean-Square and Tail Bounds
8	Dr. Gopal Srinivasan from Broadcom Corp.	August 11, 2023	Training Spiking Neural Networks for Energy Efficient Neuromorphic Computing
9	Dr. Karthik PN from National University of Singapore	August 24, 2023	Almost-Optimal Best Restless Markov Arm Identification with Fixed Confidence
10	Dr. A Sivathanu Pillai, Founder-CEO & MD, BrahMos Aerospace	September 8, 2023	Space and Future of Humanity
11	Dr. Sachin Srivatsave of Enphase Energy	September 15, 2023	Electrical Power System - A new disruption and its challenges
12	Dr. V. Srinivasa Chakravarthy from Dept. of Biotechnology, IIT Madras	September 26, 2023	Computing with Rhythms: The Search for Deep Oscillatory Neural Networks
13	Dr. Kishore Kamath, Vice President of R&D, Intel Silicon Photonics Product Division, USA	October 20, 2023	Silicon Photonics R&D at Intel
14	Dr. Prasan Shedligeri from Sony Semiconductor Solutions Europe	November 2, 2023	3D reconstruction from Neural Radiance Fields (NeRF)
15	Dr. Ajit, Electric Power Research Institute(EPRI), USA	January 5, 2024	Active Management of Renewables and Energy Storage in the Distribution Grid
16	Prof. Ramakrishna Janaswamy, Univ. of Massachusetts, Amherst, USA	January 25, 2024	Understanding Characteristic Mode Theory for Conducting and Penetrable Bodies Through Simple Examples
17	Prof. Ramakrishna Janaswamy, Univ. of Massachusetts, Amherst, USA	January 25, 2024	Understanding Characteristic Mode Theory for Conducting and Penetrable Bodies Through Simple Examples

7.Other Activities of the Department/Centre

7.1.Activities Initiated

Major Infrastructure Developments Made in the Department

- District cooling indoor unit installation
- UPVC windows' installation

4.10 Department of Engineering Design

4.10.1. Introduction:

Set up in the year 2006, the Department of Engineering Design is the 16th department to come up at the Indian Institute of Technology Madras. Engineering Design is a series of steps that engineers follow to come up with a solution to a problem. Many times the solution involves designing a product that meets certain criteria and/or accomplishes a certain task. It is a decision-making process, often iterative, in which the basic sciences and the engineering sciences are applied to the optimal conversion of resources to meet a stated

objective. Students are first introduced to the design process along with fundamental mathematics, science and engineering, graphic art, design and aesthetics. They are trained not only in the mechanical aspects of design, but also in electronics, control and embedded systems for all-round skill development. Courses in Geometric Modelling, Finite Elements, Materials Engineering, Automotive Engineering, Mechatronics, Robotics, Biomedical Imaging and Diagnostic Techniques are also offered.

4.10.2. Academic Programmes: M.S., Ph.D./ Dual Degree

A first of its kind in India, the Department provides much-needed leadership in Engineering Design with two novel dual-degree programs. Both the programmes offer a B.Tech. in Engineering Design, and the first that began in 2006 offers an M.Tech. in Automotive Engineering. The second programme, launched in 2008, offers an M.Tech.

in Biomedical Design. Since 2007, the Department has also offered M.S. and Ph.D. programmes. Two interdisciplinary dual degree programmes in Robotics and in Electric Vehicles were started with ED as the coordinating department. The Department also offers research-based M.S. and Ph.D. programmes.

4.10.2.1. New Courses Introduced:

Sl. No.	Course No.	Title
1.	ED5215	Introduction to Motion Planning
2.	ED5003	Electric Vehicle System Dynamics and Control
3.	ED5211	E-Mobility Lab
4.	ED5214	Mini Project
5.	ED5216	Project
6.	ED5512	Electric Vehicle Evaluation and Testing
7.	ED5516	Electromagnetic Compatibility for Automotive Electronics
8.	ED5517	Design and Control of AC motors for Electrified Vehicles
9.	ED5518	Data Visualisation for Engineers
10.	ED5022	Design Thinking Strategies for Road Safety
11.	ED5023	Power Converter Design for Electrified Vehicles
12.	ED5071	Design of Medical Imaging Systems

Modification Courses:

Sl. No.	Course No.	Title	Remarks
1.	ED6007	Mechanics of Serial Robots	
2.	ED5016	Bio-MEMS and Bio-NEMS: Devices and Applications	Biomedical Micro/Nano Devices and Applications

4.10.2.3. New Lab(s) Established:

1. Electric Vehicle Simulation Laboratory Supported by Altair
2. Motors and Controllers Laboratory
3. Battery Engineering Laboratory Supported by Indus Towers.

4.10.2.4. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024:

Programme	I year	II Year	III Year	IV Year	V Year & Others	Total
Dual Degree	78	81	73	72	68	372
M.S.	21	11	13	-	3	48
Ph.D.	19	17	18	17	30	101
Total	118	109	104	89	101	521

4.10.2.5. Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Pugazhenth T	ED19D009	The 15th World Congress of Structural And Multidisciplinary Optimisation WCSMO-15	June 05 - 09, 2023. UCC Cork, Ireland	Alumni Fund
2.	Harish Karneddi	ED20D016	IEEE Applied Power Electronics Conference (APEC-2024)	February 24 - 29, 2024	PMRF & IEEE
3.	V Guru Prasad Reddy	ED23D009	IEEE Applied Power Electronics Conference (APEC-2024)	February 24 - 29, 2024	IEEE
4.	S Mahesh	ED20S024	The 15th World Congress of Structural And Multidisciplinary Optimisation WCSMO-15	June 05 - 09, 2023. UCC Cork, Ireland	Applied for Alumni Fund
5.	Deepanshu	ED19D402	The 15th World Congress of Structural And Multidisciplinary Optimisation WCSMO-15	June 05 - 09, 2023. UCC Cork, Ireland	Institute
6.	Deepanshu	ED19D402	The Genetic and Evolutionary Computation Conference (GECCO 2023)	July 15 - 19, 2023. Lisbon, Portugal	Institute
7.	Vignesh	ED17D303	IEEE Conference of Engineering in Medicine & Biology (EMBC) 2024	July 24 - 27, 2023, Sydney, Australia	Institute
8.	Kannan S	ED21S017	The 15th World Congress of Structural And Multidisciplinary Optimisation WCSMO-15	June 05 - 09, 2023, UCC Cork, Ireland	Alumni Fund
9.	Saran Kumar K	ED19D755	Conference on Lasers and Electro-Optics 2023 (CLEO 2023)	May 07 - 12, 2023. San Jose, CA, USA	Institute
10.	Saran Kumar K	ED19D755	Optica Sensing Congress 2023	July 30 - August 03, 2023. Munich Germany	Institute & Project

India					
1.	Pugazhenthir T	ED19D009	6th National Conference on Multidisciplinary Design, Analysis and Optimization (NCMDAO 2023)	December 6 - 8, 2023. IIT Guwahati	Institute
2.	Pranali Ingole	ED21D403	6th International Conference Advances in Robotics 2023	July 5 - 8, 2023. IIT Ropar	Institute
3.	Rajesh R	ED21D005	16th International Conference on Communication Systems & Networks (COMSNETS)	January 03, 2024. Bengaluru	Institute
4.	Gyanendra Tiwari	ED23D403	IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE)	December 17 - 20, 2023. Trivandrum	PMRF
5.	Gyanendra Tiwari	ED23D403	IEEE International Transportation Electrification Conference (iTEC-India)	December 13 - 15, 2023. Chennai	Project
6.	Harish Karneddi	ED20D016	IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE)	December 17 - 20, 2023. Trivandrum	PMRF
7.	Harish Karneddi	ED20D016	IEEE International Transportation Electrification Conference (iTEC-India)	December 13 - 15, 2023. Chennai	PMRF
8.	S Mahesh	ED20S024	6th National Conference on Multidisciplinary Design, Analysis and Optimization (NCMDAO 2023)	December 6-8, 2023. IIT Guwahati	Institute
9.	Deepanshu	ED19D402	6th National Conference on Multidisciplinary Design, Analysis and Optimization (NCMDAO 2023)	December 6-8, 2023. IIT Guwahati	Institute
10.	Kalyani U Burande	ED21S014	18th Symposium on International Automotive Technology (SIAT 2024), ARAI, Pune	January 23 - 25, 2024. PIECC, Pune	Alumni Grant
11.	Venkata Kishore	ED22S019	6th National Conference on Multidisciplinary Design, Analysis and Optimization (NCMDAO 2023)	December 6 - 8, 2023. IIT Guwahati	Institute
12.	Mohan Raj M	ED21D022	6th National Conference on Multidisciplinary Design, Analysis and Optimization (NCMDAO 2023)	December 6 - 8, 2023. IIT Guwahati	Institute
13.	Hemanth Kumar Dontiboina	ED20D012	12th Biennial Conference of Indian Association of Hyperthermic Oncology and Medicine	August 12 -13, 2023. HCG & Kidwai Memorial Institute of Oncology, Bengaluru	Institute
14.	Muthu Rattina Subash	ED19D700	IEEE South Asian Ultrasonic Symposium 2024	March 27 - March 29, 2024. IIT Gandhinagar	PMRF
15.	Sarin Abraham	ED21D020	International Conference on Advanced Functional Material and Devices (AFMD-2024)	February 26 - 29, 2024. SRM Institute of Science and Technology, Chennai	Institute

16.	Aditya Mahesh Kolte	ED19D701	6th International and 21st National Conference on Machines and Mechanisms(iNaCoMM 2023)	December 07 - 09, 2023. NIT Raipur	PMRF
17.	Krishna Chaitanya Ghanakota	ED18D012	Simultaneous Classification and Localisation of Partial Discharges in Gas Insulated Switchgear Using Recurrent Neural Networks, 27th International Workshop on Electromagnetic Nondestructive Evaluation (ENDE-2024)	March 04 - 06, 2024. Mamallapuram, TN, India	Project
18.	Ezhil Santhakumar	ED21S022	Near-Field Electromagnetic Sensing for Non-Contact Monitoring of Wire Electrical Discharge Machining, 27th International Workshop on Electromagnetic Nondestructive Evaluation (ENDE-2024)	March 04 - 06, 2024. Mamallapuram, TN, India	Project
19.	Saran Kumar K	ED19D755	8th Indian International Conference on Air Quality Management, IICAQM-2023,	6-8 December 06 - 08, 2023. Bengaluru, India	Institute
20.	Sree Harsha Choutapalli	ED18D004	International Conference on Material Processing Using Lasers, and Surface Engineering (IMPULSE'23)	December 14 - 15, 2023. IIT Madras	Institute
21.	Richa Parihar	ED20D601	Women in Optics and Photonics in India Conference 2023 (WOPI 2023)	January 02 - 03, 2024. IIT Madras	Institute
22.	Rahul Choudhary	ED22D009	12th Biennial Conference of Indian Association of Hyperthermic Oncology and Medicine	August 12 - 13, 2023. HCG & Kidwai Memorial Institute of Oncology, Bengaluru	Institute
23.	Joseph Prashanth Britto	ED22D600	12th Biennial Conference of Indian Association of Hyperthermic Oncology and Medicine	August 12 - 13, 2023. HCG & Kidwai Memorial Institute of Oncology, Bengaluru	Institute

4.10.2.6. Students/Scholars Who Won Outside Prizes and Awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Harish Karneddi	ED20D016	Outstanding Presentation Award at IEEE Applied Power Electronics Conference (APEC-2024)	IEEE
2.	Harish Karneddi	ED20D016	Travel Grant for Attending IEEE Applied Power Electronics Conference, Long Beach, USA (APEC-2024)	IEEE & PSMA
3.	Harish Karneddi	ED20D016	Travel Grant for Attending International Conference on Power Electronics, Smart Grid, and Renewable Energy, Trivandrum, India (PESGRE 2023)	IEEE

4.	V.Guru Prasad Reddy	ED23D009	Travel Grant for Attending IEEE Applied Power Electronics Conference at Long Beach, USA (APEC-2024)	IEEE & PSMA
5.	Deepanshu	ED19D402	Travel Grant for Attending Genetic and Evolutionary Computation Conference, Lisbon, Portugal (GECCO 2023)	ACM
6.	Saran Kumar K	ED19D755	Best Paper Presentation Award 8th Indian International Conference on Air Quality Management, IICAQM-2023, December 06 - 08, 2023. Bengaluru	Organisers

4.10.2.7. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1.	Deepanshu	ED19D402	Institute Research (IR) Award	Office of Dean AR, IIT Madras
2.	Jeslin P Issac	ED18D601	Institute Research (IR) Award, July - November, 2023	Office of Dean AR, IIT Madras
3.	Jeslin P Issac	ED18D601	Women Leading Innovation Award, IIT Madras	Women's Forum, IIT Madras

4.10.3. Faculty and Their Activities:

4.10.3.1. Faculty:

	Major Areas of Specialisation
Professor	
Asokan T	Robotics, Mechatronics, Control, Electro-hydraulic Servo systems
Balkrishna C Rao	Sustainable Manufacturing, Sustainable Design, Nano-manufacturing, Manufacturing for Bio-Medical Applications, Simulation of Manufacturing Processes
Ganapathy Krishnamurthi	Medical Image Analysis, Pre-clinical Imaging Systems-X-ray Micro-CT, Fluorescence Imaging
Jayaganthan	Materials Engineering, Nanomaterials and Design, Battery Engineering, Additive Manufacturing, Fatigue & Fracture Mechanics
Kavitha Arunachalam	Microwave Engineering, Antennas, Biomedical Instrumentation, Hyperthermia Devices, Radiometry, Non-destructive Material Evaluation
Nilesh J. Vasa	Opto-mechatronics, Laser-based Sensing and Micro-manufacturing
Palaniappan Ramu	Optimisation, Application of Statistical and Probabilistic Techniques for Engineering Design Under Uncertainties, Risk/Reliability-based Engineering Design, Surrogate-based Modeling and Analysis
Ramanathan M	Geometric and Solid Modelling, CAD, Computer Vision, Computational Geometry, Computer Graphics, Computational Biology, Shape Search
Saravana Kumar G	CAD, Design Optimisation, Design for Additive Manufacturing, Orthopedic Bio-mechanics and Biomedical Image Processing
Shankar Ram C S (Head)	Vehicle Dynamics and Control, Active Vehicle Safety Systems
Srikanth Vedantam	Design with Novel Materials, Mechanical Behaviour of Materials, Wetting, Microstructure Evolution
Venkatesh Balasubramanian	Design Thinking; Innovation Management; Human Factors and Ergonomics, Biomedical Devices and Implants, Road Safety and Public Policy

Associate Professor	
Sandipan Bandyopadhyay	Robotics, Dynamics of Multibody Systems, Design
Tuhin Subhra Santra	Bio-nano/Micro Electro Mechanical Systems (bio-NEMS/MEMS), Biomedical Micro/Nano Devices, Bio-micro/Nano Fabrication, Single-cell Technology, Nanomedicine, Biosensors and Bioelectronics, Bionanomaterials
Assistant Professor	
Bijo Sebastian	Mechatronics, Autonomous Navigation for Mobile Robots, Exoskeleton Systems for Rehabilitation
Deepak Ronanki	Power Electronic Converters, Advanced Control Techniques, Electric Vehicle Charging Infrastructure, Electric Vehicle Power Trains, Traction Motor Drives, Electric Energy Storage Systems, Transportation Electrification
Niravkumar Patel	Medical Robotics, Image-guided Surgery
Srikanthan Sridharan	Electrified Vehicle Systems, Modeling and Control of Power Electronic Converters and Electric Machine Drives
Emeritus Professor	
Krishna Kumar R (Institute Professor)	Nonlinear Finite Elements, Vehicle Dynamics and Tyre Mechanics

4.10.3.2. Short-term Courses, Workshops, Seminars, Symposia, Conferences Organised by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	Nilesh J. Vasa (Program Chair)	International Conference on Material Processing Using Lasers, and Surface Engineering (IMPULSE'23)	December 14 - 15, 2023
2.	Prof. Venkatesh Balasubramanian	Launch of High Frequency Accident Zone Analytics Application - Sanjaya by Government of Haryana	October 17, 2023
Seminar:			
1.	Srikanthan Sridharan	SAE Southern Section Seminar Series	December 09, 2023
2.	Prof. Venkatesh Balasubramanian	Road Safety Summit 2023	September 13, 2023
Symposia:			
1.	Prof. Venkatesh Balasubramanian	Road Safety Hackathon 2023	December 01, 2023
Workshop:			
1.	Prof. Venkatesh Balasubramanian	Scientific Crash Investigation Using RCAM for Tamil Nadu Police Officers	October 11, 2023
2.	Prof. Venkatesh Balasubramanian	Scientific Crash Investigation Using RCAM for Haryana Police Officers	April 12, 2023
3.	Prof. Venkatesh Balasubramanian	Scientific Crash Investigation Using RCAM for Tamil Nadu Police Officers	March 11, 2023
4.	Prof. Venkatesh Balasubramanian	Scientific Crash Investigation Using RCAM for Tamil Nadu Police Officers	September 07, 2023
5.	Prof. Venkatesh Balasubramanian	Workshop on Biometric Access Control	June 08, 2023
6.	Prof. Venkatesh Balasubramanian	Integrated Road Accident Database Quality - Crash Data Insights and Data Training for Punjab State Officials	June 05, 2023

7.	Prof. Venkatesh Balasubramanian	Integrated Road Accident Database Quality - Crash Data Insights and Data Training for Haryana State Officials	May 18, 2023
8.	Prof. Venkatesh Balasubramanian	Train the Trainer Workshop for Scientific Crash Investigation and Posted Speed Limit for Haryana State Officials	May 15 - 17, 2023
9.	Prof. Venkatesh Balasubramanian	Design Thinking Approach for Criminal Investigation for CBCID Officers from Tamil Nadu	July 04, 2023
Short term Course:			
1.	C S Shankar Ram (with Participation of Nearly 13 Faculty)	Certificate Program on E-Mobility	Cohorts 3 and 4
2.	C S Shankar Ram	Control Systems	Tata Passenger Electric Mobility Limited
3.	Prof. Venkatesh Balasubramanian	Design Thinking for Safe Roads and Operational Excellence for NHIT Design Thinking for Safe Roads for NHAI	October 20, 2023
4.	Prof. Venkatesh Balasubramanian		August 16 - 25, 2023

4.10.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, Training Attended by the Faculty Members in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Workshop:				
1.	Nilesh J Vasa	Laser-Assisted Trace Gas Pollution Measurement Techniques	8th IICAQM 2023, Winter School: Measurement, Modelling, Health Risk and Public Policy, Bengaluru	December 05, 2023
2.	Nilesh J Vasa	Laser Fundamentals and Its Applications for Various Disruptive Technologies	One-day Workshop: Advanced Laser Applications in Manufacturing and Material Processing, Anna University, Chennai, Tamil Nadu	January 27, 2024
Seminar:				
1.	Nilesh J Vasa	Laser-Assisted Surface Processing and Measurement Techniques	One-day National Seminar, Recent Trends in Manufacturing Technology (RTMT 2023)	May 26, 2023
Conference:				
1.	Nilesh J Vasa	Laser-Induced Breakdown Spectroscopy Technique: A Universal Tool for Elemental Analysis from Space Exploration to Various Applications on Earth	Keynote Lecture: International Conference on Material Processing Using Lasers, and Surface Engineering (IMPULSE'23), IIT Madras	December 14 - 15, 2023
2.	Nilesh J Vasa	Recent Advances in Laser-Assisted Trace Gas Sensing and Their Applications	Invited Talk: 32nd DAE-BRNS National Laser Symposium (NLS-32), RRCAT, Indore	January 29 - February 01, 2024

3.	Kavitha Arunachalam	Inkjet-Printed 2D Electric Field Sensor Array for Microwave NDE of Thin Dielectric Composites	27th International Workshop on Electromagnetic Nondestructive Evaluation (ENDE-2024)	March 4 - 6, 2024. Mamallapuram, TN, India
4.	Kavitha Arunachalam	ENDE of Power Apparatus Using UHF Technology - Current Status and Requirements	Keynote Lecture: Advanced ENDE Sensors and Novel Applications, 27th International Workshop on Electromagnetic Nondestructive Evaluation	March 4 - 6, 2024. Mamallapuram, TN, India

4.10.3.4. Special Lectures Delivered by the Faculty in Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Nirav Patel	Autonomous Image-guided Interventions	JIPMER, Puducherry	April 4, 2024
2.	Asokan T	Design and Control of Field Robots	IIT Bombay	November 30, 2023
3.	Asokan T	Autonomous Underwater Robots	RCCIT, Kolkata	December 21, 2023
4.	Asokan T	AUV Design and Control	IIT Jodhpur	March 12, 2023
5.	Asokan T	Telerobotics in Healthcare	NIT Silchar	January 16, 2023
6.	Tuhin Subhra Santra	Bio-MEMS and Bio-NEMS: Devices and Applications	IPS Academy, Institute: Institute of Engineering & Science, Indore, India	July 06 - 10, 2023
7.	Prof. Venkatesh Balasubramanian	Road Safety in Passenger Vehicles	PV Expo Organized by Government of Tamil Nadu and All Bus Owners Association	December 14 - 16, 2023
8.	Prof. Venkatesh Balasubramanian	Road Safety for Vulnerable Users	Chennai Cycling Event Organized by WCCG, Chennai	November 04, 2023
9.	Prof. Venkatesh Balasubramanian	WHO National Stakeholder Consultation Meeting on Road Safety	WHO, New Delhi	April 03, 2023
10.	Prof. Venkatesh Balasubramanian	Human Factors in Road Safety	IIIT Hyderabad	October 27 - 28, 2023
11.	Prof. Venkatesh Balasubramanian	Emerging Technologies for Safer Roads	FICCI, New Delhi	July 18, 2023

4.10.3.5. Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Asokan T	USA	October 01 - 05, 2023	Conference	Project
2.	Asokan T	Abu Dhabi	December 05 - 08, 2023	Conference	Project
3.	Asokan T	Taiwan	August 14 - 16, 2023	IIT Madras Delegation	Taiwan
4.	Tuhin Subhra Santra	Taiwan	June 15 - July 02, 2023	Teaching 1 Credit Course	National Tsing Hua University, Taiwan

4.10.3.6 Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Honours:					
1.	Asokan T	IPTIF Chair Professor	IPTIF, IIT Palakkad		August 01, 2023
2.	Tuhin Subhra Santra	Visiting Associate Professor	National Tsing Hua University, Taiwan	Join Research Contribution,	June 20, 2023
3.	Nilesh J Vasa	Senior Membership	Optica, USA	Photonics Research	October 2023
4.	Kavitha Arunachalam	25th Annual Award	Society for Cancer Research and Communication, Mumbai	Original Contributions in the Field of Hyperthermia Device Development for Treatment of Cancer	February 2024
5.	Prof. Venkatesh Balasubramanian	Advisor to Government of Haryana	Government of Haryana	Road Safety	October 04, 2023
6.	Prof. Venkatesh Balasubramanian	CSR Changemaker Award	ACR Office, IIT Madras	Social Impact Across Multiple Sectors	July 19, 2023
7.	Kavitha Arunachalam	CSR Changemaker Award	ACR Office, IIT Madras	Social Impact on Alternatives for Cancer Treatment	July 2023

4.10.3.7. Fellowships of Academies and Professional Societies:

Sl. No.	Name of Faculty	Year of Admission
1.	C S Shankar Ram, Fellow, American Society of Mechanical Engineers	April 2024

4.10.3.8. Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1.	Asokan T	Associate Editor	ASME Journal of Mechanisms and Robotics
2.	Tuhin Subhra Santra	Guest Editor	Frontiers of Bioengineering and Biotechnology
3.	Tuhin Subhra Santra	Associate Editor	Frontiers in Molecular Biosciences
4.	Tuhin Subhra Santra	Associate Editor	Frontiers in Materials
5.	Tuhin Subhra Santra	Associate Editor	Frontiers in Bioengineering and Biotechnology
6.	Ramanathan Muthuganapathy	Associate Editor	Computers & Graphic, Elsevier
7.	Nilesh J Vasa	Editorial Board Member	Scientific Reports, Springer Nature
8.	C S Shankar Ram	Associate Editor	IEEE Transactions on Systems, Man and Cybernetics: Systems
9.	C S Shankar Ram	Associate Editor	IEEE Transactions on Transportation Electrification

4.10.4. Design and Development Activities:

4.10.4.1. Brief and Specific Details of Process, Instruments, Equipment, Software Designed and Developed:

Equipment Developed:

Cellular transfection methodologies, which include well-established techniques such as Electroporation, Microinjection, and Sonoporation, encounter inherent limitations that prompt the need for a transformative approach. These limitations revolve around the challenges of achieving uniform intracellular transfection with high efficiency while minimizing cytotoxicity. The imperative for precision in delivery methods becomes especially prominent in the domains of therapeutic interventions, diagnostics, and drug delivery. Traditional physical techniques like electroporation are scrutinized due to their tendency to result in non-uniform transfection outcomes, exhibit cell specificity, and constrain the throughput of the process. The call for a paradigm

shift arises from the recognition that these limitations hinder the full potential of cellular transfection methodologies, urging the exploration of alternative strategies to meet the evolving demands of cellular manipulation in biomedical applications. This prototype development introduces an innovative concept termed "Optoporation," which capitalizes on the combined use of a Diode laser and Titanium oxide (TiO₂) nanostructures. The overarching objective to develop this equipment is to address the inherent deficiencies observed in existing cellular transfection techniques. The research endeavors to establish a novel, cost-effective, compact, and versatile intracellular delivery platform tailored for a spectrum of clinical investigations.

4.10.4.2. New Facilities Added or Major Equipment Procured:

Sl. No.	Name of Equipment	Value (Rs. in Lakhs)
1.	Hardware-in-the-loop Simulation of Power Electronic Converters	25
2.	Flow Cytometry	28.3
3.	TR-PCR	12.3
4.	High-Density EEG System	265

4.10.5. Patents:

4.9.5.1. Patents Filed:

Sl. No.	Name of Faculty	Topic of Patent
1.	Asokan T	Biomimetic Human Shoulder Phantom Mechanism for Testing Wearable Exoskeleton
2.	Asokan T	Novel Three-Axis Force Sensor-based Monitoring Device for Static Shoulder Therapy
3.	Nirav Patel, Bijo Sebastian	Compound Offset Epicyclic Drive (Co-ed) System
4.	Nirav Patel	Four Degrees of Freedom Manipulator
5.	Bijo Sebastian	Rotary Series Elastic Actuator
6.	Tuhin Subhra Santra	GelMa Encapsulated Single to Multicell Patterning Using Photolithography for Tissue Engineering Applications
7.	Tuhin Subhra Santra	Synthesis of Toxic Free Spherical Shape Nano-bioglass Using Microfluidic Device
8.	Tuhin Subhra Santra	Interconnecting Three Channels Microfluidic Chip for Disease Modelling and Regenerative Medicine Applications
9.	Tuhin Subhra Santra	Synthesis of Toxic-free Star Shaped Gold Nanostructures Using Microfluidic Device and Its Usage in Light Activate Highly Efficient Intracellular Delivery
10.	Tuhin Subhra Santra	Metallic Micro-ring for Infrared Pulse Assisted Highly Efficient Intracellular Delivery

11.	Tuhin Subhra Santra	Graphene Nanoplatelets Reinforced Chitosan Scaffolds, Method for Production Thereof and Its Assisted Intracellular Genetic Material Delivery
12.	Tuhin Subhra Santra	Plant Extract Loaded TiO ₂ Nanotubes for Enhanced Bone Healing by Localised Drug Delivery
13.	Tuhin Subhra Santra	Infrared LED Activated Optoporation Based Intracellular Delivery Using TiO ₂ Nanotubes
14.	Tuhin Subhra Santra	TiO ₂ Microspikes Mediated Photoporation for Intracellular Delivery
15.	Tuhin Subhra Santra	Massively Parallel High Throughput Single Cell Optoporation
16.	Tuhin Subhra Santra	2D Substrate Protein Micropatterning Process for Cell Alignment
17.	Tuhin Subhra Santra	Method for Formation of Nanostructures on AZ-31 (Mg Alloy) and Their Uses Thereof
18.	Tuhin Subhra Santra	Method for Formation of Nanostructures on AZ-31 (Mg Alloy) and Their Uses Thereof
19.	Kavitha Arunachalam	Systems And Devices for MW Hyperthermia and HDR Brachytherapy (Divisional)
20.	Kavitha Arunachalam	System and Methods for Non-invasive Localised Tissue Heating with Image Guidance
21.	R Jayaganthan	Solar Array for a Rotatable Object
22.	R Jayaganthan	Hybrid Actuation Device for Driving an Elastomeric Actuator
23.	R Jayaganthan	A Physiotherapy Device with an Actuation Assembly
24.	R Jayaganthan	A Rear Underrun Protection Assembly of a Vehicle and a Vehicle Thereof
25.	R Jayaganthan	Step Climbing Apparatus
26.	R Jayaganthan	Morphing Wing Architecture Using Actuated Centralised Camshafts
27.	R Jayaganthan	A Mechanism for Movement of a Chair on a Gradient
28.	R Jayaganthan	Self-powered Linear Momentum Mitigation System for Space Debris Capture and Method Thereof
29.	R Jayaganthan	A Modular Suspension Assembly for a Vehicle and a Vehicle Thereof
30.	R Jayaganthan	An Adaptive Robotic Vehicle
31.	R Jayaganthan	A Wheel Assembly

4.10.5.2. Patents Awarded:

Sl. No.	Name of Faculty	Topic of Patent
1.	Asokan T	Artificial Hand for Prosthetic Applications
2.	Asokan T	Biomimetic Human Shoulder Phantom Mechanism for Testing Wearable Exoskeleton
3.	Asokan T	Novel Three-Axis Force Sensor-Based Monitoring Device for Static Shoulder Therapy
4.	Kavitha Arunachalam	Systems And Devices for MW Hyperthermia and HDR Brachytherapy
5.	Kavitha Arunachalam	Improved Microwave Hyperthermia Device
6.	Kavitha Arunachalam	Reusable Passive RFID Sensor for Structural Health Monitoring
7.	Kavitha Arunachalam	Polarisation Independent Frequency Selective Surfaces for Atmospheric Remote Sensing (Divisional)
8.	Kavitha Arunachalam	Ultra-Wideband (UWB) Ultra-High Frequency (UHF) Sensor for Detection of Concealed Objects Using Stepped Frequency Continuous Wave (SFCW) Radar and Methods

9.	Nilesh Jayantilal Vasa, Soumya Dutta, Sooraj Shiby, Mithun C A	Device and Method for Mask-less Laser-assisted Hybrid Etching for Interdigitated Electrodes in Semiconductor Devices
10.	R Jayaganthan	A Continuously Variable Valve Duration Mechanism for the Internal Combustion Engine
11.	R Jayaganthan	A Battery Handling System and a Battery Pack There of
12.	R Jayaganthan	A Linear Pedaling System and Method Thereof
13.	R Jayaganthan	A Wire Explosion Assembly For Producing Metallic Nanoparticles and a Method Thereof
14.	R Jayaganthan	Seat, Belt, Locking, Mechanism
15.	R Jayaganthan	Development of Additively Manufactured Nickel Based Alloy with Improved Corrosion Resistance
16.	R Jayaganthan	Convertible Seat
17.	R Jayaganthan	Dish Washer for Cleaning Utensils
18.	R Jayaganthan	Method to Develop a Fabricated Ti Modified Al Alloy
19.	R Jayaganthan	Jack Assembly
20.	Prof. Venkatesh Balasubramanian	Bioreactor for Tissue Engineering

4.10.6. Research and Consultancy:

4.9.6.1. Sponsored Research Projects: (Ongoing & New)

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in Lakhs)	Coordinators
1.	Synthesis of Highly Monodispersed Anisotropic Gold Nanostructures via A Single Microfluidic Platform and Its Use for Intracellular Biomolecular Delivery	3 Years	SERB	64.43	Tuhin Subhra Santra (PI)
2.	Synthesis of Highly Monodispersed Anisotropic Gold Nanostructures via A Single Microfluidic Platform and Its Use for Intracellular Biomolecular Delivery	1.5 Years	BIG, DBT	50	Tuhin Subhra Santra (PI)
3.	SERS Based Glucose Sensing in Tumour Microenvironment Using 3D Platform	1 Year	IIT Madras and NTHU, Taiwan (JBFMP)	8.3	Tuhin Subhra Santra (PI)
4.	Development of a Heart-on-a-Chip Based Cardiac Ischemia Model to Investigate Hypoxia-Induced Myocardial Injury	4 Year	ICMR	360	Tuhin Subhra Santra (Co-PI)
5.	Cancer-neuron Microfluidic Platform for High-Throughput Screening of Safe and Effective Anti-Cancer Therapeutics	1.5 Year	DBT	73.3	Tuhin Subhra Santra (PI)
6.	Highly Efficient Sperm Sorting Chip and Commercialisation	3 Year	DST, India and MOST, Taiwan	41.2	Tuhin Subhra Santra (PI)

7.	Condition Monitoring of Transformers Adopting Multi fusion Sensor Technique Adopting Embedded Techniques with Secured Cloud Data Processing	3 Years	Central Power Research Institute,	88.19	Kavitha Arunachalam (Co-PI)
8.	Design and Development of Potential Superhydrophobic Biomaterial to Minimize Catheter Associated Urinary Tract Infections: The Proof of Concept	February 20, 2024 - February 19, 2027	Indian Council of Medical Research	30.93	Prof. Franklin John (Cochin University of Science and Technology) and Dr. Maya Nandkumar A, Dr. Ramesh P, (Sree Chitra Tirunal Institute for Medical Sciences and Technology) (Total Budget Rs.1.05 Crore)
9.	Optimisation of Perform Designs and Finish Forging Design for Manufacturing of Nickel-based Super Alloys Aeroengine Turbine Disc	2022 - 2023	DMRL, Hyderabad	75.90	R Jayaganthan (PI), G Saravanakumar (Co-PI), Palaniappan Ramu (Co-PI)
10.	Development of Absorption Enhanced Multilayered Structure for Reducing Electromagnetic Interference in Power Electronics	2023 - 2026	SERB, DST (CRG)	68.0	R Jayaganthan (PI), V Subramanian (Co-PI), Physics Dept, IIT Madras
11.	Battery Management System	2023 - 2024	Indus Towers Pvt. Ltd., Gurgaon	120.0	R. Jayaganthan (PI), C.S.Shankar Ram (Co-PI), Srikanth Sridharan (Co-PI).
12.	Additive Manufacturing, SPD Processing Fatigue & Fracture Mechanics, Structural Nano Materials, Corrosion Engineering, Bio Materials, FEM Simulation	2021 - 2024	Initiation Grant, IIT Madras	28.0	R Jayaganthan (PI)
13.	Centre of Excellence for Road Safety	January 01, 2022 - December 31, 2027	Ministry of Road Transport and Highways	9998	Prof. Venkatesh Balasubramanian

4.10.6.2. Industrial Consultancy Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Dr. C S Shankar Ram	E-Mobility Simulation Laboratory	Altair Engineering India Private Limited (CSR Project)	20
2.	Dr. Ganapathy Krishnamurthi	Medical Image Analysis Solutions	Merai Newage Pvt. Ltd.	106.2
3.	Dr. Srikanthan Sridharan	5 GWh Battery Gigafactory	Mott Macdonald Pvt. Ltd.	59
4.	Dr Venkatesh Balasubramanian	Integrated Road Accidents Database	Ministry of Roads Transport and Highways, Government of India	3600
5.	Prof. Venkatesh Balasubramanian	Drivers Training, Product Development and Innovation Hackathon	HL Mando Automotive Ltd	100
6.	Prof. Venkatesh Balasubramanian	Road Safety Interventions	TN Special Task Force- Road Safety	25

4.10.6.3. RBIC Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	C S Shankar Ram	Advanced Antilock Brake System for Single Unit Heavy Commercial Road Vehicles	Madras Engineering Industries Pvt. Ltd.	50 lakhs
2.	C S Shankar Ram	Centre of Excellence for Zero Emission Trucking	Climate Imperative Foundation	1850 lakhs

4.10.6.4. Faculty Members Participation With Other Institution Under MoU:

Sl. No.	Name of Faculty	Participation Details	Name of University/ Institution Which Has MoU
1.	Tuhin Subhra Santra	1 Credit Teaching Course: Bio-Micro/Nano Devices and Therapeutic Applications	National Tsing Hua University, Taiwan
2.	Prof. Venkatesh Balasubramanian	Product Development MoU	Kriti Labs, Chennai
3.	Prof. Venkatesh Balasubramanian	Road Safety Hackathon and Training of Drivers	SNS Foundation, HL Mando, Chennai
4.	Prof. Venkatesh Balasubramanian	Simulator Co-Development and Driver Training	Red Chariots, Chennai
5.	Prof. Venkatesh Balasubramanian	Collaboration to Study Ather Dashboard Data From Road Safety Perspective	Ather, Bengaluru

4.10.7. Distinguished Visitors to the Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Prof. Chia-Fu Chou	March 27 - 30, 2024	MOU Between IIT Madras and Academia Sinica: Student and Faculty Exchange and Invited Talk, IIT Madras
2.	Prof. Moeto Nagai	January 21 - 25, 2024	Invited Talk and Research Collaboration with ED, IIT Madras
3.	Shri Shankar Jiwal, IPS HOPF, Government of Tamil Nadu	February 03, 2024	Stakeholders Consultation Meeting on Road Safety and Extra Mural Lectures
4.	Prof. Sudeshna Mitra Transport Specialist Europe and Central Asia World Bank	December 15, 2023	Discussion on Road Safety Studies in Chennai
5.	Thiru A. Shanmuga Sundaram IAS Transport Commissioner, Govt. of Tamil Nadu	February 02, 2024	Formally Announce Data Driven Interventions in Tamil Nadu
6.	Shri Vinit Dev Vankhede, IPS ADGCP and Chair, TN-STF (RS), Government of Tamil Nadu	August 25, 2023	Review NHAI Road Safety Officers' Assignment Project as Part of NHAI Training Course Conducted at IIT Madras
7.	Shri Amit Sharma, Secretary, Administration of Ladakh	September 13, 2023	Participate in Road Safety Summit and Collaborate with Prof. Venkatesh Balasubramanian for Ladakh Road Safety Projects
8.	Shri Alok Kumar, IPS ADGP, Karnataka Police, Government of Karnataka	September 13, 2023	Participate in Road Safety Summit and Collaborate with Prof. Venkatesh Balasubramanian for Karnataka Road Safety Projects

4.10.8. Other Activities of the Department/Centre:

4.9.8.1. International Collaboration/Achievements by the Department:

1. MoU between IIT Madras and China Medical University, Taiwan (Ongoing)

4.9.8.2. International Conference Session Chair:

1. Dr. Kavitha Arunachalam, Session Chair, Microwave and Terra Hertz Imaging, 27th International Workshop on Electromagnetic Nondestructive Evaluation (ENDE-2024), March 4 - 6, 2024, Mamallapuram, TN, India.

4.10.8.3. Faculty Visit

Sl. No.	Name of the Faculty Member	Purpose of Visit	Date & Venue
1.	Tuhin Subhra Santra	Teaching: 1 Credit Course at NTHU, Taiwan	June 15 - July 02, 2023

4.10.8.4. Student Visit

Sl. No.	Name of the Students	Purpose of Visit	Date & Venue
1.	Preyanka Prakash	Research: Japan Student Service Organisation (JASSO) Fellowship	March 15 - June 14, 2024. Toyohashi University of Technology, Japan
2.	Nandhini Balasubramaniam	Research: Japan Student Service Organization (JASSO) Fellowship	March 15 - June 14, 2024. Toyohashi University of Technology, Japan
3.	Sarin Abraham	Research: Japan Student Service Organization (JASSO) Fellowship	August 01 - October 30, 2023. Toyohashi University of Technology, Japan
4.	Abinaya R	Research: Japan Student Service Organisation (JASSO) Fellowship	August 01 - October 30, 2023. Toyohashi University of Technology, Japan
5.	Pulasta Chakrabarty	Research: Japan Student Service Organisation (JASSO) Fellowship	June 2022 - December, 2024. Toyohashi University of Technology, Japan
6.	Koyel Dey	Research: Joint Doctoral Program (JDP), IIT Madras and National Tsing Hue University, Taiwan	January, 2021-2024. National Tsing Hue University, Taiwan
7.	Koyel Dey	27th International Conference on Miniaturized Systems for Chemistry and Life Sciences (μ -TAS 2023)	October 15 - 19, 2023. Katowice, Poland

4.10.8.5. Activities Initiated

Major Infrastructure Development Made in the Department

The Department has established multiple laboratories in the domain of E-Mobility with a clear vision to become a hub for E-Mobility related academic activities. The Department has also launched a Web Enabled M.Tech. in E-Mobility for working professionals.

4.11. Department of Management Studies

4.11.1. Introduction:

The Department of Management Studies (DoMS), IIT Madras, established in 2004 has blossomed into a premier business school today. Small batches with a high faculty-student ratio, and dynamic exchange programmes with esteemed international universities distinguishes DoMS from other B-Schools. Earning accolades in the prestigious NIRF ranking of 2023, DoMS stands proudly among the top ten business schools in India.

At DoMS, a rich array of programmes has been curated to cultivate and refine the acumen of budding business leaders, and foster cutting-edge management research skills. From its flagship two-year, full-time MBA programme—the first jewel in DoMS's academic crown, to an Executive MBA catering to seasoned mid

and senior-level professionals, the Department offers a spectrum of educational pathways. Furthermore, DoMS extends specialised programmes such as the Tech-MBA programme and Quantitative Finance, providing unique dual-degree opportunities for engineering graduates of IIT Madras.

Moreover, the Department's commitment to research excellence is underscored by robust Masters (MS by Research), Doctoral (Ph.D.) and Post Doctoral (Post Doc.) programmes, nurturing the next generation of academic thought leaders. In collaboration with esteemed institutions like IIM Calcutta and IIT Kanpur, DoMS also spearheads a visionary Diploma programme (PGPEX-VLM) tailored for leaders in manufacturing, embodying its ethos of academic collaboration and innovation.

The major areas of specialisation are:

- Finance
- Human Resource Management and Organisational Behaviour
- Information Systems
- Marketing
- Operations
- Integrative Management

DoMS is committed to providing foundational, inter-disciplinary and experiential learning, and global educational experience to the students and industry executives. DoMS prepares individuals to become analytical thinkers and responsible leaders with high values of professional integrity and ethics.

4.11.2. Academic Programmes:

The Master of Business Administration (MBA) at DoMS is a two-year full-time programme aimed at training graduates to become capable managers. The programme involves classroom teaching, case discussions, hands-on management internship in industry and project work. The programme comprises seven quarters of course-work, with four quarters for first year and three quarters for second year. Students are equipped with quantitative tools and techniques necessary for analysing business problems along with personal skills such as business communication, general business knowledge and interpersonal skills. The inputs given through courses are supplemented with industrial training through a summer project for 8 - 10 weeks after the fourth quarter along with project work during the seventh quarter.

The Executive Program in Business Administration (EMBA) programme is designed to equip mid-career working professionals with deep functional and broad industrial domain knowledge, through blended weekend learning and enables working professionals to make strategic investment in their careers while

they continue to meet their job demands.

The Tech. M.B.A. program is a part of the Five-Year interdisciplinary dual degree programme and has been conceptualised by DoMS. The programme enables undergraduate students of the Institute to engage in curricula that integrates and synergises technology and management disciplines. Tech MBA program aims to provide knowledge of business functions and strategies, developing expertise in business analytics and on transformation technologies that transform enterprises, economies and societies.

The Quantitative Finance program is a part of the Five-Year interdisciplinary dual degree programme and has been conceptualized by DoMS and has a strong interdisciplinary flavour with teachers participating from various departments such as Department of Mathematics, Department of Computer Science, and Department of Humanities and Social Sciences. The programme enables students to build advanced knowledge in quantitative finance, financial engineering, and risk management, and bridges the gap between application of modern product and process technologies, and state-of-the-art finance.

The PGPEX-VLM is a unique, one-year full-time residential programme, that has a built-in manufacturing focus. This programme is being conducted jointly by three premier institutes of India—IIM Calcutta, IIT Kanpur, and IIT Madras. The programme introduces courses on green manufacturing, SAP ERP, and breakthrough management, and targets engineers from manufacturing and allied industries.

The MS (by research) programme is a full-fledged research programme that aids students seeking a

research-oriented industry job, or students who want to kick-start their research career. This programme is characterised by a significant research component in the curriculum.

The flagship PhD or Doctoral program is a full-fledged research programme designed to prepare and provide exceptional faculty resources for management teaching and research. DoMS faculty are well-accomplished in the field of management research, recognized for publishing in reputed academic journals.

4.11.2.1. New Courses Introduced:

Sl. No.	Course No.	Title
1.	MS5012	Data-Driven Decision Making for Human Resources
2.	MS6015	Multivariate Statistical Methods for Business
3.	GN6112	Tools for Life: Enhancing Physical, Emotional, Mental, Spiritual Health
4.	MS9153	Leading Across the Globe
5.	MS7742	Organisations and Environment
6.	MS5070	Software Product Management

4.11.2.2. New Lab(s) Established:

Sl. No.	Lab Name
1.	The CAMS- IITM Fintech Lab Space CIFIL

4.11.2.3. Students On Roll As Of September 2023 and M.S. & PH.D. Admission In January 2024:

Programme	I year	II Year	III Year	IV Year	V Year	> 5 Others	Total
M.B.A.	94	84	--	--	--	--	178
E.M.B.A.	50	58	--	--	--	--	108
Tech. M.B.A.	16	6	--	--	--	--	22
V.L.M	40	--	--	--	--	--	40
M.S.	5	7	12	1	--	--	25
Ph.D.	16	17	22	17	30	26	128
Total	221	172	34	18	30	26	501

4.11.2.4. Student/Scholar Who Attended Conference, Seminar, Symposia in India And Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/ Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Abhishek Sharma	MS19D003	Hawaii International Conference on System Sciences (HICSS)	January 02 - 06, 2024. 02.01.2024 06.01.2024 Hawaii, USA	Institute Grant
2.	Aishwarya Ramesh	MS18D203	EMAC Annual Conference 2023	May 23 - 26, 2023. Odeon	NA

3.	Amruta Patil	MS21S011	Industrial Engineering and Operations Management	November 14 - 16, 2023. Melbourne, Australia	NA
4.	Anu Mary Chacko	MS16D203	Academy of Marketing Science World Marketing Congress	July 11 - 14, 2023. UK	NA
5.	Balaganesh C	MS18D007	R&D Management Conference 2023	June 17 - 21, 2023. Spain	NA
6.	Bhadra K V	MS19D032	European Academy of Management Conference	June 14 - 16, 2023. Ireland	NA
7.	Deeba Hasan	MS17D008	5th Asia Conference on Business and Economic Studies	August 16 - 18, 2023. Vietnam	NA
8.	Goswami R	MS18D013	3rd Annual Meeting of the European Journal of Management	July, 2023. Portugal	NA
9.	Janani M	MS19D006	International Positive Psychology Association 8th IPPA World Congress 2023	July 20 - 23, 2023. Canada	NA
10.	Janani M	MS19D006	Academy of Management (AOM) 2023	August 04 - 08, 2023. Philadelphia, USA	NA
11.	Jasmine Banu	MS17D200	AOM, 2023	August 04 - 08, 2023. Philadelphia, USA	NA
12.	Jasmine Banu	MS17D200	Eastern Academy of Management (EAM) 2023	May 18, USA	NA
13.	P Kalpana	MS18D002	2023 Academy of Marketing Science Annual Conference	May 17 - 19, 2023. New Orleans	Institute Grant
14.	P Kalpana	MS18D002	AMS World Marketing Congress	July 11 - 14, 2023. UK	Alumni Grant
15.	S Lianbiaklal	MS19D043	ANZMAC 2023	December 04 - 06, 2023. New Zealand	Institute Grant
16.	Mirabel Josephine Paul	MS16D006	RSEP International Conference on Social Issues and Economics Studies	June 22 - 23, 2023. Paris	NA
17.	Muhammed Suhail P S	MS19D015	World Finance Conference 2023	August 02 - 04, 2023. Norway	NA
	Rishabh Goswami	MS18D013			
18.	Muhammed Suhail P S	MS19D015	2nd International Research Conference on Insolvency and Bankruptcy	February, 2023	NA
19.	Muhammed Sadiq T	MS19D014	Americas' Conference on Information Systems	August 10 - 12, 2023. Panama	Institute Grant
20.	Prabhupad Bharadwaj	MS18D012	INFORMS Annual Meeting 2023	October 15 - 18, 2023. Arizona	Alumni Grant
21.	Prabhupad Bharadwaj	MS18D012	AGIFORS RM SG Meeting	June 05 - July 07, 2023. Finland	NA
22.	Riya Arora	MS19D037	RSEP International Conferences on Social Issues and Economics Studies	June 22 - 23, 2023. Paris	NA

23.	Sajira Khatoon	MS19D033	2023 Academy of Marketing Science Annual Conference	May 17 - 19, 2023. New Orleans	NA
24.	Sajira Khatoon	MS19D033	AMA Sumer Academic Conference 2023	August 05, 2023. San Francisco	NA
25.	Shruti R	MS21D019	World Finance Conference 2023	August 02 - 08, 2023. Norway	NA
26.	Sreelekshmi Chandran	MS18D009	Australian and New Zealand Academy of Management (ANZAM) Conference and Doctoral Workshop (2023)	December 04 - 07, 2023. Aotearoa, New Zealand	NA
27.	Teena Thomas	MS19D022	INFORMS Annual Meeting 2023	October 15 - 18, 2023. Phoenix, Arizona	Institute Travel Grant
28.	TND Tulsi Dashsharma	MS20S004	POMS 2023 International Conference	July 18 - 20, 2023. Paris	NA
29.	S Vasantharaj	MS18D004	Summer School Programme	July 02 - 21, 2023. Switzerland	NA
India					
1.	Anukesh Valase	MS19D200	13th Symposium on Business Analytics & Intelligence	July 23 - 24, 2023. IIM Bangalore	Institute Grant
2.	Apoorva	MS19D039	13th Symposium on Business Analytics & Intelligence	July 23 - 24, 2023. IIM Bangalore	Institute Grant
3.	Aiswarya Ramesh	MS18D203	International Conference on Digital Organization (ICODO)	January 08 - 09, 2023. Ahmedabad	NA
4.	Amruta Patil	MS21S011	International Federation Information Processing	December 16 - 17, 2023. Nagpur	NA
5.	Aditya Joshi	MS22S006	26th Annual International Conference of the Society of Operations Management	December 14 - 16, 2023. Meghalaya	NA
6.	Rahul Prasad	MS21S010			
7.	Vasanthraj S	MS18D004			
8.	Mayur Morey	MS22S005			
9.	Balaganesh Chandran	MS18D007	Research Policy 5th Online Conference	April 21, 2023	NA
10.	Balaji M	MS21D030	National Conference on Navigating the Future with ESG: Making Industries (MSMEs) Sustainable, Responsible and Impactful	January 24 - 25, 2024. Hyderabad	NA
11.	Balagopal N	MS21D023	18th Pre-ICIS Workshop on Information Security and Privacy	December 10, 2023. Hyderabad	NA
12.	Gayathri Janapati	MS20D002	9th Pan IIM World Management Conference	January 21 - 24, 2024. Odisha	Institute Grant
13.	Muhammed Suhail P.S.	MS19D015			
14.	Anureet Saharan	MS19D036			
15.	Gayathri Janapati	MS20D002	33rd National Academy of Psychology Convention	December 14 - 16, 2024. Visakhapatnam	Institute Grant

16.	Gayathri Janapati	MS20D002	International Conference on Management Research (ICMR), 2023	November 16 - 18, 2023. IIT Madras	NA
17.	Harshita Mongia	MS21D017	5th International Conference on Financial Markets & Corporate Finance (ICFMCF 2023)	July, 2023	Institute Grant
18.	Kavitha R	MS21D015	ICMR, 202	November 16 - 18, 2023. IIT Madras	NA
19.	K Haripriya	MS21S018	3rd International Conference on Industry 4.0 and Advanced Manufacturing	January 11 - 12, 2024. Bangalore	NA
20.	Muhammed Sadiq T	MS19D014	ICODO'23	January 08 - 09, 2023. IIM Ahmedabad	NA
21.	Muhammed Suhail P S	MS19D015	5th International Conference on Financial Markets & Corporate Finance (ICFMCF 2023)	July, 2023	NA
22.	Goswami R	MS18D013			
23.	Muhammed Suhail P S	MS19D015	International Society for Data Sciences and Innovation (ISDSI) 16th Global Conference 2023	December 27 - 29, 2023. IIM Ranchi	NA
24.	Priya Choudhary	MS21D028			
25.	Anju R	MS19D041			
26.	Pravin Kamble	MS21D029			
27.	Nanda P	MS18D011			
28.	Rishabh Goswami	MS18D013			
29.	Nanda P	MS18D011	33rd RSEP International Conference on Economics, Finance & Business, Rome (Online)	November, 2023	NA
30.	Nibu John Thomas	MS16D017	8th Indian Academy of Management (INDAM) Conference	January 05 - 06, 2023. Mumbai	NA
31.	Priya Choudhary	MS21D028	Management Education and Research Colloquium	May 20, 2023. IIM Kashipur	NA
32.	Priya Choudhary	MS21D028	Indian Academy of Management (INDAM) 2024	January 10 - 13, 2024. Goa	NA
33.	Priya Soi	MS19D032	INDAM, 2024	January 10 - 13, 2024. Goa	NA
	Bhadra K V	MS22D001			
34.	Rishabh Goswami	MS18D013	24th Biennial Conference of Association of Indian Economic and Financial Studies 2023	July 24 - 25, 2023. IIT Madras	NA
35.	Vijaya C	MS20D003	International Finance and Accounting Conference (IFAC)	September 08 - 09, 2023. IIM Jammu	Institute Grant
36.	Vijaya C	MS20D003	ICMR, 2023	November 16 - 18, 2023. IIT Madras	Institute Grant
37.	R Shruti Anushree	MS21D019	India Finance Conference 2023	December 21 - 23, 2023. Mumbai	NA
	Mishra	MS20D008			

38.	Sukanya Basu Malik	MS22D014	MIPS Conference	February 22 - 24, 2024. IIT Roorkee	NA
39.			All India Research Scholars Summit (AIRSS)	March 04 - 07, 2024. IIT Madras	NA
40.	Pratyush Yadav	MS18D204	Doctoral Consortium, International Conference on Information Systems (ICIS), 2023	December 06 - 09, 2023. Hyderabad	NA
41.	Pratyush Yadav	MS18D204	Pre-ICIS Workshop, SIGDSA, 2023	December 10 - 12, 2023. Hyderabad	NA
42.	Pratyush Yadav	MS18D204	IS Research Colloquium in collaboration with IIT Madras, University of Passau and IIM Calcutta	March 30 - 31, 2023. IIM Calcutta	NA
43.	Preethi R	MS16D008	POMS International Conference, 2023	December 04 - 06, 2023. XLRI Jamshedpur	NA
44.	Reema Nayyar	MS21D014	ICMR, 2023	November 16 - 18, 2023. IIT Madras	NA
45.	Reema Nayyar	MS21D014	DoMS Symposium, 2023	November, 15, 2023. IIT Madras	NA
46.	Vaishnavi Meghana Jalamangala	MS20D201	ICMR, 2023	November 16 - 18, 2023. IIT Madras	NA
47.	Vaishnavi Meghana Jalamangala	MS20D201	DoMS Symposium, 2023	November, 15, 2023. IIT Madras	NA

4.11.2.5. Students/Scholars Who Won Outside Prizes And Awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Abhishikth Alby	MS23A004	3rd Rank, A HRticulture - National Level HR Article Writing Competition.	SIBM Pune
2.	Abhishikth Alby	MS23A004	3rd Rank, Eximius 2023 - Snap & Solve	IIM Bangalore
3.	Ann Mary David	MS23A012	1st in Bundlenomics	Shaastra, IIT Madras
4.	Aparna Mohanakumar	MS22A008	Best Entry in the Regional round Essay Titled: Deglobalisation: Challenges and Opportunities for India	RBI Policy Challenge 2023
5.	Arunkumar B	MS22A012		
6.	Koushik hati	MS22S003		
7.	Riom Sen	MS22A069		
8.	Aparna Mohanakumar	MS22A008	1st Prize in the Southern Zonal round Essay Titled: Towards A Greener Cleaner India - Mitigating Climate Change Through Monetary Policy Under Current Flexible Inflation Targeting Framework	RBI Policy Challenge 2023
9.	Arunkumar B	MS22A012		
10.	Riom Sen	MS22A069		
11.	Koushik hati	MS22S003		

12.	Bharath M Guntur Dinesh	MS22A030 MS22A015	1st Prize in Heal 'N' Conquer Powered by Beato and Max Institute of Healthcare	Indian School of Business (ISB)
13.	Devansh Rai	MS21S006	3rd Position, Ace The Case competition conducted by Intuito, NMIMS Bangalore	NMIMS Bangalore
14.	Rahul Prasad	MS21S010		
15.	Shishir Nanoty	MS21S004		
16.	R Shruti	MS21D019	3rd Position, Paper Titled Ownership Dynamics and Pledging Risk, Research Symposium on Finance and Economics 2023.	IFMR Graduate School of Business
17.	Divyanshu Singh	MS23A025	National Finalist, The Governance Challenge	Samagra Consulting and Govt. Of Odisha
18.	Divya A	MS22A026		IIM Ahmedabad
19.	Guntur Dinesh	MS22A030	2nd Position in the Armageddon Case Competition	
20.	Shiva Ganesan S	MS22A080		
21.	Guruprasanna M	MS21W020	Won The Institute Merit Prize For The EMBA Student With The Best Academic Record In Management Studies	IIT Madras
22.	Harish Guptha K	MS21A021	Won The Coka Parthasarathy Memorial Prize For The MBA Student With The Best Academic Record In Management Studies	IIT Madras
23.	K Haripriya	MS21S018	Distinguished Paper Award	IISC Bangalore
24.	Koushik Hati	MS22S003	2nd Prize In Jal Dhan Yatra, National Level Water Conclave, 2023	Ministry of Jal Shakti
25.	Kritika Jhano Mardi	MS23A040	1st Position, Bundlenomics - Marketing Event	IIT Madras
26.	Roopak P C	MS23A068	4th Rank Opstruct- [TRBS 2023]	Indian Institute of Management (IIM), Ahmedabad
27.	Janani M	MS19D006	Top Paper Award	DoMS Symposium 2023
28.	Pratyush Gupta	MS23A059	Top 8 in Product Alchemy - Prodexpo 3.0	IIM Calcutta
29.	Sushant Kolhe	MS23A090	Final Round (Rank 52). Finquest 5.0: An Equity Research Challenge	IIM Nagpur
30.	Sushant Kolhe	MS23A090	3rd Rank, EY CAFTA CASE Championship Mega Edition 2023 (Managing Cash And Investment)	EY
31.	Sushant Kolhe	MS23A090	1st Rank, Stockrush	IIT Gandhinagar
32.	Sushant Kolhe	MS23A090	National Finalist, Cerebro	MDI, Gurgaon
33.	Sushant Kolhe	MS23A090	Financially Forward	Faculty of Business Administration, GLS University, Ahmedabad
34.	Sushant Kolhe	MS23A090	2nd Rank, Going Concern 2.0	IIM Tiruchirappalli
35.	Sushant Kolhe	MS23A090	3rd Rank, Trade Battleground	IIM Bodh Gaya
36.	R Sriram	MS14D011	IIE Scholarship Award For Visiting Ph.D. Researcher Programme	University of Southampton, UK
37.	Srinivasan R	MS23A085	Top 26, Mi Summit 5.0	Xiaomi

38.	Swarnaa Kamaraj	MS23A091	2nd Position, MAADHYAM	N. L. Dalmia Institute of Management Studies and Research, Mumbai
39.	Swarnaa Kamaraj	MS23A091	1st Position, Finish-My-Tale-Fiesta	SIBM PUNE
40.	Sukanya Basu Mallik	MS22D014	Best Paper Award 2024	AIRSS (All India Research Scholars Summit), IIT Madras
41.	Reema Nayyar	MS21D014	Top Paper Award in DoMS Symposium	IIT Madras
42.	Rahan Halder	MS23A061	1st Position, Abhilekh '23: Article Writing Competition	T. A. Pai Management Institute (TAPMI), Manipal
43.	Rahan Halder	MS23A061	1st Runners Up Ad-O-Holic Season XVII	IMT Ghaziabad
44.	Rahan Halder	MS23A061	National Finalist Kisan Vikas 2023, National Level Case Competition	IIM Lucknow
45.	Rahan Halder	MS23A061	5th Position IND IDEATHON	Poornatha Company X Indian Bank
46.	Roopak P C	MS23A068	4th Position, FIFA Fantasy Backwaters 2024	Indian Institute of Management (IIM), Kozhikode
47.	Viswan P N	MS23A097	4th Position, DataViz 1.0	Data Analytics
48.	Viswan P N	MS23A097	HResolve	HR, Case Study
49.	Viswan P N	MS23A097	5th Position, DigitalBiz Quest	Strategy, Case Study

4.11.2.6. Students/Scholars Who Won Institute Convocation / Institute Day Prize:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1.	Harish Guptha K	MS21A021	Coka Parthasarathy Prize	Dr. C Mallikarjuna Rao (Institute)
2.	Guruprasanna M	MS21W020	Institute Merit Prize	Institute
3.	Prathyusha Deepak	MS21A045	K V Arunkumar Memorial Prize	Mrs. Kalpana Pagalthiwaxthi (Institute)
4.	Jyotsna J H	MS16D202	Sri Kannan Prize	Dr Kumar V
5.	Ramya M	MS17D016	Sri R N Rajendran Memorial Prize	R Solomon Suresh

4.11.3. Faculty And Their Activities:

4.11.3.1. Faculty:

Sl. No.	Name of the Faculty	Major Area of Specialisation (Only 3 Areas)
Professors:		
1.	M. Thenmozhi (HoD)	Corporate Finance, Financial Markets, Computational Finance
2.	Amit R K	Game Theory, Operations Research, Decision Theory, Natural Resources Management
3.	Arun Kumar G	Mergers & Acquisitions, Corporate Valuation & Governance, Development Finance
4.	Arshinder Kaur	Operations Research, Supply Chain Management, Total Quality Management, Services Operations Management

5.	Kamalanabhan T J	Organisational Behaviour, Human Resource Management and Training and Development
6.	Krishna Prasanna P	Corporate Governance, Fixed Income Securities, Financial Risk Management and Market Micro Structure
7.	Madhumathi R	Financial Management and Accounting, Forex Research, Bank Management, Capital Market Studies
8.	Prakash Sai L	Strategic Management, IT Outsourcing and IT Strategic Planning Business Models, Technology Management, Entrepreneurship
9.	Rahul Ratnakar Marathe	Simulation, Industrial Engineering, TQM, Operations Research, Operations Management
10.	Rajendran C	Operations Management, Production and Materials Management, Supply Chain Management, Scheduling
11.	Saji Mathew	Management Information Systems, IT Strategy, Data Mining and Business Intelligence, IT Services and Outsourcing, Information Systems Development
12.	Srinivasan G	Advanced Operations Research, Operations Management, Supply Chain Management, Manufacturing Systems Management, O. R. Applications, Services Operations Management
13.	Sundarraj R P	Information Systems, Supply Chain Management, e-Business, Computational Optimisation, Decision Support System
14.	Rupashree Baral	Work-Family Interface, Women in Management and Entrepreneurship, Social Responsibility, Progressive HR Practices, Technology and Human Interface, Diversity, Equity and Inclusion
15.	Lata Dyaram	Leadership Development, Cognition in Organisations, Organisational Development, Industrial and Organisation Psychology
16.	Thillai Rajan A	Venture Capital and Private Equity Project, Infrastructure Finance, Public-Private Participation, Corporate Finance
17.	Usha Mohan	Quantitative Models in Operations Management, Probability and Statistics, Combinatorial Optimisation
18.	Nandan Sudarsanam	Experimentation, Data Mining, Applied Statistics, Algorithmic and Heuristic Approaches to Problem Solving
Associate Professors		
1.	Richa Agrawal	Customer Relationship Marketing, Consumer Behaviour and Insight Advantage
2.	Vaibhav Chawla	Mindfulness and Sales Call Reluctance, Spirituality in Sales Organisations, Salesperson Performance
3.	Varisha Rehman	Marketing Management and Research, Advertising and Publicity, Experiential Marketing
4.	Vijayalakshmi V	Happiness and Performance, Mindfulness, Humor in the Workplace, Workplace Emotions, Creativity and Innovative Capability of Firms, Indian Wisdom and Management, Innovative Teaching and Learning Practices, Integral Holistic Education, Women Empowerment Through Entrepreneurship
Assistant Professors		
1.	Nargis Pervin	Social Network Mining, Recommender Systems, Mobile App Analytics
2.	Pinosh Kumar Hajoary	Strategic Management, Management of Technology, Digital Transformation, Technology Policy

3.	Prathamesh Vivek Kittur	Industrial and Services Marketing, Sales and Distribution Management, Services Marketing, Marketing Analytics and Customer Relationship Management
4.	S. Srinivasan	Organization Behaviour, Employee Engagement, Employee Experience, Corporate Volunteering, Supply Chain CSR, HR Analytics
Ajit Singhvi Chair Professor		
1.	C Bhaktavatsala Rao	Business Leadership and Corporate Governance, Corporate Strategy, Business Development and Global Alliances, Manufacturing, R&D, Marketing, and Operations, Mentoring and Coaching
Adjunct Faculty		
1.	Alexander Hübner	Design of Sustainable Supply Chains, Decision Support Tools for Transportation, Inventory Management, Capacity Management and Assortment Planning With Particular Applications in Retailing, Consumer Goods Industries and Health Care Systems.
2.	Viswanath Kumar Ganesan	Industrial Logistics & Supply Chains, Human Capital Management, Community Detection, Stochastic Networks and Risk & Resilience
Professor Of Practice		
1.	Kandaswamy Paramasivan, IPS (Retd)	Technology for Policing, Public Administration, Cost Benefit Analysis of Government Schemes, Crisis Management: The Evolving Role of Leadership and Combating Corruption
2.	Vikram Limaye	Investment Banking, Capital Markets, Structured Finance and Credit Portfolio Management, Surrounding Infrastructure, Economic Policy, Markets, Trade, Minority Affairs

4.11.3.2. Short-Term Courses, Workshops, Seminars, Symposia, Conferences Organised By The Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	S Srinivasan	Industry Meet - SANKALP 2.0	March 20, 2024
2.	V Vijayalakshmi and Nargis Pervin	International Conference on Management Research (ICMR) 2023	November 16 - 18, 2023
Symposia:			
1.	M Thenmozhi and John Augustine	The Path to Insure a Billion: Challenges and Opportunities	February 26, 2024
Workshop:			
1.	Rupashree Baral and V Vijayalakshmi	Enhancing Research Quality & Productivity, Facilitated by Prof. Sarosh Kuruvilla of Cornell University, USA	December 04 - 09, 2023
Short Term Course:			
1.	Arshinder Kaur	FDP on Block Chain Basics and Beyond	December 21, 2023
2.	Arun Kumar G	Workshop on Strategic Thinking and Execution	February 19, 2024
3.	Arun Kumar G & Saji K Mathew	Leadership Orientation Programme for Directors of Indian Maritime University (IMU)	August 07 - 08, 2023
4.	Arunkumar G Srinivasan	Business Management Training under the SIDBI MME Cluster Intervention Program for Leather Cluster for Leather export MSMEs	October 09 - 13, 2023
5.	Kamalanabhan T J & M Thenmozhi M	Supervisory Development Programme for L&T	July 24 - 29, 2023

6.	Kamalanabhan T J & M Thenmozhi	Building Leadership in Operations & Organizational Management (BLOOM) - L&T	October 09 - 14, 2023
7.	Kamalanabhan T J & M Thenmozhi	Project Leadership and Managerial Development Programme (PLMDP) - L&T	November 20 - 29, 2023
8.	Kamalanabhan T J & M Thenmozhi & S Srinivasan	Project HAMSA Phase II - Leadership Development Journey for Executives of Indian Oil Corporation Ltd.	November 27 - December 02, 2023
9.	Kamalanabhan T J & M Thenmozhi	Project Leadership and Managerial Development Programme (PLMDP) (L&T)	August 24 - September 02, 2023
10.	Kamalanabhan T J, M Thenmozhi & S. Srinivasan	Project HAMSA - Leadership Development Programme for Young Managers of Indian Oil Corporation Ltd	September 08 - 21, 2023
11.	Kamalanabhan T J & M Thenmozhi	Bloom Programme for L&T managers	December 01 - 07, 2023
12.	Kamalanabhan T J & M Thenmozhi	Bloom Programme for L&T 2024	January 17 - 23, 2024
13.	Kamalanabhan T J, M Thenmozhi & S Srinivasan	Leadership Development Journey for Executives of Indian Oil Corporation Ltd.	November 27 - December 02, 2023
14.	Kamalanabhan T J & M Thenmozhi	Supervisory Development Programme (SDP) Batch 2 - (L&T)	September 11 - 16, 2023
15.	Kamalanabhan T J & M Thenmozhi	Supervisory Development Program (SDP) Batch 3 - (L&T)	September 25 - 30, 2023
16.	Kamalanabhan T J & M Thenmozhi & S Srinivasan	Leadership Development Journey for Executives of Indian Oil Corporation Ltd.	November 27 - December 02, 2023
17.	S Srinivasan, Kamalanabhan T J & M Thenmozhi	HANSA - Leadership Journey for Early Career Officers of IOCL	September 09 - December 03, 2023
18.	Pinosh Kumar Hajoary	Strategy Formulation and Data Visualization - Part 1" for Engineering Students	July 10 - 14, 2023
19.	Pinosh Kumar Hajoary	Strategy Formulation and Data Visualization - Part 2" for Engineering Students	July 18 - 22, 2023
20.	G Srinivasan, Usha Mohan & Rahul Marathe	Industrial Engineering Training Programme (Business Management Training Under the SIDBI MSME Cluster Intervention Program For Leather Footwear Cluster Chennai) Organization Name: SIDBI	July 07 - 08, 2023
21.	Rupashree Baral	Development Programme for Engineering Unit Staff of IIT Madras	April 28 - 29, 2023
22.	M Thenmozhi & Nargis Pervin	Becoming a Software Product Management Professional	April 05, 2023
23.	Kamalanabhan T J & M Thenmozhi	Bloom Programme for L&T 2024	January 17 - 23, 2024
24.	Kamalanabhan T J & M Thenmozhi	Bloom Programme for L&T 2024	January 17 - 23, 2024
25.	Thillai Rajan A	The Confluence Conference on Start-Ups and Venture Capital	December 12 - 15, 2023
26.	V Vijayalakshmi	Design Thinking - Fundamentals and Applications	February 03, 2024

27.	Pinosh Kumar Hajoary	Certification Course on Strategy Formulation and Data Visualization - 2 2024	February 05, 2024
28.	Kamalanabhan T J & M Thenmozhi	Project Leadership and Managerial Development Programme (PLMDP -3)	February 06, 2024
29.	Rupashree Baral & Nibu John Thomas	Faculty Development Programme for the HRD Team of Hyundai Motor India	March 11 - 12, 2024
30.	Kamalanabhan T J & M Thenmozhi	Leadership and Managerial Development Programme for Emerging Leaders	March 11, 2024
31.	Pinosh Kumar Hajoary	Certification Course on Strategy Formulation and Data Visualization	January 22 - 26, 2024
32.	Pinosh Kumar Hajoary	Certification Course on Strategy Formulation and Data Visualization - 3 2024	February 19, 2024
33.	S Srinivasan	Hands-on Training Program on Statistical Package for Social Sciences	March 09, 2024
34.	S Srinivasan, Kamalanabhan T J & M Thenmozhi	Embracing ESG Through Responsible Leadership	January 22 - 25, 2024

4.11.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, Training Attended By The Faculty Members In Academic Institutions And Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Workshop:				
1.	Rupashree Baral	Teaching With Cases	Harvard Business School, Boston	August 11 - 13, 2023
		NHRDN - Avatar Certified Diversity Professional Training Program	National HRD Network-Avtar	June 16 - 19, 2023
2.	Srinivasan	Teaching with Cases	Harvard Business School, Boston	August 11 - 13, 2023
Conference:				
1.	Arshinder Kaur	Optimizing On-Site Electric Vehicle Charging: Routing for Efficient Last-Mile Operations	International Conference on Industrial Engineering and Operations Management, UAE	February 11-14, 2024.
2.	Arshinder Kaur	Powering the Electric Vehicle Transformation: Modelling and Analysis of the Conversion of Fuel Outlets to Hybrid Outlets.	Industry 4.0 and Advanced Manufacturing: Proceedings of I-4AM 2024, IISC Bangalore	January 11 - 12, 2024
3.	Arshinder Kaur	Impact of Blockchain on Supply Chain Profitability: A Quantitative Analysis	26th Annual International Conference of the Society of Operations Management [SOM 2023], Indian Institute of Management Shillong	December 14 - 16, 2023
4.	Arshinder Kaur	Conceptual Framework for Medical Deliveries in Difficult-to-Access Areas Using Drones	26th Annual International Conference of the Society of Operations Management [SOM 2023], Indian Institute of Management Shillong	December 14 - 16, 2023

5.	Arshinder Kaur	Seamless EV Recharging and Battery Swapping: A MILP based approach	POMS India International Conference 2023	December 04 - 06, 2023
6.	Arunkumar G	Earnings Management and Financial Distress: The Role of Regulation, Capital Infusion, Institutional Ownership, and Accounting Flexibility	16th ISDSI-Global Conference 2023	December, 2023
7.	Arunkumar G	Earnings Management Strategies During Financial Distress: Evidence From India	World Finance Conference, Norway	August, 2023
8.	Arunkumar G	Earnings Management Strategies During Financial Distress: Evidence on Incentives and Trade-off Between Accrual and Real Earnings Management	5th International Conference on Financial Markets & Corporate Finance (ICFMCF 2023)	July, 2023
9.	Arunkumar G	Empirical Analysis of Early Signals for Financial Distress Using Accounting, Market, and Reporting Anomaly Variables	2nd International Research Conference on Insolvency and Bankruptcy	February, 2023
10.	Arunkumar G	Post-Acquisition Changes in Agency Cost of Acquirers: Effect of Target Companies	33rd RSEP International Conference on Economics, Finance & Business, Rome (Online)	November, 2023
11.	Arunkumar G	Post-acquisition Changes in Agency Cost of Acquirers: An Indian Perspective	16th ISDI-Global Conference 2023, IIM Ranchi	December, 2023
12.	Arunkumar G	Effect of Controlling Owners on Firm Performance Among Listed Entities From India	16th International Society for Data Sciences and Innovation - Global (ISDSI-G)	December, 2023
13.	Arunkumar G	Family Ownership and Firm Value - An Indian Perspective	World Finance Conference, Norway	August, 2023
14.	Arunkumar G	Ownership, Advertising Intensity, Research and Development Intensity and Firm Value: Evidence from India	24th Biennial Conference, Association of Indian Economic & Financial Studies (AIEFS)	July, 2023
15.	Arunkumar G	Impact of Identity and Concentration of Large Owners on Firm Performance	5th International Conference on Financial Markets & Corporate Finance (ICFMCF 2023)	July, 2023
16.	Arunkumar G	Influence of Domestic and Foreign Owners on Firm Performance - An Empirical Investigation of Listed Firms From India	3rd Annual Meeting of the European Journal of Management, Portugal	July, 2023
17.	Rupashree Baral	Examining the Role of Psycho-Social Motivators on MOOC Adoption: Moderating Effect of Gender	Academy of Management (AOM) Annual Meeting held in Boston Massachusetts, USA	August 04 - 08, 2023
18.		Work-Family Boundary Dynamics, Coping Strategies and Subjective Well-being of Women Entrepreneurs		
19.	Rupashree Baral	Diversity Equity and Inclusion in Higher Education Institutions	Goa Institute of Management (GIM), Goa	January 11 - 13, 2024

20.	Rupashree Baral	Impact of Family-Friendly Policies on Job Related Outcomes: Mediating Role of Perceived Organisational Family Support	International Conference on Management Research, IIT Madras	November 16 - 18, 2023
21.		Dark Side of HR Analytics in Indian Industries		
22.		Uncovering the Complexities of the Work-Family Interface of Nurses		
23.		Systematic Review of Workplace Spirituality Research in India: A TCCM Framework Analysis		
24.		Toward an Integrated Model of Remote Working Experience and Career Sustainability		
25.	S Srinivasan	The Academy of Management Conference (AOM)	Academy of Management (AOM), USA	August 04 - 08, 2023
26.	S Srinivasan	Tracing the Individual's Non Rational Choice Behaviour: The Disparity Between Individual's Preferences and Choice	9th PAN IIM World Management Conference	January 22, 2024
27.	S Srinivasan	Tracing the Individual's Non Rational Choice Behaviour: The Disparity Between Individual's Preferences and Choice	Management Doctoral Colloquium	February 01, 2024
28.	S Srinivasan	Fostering Organisational Agility Through Occupational Self-efficacy: The Role of Employee's Adaptive Performance	3rd Annual International Research Conference	December 15, 2023
29.	S Srinivasan	Fostering Flourishing at Work: A Conceptual Framework	International Conference on Management Research, IIT Madras	November 16 - 18, 2023
30.	V Vijayalakshmi	Universal Human Values Based Education: An Intervention Study in Higher Education	International Conference on Management	November 16 - 18, 2023
31.	V Vijayalakshmi	Personalised Life Skill Development for Enhancing Well-Being of Girl Students in Colleges in Tamil Nadu and Kerala	Research, IIT Madras	
32.	V Vijayalakshmi	Strengthening the Guardians: Towards a Comprehensive Model for Police Resilience		
33.	V Vijayalakshmi	Agility, Arts, and the Three Musketeers		
Training:				
1.	Rupashree Baral	NHRDN: Avtar Certified Diversity Professional Training Program	National Human Resource Development Network	June 16 - 19, 2023
2.	S Srinivasan	Tracing the Individual's Nonrational Choice Behaviour: The Disparity Between Individual's Preferences and Choice	9th PAN IIM World Management Conference	February 22, 2024
3.	S Srinivasan	Tracing the Individual's Nonrational ChoiceBehaviour: The Disparity Between Individual's Preferences and Choice	Management Doctoral Colloquium	February 01, 2024

4.11.3.4. Special Lectures Delivered By The Faculty In Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Arshinder Kaur	Talk: Emerging Technologies and Research Issues in Supply Chain at 21st ISME International Conference on Advances in Mechanical Engineering	PES University, Bengaluru and IIT Madras under the aegis of Indian Society of Mechanical Engineers (ISME), IIT Delhi, , held at PES University	July 13 - 15, 2023
2.	Rupashree Baral	Talk: Resolving Conflict in the Workplace: Effective Strategies for Building a Collaborative and Productive Team, Research and Industrial Conclave	IIT Guwahati	May 14, 2023
3.	Rupashree Baral	Talk: Green HRM: A Tool To Promote Sustainability, The International Conference on Realigning Dynamics at Workspace For Workforce	NSB Academy - Business School, Bengaluru	May 19 - 20, 2023
4.	Rupashree Baral	Talk: Managing Digital Distractions, ICSSR Sponsored Seminar on Leveraging Social Media and Technology to Boost Women's Career	VIT Business School, Chennai	April 21, 2023
5.	Rupashree Baral	Guest of Honour and Talk: Sustainable HR Practices, The National Conference on Sustainable Business Practices	Rajalakshmi Engineering College, Chennai	April 12 - 13, 2023
6.	Rupashree Baral	Talk: Teaching In The New Age, eminar Organised by Internal Quality Assurance Cell (IQAC)	Dr. MGR Janaki College of Arts and Science, Chennai	June 23, 2023
7.	Rupashree Baral	Chief Guest & Talk: Navigating Your PhD Journey, at Department Orientation (Online)	School of Management Studies, University of Hyderabad	August 23, 2023
8.	Rupashree Baral	Talk: Qualitative Research in the Five-Day Faculty Development Program (FDP) on Navigating Management Research: Innovative Trends and Strategies (Online)	NIST Institute of Science and Technology (Autonomous), Odisha	March 15, 2024
9.	Rupashree Baral	Training Session: Inclusion Unveiled: Exploring the Unconscious Biases and Developing Soft Skills, for Final Year Students of IIT Madras	IIT Madras	November 28, 2023
10.	Rupashree Baral	Master Class: Unveiling Women and Entrepreneurship in India: Research Insights	ICCSI 2023	December 15, 2023
11.	S Srinivasan	Innovative Practices in SW Research: Use of AI and Digital Tools: Prospects for Transformation	Madras Christian College, Chennai	October 10, 2023
12.	M Thenmozhi	Moderator: Panel Discussion on Global Education Revolution 4.0– The Role of Cutting-edge Technology in Higher Education	AIMS &ASMA Higher Education Summit 2023	April 21, 2023
13.	M Thenmozhi	Talk: Managing Digital Distractions, ICSSR Sponsored Seminar on Leveraging Social Media And Technology To Boost Women's Career	VIT Business School, Chennai.	April 21, 2023
14.	M Thenmozhi	Guest of Honour & Talk: Sustainable HR Practices, The National Conference On Sustainable Business Practices	Rajalakshmi Engineering College, Chennai	April 12 - 13, 2023

4.11.3.5. Visits Abroad By Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Arun Kumar G	Germany	May 08 - 15, 2023	Deliver a Lecture, Hof University of Applied Sciences	--
2.	Kamalanabhan T J	France	June 09 - 18, 2023	Short-term Programme Visit, IESEG School of Management	--
3.	Kamalanabhan T J	Mauritius	August 14 - 21, 2023	External Moderation to Moderate Examination Scripts and Research Exchange	--
4.	Kamalanabhan T J	USA	October 09 - 24, 2023	Personal Visit	--
5.	Kamalanabhan T J	USA	October 26 - 29, 2023	Paper Presentation, IABPAD, Memphis, Tennessee	--
6.	Krishna Prasanna P	Australia	April 21 - May 21, 2023	Collaborative Research Works and Meetings, University of Technology, Sydney, Australia	--
7.	Krishna Prasanna P	Australia	May 22 - 25, 2023	Paper Presentation,	--
8.	Krishna Prasanna P	Germany	June 01 - 24, 2023	Teaching Fixed Income Securities, University of Passau	--
9.	Rahul Marathe	France	July 17 - 22, 2023	Production and Operations Management Society International Conference	--
10.	Pinosh Kumar Hajoary	United Kingdom	November 11 - 17, 2023	Academic Activity, University of Manchester	--
11.	C Rajendran	Germany	March 11 - 15, 2023	Research Collaboration and Meetings, University of Passau	--
12.	C Rajendran	USA	December 13, 2023 - January 25, 2024	Personal Visit	--
13.	Richa Agrawal	Germany	May 01 - 05, 2023	Visiting Professor, University of Passau	--
14.	Richa Agrawal	United States of America	May 31 - July 10, 2023	Personal Visit	--
15.	Richa Agrawal	Germany	May 02 - July 09, 2023	Visiting Professorship	--
16.	Rupashree Baral	USA	August 04 - 08, 2023	Attended and Presented Two Research Papers, the Academy of Management (AOM) Annual Meeting, Boston	CPDA
17.	Rupashree Baral	USA	August 11 - 12, 2023	Attended Teaching With Cases Workshop, Harvard Business School, Boston	DoMS
18.	Saji K Mathew	UK	July 05, 2023	Paper Presentation, Liverpool Hope University	--

19.	Srinivasan S	USA	August 04 - 12, 2023	Conference and Faculty Development Program	CDPA, Department Fund
20.	Srinivasan S	USA	August 04 - 08, 2023	Paper Presentation, AOM, Boston	--
21.	Srinivasan S	USA	August 11 - 12, 2023	Workshop, Harvard Business School, Boston	DoMS
22.	Saji K Mathew	Germany	May 19 - June 01, 2023	Visiting Professor And Completion of Kushal Meeting	--
23.	Sundarraj R P	USA	August 21, 2023 - May 17, 2024	Invited Talk: Designing Cybersecurity Readiness Assessment	--
24.	Thillai Rajan A	Ireland	August 07 - 11, 2023	Personal Visit	--
25.	Thillai Rajan A	Canada	June 19 - July 11, 2023	Visiting Scholar, University of the Fraser Vally	--
26.	Usha Mohan	United Kingdom	April 19 - May 09, 2023	Personal Visit	--
27.	V Vijayalakshmi	New Zealand	July, 2023	Paper Presentation, 36th ANZAM Conference	--
28.	V Vijayalakshmi	Boston USA	August, 2023	Paper Presentation, AOM Annual Meeting, Boston	--

4.11.3.6. Honours And Awards Obtained By Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Awards:					
1.	Arun Kumar G	CSR Changemaker Awards	IIT Madras	Significant Work Undertaken Under Corporate Social Responsibility (CSR).	July 19, 2023
2.	Arshinder Kaur				
3.	Nandan Sudarsanam				
4.	Rupashree Baral				
5.	Saji Mathew				
6.	Thenmozhi M				
7.	Thillai Rajan A				
8.	Vijayalakshmi V				
9.	Rupashree Baral	Best Teacher Award	IIT Madras	Excellence in Teaching for the year 2023 for DOMS IIT Madras	September 05, 2023
10.	Thenmozhi M	Academic Excellence Award	Association of Indian Management schools and ASMA Higher Education Summit & Awards 2023	Academic Excellence Award	April 21, 2023

11.	Thenmozhi M	3rd Prize for Paper:Ownership Dynamics and Pledging Risk	Research Symposium on Finance and Economics 2023	Won Third Prize	--
12.	Thenmozhi M	Distinguished Alumna Award	Ethiraj College for Women	Distinguished Alumna Award	March 21, 2024

4.11.3.7. Fellowships Of Academies And Professional Societies:

Sl. No.	Name of Faculty	Year of Admission
Humboldt Fellowship:		
1.	Rajendran C	1996
INAE:		
1.	Rajendran C	2018

4.11.3.8. Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1.	R.P Sundarraj	Editorial Board Member	Group Decision and Negotiation
2.		Editorial Board Member	IEEE Engineering Management Review
3.	Rupashree Baral	Guest Editor, Special Issue: Diversity, Equity, Inclusion and Belonging (DEIB)	Business Perspectives and Research, Sage Publications
4.	Varisha Rehman	Associate Editor	Marketing, Intelligence and Planning, Emerald Group Publishing Ltd.
5.	Rajendran C	Managing Editor	Opsearch (Operational Research Society of India)

4.11.4.1. New Facilities Added Or Major Equipment Procured:

Sl. No.	Name of Facilities/Equipment	Value (Rs. in Lakhs)
1.	Renovated Room No.401 & 402 - Hybrid Class Room with 100-Seater Capacity	Rs. 41.44 Lakhs

4.11.5. Patents:

4.11.5.1. Patents Filed:

Sl. No.	Name of Faculty	Topic of Patent
1.	Sundarraj R P	Patent for the Title Exchange Servers and Method Thereof for Remotely Negotiating With Item Sources
2.	Amit R K	Pricing Under the Choice Attributes of the Available Options in a Data-driven Insurance Product for Revelation of Maximum Payout

4.11.5.2. Patents Awarded:

Sl. No.	Name of Faculty	Topic of Patent
1.	Saji K Mathew	Method and System to Provide Customized Visual Summary of Products in E-Commerce Platform
2.	Sundarraj R P	System and Method for Eliciting and Incorporating Preferences Into Electronic Negotiations for Cloud Computing Transactions

4.11.6. Research And Consultancy:

4.11.6.1. Sponsored Research Projects: (Ongoing & New)

Sl. No.	Title	Period		Funding Agency	Amount (Rs.in Lakhs)	Co-ordinators
		Start	End			
1.	Research Study on the Startup Landscape and Impact of Startup Policies	January 12, 2023	January 11, 2024	Meity Startup Hub	2	Thillai Rajan A
2.	Alfalgo	March 30, 2023	March 29, 2025	IIT Bhilai Innovation and Technology Foundation	40	Richa Agrawal
3.	Moderating Role of Entrepreneurial Orientation Among Women Entrepreneurs in Tamil Nadu	March 23, 2023	March 22, 2024	Indian Council of Social Science & Research	4.9	Rupashree Baral
4.	What Stops Indian Female Athletes? Exploring Mechanism for Their Ramp-up	November 30, 2022	November 29, 2023	National Commission for Women (NCW)	9.8	Rupashree Baral
5.	Strategic Response of Startups Towards Digital Technologies for Circular Economy	March 20, 2023	March 19, 2024	Indian Council of Social Science Research	5.145	Pinosh Kumar Hajoary
6.	Preparing the Tamil Nadu Start-up Ecosystem Report	June 22, 2023	December 21, 2023	Tamil Nadu Startup and Innovation Mission	9.8325	Thillai Rajan A
7.	Performance Modeling for Archery	July 25, 2023	March 25, 2024	Ministry of Youth Affairs and Sports	21.40	Nandan Sudarsanam
8.	Centre for Research on Start-ups and Risk Financing (CREST)	February 2023	January 2026	Ministry of Education	13.5	Krishna Prasana P
9.	Centre for Research on Start-ups and Risk Financing (CREST)	February 2023	November 2023	Ministry of Human Resource and Development	6.4	Krishna Prasana P

10.	Decision Fusion Technique for a Multisensorial Context for Ensuring Applications in Fault Diagnostics Decision Support system	March 23, 2023	June 30, 2024	Indian Council of Social Science & Research	34.80	R K Amit & Arunachalam
11.	Determining Successful Delivery Methods for ICT in Education, Using Targeted Interventions, Towards Improving Learning Outcomes	May 01, 2019	May 31, 2024	Samagra Shiksha - Tamil Nadu	46.4	Nandan Sudarsanam
12.	Building a Research and Educational Agenda for Circular Start-ups and Value Chains	July 2023	July 2024	Swedish Foundation for International Cooperation in Research and Higher Education (STINT) Stockholm	12	Pinosh Kumar Hajoary, Vinay Ramani and Marianna

4.11.6.2. Industrial Consultancy Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Arshinder Kaur Rajendran C	Co-Head, FedEx Centre for Smart and Sustainable Logistics and Supply Chain	FedEx	35 Crore
2.	Arshinder Kaur	Centre of Cyber-security–Block Chain Applications	Institute of Eminence Scheme, IIT Madras	--
3.	Nandan Sudarsanam	Meril HFT Expansion	Meril Healthcare Private Limited	9.78
4.	Rahul Marathe	Development of the AIMS Processes and Portal	Indian Council for Cultural Relations	41.30
5.	Rahul Marathe	Advisory Services and Writing Position Papers	Confederation of Indian Industry	5.90
6.	Saji Mathew	Assessment of Implementation of Three CSR Funded Initiatives by Hand in Hand	Hand In Hand India	3.25
7.	Srinivasan G	Royal Enfield Export Logistics	Royal Enfield (A Unit of Eicher Motors Ltd.)	5.78
8.	Srinivasan S	Consultancy for Data Science	Gnanam Institute For Training In Advanced Analytics Private Limited	8.85
9.	Thillai Rajan A	Next-gen Intelligence on the Indian Startup Ecosystem	Department of Telecommunications	1.18
10.	Thillai Rajan A	Program for Educating, Mentoring and Handholding on Entrepreneurship for the Spouses of GAIL Employees	GAIL India Limited	43.75

11.	Usha Mohan	Predictive Analytics for Home Healthcare Delivery	Grasko Solutions Private Limited	5.1
12.	Usha Mohan	Warehouse Operations Optimisation	Hitloop	1.77
13.	Usha Mohan	Consultant for Data Science	Gnanam Institute For Training In Advanced Analytics Private Limited	8.85
14.	Vaibhav Chawla	Monitor and Assess the Establishment of Thanjavur Reptile Zoo	The Reptile Conservancy Alliance	3.54
15.	R K Amit			
16.	M Thenmozhi			

4.11.6.3. RBIC Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Nandan Sudarsanam	Determining Successful Delivery Methods for ICT in Education, Using Targeted Interventions, Towards Improving Learning Outcomes	Samagra Shiksha - Tamil Nadu	46.40
2.	Amit R K	Decision Fusion Technique for a Multisensorial Context for Ensuring Applications in Fault Diagnostics and Decision Support System	Aeronautics Research & Development Board	34.80
3.	Rupashree Baral	Moderating Role of Entrepreneurial Orientation on the Relationship Between Antecedent Factors, Entrepreneurial Intention and Perceived Entrepreneurial Success: A Study Among Women Entrepreneurs in Tamil Nadu	Indian Council of Social Science & Research	5.24
4.	Nandan Sudarsanam	Performance Modeling for Archery	Ministry of Youth Affairs and Sports	21.40

4.11.6.4. Retainer Consultancy: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Nandan Sudarsanam	Machine Learning for IT System Upkeep—RC	GAVS Technologies Limited	191.59
2.	Nandan Sudarsanam	Data Analytics Client Support	Silint Consulting Private Limited	11.80
3.	Thenmozhi M	CAMS IITM Fintech Innovation Lab	Computer Age Management Services Private Limited	800.00

4.11.7. Exchange Programme With Other Universities Including Institutions/ Universities Under MoU:

Sl. No.	Name of the Scholars/Students	Country Visited	Date	Purpose of Visit
1.	Mr. S Vasanthraj MS18D004	Australia	May 11 - November 29, 2022	Joint Degree Programme, Curtin University, Australia.
2.	Priyam Bajpai MS20D007	Sydney	January 01 - December 31, 2023	Joint Degree Programme, University of Technology, Sydney
3.	Apoorva Goel MS19D039	Australia	October 18, 2023 - September 30, 2024	Joint Degree Programme, Curtin University, Australia
4.	Rithika B MS22A070	Mannheim	February 12 - July 31, 2024	Exchange Program, University of Mannheim
5.	Lisha Halder MS22A070	Germany	March 01 - August 31, 2024	Exchange Program, The Koblenz University Of Applied Sciences, RheinAhr Campus, Germany
6.	Wiselyn Ruth Jebakumari J MS22A090	Austria	March 04 - June 2024	Exchange Program, Management Center Innsbruck (MCI), Austria
7.	Vasanth P MS22A088	Austria	March 04 - June 30, 2024	Exchange Program, Management Center Innsbruck (MCI), Austria
8.	Haritha V H MS20D014	Australia	April 26, 2023 - May 27, 2024	Joint Degree Programme, the University of Technology Sydney, Australia
9.	Sravani A MS22A081	Austria	March 04 - June 30, 2024	Exchange Program, Management Center Innsbruck (MCI), Austria
10.	Akhil K MS22A003	Germany	April 01 - June 30, 2024	Exchange Program, TU Bergakademi Freiberg, Germany
11.	Dipika A MS22A025	Germany	April 01 - June 30, 2024	Exchange Program, TU Bergakademi Freiberg, Germany
12.	Harish R MS22A033	Germany	April 01 - June 30, 2024	Exchange Program, TU Bergakademi Freiberg, Germany
13.	Gautam MS22A027	Germany	April 01 - July 31, 2024	Exchange Program, Technical University of Munich
14.	Paranjothi S MS22A058	Germany	April 01 - July 31, 2024	Exchange Program, Technical University of Munich
15.	Arunkumar B MS22A012	Germany	April 01 - July 31, 2024	Exchange Program, Technical University of Munich
16.	Ann Jessie Sandra P MS22A006	Italy	April 01 - July 31, 2024	Exchange Program, Polytechnic University of Milan, Italy
17.	Arkit Sukhadia MS22A085	Germany	April 01 - July 31, 2024	Exchange Program, University of Passau, Germany

4.11.7.1. Faculty Members Participation With Other Institution Under MoU:

Sl. No.	Name of Faculty	Participation Details	Name of University/ Institution Which Has MoU
1.	Arshinder Kaur	One Day Training Programme with Prof. Vidyasagar Potdar, Blockchain Basics and Beyond, December 20, 2023	Curtin University (CODE-programme)

4.11.8. Distinguished Visitors To The Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Prof. Kirankumar S Momaya, Professor of Competitiveness, Shailesh J Mehta School of Management, Indian Institute of Technology Bombay	June 20, 2023	Seminar: Highlighting the Significance of Competitiveness in Both Macro and Micro Contexts
2.	Mr. Sudhanshu Mani, IRSME (Retd. General Manager/CF, Chennai)	July 13, 2023	The Train 18/Vande Bharat Story: An engineering Dream to Reality
3.	Prof. Chinmoy Ghosh, Department Head, Gladstein Professor of Business and Innovation, Finance	July 19, 2023	Future Research Collaborations
4.	Mr. Himanshu Bhangre, Director at KPMG Global Services (KGS)	August 24, 2023	Unleashing Innovation: Integrating Digital and Business Strategy
5.	Mr. Mukesh Ralhan, Group Head - COE & Strategic Initiatives, Techno Commercial, Adani Group	September 14, 2023	Talk: We Weed Out Ourselves
6.	Firouzeh Rosa Taghikhah, Lecturer, Discipline of Business Analytics, the University of Sydney Business School.	September 12, 2023	Research Talk
7.	Major General H. Dharmarajan AVSM, SM Bar, VSM	August 31, 2023	Natarajan Memorial Endowment Lecture Better Governance: Lessons From Success and Hurdles
8.	Mr. Anuj Kumar, Managing Director, CAMS	September 22, 2023	Account Aggregators: Powering Financial Inclusion for a Billion Indians
9.	Prof. Denis Harrington, Head of Graduate Business, South East Technological University	October 10, 2023	Discuss and Explore Collaboration Possibilities
10.	Mr. Ramesh Subramoniam, Ph.D., Director of UG Research, Naveen Jindal School of Management, The University of Texas, Dallas	November 15, 2023	Collaboration with IIT Madras
11.	Prof. Stephen Zhang, Adelaide Business School	November 17, 2023	Discussion and Explore Collaborative Possibilities
12.	Mr. Aiyappan R, Director Digital Manufacturing, Siemens	November 16, 2023	Talk on Digital Manufacturing
13.	Mr. Murali Sundaram, Emerging Technologies Practitioner	November 09, 2023	Talk on Manufacturing Radar
14.	Mr. Rohit Gera, Plant Head at Boulton Audio	November 19, 2023	Talk: Operations & Supply Chain

15.	Mr. Shankar Venugopal, Vice President, Mahindra & Mahindra	November 21, 2023	Talk: EV Manufacturing
16.	Mr. Krishna Srinivas, Executive Vice President, Tube Investments	November 25, 2023	Talk: Corporate Strategy
17.	Prof. Sarosh Kuruvilla from ILR School, Cornell University	December 04 - 09, 2023	Facilitated FDP: Research Quality and Productivity
18.	Prof. Shilpa Madan, Assistant Professor of Marketing, Lee Kong Chian School of Business, Singapore Management University	December 15, 2023	Research Seminar Talk
19.	Prof. Laurent Borgmann, Professor and ERASMUS coordinator, University of Applied Science, Hochschule Koblenz, RheinAhrCampus, Remagen, Germany	January 22, 2024	Talk: Studying in Germany
20.	Prof. Marianna and Prof. Axel, Linkoping University	February 18 - 23, 2024	STINT Project, IIT Madras and IIT Kanpur

4.11.8. Other Activities Of The DEPARTMENT/Centre :

4.11.8.1. Results Obtained In Research Work:

MS Thesis

Sl. No.	Name of the Scholar	Roll No.	Guide	Thesis Title
1.	Abhishek Gupta	MS19S002	Thillai Rajan A	A Total Interpretive Structural Modelling Approach to Measure the Performance of Incubators in Higher Educational Institutions
2.	Pingale Sagar Bhikari	MS20S005	Arshinder Kaur	Two Echelon Vehicle Routing Problem Based on Collaboration Points in the Last Mile Delivery
3.	Somdeep Acharyya	MS20S001	Nargis Pervin	Towards Cross Domain Recommendations a Personality Based Probabilistic Matrix Factorization Approach
4.	Soofi Hussian	MS19S013	Nargis Pervin	Capitalizing Multi-Modality and Aspect: Sentiments in Social Recommender Systems

Ph.D Thesis - 2023

Sl. No.	Name of the Scholar	Roll No.	Guide	Thesis Title
1.	Karen Nisha	MS15D025	Madhumathi	Derivative Impact on the Macro Prudential Indicators of Banks and Its Moderation Role on Bank Risk Exposure: Empirical Evidence From India
2.	Krutheeka Baskaran	MS17D204	Saji K Mathew	Wearable Digital Technologies and Information Privacy Concerns A Mixed-Method Investigation of Fitness Trackers
3.	Kuruva Ramesh	MS15D020	Thillai Rajan A	Investment Structuring and Syndication: Does It Affect Valuation Venture Exits and Returns?
4.	Rahul R Lexman	MS17D013	Rupashree Baral	Examining Learner Behaviours in the Adoption and Use of E-Learning Tools: Understanding Motives, Determinants, and Utility of MOOCs
5.	C Ramya	MS16D021	Nandan Sudarsanam	Resource Allocation Strategies for Quasi-Sequential Online Experiments and Their Applications

6.	Ramya M	MS17D016	Rupashree Baral	Effect of Employees' Sustainability-related Moral Conflict on Sustainability Actions: A Multi-method Investigation
7.	Sharon Christina Tensingh	MS15D200	M. Thenmozhi	Transaction Taxes, Liquidity and Trading Activity in Commodity Futures Market
8.	Sathyanarayanan V	MS14D009	Sundarraj R P	Health-Analytics Adoption The Role of Institutional Factors and Design of Readiness - Assessment
9.	Shilpi Saxena	MS15D027	Vaibhav Chawla	Return Service Quality in E- tailing: Construct Refinement, Scale Development and Validation
10.	J Jasmine Banu	MS17D200	Rupashree Baral	Work-Family Boundary Dynamics Among Women Entrepreneurs: a Mixed Method Study
11.	J H Jyotsna	MS16D202	L Prakash Sai	Pilgrim - Tourist Experience at The Sacred Sites of Hinduism: An Empirical Study
12.	Nabila Khan	MS17D021	Lata Dyaram	Interrelational Determinants of Employee Voice: A Mixed-Method Multilevel Examination
13.	Nibu John Thomas	MS16D017	Rupashree Baral	Mechanism of Gamification: Conceptualizing Gameful Experience and Examining the Role of Flow in Gamified Learning
14.	A. Niroopa Rani	MS16D001	Thillai Rajan A	What Drives Syndication in Angel Investments: Resource-Pooling or Risk-Reduction?
15.	Nilanjan Dutta	MS15D201	Arshinder Kaur	Enabling Socially Responsible Operations Design and Analysis of Advance Payment Contracts Between a Firm and Farmers in Emerging Economics

4.11.8.2. Inter Disciplinary Group Achievements Of The Department:

Sl. No.	Faculty Name	Inter Disciplinary Group Achievements
1.	Vijayalakshmi V	Project Funded by Meta on Learning in Metaverse, Collaboration With Prof. M Manivannan (Applied Mechanics)
2.	Vijayalakshmi V	Project Funded by IIT Madras on Enhancing Academic and Holistic Wellness of IITM First Year UG students, - Collaboration With Prof. Satya Sunder Sethy, Edamana Prasad, Parag Ravindran

4.11.8.3. Socially Relevant Activities Carried Out By The Department:

Sl. No.	Name of the Faculty Member	Socially Relevant Activities	Date & Venue
1.	M Thenmozhi	Moderator; Panel Discussion on Global Education Revolution 4.0: The Role of Cutting-edge Technology in Higher Education at the AMIS & ASMA Higher Education Summit 2023	April 21, 2023
2.	Arshinder Kaur	Arshinder's Research Work (With Dr. Nilanjan Dutta) featured in India Today. IIT Madras researchers have devised a mathematical model on contract farming to predict farmers' delivery of commodities using a decision-theoretic framework based on the 'Prospect Theory' The research was undertaken by Nilanjan Dutta and Professor Arshinder Kaur, Department of Management Studies, IIT Madras. The development of the model is targeted to aid policymakers in designing mechanisms that would encourage more firms to offer advance-payment contracts	June 20, 2023

4.11.8.4. International Collaboration/Achievements By The Department:

Sl. No.	Name of Institute	Date & Venue
1.	IESEG School of Management	June 10 - 18, 2023. Lille, Paris & France
2.	University of Passau	July & August 2023

4.11.8.5. Books Published:

Sl. No.	Name of the Faculty Member	Title
1.	C Bhaktavatsala Rao	Legendary Leaders: Insights and Lessons
2.		Dharmic Management: Lessons from the Indian Social Ecosystem
3.		Strategic Marketing: Cases and Concepts from the Indian Business
4.		Personal Mastery: Competence-Behaviour Frameworks
5.	Saji K Mathew	Vanessa, C., Kranz, J., Mathew, S. K. and Watson, R. T. (2023), The Handbook of Information Systems and the Environment. Cheltenham, UK: Edward Elgar

4.11.8.6. Book Chapters:

Sl. No.	Name of the Faculty Member	Book Chapters
1.	Thillai Rajan A	Sathya Anbajagane and Reeba Devaraj (2023). "Startup India". i Reforms and Resurgence: Crafts of Governance in India, Creating Intellectual Heritage Series, National Book Trust, India.
2.	Rupashree Baral	"Gamification for Synchronous and Asynchronous Learning". (Eds.) Synchronous and Asynchronous Approaches to Teaching: Higher Education Lessons in Post-Pandemic Times Eds. P Kumar & J Eisenberg. Cham: Springer International Publishing. Pp. 203-222

4.11.8.7. Articles:

Sl.No.	Name of the Faculty Member	Article
1.	Thillai Rajan A	IIT-M creates GEN AI tool for Start-ups, The Times of India
2.		Union Minister Rajeev Chandrasekhar Launches 'Investor Information and Analytics Platform' Developed by IIT Madras, Press Information Bureau. Press Release issued by Ministry of Electronics & IT, Govt. of India: https://pib.gov.in/PressReleaselframePage.aspx?PRID=2009221

4.11.8.8. Professional Assignments

Sl. No.	Faculty Name	Professional Assignments
1.	Arshinder Kaur	Appointed as one of the board members of POMS, Dr. Arshinder Kaur will serve as the Vice President of doctoral student development. Production and Operations Management Society (POMS) is an international professional organization representing the interests of POM professionals worldwide.

4.11.8.9. Student Related Other Activities Of The Department:

Sl. No.	Student Activities	Date & Venue
1.	MILS Lecture Mr. Chirag Jain, founder of Get My Parking and an alumnus of DoMS Startup 101: The Good, The Bad & The Ugly	February 08, 2023
2.	MILS Lecture Mr. Santhosh Muruganantham, founder of Kolapasi Chain of Restaurants Across Australia	February 09, 2023
3.	Alumni Talk on Recent Trends in Operations and Analytics by Asan Kumar	February 18, 2023
4.	DoMS Coming '23, Mumbai	March 04, 2023
5.	DoMS Coming '23, Hyderabad	March 11, 2023
6.	MILS Lecture Ms. Ayushi Verma, Head, South India Business for Bloomberg LP and Mr. Chirag Dixit, Enterprise Account Manager for South India Region at Bloomberg Interactive Session for MBA Students	March 17, 2023
7.	DoMS Coming '23, Delhi	March 18, 2023
8.	MILS Lecture Mr. Harish Lakshman, Vice Chairman, Rane Group Architecting the Future of Resilient Manufacturing	March 24, 2023
9.	Alumni Talk by Saurabh Ranadive (MBA Batch of 2010)	April 27, 2023
10.	Sri R Natarajan IAS Endowment Lecture series	July 31, 2023
11.	Back to the GEMBA- First Batch Reunion (2003)	September 16, 2023
12.	D3P Convocation	July 22, 2023
13.	SAMANWAY 2023	October 22-29, 2023
14.	MILS Lecture Ms. Sharmila Sundaram, Founder- Corefactors, Unveiling the MBA's Entrepreneurial Odessey	November 01, 2023
15.	Sangam Night 2023	November 02, 2023
16.	Sarva - Confluence 2023	November 05, 2023
17.	International Conference on Management Research 2023	December 16-18, 2023
18.	International Confluence Conference on Start-Ups and Venture Capital	December 13-15, 2023
19.	EMBA cultural Fest- Embrace 2023 was held at DoMS	December 17, 2023
20.	DoMS Coming '24- Chennai Alumni Reunion	January 21, 2024
21.	MILS Lecture Dr. Ankit Shah, SME, Speaker & Author, GNLU Legal Incubation Council, India's Role in Shaping the Global Landscape: A Closer Look	January 25, 2024
22.	Alumni Committee of DoMS organized the alumni reunion at Mumbai	March 09, 2024
23.	The Sports and Cultural Committee of the DoMS organized the DoMS League, a sporting event featuring four sports, namely Football, Chess, Volleyball, and Throw ball.	March 14, 2024
24.	The Final Game Night	March 16, 2024

4.12. Department Of Humanities And Social Sciences

4.12.1. Introduction:

The Department of Humanities and Social Sciences, one of the oldest at the Indian Institute of Technology Madras, has been contributing to the Institute's academic environment since 1959. The Department's essentially inter-disciplinary nature is its distinguishing feature, which allows students to develop an appreciation for a diverse set of fields such as Development Studies, Economics, English Studies, Environmental Studies, Climate Policy, Astronomy,

History, International Relations, Philosophy, Cultural Studies and Sociology. The Department offers both Master's and Doctoral programmes, as well as Electives for Engineering students.

Coupled with its multi-disciplinary background, the Department boasts of a highly diverse and experienced faculty. The Department has an excellent student-teacher ratio, providing opportunities for academically intense learning.

4.12.2. Academic Programmes: Integrated M.A. (Two-Year Programme)

The Department restructured its Master of Arts programme in 2022. Instead of five-year integrated M.A., the Department will be offering two year M.A. programmes in Development Studies, Economics and English Studies from July 2023.

The Department also offers a Dual Degree M.A. in Public Policy for the Institute's B. Tech students.

4.12.2.1. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024:

Programme	I year	II Year	III Year	IV Year	V Year & Others	Total
M.A.	67	51	57	48	43	266
Ph.D.	30	18	29	15	40	132
Total	97	69	86	63	83	398

4.12.2.2. Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Keerthana S	HS19D025	The British Association of South Asian Studies Annual Conference (BASAS),	April 3-5, 2023. University of Leeds, England	Institute
2.	Mruthula J	HS19D017	10th Interdisciplinary, International Anniversary Conference: Talking Bodies,	June 12-16, 2023. University of Chester, England	Online
3.	Dhiren Swain	HS20D015	International Sociological Association, World Sociology Congress 2023	June 24-29, 2023. Melbourne	Institute

4.	Lalitha M	HS19D030	Development Studies Association DSA2023 -Crisis in the Anthropocene: Rethinking Connection and Agency for Development	June 28-30, 2023. University of Reading, UK	Institute
5.	Keerthana S	HS19D025	12th International Gender and Language Association (IGALA) Conference	July 4-6, 2023. University of Queensland, Australia	Online
6.	Mruthula J	HS17D017	27th European Conference for South Asian Studies (ECSAS 2023)	July 26-29, 2023	Institute
7.	Lalitha M	HS19D030	Royal Geographical Society Annual Conference 2023 - Climate Changes Geographies	August 29-September 01, 2023. Imperial College, London, UK	Alumni
8.	Nidheesh S		Asian Urbanization Conference 2024	January 11-12, 2024. Vietnamese German University, Asian Urban Research Association, Ho Chi Minh City, Vietnam	Self
9.	Dhiren Swain	HS20d015	Cost of Democracy Workshop: On Vote Buying and Election Finance	March 14-15, 2024. KITLV Netherlands	Online
India					
1.	Gokul K S	HS19D018	The Himalayas From Its Edges: Mobilities, Networks, Geographies,	January 26-28, 2023. Ashoka University, Sonipat, Haryana (in association with University of Westminster)	Self
2.	Madhura Niveditha Balasubramaniam	HS22D006	The Himalayas From Its Edges: Mobilities, Networks, Geographies,	January 26-28, 2023. Ashoka University, Sonipat, Haryana (in association with University of Westminster)	Self
3.	Lalitha M	HS19D030	Writing Without Fear	March 21-23, 2023. IIAS Leiden and the French Institute of Pondicherry	Self
4.	Soham Chakraborty	HS18D024	Communities and Change, th Annual Conference of the Memory Studies Association titled	July 3-7, 2023	Newcastle University, United Kingdom
5.	Catherine Shilpa X	HS19D007	Communities and Change, 7th Annual Conference of the Memory Studies Association titled	July 3-7, 2023	Newcastle University, United Kingdom

6.	Nishtha Pandey	HS19D001	Communities and Change, 7th Annual Conference of the Memory Studies Association titled	July 3-7, 2023	Newcastle University, United Kingdom
7.	Rashi Shrivastava	HS18D028	Communities and Change,	July 3-7, 2023	Newcastle University, United Kingdom
8.	Subhashini	HS20D010	Communities and Change, 7th Annual Conference of the Memory Studies Association titled 'Communities and Change'	July 3-7, 2023	Newcastle University, United Kingdom
9.	Scherezade Dastur	HS18D029	18th International Pragmatics Conference	July 9 Leiden and the French Institute of Pondicherry 14, 2023 Universite Libre de Bruxelles, Belgium	Institute
10.	Snigdha Medhi	HS21D005	56th Annual Meeting of the Societas Linguistica Europaea	August 29-September 01, 2023. National and Kapodistrian University of Athens, Greece	Dean ACR, IIT Madras
11.	Krishna Raj S R	HS18D300	Bernstein Conference 2023, Bernstein Network Computational Neuroscience	September 26-29, 2023. Humboldt Universität zu Berlin, Germany	Institute
12.	Snigdha Medhi	HS21D005	South Asian Languages Analysis Roundtable (SALA-37)	October 04-07, 2023. Ca' Foscari University of Venice, Italy	Online
13.	Dhiren Swain	HS20D015	India Land Development Conference	November 02, 2023	Self
14.	Madhura Niveditha Balasubramaniam	HS22D006	Roderick MacFarquhar Launch Showcase,	November 14, 2023. Ashoka University, Sonapat, Haryana	Ashoka University
15.	Madhura Niveditha Balasubramaniam	HS22D006	Ashoka University Department of History Speaker Series Monsoon Semester	November 15, 2023 (Online)	Ashoka University
16.	Madhura Niveditha Balasubramaniam	HS22D006	All India Conference of China Studies,	November 16-18, 2023. Institute of Chinese Studies and University of Hyderabad (Online)	N/A
17.	Gunti Prem Sagar	HS19D021	Workshop: Current Issues in Syntax, Semantics and Pragmatics, 47th Austrian Linguistics	December 8-10, 2023. University of Graz	Institute
18.	Krishna Raj S R	HS18D300	10th Annual Conference of Cognitive Science (ACCS 2023)	December 9-11, 2023. IIT Kanpur	Self

19.	Srikant Shaw	HS23D008	The Emergence of Microgrids as an Innovative Solution in India: A Literature Review		Energy Summit, 2023
20.	ANU	HS22D013	SPARC Workshop, Constructing the Eastern Himalaya: Infrastructure for States, Communities, and Ecologies	February 07-08, 2024. Sikkim University (in association with La Trobe & University of Western Australia)	SPARC Project
21.	Ashwathy Viswanathan	HS23D004	SPARC Workshop, Constructing the Eastern Himalaya: Infrastructure for States, Communities, and Ecologies	February 07-08, 2024. Sikkim University, Sikkim (in association with La Trobe & University of Western Australia)	SPARC Project
22.	Lalitha M	HS 19D030	Alternative Methodologies and Ethical Concerns IISER Bhopal	March 05-07, 2024. IISER Bhopal	Self

4.12.2.3. Students/Scholars Who Won Outside Prizes and Awards:

Sl.No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Garima Sane	HS21H023	Scholarship: Summer Course, University of Munich, Germany	DAAD
2.	Jayati Chatterjee	HS21D002	Best Paper Award	IIM Amritsar

4.12.2.4. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl.No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1.	Nishtha Pandey	HS19D001	Institute Research Award for PhD 2022-23 (July-November)	IIT Madras

4.12.3. Faculty and Their Activities:

4.12.3.1. Faculty:

Name and Qualifications	Major Area of Specialisation (Only 3 Areas)
Professors:	
Prof. Rajesh Kumar (Head), Ph.D. (University of Illinois)	Language in Education, Sociolinguistics, Linguistic Theory
Prof. Anup Kumar Bhandari, Ph.D. (Indian Statistical Institute)	Production Economics, Industrial Economics; Indian Banking and Financial Markets
Prof. Aysha Viswamohan, Ph.D. (Vikram University)	American Literature, Film Studies, Popular Culture

Prof. Binitha V Thampi, Ph. D. (ISEC, Bengaluru)	Gender and Development, Decentralisation and Governance Reforms, Welfare State, Poverty Reduction Policies and Programmes
Prof. S P Dhanavel, Ph.D. (Tripura University)	Literary Studies, English Language Teaching, Communication and Soft Skills
Prof. Jyotirmaya Tripathy, Ph.D. (IIT Kharagpur)	Culture and Development, Contemporary India
Prof. V R Muraleedharan, Ph.D. (IIT Madras)	Healthcare Policy, Environmental Health, Technology and Development, History of Healthcare in South India
Prof. Satya Sundar Sethy, Ph.D. (University of Hyderabad)	Philosophy of Language, Analytical Philosophy and Indian Philosophy
Prof. Solomon J Benjamin, Ph.D. (Massachusetts Institute of Technology)	Urban Studies, Human Geography, Urban Governance
Prof. Sreekumar N, Ph.D. (University of Hyderabad)	Continental Philosophy and Hermeneutics, Bioethics, Indian Philosophy
Prof. Subash S, Ph.D. (IIT Bombay)	International Trade, Innovation, Small Firms and Industrial Development
Prof. Sudarshan Padmanabhan, Ph.D. (University of South Florida and Pondicherry University)	Social and Political Philosophy
Prof. Sudhir Chella Rajan, Ph.D. (University of California)	Automobility, Sustainability and Political Theory, Social Studies of Corruption
Prof. Suresh Babu M, Ph.D. (JNU, New Delhi)	Applied Macroeconomics, Industrial Economics and Trade and Development
Prof. Swarnalatha R, Ph.D. (Madras University)	Environmental Humanities, Ecocriticism of the Global South, Plant Humanities, Ecofeminism
Prof. Umakant Dash, Ph.D. (IIT Kanpur)	Financial Economics, Health Policy Analysis, Economic Evaluation of Healthcare Programmes and Inter-industry Analysis
Associate Professor	
Dr. Avishek Parui, Ph.D. (Durham University)	Memory Studies, Medical Humanities, Artificial Intelligence and Literary Theory
Dr. Hemachandran Karah, Ph. D. (Cambridge University)	Literary Criticism and Rhetoric, Disability Studies and Comparative Musicology
Dr. Joe Thomas Karackattu, Ph.D. (JNU, New Delhi)	Economic Interdependence and Conflict, International Relations
Dr. John Bosco Lourdasamy, D.Phil. (Oxford University)	Plantation Studies, History of S&T and Medicine in Modern India
Dr. Kalpana K, Ph. D. (MIDS)	Gender and Development, Women's Studies and Microfinance
Dr. Mathangi Krishnamurthy, Ph.D. (University of Texas at Austin)	Anthropology of Work; Medical Anthropology; Body and Gender; Applied Anthropology; Ethnographic Research Methods
Dr. Merin Simi Raj, Ph.D. (IIT Bombay)	Memory Studies, Digital Humanities, Anglo-Indian Studies
Dr. Milind Brahme, Ph.D. (JNU, New Delhi)	German Language and Literature, Comparative Literature and Literary Theory, Education
Dr. Roland Wittje, Ph.D. (NTNU Trondheim)	History of Science and Technology
Dr. Sabuj Kumar Mandal, Ph. D. (ISEC, University of Mysore)	Energy and Environmental Economics, Applied Econometrics, Industrial Economics

Dr. Santhosh Abraham, Ph.D. (University of Hyderabad)	Colonial Psychiatry and Institutions, Colonial Veterinary Practices, Law and Society
Dr. Santhosh R, Ph.D. (ISEC, University of Mysore)	Sociology, Globalisation and Change
Dr. Santosh Kumar Sahu, Ph.D. (IIT Bombay)	Energy Economics, Applied Microeconomics, Industrial Economics, Institutional Economics, and Economics of Global Climate Change
Dr. Sonika Gupta, Ph. D. (JNU, New Delhi)	IR, China, Tibet, Himalayan Borderlands
Assistant Professor	
Dr. Aditya Kolachana, Ph.D. (IIT Bombay)	History of Mathematics, Astronomy of India
Dr. Anindita Sahoo, , Ph.D. (IIT Delhi, New Delhi)	Linguistics
Dr. Deepak Paramasivam, Ph.D. (Ethnomusicology, University of Alberta, Canada.) Ph.D., (University of Alberta, Canada and IISc Bangalore)	Ethnomusicology, World Music, Sarangi, Mysore Style Veena, Theater, Philosophy and Comparative Religion
Dr. Divya A, Ph.D. (NTU, Singapore)	Film Studies, British Literature, Tamil Literature, and Visual Studies
Dr. Krishna Malakar, PhD. (IIT Bombay)	Ecological Economics, Climate policy, Environmental Sustainability
Dr. Pramod Kumar Naik, Ph.D. (IIT Bombay)	Financial Economics, Stock Market Volatility, Behavioural Finance, Corporate Finance, Applied Econometrics Time-series and panel data, Money, and Banking.
Dr. Sandeep Kumar Kujur, Ph.D. JNU, New Delhi	Industrial Economics, Economics of Technology, Labour and Development Economics.
Dr. Thanggoulen Kipgen, North-Eastern Hill University, Shillong	Sociology of Migration, Urban Sociology, Ethnicity, Identity, Northeast India Studies and Ethnography
Dr. Tabraz S S, Ph. D. (JNU New Delhi)	International Relations Theory, Conflict Resolution, International Mediation and Politics of West and South Asian Regions
Dr. Umashankar Patra, Ph.D., University of Delhi	Modernism, Modernity in India, Life Writing, Queer Studies and Translation
Visiting Faculty:	
Dr. Soo Jin Shim, Ph.D. (Seoul National university)	Foreign Language Education, Language for Specific Purposes, Korean Studies
Dr. Christoph Woiwode, Ph.D. (University of London)	Sustainable Urban Development, Social Transformation to Sustainability, Climate Change, Disaster Risks, Governance

4.12.3.2. Short-term Courses, Workshops, Seminars, Symposia, Conferences Organised by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference			
1.	Avishek Parui & Merin Simi Raj	International Memory Studies Conference, Memory, Ecology, and Sustainability	September 20-22, 2023

Seminar			
1.	Avishek Parui and Merin Simi Raj	Research Conversations related to MoU	February 17, 2023
2.	Avishek Parui and Merin Simi Raj	Seminar on Episodic Memory by Prof. Alex Easton	February 20, 2023
3.	Anindita Sahoo	Seminar: All About 'Voice' (AAV): A Crosslinguistic Perspective	April 14-15, 2023
4.	Santosh Kumar Sahu	AIEFS Bi-Annual Conference 2023	July 24-25, 2023
5.	Avishek Parui and Merin Simi Raj	Special Lecture and Workshop by Dr. Anindya Raychaudhuri: Historiography and Oral Narratives	November 27-30, 2023
6.	Avishek Parui and Merin Simi Raj	Mandalas of Time	December 22, 2023
Workshop			
1.	Avishek Parui	Memory Studies, Institute of Advanced Study, Durham University	8th January 2024 to 28th May 2024
2.	Sonika Gupta	SPARC Workshop: Constructing the Eastern Himalaya: Infrastructure for States, Communities, and Ecologies. Sikkim University, La Trobe & University of Western Australia	February 07-08, 2024
3.	Subash S	Growth and Efficiency of Micro, Small and Medium Enterprises in India	February 07, 2024
4.	Mathangi K	Multimodal Ethnography, Ashoka University (Undergraduate Students and Fellows in the YIF Program)	November 04, 2023
Short Term Course:			
1.	Sudarsan Padmanabhan	IIT Madras Technical & Science Writing Workshop, Co-coordinator with Prof. L. Sriramkumar, IIT Madras	May 15-19, 2023
2.	Sudarsan Padmanabhan	Indian Parliamentary Democracy, CODE, IIT Madras	June 16-22, 2023
3.	Sudarsan Padmanabhan	IIT Madras Technical & Science Writing Workshop, Co-coordinator with Prof. L. Sriramkumar, IIT Madras	July 17-21, 2023
4.	Sonika Gupta	Indian Army, IIV Corps Officers Module: Tibet in the Himalayan Geostrategic Cadre for the Officers of Eastern Command, Bob Khathing Institute, Tenga Military Station, Dahung, Arunachal Pradesh	September 04-10, 2023
5.	Sudarsan Padmanabhan	IIT Madras Technical & Science Writing Workshop - Co-coordinator with Prof. L. Sriramkumar, IIT Madras	November 27- December 01, 2023
6.	Sudarsan Padmanabhan	Performance Traditions in Mahabharata - Co-ordinator with Mr. Sashikanth, CODE, IIT Madras	January 02-07, 2024
7.	Sudarsan Padmanabhan	Train the Trainers Technical & Science Writing Workshop - Co-coordinator with Prof. L. Sriramkumar, Dept of Physics, Pondicherry	January 02-07, 2024

4.12.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, Training Attended by the Faculty Members in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Workshop				
1.	Santosh Kumar Sahu and Suresh Babu M	Productivity, R&D and Exports: Evidence from Indian Manufacturing	Centre for Development Economics Department of Economics, Delhi School of Economics, Delhi	February 28, 2023
2.	Santosh Kumar Sahu	Changing Dynamics of Economic and Financial Sector: Issues and Challenges for Sustainable Development	Birla School of Social Sciences and Humanities, Birla Global University, Bhubaneswar, Odisha	August, 2023
3.	Santosh Kumar Sahu	The Pragmatic Mantra of Accelerating Sustainable Green Economy: "Jai Jawan, Jai Kisan" (Hail the Soldier, Hail the Farmer)	Sastra Deemed to be University, Thanjavur	March 01-02, 2024
4.	Subash S	Empirical Investigations In Trade And Investment	Economic Research Institute for ASEAN and East Asia (ERIA)	March 07-09, 2024
Seminar				
1.	Avishek Parui	Memory, Forgetting, and Fiction	Global Fellowship Seminar Talk, University of St. Andrews	May 03, 2023
2.	Sreekumar Nellickappilly	History of Science Seminar and the Joint Meeting of the Research Council and National Commission (RCNC)	IIT Gandhinagar	September 12-13, 2023
3.	Santhosh R	Discussion: South Asian Anthropological Group Annual Conference	South Asian Anthropological Group Annual Conference, London	September 14-16, 2023
4.	Sonika Gupta	International Seminar, Leadership and Reincarnation of the Dalai Lamas: A Research Network on Succession	Institution and Community (LEAD), Aarhus University, Denmark.	September 22, 2023
5.	Avishek Parui	Fiction, Anticipation, and Proleptic Memory	Institute of Advanced Study, Durham University	February 26, 2024
6.	Avishek Parui	Affect, Memory, Digicorporeality	Nottingham Trent University	March 01, 2024
Symposia:				
1.	Sreekumar Nellickappilly	Joint Meeting of the Research Council and Indian National Commission for History of Science	Indian National Science Academy (INSA)	May 21, 2023
2.	Avishek Parui	Chair and Panel Discussion: Extended Reality, Metaverse, and the Future of Digital Ownership, G20 Conference on Crime and Security in the Age of AI and Metaverse	Ministry of Home Affairs, Government of India and Central Bureau of Investigation	July 13-14, 2023

3.	Merin Simi Raj	Panel Discussion: Extended Reality, Metaverse, and the Future of Digital Ownership, G20 Conference on Crime and Security in the Age of AI and Metaverse	Ministry of Home Affairs, Government of India and Central Bureau of Investigation	July 13-14, 2023
4.	Roland Wittje	Cold Moves: Deutsch- indische Zusammenarbeit in der Tieftemperaturphysik in den 1970er Jahren	Friedrich-Schiller-University of Jena, Germany	October 30-31, 2023
Conference				
1.	Santosh Kumar Sahu	Marine Biodiversity for Economic Growth	National Centre for Coastal Research, Chennai, Tamil Nadu	November 04, 2022
2.	Sonika Gupta	The Himalayas From Its Edges: Mobilities, Networks, Geographies.	Ashoka University & University of Westminster	January 27-28, 2023
3.	Santosh Kumar Sahu	Changing Dynamics of Economic and Financial Sector: Issues and Challenges for Sustainable Development	Birla School of Social Sciences and Humanities, Birla Global University, Bhubaneswar, Odisha	April 04, 2023
4.	Santosh Kumar Sahu	Changing Dynamics of Economic and Financial Sector: Issues and Challenges for Sustainable Development	Birla Global University, Odisha	March 04-05, 2023
5.	Santosh Kumar Sahu	Marine Biodiversity for Economic Growth, Brainstorming Session on Ocean Accounting in India	National Centre for Coastal Research, Chennai, Tamil Nadu	April 03, 2023
6.	Aysha Viswamohan	Shifting Perspectives and Gaze in Phantom Thread University of Keele, UK		April 12-14, 2023
7.	Santosh Kumar Sahu	Marine Biodiversity for Economic Growth	Ocean Accounting in India, Ministry of Earth Science, National Centre for Coastal Research, Chennai, Tamil Nadu	April 13, 2023
8.	Sreekumar Nellickappilly	Keynote Address: Relevance of Philosophy in the Contemporary Era	Sree Sankaracharya University of Sanskrit, Kalady, Cochin, Kerala	May 15, 2023
9.	Sonika Gupta	3rd South Asian Border Studies Conference	Benaras Hindu University	April 17-19, 2023
10.	Aysha Viswamohan	Representation of Alienated Childhood in Room and We Need to Talk About Kevin	Sorbonne University	June 28-30, 2023
11.	Anindita Sahoo	De-honorification Strategies in Odia: An Interactional Linguistics Perspective	56th Annual Meeting of the Societas Linguistica Europaea, National and Kapodistrian University of Athens, Greece	August 29-September 01, 2023
12.	Avishek Parui	South Asia in Translation: Geography, Memory, and Textuality	Mittal Institute, Harvard University and the National Translation Mission, CIIL, Mysore	October 05-06, 2023
13.	Subash S	The Role of Absorptive Capacity in FDI Productivity Spillovers: Analysis of Indian Manufacturing	18th East Asian Economic Association International Conference, Seoul National University	October 21-22, 2023

14.	Aditya Kolachana	The Sa-yoga-meru: A Combinatorial Tool in the Sa-gīta-ratnākara	International Academy of History of Science, Athens, Greece	September 12-15, 2023
15.	Mathangi K	Panel Discussion: Centre for Gender Analysis	JustJobs Network, New Delhi	December 13, 2023
16.	Aditya Kolachana	Mādhava's Sophisticated Spherical Trigonometry in Verse	Joint Mathematics Meetings, San Francisco, USA	January 03-06, 2024
17.	Subash S	Industry Agglomeration, Urban Amenities, and Regional Development in India	5h Rajagiri Conference on Economics and Finance (RCEF)	January 10-11, 2024
18.	Joe Thomas Karackattu	Greening of the State and Society Through Securitisation in India and China	IIT Madras	March 07, 2024
19.	Anup Kumar Bhandari	Workshop: 75 Years of Productivity Growth in India	Delhi School of Economics	March 7-9, 2024
20.	Sudarsan Padmanabhan	Good Life and Development	Sikkim University	March 14-15, 2024

4.12.3.4. Special Lectures delivered by the Faculty in Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Avishek Parui	FDP on Memory Studies	Women's Christian College, Chennai	January 10, 2023
2.	Avishek Parui	Keynote Speaker: Medical Humanities Colloquy	IIT Gandhinagar	12 January 2023
3.	Sonika Gupta	Local Resistance to Tibetan Rehabilitation in Arunachal Pradesh	Institute of Chinese Studies, New Delhi	February 22, 2023
4.	Avishek Parui	Keynote speaker: National Conference	Maharajah Bhavnagar University, Gujarat	March 05, 2023
5.	Avishek Parui	Seminar Talk	Loyola College, Chennai	March 09, 2023
6.	Avishek Parui	Memory Studies and Posthumanism	Christ University, Bangalore	March 30, 2023
7.	Sabuj Kumar Mandal	Increasing Efficiency of the Thermal Power Plants or Moving to Renewables: What is Just Transition for the Indian Power Sector	Transition Research Centre, IIT Kanpur	April 06, 2024
8.	Avishek Parui	What is Memory Studies, Exordium Lecture Series	Delhi College of Arts and Commerce, Delhi University	10 April 10, 2023
9.	Avishek Parui	Memory Studies and Masculinity Studies: The Complex Convergences, School of Liberal Studies	Dept of Languages, Literature, and Aesthetics, PDEU University, Ahmedabad	April 12, 2023
10.	Aditya Kolachana	Indian Traditional Medicine Systems and Public Health Policy	The Shanghai Cooperation Organisation Young Author's Conference, New Delhi	April 12-13, 2023.
11.	Sudarsan Padmanabhan	Importance of Yuva Parliament - An Interview	DD Chennai	April 13, 2023

12.	Swarnalatha	Ecocriticism and the Question of Identity in the Anthropocene	SRM Institute of Science and Technology	April 18-19, 2023
13.	Solomon Benjamin	Urban Life at the Extensions Symposium: Extensions - Thickening and Entanglement of Tenorial Spatialities	University of London in Paris.	April 19, 2023
14.	Sonika Gupta	Current Challenges to Tibetan Rehabilitation In Arunachal	The Bob Khathing Institute of Himalayan Studies, Army Eastern Command.	May 06, 2023
15.	Avishek Parui	Memory, Materiality, and Touch	CIMS Symposium, University, St. Andrews	May 16, 2023
16.	Anup Kumar Bhandari	Research Talk/Seminar: Performance of Indian Banking Sector	National Institute of Bank Management (NIBM)	June 12, 2023
17.	Anup Kumar Bhandari	Resource Person: Research Workshop, Econometric Analysis of Efficiency and Productivity With Stochastic Frontier Approach	Aligarh Muslim University	June 14-20, 2023
18.	Aditya Kolachana	FDP on Indian Knowledge Systems: History and Development of Mathematics in India	IISER Kolkata (Online)	June 24, 2023
19.	Solomon Benjamin	Property's Murmur: Tenorial Thickening and Entanglement	SSB-Max Weber-Kolleg University, Erfurt, Germany	July 07, 2023
20.	Sonika Gupta	A Road Runs Through It: Tibetans Between Narratives of Solidarity & Othering in Arunachal	Dalai Lama Institute for Higher Education, Bangalore	July 13, 2023
21.	Subash S	Resource Person: Refresher Course in Economics	Bharathidasan University	July 25, 2023
22.	Avishek Parui	Speaker, Panel Discussion on e-literature, Unmesha Sahitya Akademi Festival	Sahitya Akademi	August 05, 2023
23.	Avishek Parui	Research in Memory Studies: the Interdisciplinary Processes and Possibilities	XIM University, Bhubaneswar	August 28, 2023
24.	Sreekumar Nellickappilly	Chattampi Swami and His Philosophy of Non-Dualism	Sri Vishnumohan Foundation, Chennai	September 05, 2023
25.	Roland Wittje	Scientific Instruments and the Neglect of Teaching in the History of Physics	XLIII National Congress of the Italian Society for the History of Physics and Astronomy, Padua, Italy	September 06-07, 2023
26.	Umasankar Patra	Keynote: What is Left of Theory	National Seminar at St. Thomas College, Palai, Kerala in association with MG University, Kerala	September 14, 2023
27.	Avishek Parui	Speaker: Third Young Graduate Meet on Spatial Transformations and Contestations in South Asia	School of Humanities and Social Sciences, IIT Mandi	October 10-12, 2023
28.	Santhosh R	A Goddess and a Muslim Saint: The Emerging Discourses on Communal Harmony in Kerala, South India	Asia Centre Series, Sussex University, UK	October 11, 2023

29.	Santhosh R	A Goddess and a Muslim Saint: The Emerging Discourses on Communal Harmony in Kerala, South India	Department of Social and Cultural Anthropology, Zurich University, Zurich, Switzerland	October 17, 2023
30.	Santhosh R	'Exploring Islamicate Translocality: Mobilities and Identities of Traditionalist Muslims in Kerala, South India	Ibn Haldun University, Turkey	October 26, 2023
31.	Mathangi K	Fieldwork and the Ethnographic Imagination	School of Development Studies and Centre for Research Methods; Dr. B R Ambedkar University, Delhi	November 03, 2023
32.	Avishek Parui	Keynote Speaker: National Conference	Kristu Jayanti College, Bangalore	November 09, 2023
33.	Santhosh R	'Godless' Communists in God's Own Country. The Communist Party and Its Strategic Ambiguity Towards Belief and Non- Belief in Kerala, South India	Explaining Atheism and Centre d'etudeen Sciences Sociales du Religieux in Paris, France.	November 13, 2023
34.	Santhosh R	Communal Harmony as a Performance: Understanding	Department of Social Anthropology, University of Oslo, Norway	November 17, 2023
35.	Santhosh R	Religious Communities, Nation-state and Development: Insights From South India	Sussex Development Lecture, IDS Sussex	December 06, 2023
36.	Avishek Parui	TG Narayan Endowment Lecture	Madras Christian College, Chennai	December 11, 2023
37.	Avishek Parui	Memory Studies and Posthumanism	Madras Christian College, Centre for Media Studies, Chennai	December 11, 2023
38.	Avishek Parui	Matter and Memory: Exploring the Intersections in Literary and Cultural Studies	Farook College, Kozhikode, Kerala	December 12, 2023
39.	Swarnalatha R	Plenary Speaker: Vriksha Dharma	Global Plant Humanities: Multidisciplinary Perspectives on Botanical Life, Co-organized by Sadhan Chandra Mahavidyalaya (College), India and Southern Cross University, Australia	December 12, 2023
40.	Merin Simi Raj	Keynote Speaker: Food and Culture Conference	Indian Institute of Space Science and Technology, Trivandrum	December 14, 2023
41.	Merin Simi Raj	Keynote Speaker: Interdisciplinary Research Possibilities in Memory Studies and Digital Humanities	MES Asmabi College	December 19, 2023
42.	Avishek Parui	FDP Resource Person: Research Matters Series	Stella Maris College, Chennai	December 20, 2023
43.	Merin Simi Raj	Keynote Speaker: Memory, Migration, and the Metaverse	Sacred Heart College, Chalakudy	January 05, 2024
44.	Merin Simi Raj	Resource Person: Digital Humanities Tools and Methods	Loyola College, Chennai	January 10, 2024

45.	Anindita Sahoo	Resource Person: International Conference on Multidisciplinary Research and Innovation: Enhancing Industry- Academia Interface	Ethiraj College for Women	January 10, 2024
46.	Avishek Parui	The Digital/Affective Ecology in Contemporary Conditions of Memory: A Case Study of the AR/VR App MovingMemory	Frankfurt Memory Studies Platform, Goethe University	January 18, 2024
47.	Avishek Parui	Remembering, Forgetting, Forgiving: Perspectives From Trauma and Memory Studies, Young Researchers' Conference on Trauma and Memory Studies: Responses From the Global South	Department of English, Jamia Millia Islamia, New Delhi	January 21, 2024
48.	Swarnalatha R	Invited Speaker: Blue Humanities and Climate Fiction	HSS, NIT, Tiruchirapalli, in Association with The UNESCO Chair in Vulnerability Studies, University of Hyderabad	January 23, 2024)
49.	Santhosh R	Communal Harmony as Performance: Understanding Inter-religious Dynamics in Kerala	Centre for the Study of Democracy, University of Westminster, & National Institute of Advanced Studies, Bangalore	January 24, 2024
50.	Merin Simi Raj	Keynote Speaker: Digitality and English Language Teaching	AMET University, Chennai	January 24, 2024
51.	Sreekumar Nellickappilly	Contemporary Relevance of Mohandas Karamchand Gandhi	GITAM School of Humanities and Social Sciences, Bengaluru	January 29, 2024
52.	Merin Simi Raj	Resource person: Writing and Publishing, Short Term e-Course	NIT Hamirpur	January 29 -February 03, 2024
53.	Avishek Parui	Resource Person: Writing and Publishing, Short Term e- Course	NIT Hamirpur	January 29- February 29, 2024
54.	Avishek Parui	Public Lecture, Memory, Trust, and Touch: The Post-Pandemic Perspective	Institute of Advanced Study, Durham University	February 12, 2024
55.	Avishek Parui	Memory, Narrative, Ecology: Interdisciplinary Perspectives	The Cultural Identity and Memory Studies Institute (CIMS), University of St. Andrews	February 20, 2024
56.	Avishek Parui	Seminar on Environmental Humanities	The Cultural Identity and Memory Studies Institute (CIMS), University of St. Andrews	February 22, 2024
57.	Avishek Parui	Keynote Speake: Mapping Memory	Loretto College, Kolkata	February 22, 2024
58.	Umasankar Patra	Plenary Talk, Teaching Soft-Skills in an International Classroom: Lessons Learnt at IIT Madras Zanzibar	IIT Madras Zanzibar	February 22, 2024
59.	Umasankar Patra	Life Skills-Soft Skills and Sustainability Footprints	IIT Roorkee	February 22, 2024

60.	Swarnalatha R	International Conference , Being Eco-spiritual: A Way of Sustainable Living Plenary Speaker: Ecological Selfhood in the Anthropocene	School of Arts, Sciences, Humanities and Education (SASHE) Sashttra University	March 01-02, 2024
61.	Sonika Gupta	India's Foreign Policy: From Panchsheel to G20	M.O.P Vaishnav College, Chennai	March 11, 2024
62.	Subash S	Keynote Address: Recent Trends in FDI in India	Guru Nanak College Chennai	March 12, 2024
63.	Avishek Parui	Panel Discussion: Festival of Letters 2024	Sahitya Akademi	March 13, 2024
64.	Sudarsan Padmanabhan	Good Life and Development	Sikkim University, Sikkim	March 15, 2024
65.	Merin Simi Raj	Resource Person: Memory, Digital Practices of Remembrance	Sona College of Arts and Science, Salem	March 16, 2024
66.	Sonika Gupta	Institutional History of Tibetan Studies in India	Centre for Social and Economic Progress, New Delhi.	April 09, 2024
67.	Solomon Benjamin	Informality As Situated Spatiality	PRODIG Inter-disciplinary Research Unit of CNRS, Universités Paris 1 Panthéon-Sorbonne, Université Paris Cité, IRD France (Online Lecture)	April 17, 2024
68.	Rajesh Kumar	Inclusivity and Acceptability of English in National Education Policy of India	Stony Brook University	June 16, 2023
69.	Santosh Kumar Sahu	A Review of Microgrid Policies in India	IGCS Summer School, IIT Madras, Chennai, Tamil Nadu, India	January 30, 2024
70.	Santosh Kumar Sahu	Economics of Off-shore Wind Energy, CEP Course on Offshore Wind Energy: Assessment, Engineering & Economics	IIT Bombay	April 06, 2023

4.12.3.5. Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Avishek Parui	United Kingdom	January 08-March 28, 2024	Institute for Advanced Study Fellowship	Durham University, UK
2.	Avishek Parui	United Kingdom	March 01, 2024	Invitation for Special Lecture	Nottingham Trent University
3.	Solomon Benjamin	Paris	April, 2023	International Research Network Urban Extensions	University of London Institute in Paris
4.	Avishek Parui	United Kingdom	April-May, 2023	Global Fellowship	University of St. Andrews
5.	Anindita Sahoo	United Kingdom	May15-July 15, 2023	India Institute Fellowship	University of Birmingham
6.	Solomon Benjamin	Germany	June -July 2023	Mercator Fellowship	Federal Government Germany

7.	Santhosh R	United Kingdom	September 14-December 16, 2023	British Academy Visiting Fellowship	British Academy
8.	Avishek Parui	Germany	January 15-18, 2024	Invitation for Special Lecture	Goethe University, Frankfurt

4.12.3.6 Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Awards:					
1.	Solomon Benjamin	Urban Land Commons in the Global South (with Dr Bhuvaneshwari Raman, Jindal Global University)	CNRS UMR Géographie-Cités, France	Research on Urban Land Commons in Bangalore, Nagpur, Brahmapur Odisha	April 2018-July, 2024
2.	Solomon Benjamin	Mercator Fellow	Universities of Jena and Erfurt, Germany	Structural Change of Property Collaborative Research Center	June-July, 2023
3.	Sonika Gupta	La Trobe Asia Visiting Fellow Award 2024	La Trobe University, Melbourne, Australia	Himalayan Ecology	September 04, 2023
4.	Santhosh R	British Academy Visiting Fellowship	University of Sussex, UK	Visiting Fellowship	September 14-December 14, 2023
5.	Santosh Kumar Sahu	Australia Awards India Fellowship	Department of Foreign Affairs and Trade, Australia	Accelerating the Clean Energy Transition in Partnership With India	November 12-December 02, 2023
6.	Solomon Benjamin	GRIP 2024 (with Dr. Gayatri Rathore, Panthéon-Sorbonne, Paris)	Global Research Institute of Paris, Université Paris Cité on Global Dynamics, France	ReConfigUrb Coalescing New Transnational Urban Spatialities	February, 2024-May, 2025
7.	Solomon Benjamin	Collaborator Nominee	Universities of Jena and Erfurt, Germany	Structural Change of Property Collaborative Research Center	January, 2025
8.	Santosh Kumar Sahu	Trend Setters Award	The Energy Consortium, IIT Madras	Visionary Leadership, Innovative Approach, and Significant Contributions to the Field of Education	August 15, 2024

4.12.3.7. Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1.	Sonika Gupta	Guest Editor	Special Issue: India's Himalayan Borderlands. India Quarterly, Issue 79, No. 1, pp. 7-10, 2023
2.	Santhosh R	Associate Editor	Journal of Social and Economic Development
3.	Subash S	Associate Editor	Asian Economic Journal, Wiley

4.	Aysha Viswamohan	Editorial Board	Journal of Humanities and Social Sciences Communication, Nature Springer
5.	Aditya Kolachana	Editorial Board	History of Science in South Asia
6.	Anup Kumar Bhandari	Editorial Board	Prajnan
7.	Merin Simi Raj	Editorial Board	Memory Studies Review (Brill)
8.	Avishek Parui	Special Issue Editor	Journal of Postcolonial Writing
9.	Avishek Parui	Editorial Board	Memory Studies Review (Brill)
10.	Avishek Parui	Special Issue Editor	MediaWatch Journal
11.	Avishek Parui	Editorial Board	Cambridge University Press, Cambridge Core Series, Elements in Health Humanities

4.12.4. Design and Development Activities:

4.12.4.1. Brief and Specific Details of Process, Instruments, Equipment, Software Designed and Developed:

1. Avishek Parui and Merin Simi Raj designed and developed the AR-VR-based mobile application MemoryBytes Media link: <https://www.thehindu.com/life-and-style/iit-ms-centre-for-memory-studies-celebrates-anglo-indian-heritage0/article66336752.ece>
2. Phygital exhibition of MemoryBytes <https://www.thehindu.com/news/national/tamil-nadu/dakshinachitra-to-showcase-500-years-of-anglo-indian-history/article66307263.ece>
3. Avishek Parui and Merin Simi Raj designed and developed VR-based education model for rural schools https://www.thehindu.com/news/national/tamil-nadu/iit-madras-researchers-to-develop-vr-based-education-model-for-rural-schools/article66729012.ece/amp/?fbclid=IwAR2B_f2s1zwyPF9uUkOrlQqnBH0GZphekJt4AM7X0z9nMg5VysA3Hzb8KKE
4. Avishek Parui and Merin Simi Raj designed and developed the spatial AR-VR based app MovingMemory <https://www.ndtv.com/education/iit-madras-launches-mobile-app-that-captures-moving-models-of-memory-4409973>
5. Avishek Parui and Merin Simi Raj curated, shot, and edited the VR film “Fifty Years of IC&SR” which was showcased on February 17, 2023 during the fifty-year anniversary of IC&SR

4.12.5. Research and Consultancy:

4.12.5.1. Sponsored Research Projects: (Ongoing & New)

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in Lakhs)	Co-ordinators
1.	Prioritising the Displacement-Environment Nexus: Refugee and IDP Settlements as Social Ecological Systems	June, 2021- June, 2025	Norwegian Research Council	Rs. 372904	Dr. Anwesha Dutta, CMI, Bergen, Norway
2.	Evolving a Himalayan Policy for India: Infrastructure, States, Communities, and Ecologies in the Eastern Himalayas	July, 2023- July, 2025	SPARC	Rs. 4480170	Dr. Leibold, Dr. Gamble, Dr. Roche, La Trobe University Dr. Davis, University of Western Australia
3.	Protracted Conflict & Borderland Communities in Taiwan and India: Case Studies of Kinmen (Taiwan) and West Kameng (India)	January, 2023- January, 2025	Chiang ChingKuo Foundation, Taiwan	Rs. 1488780	Dr. Hsi-hua Shen, National Tsing Hua University, Taiwan

4.	Historical Archive of IIT Madras	March 12, 2019-March 31, 2025	IIT Madras	Rs.120000	Dr. Mathangi Krishnamurthy, Prof. Nagarajan, IIT Madras
5.	Digitisation of Environmentally Sustainable Practices of the Bishnoi Community	2023-2026	Science and Heritage Research Initiative (SHRI) Grant -DST	Rs. 4800000	Sushila Sekhawat, BITS Pilani, Rayson Alex Bits-Goa and R Swarnalatha, IIT Madras

4.12.5.2. RBIC Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Urban Amenities and City Agglomeration, Structural Transformation and GVC in East Asia (Phase 5): India Case Study	January, 2024-October, 2024	ERIA	5.81 Lakhs
2.	Mathangi K	February 15-June 14, 2024	Auxohub	2.5 Lakhs

4.12.5.3. Retainer Consultancy: (Ongoing & New)

Sl.No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Avishek Parui	Memory Studies in Industry Contexts	Titan Company Ltd.	2 Lakhs
2.	Merin Simi Raj	Memory Studies in Industry Contexts	Titan Company Ltd.	2 Lakhs
3.	Avishek Parui	Ghosts on Stage	Durham University	13 Thousand Pounds

4.12.5.4. Faculty Members Participation With Other Institutions Under MoU:

Sl. No.	Name of Faculty	Participation Details	Name of University/Institution Which Has MoU
1.	Avishek Parui	IAS Fellowship 2023	Durham University
2.	Avishek Parui	Global Fellowship 2024	University of St. Andrews

4.12.6. Distinguished Visitors to the Department:

Sl.No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Prof. DrCarola Lentz, President,Goethe Institute Germany	March 16, 2024	Special Lecture: Female Careers: Luck, Hard work, and Institutional Support
2.	Prof. Foong Ha Yap, Chinese University of Hong Kong, Shenzhen	August 18-28, 2023	Research Collaboration Visit
3.	Prof. Stefan Przyborski, Executive Dean, Faculty of Science, Professor, Department of Biosciences	September 23, 2023	Collaboration Discussions
4.	Dr Anindya Raychaudhuri, University of St. Andrews, UK	November 27-30, 2024	Special Lecture, Workshop, and Collaboration Discussion Following MoU

4.12.7. Other Activities of the Department/Centre:

4.12.7.1. Socially Relevant Activities Carried Out by the Department

New India Internship (Pilot) - approved by the Office of the Prime Minister of India - Technology and Rural Development - 9 IIT Madras students interned in National Institute of Technology, Jote, Arunachal Pradesh - December 12, 2023-January 9, 2024.

4.12.7.2. International Collaboration Achievements by the Department

France: Network towards book project L'urbanisation diffuse : Rome, Paris, Bombay ISTE Géographie et Démographie L'urbanisation du monde; Solomon Benjamin with Joël Idt, Prasad Shetty, Rupali Gupte, Pushkal Shivam, Varun Paril, Cinzia Losavo in Thématique 2 Concepts and Debates around the Production of Diffuse Urbanization in Caroline Gallez, Joel Idt, Cinzia Losavo

in An International and Multidisciplinary Approach November, 2023-September, 2024.

India-UK-South Africa-Latin America: The Urban Popular Economy Collective (2019-2024) Anchored by Abdou Malik Simone Urban Institute, University of Sheffield, Solomon Benjamin IIT-Madras, University of San Martin, Sapienza, University of Rome, University of Buenos Aires, British Institute in Eastern Africa, School of Environment and Architecture, Mumbai; Durham University; The Middle East Initiative Harvard University; ; University of Manchester Center for Development and Regional Planning; Federal University of Minas Gerais; Facultad Latino-americana de Ciencias Sociales Sede Ecuador. Publications in Cities, and Public Culture. Publication: 2022 (with Simone et al.) Popular Economies, Project website under process: The Urban Glossary Project at CITYSCAPES <https://cityscapesmagazine.com/projects/the-urban-glossary-project#about-project>

4.11.7.3. Student Visit

Sl.No.	Name of the Students	Purpose of Visit	Date & Venue
1.	Anto Varghese (Philosophy, Supervisor: Sreekumar N)	Research Stay: Student Mentored by Prof. Sophie Loidolt, Technical University of Darmstadt, Germany	November 15, 2023-October 15, 2024. Department of Philosophy, Technical University of Darmstadt, Germany.

4.13. Department Of Mathematics

4.13.1. Introduction:

The Department of Mathematics was established in 1959 along with the Institute. It offers M.Sc. programme in Mathematics, M.Tech. programme in Industrial Mathematics and Scientific Computing

(IMSC), and Ph.D. programme. In addition, the Department has taken the responsibility of teaching Mathematics courses to B.Tech., M.Tech. (other than IMSC), M.Sc. and Ph.D. students at the Institute.

The Major Research Areas of the Department are the Following:

1. Algebraic Combinatorics
2. Algebraic Geometry
3. Algebraic Topology
4. Applied Probability
5. Approximation Theory
6. Category Theory
7. Combinatorial Optimisation
8. Combinatorics
9. Combinatorics of Words
10. Commutative Algebra
11. Complex Analysis
12. Conformal Geometry
13. Contact and Symplectic Topology
14. Convective Heat & Mass Transfer
15. Computational Fluid Dynamics
16. Computational Number Theory
17. Cryptology
18. Differential and Integral Equations
19. Differential Topology
20. Fixed Point Theory
21. Fluid Mechanics
22. Functional Analysis
23. Fractals
24. Game Theory
25. Graph Algorithms
26. Graph Theory
27. Harmonic Analysis
28. Inverse and Ill-Posed Problems
29. Linear Algebra
30. Low Dimensional Topology
31. Mathematical Modeling
32. Mathematical Study of Ferromagnetic Networks
33. Nonlinear Analysis
34. Nonlinear Analysis of Functional Differential Equations
35. Nonlinear Differential Equations
36. Number Theory
37. Operator Algebras
38. Operator Equations
39. Operator Theory
40. Optimisation
41. Partial Differential Equations
42. PDE Numerics
43. Solid Mechanics
44. Special Functions
45. Systems and Control Theory
46. Theory of Codes
47. Theory of Computation
48. Theory of Wavelets
49. Time Frequency Analysis
50. Wave Structure Interactions

4.13.2. Academic Programmes:

4.13.2.1. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024:

Programme	I year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	-	-	-	-	-	-
Dual Degree	-	-	-	-	-	-
M.A.	-	-	-	-	-	-
M.Sc.	49	45	-	-	-	94
M.Tech.	22	22	-	-	-	44
M.B.A.	-	-	-	-	-	-
M.S.	-	-	-	-	-	-
Ph.D.	18	17	8	13	32	88
Total	89	84	8	13	32	226

4.13.2.2. Student/Scholar Who Attended Conference, Seminar and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar /Symposia/ Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Kamla Kant Mishra	MA16D037	Paper Presentation Titled: Controllability for a Class of Nonlinear Fractional Control System, International Conference on Fractional Differentiation and Its Applications (ICFDA 2023)	March 14-16, 2023. Ajman University, UAE	Institute Travel Fund
2.	Rohan Joy	MA19D010	Workshop on Mathematical Signal and Image Analysis	March 20-22, 2023. TUM Science and Study Centre, Germany	TU Munich
3.	Sagar Sawant Sudhirkumar	MA18D015	Oral presentation Titled Distinguishing digraphs by it B-polynomial. Seminaire de Algebrique Combinatoire	April 21, 2023. Gustave Eiffel University, Paris, France	Funded by Gustave Eiffel University.
			Academic Visit for Collaboration with Reza Naserasr	April 15-May 05, 2023. Gustave Eiffel University, Paris, France	
4.	Sivashankar B	MA19D018	Future Research Talent (FRT): Working Under Prof. Andrew Hassell, on Some Problems in Microlocal Analysis	May 01-July 31, 2023. Australian National University, Canberra, Australia	FRT Award, Australian National University
5.	Samir Mondal	MA19D750	25th Conference of the ILAS 2023	June 12-16, 2023. Madrid, Spain	NA
6.	Pavan Rajaram Raickwade	MA21D005	Research Visit to Co-Guide Dr. Anke Kalauch to Discuss Current Research Problems: Operators on pre-Riesz Spaces Institute of Analysis, Faculty of Mathematics. Technische Universität Dresden, Germany	March 20-July 20, 2023. Germany	PMRF
7.	Deblina Dey	MA20D001	Conference on Commutative Algebra and Its Interaction with Algebraic Geometry and Combinatorics, 2023. Vietnam Institute for Advanced Study in Mathematics (VIASM)	June 19-23, 2023. Hanoi, Vietnam	NA

8.	Pratiksha Shingavekar	MA17D004	Delivered a Talk, Integers Conference 2023	May 17-20, 2023. University of Georgia, Athens, USA	NA
			Delivered a Talk, 35th Automorphic Forms Workshop	May 22-26, 2023. Louisiana State University, Baton Rouge, USA	NA
9.	Deependra Kumar	MA19D014	Paper Presentation Titled: Shape Preserving Aspects of Multivariate Zipper Fractal Functions, International Congress on Industrial and Applied Mathematics (ICIAM 2023)	August 20-25, 2023. Waseda University, Tokyo, Japan	Institute
10.	Elancheeran R S	MA20D751	VIASM-ICTP Summer School on Differential Geometry, Vietnam Institute for Advanced Study in Mathematics (VIASM)	August 14-25, 2023. Hanoi, Vietnam	ICTP, PMRF
11.	Dr. Antareep Mandal (IPDF)	MA23R003	Research Visit	August 07-September 18, 2023. Humboldt Universität Zu Berlin, Germany	Humboldt Universität Zu Berlin
12.	Bidhan Paul	MA19D003	Paper Presentation Titled: Equivariant K-theory of Flag Bott Manifolds of General Lie Type, Vector Bundle and Combinatorial Algebraic Geometry	October 09-13, 2023. Frankfurt, Germany	Institute
India					
1.	Milan Kumar Mal	MA21D018	NCM Workshop On Operator Theory and Operator Algebra	March 06-11, 2023. IIT Gandhinagar	PMRF & NCM
2.	Debajyoti De	MA22D030	NCM Workshop on Elliptic Curves 2023	April 03-15, 2023. IISER Trivandram	NA
3.	Subhasis Panda	MA15D028	NCM Workshop on Elliptic Curves 2023	April 03-15, 2023. IISER Trivandram	NA
4.	Jiya Rose Johnson	MA20D021	A Symposium on Luis Caffarelli's Works	May 05-09, 2023. TIFR Centre for Applicable Mathematics (CAM)	TIFR CAM
5.	Ganapathy K	MA19D203	Dualities in Topology & Algebra	May 15-26, 2023. International Centre for Theoretical Sciences (ICTS), Bangalore	ICTS
6.	Sagnik Biswas	MA20D013	Dualities in Topology & Algebra	May 15-26, 2023. TIFR-ICTS Bangalore	ICTS

7.	Anubhab Pahari	MA22D012	AIS on Birational Geometry	May 22-June 03, 2023. Chennai Mathematical Institute, SIPCOT PARK	
8.	Rohini S	MA17D017	Paper Presentation Titled: Circular 4 - Colouring of Quadrangulations of the Projective Plane, First Meru Combinatorics Conference 2023	May 29-31, 2023. Pondicherry University	IMSc Chennai, IIT Madras, Pondicherry University
9.	Souvik Mandal	MA22D014	Dualities in Topology & Algebra	May 15-26, 2023. ICTS Bangalore	ICTS
			Annual Foundation School - 3 On the Topic Topology - III	June 18-July 01, 2023. IISER Tiruvandrum, Thiruvananthapuram	Partially by IIT Madras
10.	Elancheeran R S	MA20D751	Mathematical Inception Workshop on Building Foundations of Mathematical Thinking	May 21-26, 2023. Veveaham Schools, Dharapuram	TLC, IIT Madras
			National Center for Mathematics - Advanced Instruction School on Lie Groups and Lie Algebras	June 19-July 08, 2023. IISc Bangalore	NCM & PMRF
11.	Chinmay Ajay Tamhankar	MA19D017	Research Visit: Theoretical Statistics and Mathematics Unit	June 01-16, 2023. ISI Delhi, New Delhi	NA
12.	Kadali Kranthi Priya	MA21D010	ATM Schools AIS - Algorithmic Graph Theory (2023)	June 26-July 15, 2023. IIT Indore	UGC Contingency
13.	Ritesh Khan	MA19D008	Paper Presentation Titled: Numerical Rank of Kernel Functions at Indo-German Conference on Computational Mathematics (IGCM23)	March 27-31, 2023. IISc Bangalore	IIT Madras
14.	Debajyoti De	MA22D030	Advanced Training in Mathematics Schools AIS - An Introduction to p - adic Methods in Arithmetic (2023)	June 26-July 15, 2023. SRM University, AP Mangalagiri	NA
15.	Supriyo Jana	MA21D002	Lie Groups and Lie Algebras- ATM School	June 19-July 08, 2023. IISc Bangalore	Partially Funded by PMRF
16.	Samapti Pratihari	MA22D019	AIS - Algorithmic Graph Theory 2023	June 26-July 15, 2023. IIT Indore	PMRF
17.	Dr. Gargi Lather, IPDF	MA22R002	Advanced Training in Mathematics Schools AIS - Algorithmic Graph Theory 2023	June 26-July 15, 2023. IIT Indore	Institute

18.	Ravi Kkalwaniya	MA22D021	Advanced Training in Mathematics Schools AIS - An Introduction to p -adic Methods in Arithmetic (2023)	June 26-July 15, 2023. SRM University, AP Mangalagiri	Self
19.	Kadali Kranthi Priya	MA21D010	Advanced Instructional School on Algorithmic Graph Theory	June 26-July 15, 2023. IIT Indore	UGC Contingency
20.	Sagar Sudhirkumar Sawant	MA18D015	NCMW Cohen Macaulay Simplicial Complexes in Graph Theory 2023	July 10-15, 2023. CMI, Kelambakkam	Self
21.	Abul Kkalam	MA22D026	Advanced Topics in Finite Fields (2023)	July 10-29, 2023. IMSc, CIT Campus Taramani	Self
22.	Dr. Gunjan Sapra	MA21R001	Research Visit	August 22-September 06, 2023. ISI Delhi	IPDF Contingency Grant
23.	Bidhan Paul	MA19D003	Discussion Meeting on Algebra and Geometry Oral Presentation: Equivariant K-theory of Flag Bott Manifolds of General Lie Type	August 16-18, 2023 IISER Bhopal	Institute
24.	Krupa Maria Jose	MA22D005	Conducted Academic Workshop as Part of PMRF Deliverables: Introduction to Game Theory and Python Programming	September 16, 2023. Alphonsa College, Palai	Alphonsa College, Palai
				September 18, 2023. St. Thomas College, Thiruvananthapuram	St. Thomas College, Palai
				September 19, 2023. St. George's College, Aruvithura	St. George's College, Aruvithura
25.	Dr. Abhijeet A Ghanwat NBHM PDF	IC39246	Workshop on Low-Dimensional Topology	September 20-23, 2023. IISER Pune, In Collaboration With Max Planck Society and TIFR Mumbai	NBHM
26.	Himanshu Baranwal	MA20D202	Paper Presentation Titled: Cyclic Iterated Function in a b -Metric Space. ICVAOA 2023	September 23-25, 2023. Aligarh Muslim University, Aligarh	IIT Madras
27.	Dr. Antareep Mandal	MA22R003	Harish Chandra Centenary Workshop: Representation Theory of Real Lie Groups and Automorphic Forms	October 02-07, 2023. Harish Chandra Research Institute, Prayagraj	Harish Chandra Institute & NCM
			Talk Titled: Uniform Sup-norm Bounds of Siegel Cusp Forms. Harish Chandra Centenary Conference: Rep. Theory and Harmonic Analysis	October 09-14, 2023. Harish Chandra Research Institute, Prayagraj	

28.	Subhajit Roy	MA19D009	Research Visit	October 03-06, 2023. IISc Bangalore	IIT Madras
29.	Elancheeran R S	MA20D751	Workshop and Conference: Harish Chandra Centenary Celebrations 2023	October 02-14, 2023. Harish Chandra Research Institute (HRI)	Harish Chandra Institute & NCM
30.	Supriya Karmakar	MA18D201	Paper Presentation Titled: Stability of Plane Poiseuille Flow in an Anisotropic Porous Channel. International Conference on Applied Mathematics and Mechanics (ICAMM) 2023	October 18-20, 2023. IIT Indore	IIT Madras
31.	Ravi Kalwaniya	MA22D021	International Conference on Class Groups of Number fields and Related Topics ICCGNFRT 2023	October 26-30, 2023. Kerala School of Mathematics (KSoM), Kozhikode, Kerala	Self
32.	Deblina Dey	MA20D750	ATM School Workshop on Hilbert Functions and Local Cohomology 2023	November 27-December 02, 2023. IIT Bombay	NA
33.	Mohamed Harith	MA20D012	ATM School Workshop on Hilbert Functions and Local Cohomology 2023	November 27-December 02, 2023. IIT Bombay	NA
34.	Rabeetha V	MA19D021	Talk Titled: Twisted Shift in Variant System in $L^2(R^{2n})$ NCMW-Representation Theory and Harmonic Analysis 2023" 18th Discussion Meeting in Harmonic Analysis, ATM Schools	December 11-22, 2023. IIT Guwahati	IIT Guwahati & Institute
35.	Sivashankar B	MA19D018	NCMW- Representation Theory and Harmonic Analysis 2023, ATM Schools	December 11-22, 2023. IIT Guwahati	NBHM
36.	Sweta Patra	MA23D010	International Conference on Linear Algebra and Its Applications (ICLAA 2023) MAHE, Workshop/Conference	December 11-22, 2023. Manipal University	NA
37.	Karl Darryl Lewis	MA18D202	Introductory Applied Game Theory (IAGT 2023, Gurukulam)	December 11-26, 2023. Manipal University	HTRA
38.	Kadam Balaji Rohidas	MA19D205	Introductory Applied Game Theory (IAGT 2023, Gurukulam)	December 11-26, 2023. Manipal University	HTRA
39.	Krupa Maria Jose	MA22D005	Introductory Applied Game Theory (IAGT 2023, Gurukulam)	December 11-26, 2023. Manipal University	PMRF

40.	Ravi Kalwaniya	MA22D021	AIS – Analytic Methods in Algebraic Number Theory	December 04-15, 2023. IIT Delhi	NA
41.	Nitin Bartwal	MA22D017	Advanced Training School on Functional Analysis and Its Application	December 11-22, 2023. IIT Tirupati	NBHM
42.	Dr. Aditi Howlader	MA23R003	Talk Titled: Distance Spectrum of Minimal Cages and Associated Distance Biregular Graphs. International Workshop on Special Matrices, Graphs and Application 2023; International Conference on Linear Algebra and Its Applications 2023	December 11-22, 2023. Manipal Academy of Higher Education	CARAMS, MAHE
43.	Raickwade Pavankumar Rajaram	MA21D005	International Workshop on Special Matrices, Graphs and Application 2023; International Conference on Linear Algebra and Its Applications 2023	December 11-22, 2023. Manipal Academy of Higher Education	NA
44.	M Keerthana Reddy	MA20D020	Interactions in Several Complex Variables	December 11-15, 2023. IISER Pune	NBHM
45.	Kadali Kranthi Priya	MA21D010	Talk Titled: Singular Matrices Possessing Triangle Property International Workshop on Special Matrices, Graphs and Application 2023; International Conference on Linear Algebra and its Applications 2023	December 11-22, 2023. Manipal Academy of Higher Education	CARAMS, MAHE
46.	Raja Kundu	MA20D005	Attended International Workshop	December 11-18, 2023. Manipal Academy of Higher Education	HTRA
47.	Raju Chowdhury	MA18D200	CFE-CM Statistics 2023	December 14-20, 2023. HTW Berlin, Berlin, Germany	Institute
48.	Rohini	MA17D017	International Conference on Graph Theory and Its Applications	December 17-21, 2023. Amrita Viswa Vidhyapeetham, Coimbatore	NA
			Visit to Dr. Reza Naserasr at Amrita Viswa Vidhyapeetham	December 21, 2023-January 12, 2024. Amrita Viswa Vidhyapeetham, Coimbatore	Self
49.	Sagar Sawant	MA18D015	International Conference on Graph Theory and Its Applications	December 17-21, 2023. Amrita Viswa Vidhyapeetham, Coimbatore	Institute

50.	Dr. Antareep Mandal	MA22R003	18th Discussion Meeting in Harmonic Analysis (DMHA-18)	December 18-21, 2023. IIT Guwahati	NA
51.	Dr. Cyriac Antony	MA23R004	Talk Titled: Star Colouring of Regular Graphs and Related Graph Homomorphisms. International Conference on Graph Theory and Its Applications (ICGTA23)	December 18-20, 2023. Amrita Viswa Vidhyapeetham, Coimbatore	Institute
			Invited Talk: An Introduction to Special Graph Homomorphisms. Department of Mathematics, CMS College Kottayam	December 21, 2023. CMS College Kottayam, Kerala	Institute
52.	Dr. Antareep Mandal	MA22R003	18th Discussion Meeting in Harmonic Analysis (DMHA-18)	December 18-21, 2023. IIT Guwahati	NA
53.	Dr. Abhijeet A Ghanwat	IC39246	Invited Speaker: 38th Annual Conference of the Ramanujan Mathematical Society	December 22-24, 2023. IIT Guwahati	NBHM
54.	Ganapathy K	MA19D203	ATM School Workshop on Hilbert Functions and Local Cohomology 2023	November 27-December 02, 2023. IIT Bombay	PMRF
			ATM School workshop on Representation Theory and Syzygies 2023	December 18-22, 2023. IIT Bombay	PMRF
55.	Supriya Karmakar	MA18D201	ICAMM 2023	October 18-20, 2023. IIT Indore	Institute
			CompFlu 2023	December 18-20, 2023. IIT Madras	Institute
56.	Samapti Pratihan	MA22D019	International Conference on Linear Algebra and Its Applications (ICLAA 2023) MAHE, Workshop/Conference	December 11-22, 2023. Manipal University	PMRF
57.	Rohini	MA17D017	International Conference on Graph Theory and Its Applications (ICGTA 2023)	December 18-20, 2023. Amrita Viswa Vidhyapeetham, Coimbatore	Institute
			Visit to Dr. Reza Naserasr at Amrita Viswa Vidhyapeetham	December 21, 2023-January 12, 2024. Amrita Viswa Vidhyapeetham, Coimbatore	Global Engagement, IITM
58.	Shilpa Dey	MA22D018	5th International Conference On Mathematical Techniques And Applications (ICMTA 2024)	January 02-06, 2024. SRM Institute of Science and Technology, Tamil Nadu	PMRF

59.	Sripati Mazumder	MA23D012	Discussion Meeting on Probability, Convex Geometry and Complex Variables	January 03-09, 2024. TIFR - Centre for Applicable Mathematics	ISI Bangalore
60.	Karl Darryl Lewis	MA18D202	Talk Titled: Invariant Sets of the Infinite Replicator Dynamics: Bilinear Games. International Conference on Operations Research and Game Theoretic Approach in Decision Making (ICORGTDM 2024)	January 17-19, 2024. ISI Delhi	Institute
61.	Balaji Kadam	MA19D205	Combinatorial Games, Mumbai 2024	January 21-25, 2024. IIT Bombay	Institute
62.	Chinmay Ajay Tamhankar	MA19D017	Project on Type Decomposition of $L(G)$ and Related Questions	February 03-April 19, 2024. NISER, Bhubaneswar	NBHM
63.	Surajit Mandal	MA20D022	Workshop on Quantum Computing Algorithms	February 12-15, 2024. Chennai Mathematical Institute	HTRA
64.	Jiban Chowdhury	MA21D004	International Conference on Complex Analysis and Computational Fluid Dynamics	February 16-18, 2024. KIIT University, Bhubaneswar	HTRA
65.	Dr. Cyriac Antony	MA23R004	Resource Person for Online Workshop on NP-Completeness Reductions, VIT Chennai	January 29-31, 2024.	NA
			10th Annual International Conference on Algorithms and Discrete Applied Mathematics (CALDAM 2024)	February 15-17, 2024. Chhattisgarh	Institute
66.	Shyam Sundar Jana	MA22D023	International Conference on Complex Analysis and Computational Fluid Dynamics	February 16-18, 2024. KIIT University, Bhubaneswar	HTRA
67.	Dr. Shankey Kumar	MA23R001	International Conference on Complex Analysis and Computational Fluid Dynamics (ICCACFD 2024)	February 16-18, 2024. KIIT University, Bhubaneswar	Institute
68.	Akash Yadav	MA19D204	International Conference on Complex Analysis and Computational Fluid Dynamics	February 16-18, 2024. KIIT University, Bhubaneswar	HTRA
69.	Rabeetha	MA19D021	Workshop on Harmonic Analysis: Fourier Multipliers and Related Topics	February 16-March 04, 2024. HRI	UGC
70.	Sivashankar B	MA19D018	Workshop on Harmonic Analysis: Fourier Multipliers and Related Topics	February 19-March 04, 2024. HRI, Allahabad	NBHM

71.	Pavankumar Rajaram Raickwade	MA21D005	National Conference on Operator Theory and Function Spaces	March 27-29, 2024. Shiv Nadar University, Delhi NCR	PMRF
72.	Dr. Antareep Mandal	MA22R003	Minicourse on Arakelov Theory and Modular Forms	March 12-16, 2024. International Centre for Theoretical Sciences (ICTS), Bengaluru	IPDF Contingency Grant

4.13.2.3. Students/Scholars Who Won Outside Prizes and Awards:

Sl.No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Mageswari	MA15D204	Best Paper Award 2024	Anna University

4.13.2.4. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1.	Samir Mondal	MA19D750	Institute Research Award of the Year 2023-24	IIT Madras
2.	Supriya Karmakar	MA18D201	Institute Research Award of the Year 2023-24	IIT Madras

4.13.3. Faculty and Their Activities:

4.13.3.1. Faculty:

Name and Qualifications	Major Area of Specialisation (Only 3 Areas)
Professor:	
Prof. Arindama Singh, Ph.D. (IIT Kanpur) [Head]	Logic, Numerical Linear Algebra
Prof. V Vetrivel, Ph.D. (IIT Madras)	Non-linear Analysis - Variational Inequalities, Optimisation and Fixed Point Theory
Prof. A K B Chand, Ph.D. (IIT Kanpur)	Fractals, Approximation Theory and Wavelets
Prof. S Ponnusamy, Ph.D. (IIT Kanpur)	Complex Analysis, Functional Spaces, Special Functions
Prof. R Radha, Ph.D. (IMSc Chennai)	Harmonic Analysis, Time-Frequency Analysis, Theory of Wavelets
Prof. R Rama, Ph.D. (Anna University)	Theoretical Computer Science
Prof. Y V S S Sanyasiraju, Ph.D. (IIT Madras)	Computational Fluid Dynamics
Prof. Satyajit Roy, Ph.D. (IISc Bangalore)	Convective Heat and Mass Transfer, Computational Fluid Dynamics
Prof. K C Sivakumar, Ph.D. (IIT Madras)	Functional Analysis, Matrix Theory
Prof. Ch Srinivasa Rao, Ph.D. (IISc Bangalore)	Non-linear Differential Equations
Prof. S R Manam, Ph.D. (IISc Bangalore)	Differential and Integral Equations, Wave-Structure Interactions
Prof. S Sundar, Ph.D. (IIT Madras)	Computational Fluid Dynamics, Numerical Analysis for Partial Differential Equations, Mathematical Modeling
Prof. A V Jayanthan, Ph.D. (IIT Bombay)	Commutative Algebra and Algebraic Combinatorics

Prof. A J Shaiju, Ph.D. (IISc, Bangalore)	Game Theory, Systems and Control Theory
Prof. Kalpana Mahalingam, Ph.D. (University of South Florida, Tampa)	Theory of Codes, DNA Computing, Combinatorics of Words
Prof. Shruti Dubey, Ph.D. (IIT Kanpur)	Nonlinear Analysis of Functional Differential Equations, Mathematical Study of Ferromagnetic Systems, Differential Equations and Neural Networks
Prof. Kunal Krishna Mukherjee, Ph.D. (Texas, A&M)	Operator Algebras
Prof. R Balaji, Ph.D. (IIT Madras)	Linear Algebra and Optimisation
Prof. Santanu Sarkar, Ph.D. (ISI, Kolkata)	Cryptology and Computational Number Theory
Prof. Neelesh S Upadhye, Ph.D. (IIT Bombay)	Probability Theory and Applications
Prof. Arijit Dey, Ph.D. (IMSc Chennai)	Algebraic Geometry
Associate Professor:	
Dr. Sounaka Mishra, Ph.D. (ISI, Kolkata)	Discrete Mathematics, Approximation Algorithm, Combinatorial Optimisation
Dr. V Uma, Ph.D. (IMSc Chennai)	Topology and Geometry of Toric Varieties and Related Spaces
Dr. N Narayanan, Ph.D. (IMSc, Chennai)	Graph Theory: Graph Colouring, Structural and Extremal Graph Theory Probabilistic Combinatorics, Discrete Mathematics
Dr. Priyanka Shukla, Ph.D. (JNCASR, Bangalore)	Fluid Mechanics: Hydrodynamic Instability; Nonlinear Dynamics; Numerical PDE; Granular Flows; Pattern Formation
Dr. T V Anoop, Ph.D. (IMSc Chennai)	Linear and Nonlinear Partial Differential Equations, Nonlinear Functional Analysis
Dr. Soumen Sarkar, Ph.D. (ISI, Kolkata)	Algebraic Topology, Geometric Topology, Differential Geometry, Convex Geometry, K-theory, Topological Complexity, Persistent Homology, Ring of Continuous Functions
Dr. Suhas Jaykumar Pandit, Ph.D. (ISI, Bangalore)	Geometric Group Theory and Low-dimensional Topology
Assistant Professor:	
Dr. P Aprameyan, Ph.D. (Philipps University, Marburg, Germany)	Analysis on Symmetric Spaces, Representations of Real Lie Groups, Geometric Quantisation
Dr. Dipramit Majumdar, Ph.D. (Brandeis University)	Algebraic Number Theory, p-adic Aspects of Modular Forms and Galois Representations
Dr. Ramesh Kasilingam, Ph.D. (IIT Bombay)	Differential and Algebraic Topology and Their Interactions With Differential Geometry
Dr. Sarang S Sane, Ph.D. (TIFR, Bombay)	Commutative Algebra, Homological Algebra, Algebraic k-theory, Algebraic Geometry
Dr. Sivaraman Ambikasaran, Ph.D. (Stanford University)	Numerical Linear Algebra, Fast Algorithms, and Scientific Computing
Dr. Sriram B, Ph.D. (University of Florida)	Functional analysis
Dr Sumesh K, Ph.D. (ISI, Bangalore)	Operator Algebras, Operator Theory, and Mathematical Aspects of Quantum Information Theory
Dr T E Venkata Balaji, Ph.D. (CMI, Chennai)	Algebraic Geometry and Commutative Algebra

Dr. Barun Sarkar, Ph.D. (University of Wuppertal, Germany)	Stochastic PDEs & Probability Theory
Dr. Surjit Kumar, Ph.D. (IIT Kanpur)	Operator Theory
Dr. G Arunkumar, Ph.D. (IMSc, Chennai)	Infinite - Dimensional Lie Algebras, Algebraic Combinatorics & Spectral Graph Theory
Dr. A Sathish Kumar, Ph.D. (IIT Roorkee)	Approximation Theory, Sampling Operators
Dr. Anuj Jakhar, Ph.D. (IISER Mohali)	Algebra And Number Theory
Visiting Faculty:	
Dr. Saurav Samantaray, Ph.D. (IISER Thiruvananthapuram)	Numerical Analysis and Scientific Computation
Prof. Johannes Tausch, Ph.D. (Colorado State University, US)	Numerical Analysis of Integral Equations, Partial Differential Equations, Shape Optimisation and High-dimensional Quadrature

4.13.3.2. Short-term Courses, Workshops, Seminars, Symposia, Conferences Organized by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	Dr. Narayanan NJoseph Kennedy (PU), Arvind Ayer (IISc), Amritanshu P (IMSc) & S Krishnan (IITB)	Meru Conference on Combinatorics, Pondicherry University	29th May 2023 to 31st May 2023 May 29-31, 2023
Seminar:			
1.	Dr. Venkata Balaji T E	Enrichment Talks for IITM Summer Research Fellowship Scholars 2023	May-July 2023
2.	Dr. T V Anoop	Seminars in PDE 2023	19 May 19, 2023
3.	Dr. Arindama Singh	Organized MTTs (Mathematics Training and Talent Search) Sponsored by National Board of Higher Mathematics; Series of 24 lectures on Linear Algebra in MTTs 2023	May 22-June 17, 2023
Workshop:			
1.	Dr. T E Venkata Balaji	Tamil Nadu Government School Teachers' Training Workshop	July 19-21, 2023
2.	Dr. S Ponnusamy	International Workshop on Geometric Function Theory (IWGFT 2023)	August 18-20, 2023
3.	Dr. G Arunkumar & Dr. A Sathish Kumar	Mathematics In-House Symposium 2023	August 28-29, 2023
4.	Dr. V Uma	Workshop on Introduction to Spherical Varieties and Related Topics Prof. Stephanie Cupit-Foutou, Department of Mathematics, Ruhr-University Bochum, Germany and Prof. Dmitry Timachev, Department of Higher Algebra, Lomonosov Moscow State University, Moscow, Russia	December 11-22, 2023
5.	Dr. Priyanka Shukla	NSMA Symposium Department of Mathematics, IITM	December 22, 2023

Short Term Course:			
1.	Dr. Neelesh S Upadhye	GIAN Course Stochastic Processes for Data Science by Prof. Nicolas Privault, NTU Singapore	May 22-26, 2023
2.	Dr. G Arunkumar	Summer Internship Program (two weeks) for for Masters Students of Ramanujan Institute of Advanced Study in Mathematics	June 13-24, 2023
3.	Dr. A K B Chand	Co-ordinator for GIAN Course on Fractal Geometric Measure Theory and Applications	December, 2024

4.13.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, Training Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Workshop:				
1.	Dr. S Ponnusamy	Workshop: Metric Geometry and Complex Analysis, Landau-Bloch Theorems for Harmonic Mappings	Foshan University, Guangdong, China	June 9-12, 2023
2.	Dr. N Narayanan	Workshop: Combinatorial Methods in Graph Theory' 3 Talks on Chromatic Polynomials and Chromatic Symmetric Functions	Presidency University	June 15-17, 2023
3.	Dr. Venkata Balaji T E	The Geometry and Calculus of the Curvatures of Curves and Surfaces - Two lectures. Research Science Initiative Chennai 2023	Chemistry Department, IIT Madras	May 04, 2023
		Rainbows and Gears. Research Science Initiative Chennai 2023 Rainbows and Gears	Chemistry Department, IIT Madras	May 11, 2023
		Netting Bondas and Vadas. Research Science Initiative Chennai 2023	Chemistry Department, IIT Madras	June 02, 2023
4.	Dr. Soumen Sarkar	Workshop: Geometry, Analysis and Mathematical Physics, Some Properties of Polynomial Vector Fields	NISER, Bhubaneswar	July 24-August 02, 2023
5.	Dr. Arijit Dey	Summer School Workshop 2023 on Algebraic Geometry: Derived Categories Stability Conditions, and Moduli Spaces	Centre for Mathematical Sciences Technion in Haifa, Israel	09.07.2023 to 14.07.2023 July 09-14, 2023
6.	Dr. Barun Sarkar	Lectures on Probability and Stochastic Processes XVI	ICTS-TIFR, Bengaluru, India.	1 November 17-21, 2023
7.	Dr. Dipramit Majumdar	NCM workshop on Hida Theory and Iwasawa Main Conjecture Over \mathbb{Q}	Chennai Mathematical Institute	December 04-09, 2023
Seminar:				
1.	Dr. A Sathish Kumar	FDP on Functional Analysis Talk Titled: Approximation by Certain Operators	VIT University, Chennai Campus	April 21, 2023

2.	Dr. V Vetrivel	Lecture: Non-Smooth Optimisation, Scholar in Residence Programme	Stella Marys College, Chennai	April 05, 2023
		Plenary Lecture: Convex Optimisation & Algorithms, DPRC 2024	SRM University	March 28, 2024
3.	Dr. Ramesh Kasilingam	Lecture Series: Refresher Course in Mathematics and Statistics	Bharathiar University	August 25, 2023
4.	Dr. Surjit Kumar	Invited Lectures: Summer Workshop on Linear Algebra and Real Analysis.	VIT Vellore	July 06-07, 2023
5.	Dr. Arijit Dey	Equivariant Bundles on Toric Varieties	Bhopal	August 15-20, 2023
6.	Dr. Radha R	Department Seminar: Twisted Shift Invariant Spaces on the Complex Plane	IIT Delhi	August 17, 2023
		Department Seminar: A-translations and the Special Affine Fourier Transform	IIT Hyderabad	December 26, 2023
7.	Dr. G Arunkumar	Special Seminar Mathematical Modelling and Peg Solitaire Game	Sri Sankara Senior Secondary School, Chennai	August 24, 2023
8.	Dr. Anuj Jakhar	Invited Lecture	IIT Dharwad	December 01, 2023
9.	Dr. Arindama Singh	Series of Lectures: Linear Algebra in TEW funded Bi-National Centre for Maths	Mepco Engineering college, Sivakasi	3.12.2023 to 27.12.2023
10.	Dr. Neelesh S Upadhye	The MATRIX Club Lecture Series: Mathematics for Data Science	SRM Vadapalani	February 01, 2024
11.	Dr. Sanyasiraju YVSS	Invited Lecture: Computational Aspects of Meshless RBF Scheme With Source and PDE Points, 5th Annual International Conference on Mathematical Techniques and Applications (ICMTA 2024)	SRM Institute of Science and Technology, Chennai	January 03, 2024
		Invited Lecture: Partial Differential Equations and Transform Techniques (Discrete Fourier Transform), Faculty Development Programme on Mathematics in Engineering and Science - Importance and Applications	VIT, Andhra Pradesh	January 05, 2024
		Invited Lecture: Introductory Lecture on Application of RBF Based Meshless Schemes to CDR Equations. Recent Trends in Numerical Methods for CDR Equations	IIT Kanpur	January 20, 2024
		Two Invited Lectures: Finite Volume Method For Fluid Flow Equations. Advances in Fluid Solid Interactions using AI/ML With Special Reference to Numerical Weather Prediction and Smart Farming Using IoT	IIT (ISM) Dhanbad	February 13-14, 2024
		Invited Lecture: Localised Level Set Method to Capture Moving Interfaces using RBF Based Grid Free Scheme. International Conference on Mathematical Modelling, Simulation and Nonlinear Dynamics 2024 (ICMMSND 2024)	Bharathiar Univeristy, Coimbatore	February 16, 2024

		Invited Lecture: Stable Numerical Computations for Solving Stefan Problems. International Conference on Complex Analysis and Computational Fluid Dynamics (ICCACFD 2024)	KIIT DU, Bhubaneswar	February 18, 2024
12.	Dr. A K B Chand	Invited Talk: Fractal Quartic Spline Solutions for the Second Order Boundary Value Problems 5th International Conference On Mathematical Techniques And Applications (ICMTA-2024)	SRM University	January 04, 2024
		Invited Talk: Zipper Variable α -Fractal Functions and Surfaces 10th International Conference on Mathematics and Computing ICMC 2024, Kalasalingam	Academy of Research and Education, Krishnankoil, Srivilliputhur, Tamil Nadu	January 06, 2024
		Talk: Fractal Quartic Spline Solutions for BVP	NIT Rourkela	January 25, 2024
13.	Dr. G Arun Kumar	One-day Seminar to School Students: Klien Four Group and the Peg Solitaire Game	Madras Christian College, Chennai	January 06, 2024
		One Day Faculty Development Program: Applications of Matrices in Engineering	Saveetha Institute of Medical and Technical Sciences, Chennai	January 23, 2024
		One Week Faculty Development Program: Algebraic Systems and Combinatorics, Spectral Theorem of Real Symmetric Matrices	Vellore Tech Institute of Science and Technology, Chennai	February 19-23, 2024
Symposia:				
1.	Dr. Surjit Kumar	In-house Symposium, Department of Mathematics	IIT Madras	July 28-29, 2023
Conference:				
1.	Dr. Shruti Dubey	Solution to Semi-linear Initial Value Problem With State Dependent Delay. International Conference on Differential Equations and Control Problems (ICDECP23)	IIT Mandi	June 15-17 , 2023
2.	Dr. Sanyasiraju YVSS	Subject Expert, Curriculum Development Committee Meeting to Finalize the Structure of B.Tech. Mathematics & Computing	NIT Warangal	June 17, 2023
		Thin Film Flow Computations Using Radial Basis Functions. International Conference on Computational Methods in Science and Engineering	Warangal	August 28-29, 2023
		Talk: Finite Difference Based Stable Numerical Scheme to Solve Stefan Problem. International Meet of 68th ISTAM	Department of Mathematics, NIT Warangal	December 07, 2023
		Talk: Shape Parameter Optimisation of the Multiquadric RBF. National Conference on Emerging Trends of Mathematics in Engineering and Applied Sciences (NCETMEAS),2023	Department of Mathematics, S V University, Tirupathi	December 22, 2023

3.	Dr. Arindama Singh	Faculty Review Meeting	IIT DM	April 13, 2023
		Recruitment Meeting	IIT Delhi	June 13, 2023
		IITDM Recruitment	IIT DM	August 16-17, 2023
		TNSTE Meeting, Government of Tamil Nadu	Chennai	August 21-24, 2023
4.	Dr. S Ponnusamy	The 29th International Conference on Finite or Infinite Dimensional Complex Analysis and Applications (The 29th ICFIDCAA-2023); Plenary Speaker: Landau-Bloch Theorems for Analytic, Meromorphic, and Harmonic Functions	Ramanujan School of Mathematical Sciences, Pondicherry University.	August 21-22, 2023
		Research and Conference Participation as a Plenary Speaker in China	China	June 05-July 05, 2023
		Program Chair: International Conference on Mathematics and Computing (ICMC 2024)	Kalasalingam Academy of Research and Education, Srivilliputhur, Tamil Nadu	January 02-07, 2024
5.	Dr. R. Balaji	Paper Presentation: Distance Laplacians of Connected Graphs International Conference on Matrix Analysis and its Applications (MAT TRIAD 2023)	Bedlewo, Poland	September 09-17, 2023
6.	Dr. S. Ponnusamy	Invited Talk: Landau-Bloch Type Theorems for Various Classes of Meromorphic, and Harmonic Functions. International Conference on Nonlinear Approximation and Discretisation	Steklov Mathematical Institute, Moscow, Russia	October 29-November 03, 2023
		Moscow Center of Fundamental and Applied Mathematics, Lomonosov State University (LMSU), Russia for Collaborative Research Discussion	Moscow, Russia	October 21-November 10, 2023
7.	Dr. Anuj Jakhar	Invited Lecture: Some Applications of Newton Polygons. ICCGNFRT - 2023 (International Conference on Class Groups of Number Fields and Related Topics)	Kerala School of Mathematics	October 27, 2023
8.	Dr. Dipramit Majumdar	Number Theory Conference	Indian Academy of Sciences	February 22-25, 2024
9.	Dr. Srinivasa Rao C H	The International Conference on Computational Methods in Science and Engineering	Warangal	October 27-29, 2023
10.	Dr. Neelesh S Upadhye	Paper Presentation: 16th International Conference of the ERCIM WG on Computational and Methodological Statistics & 17th International Conference on Computational and Financial Econometrics, HTW Berlin	University of Applied Sciences, Germany	December 15-19, 2023
11.	Dr. V Uma	Symposium Talk: Equivariant Grothendieck Ring of Flag Bott Manifolds. 38th Annual Conference of the Ramanujan Mathematical Society.	IIT Guwahati	December 23-24, 2023

12.	Dr. Jayanthan A V	Binomial Expansion for Saturated and Symbolic Powers of Sums of Ideals	University of Missouri at Columbia, USA	September 23, 2023
		Commutative Algebra and Algebraic Geometry in Prime Characteristic	ICTP, Trieste, Italy	May 08-12, 2023
		Commutative Algebra and Its interaction With Algebraic Geometry and Combinatorics	Vietnam Institute for Advanced Study in Mathematics	June 19-23, 2023
		Unexpected and Asymptotic Properties of Algebraic Varieties	University of Nebraska, USA	August 11-12, 2023
		KUMUNU 2023	University of Missouri, Columbia, USA	September 23-24, 2023
13.	Dr. Satyajit Roy	Talk: Differential Equations. 3rd Winter Training Program in Mathematics at the Ramanujan Institute	Ramanujan Institute for Advanced Study in Mathematics, University of Madras	December 12-16, 2023
		Talk: Non-linear Boundary Value Problems for Differential Equations and Numerical Approaches. 17th International Conference on Mathematical Sciences for Advancement of Science and Technology (MSAST 2023)	Information Technology and Computer Science (IMBIC) Salt Lake City, Kolkata	December 21-23, 2023
14.	Dr. Neelesh S Upadhye	CFE-CM Statistics Conference HTW Berlin	HTW University of Applied Sciences, Berlin	December 15-19, 2023
15.	Dr. Radha R	89th Annual Conference of Indian Mathematical Society, International Conference Title : Special Affine Fourier Transform.	BITS - Pilani, Hyderabad Campus	December 22-25, 2023
		Vaidyanatha Swamy Endowment Lecture, One Day Colloquium Title : Frames, Sampling and Shift Invariant Spaces	Ramanujan Institute for Advanced Study in Mathematics	March 12, 2024
16.	Dr. Barun Sarkar	Discussion Meeting on Probability, Convex Geometry and Complex Analysis	TIFR-CAM Bangalore, India	January 04-09, 2024
17.	Dr. Shruti Dubey	Invited Talk: Solution to Semilinear Initial Value Problem With State Dependent Delay. International Conference on Differential Equations and Control Problems (ICDECP23)	School of Mathematical and Statistical Sciences (SMSS), IIT Mandi	June 15-17, 2023
		Invited Talk: On the Cauchy Problem Featuring State Dependent Delay and Nonlocal Initial Conditions. 5th International Conference on Mathematical Techniques and Applications (ICMTA-2024)	SRM IST, Kattankulathur, Tamilnadu	January 02-04, 2024

Short-term Course:				
1.	Dr. Shruti Dubey	Collaborative Research Work	IIT Delhi	June 11-14, 2023
2.	Dr. Barun Sarkar	Research Discussion	IFMR GSB, Krea University	May 01, 2023
			IIT Kanpur	June 11-17, 2023
3.	Dr. Sarang S Sane	Dualities in Algebra and Topology	Bengaluru	May 14-28, 2023
4.	Dr. Jayanthan A V	MTTS	IIT Madras	May 22-June 02, 2023

4.13.3.4. Special Lectures delivered by the faculty in other Institutions:

Sl. No.	Name of faculty	Topic of Lecture	Institution	Date
1.	Dr. Sanyasiraju Y V S S	Invited Lecture: Radial Basis Function Based Grid Free Schemes	Thermal System Design Tools Team of GE Bangalore	June 14, 2023
2.	Dr. T V Anoop	Talk in Mathematical Physics, Dynamical Systems, and Infinite-Dimensional Analysis Conference	Moscow Institute of Physics and Technology (MIPT), Russia	July 05-14, 2023
3.	Dr. S Ponnusamy	Basic Questions Concerning Univalent Harmonic Mappings	Hunan First Normal University, Changsha, P. R. China	June 28, 2023
		Hall's Conjecture on Conformal mappings	Hengyang Normal University, Hengyang, China	June 16, 2023
		Length of Ray Image as Under Conformal Mappings"	Hunan Normal University, Changsha, China	June 27, 2023
		Bohr's Theorem and Cesaro Type Averaging Operators	Guangdong University of Technology, Guangzhou, China	June 14, 2023
		Recent Advances on Bohr Inequality on the Space of Analytic Functions	Huaqiao University, China	June 29, 2023
4.	Dr. Anuj Jakhar	Invited Lecture: Newton Polygon and Its Applications	IIT Ropar	September 29, 2023
5.	Dr. Arindama Singh	Series of Lectures: Linear Algebra in MTTS Programme	Tezpur University, Assam	January 03-08, 2024
		What is a Real Number?	RSIC, Chennai	April 27, 2023
		Linear Algebra (Series of Lectures)	MTTS	May 23-June 17, 2023
		Maths in CS	IIT Jammu	September 15, 2023
		Maths in Image Processing	IIT Jammu	September 29, 2023

		MTTS-Overture-2023 (Series of lectures)	Karanjia Govt College	October 13-16, 2023
		Linear Algebra (Series of lectures)	Mepco Engg College, Sivakashi	November 27, 2023
		Linear Algebra (Series of Lectures)	MTTS-InitMath at Tezpur	January 03-09, 2024
		Computing Eigenpairs	IIT Roorkee	March 09, 2024
6.	Dr. Priyanka Shukla	Stability of Plane Poiseuille Flow in an Anisotropic Porous Channel, International Seminar on Mathematical Modeling and Turing's Pattern Formation	VIT Vellore	September 11-15, 2023
7.	Dr. Jayanthan A V	Binomial Edge Ideals - An Algebraic Struction of a Combinatorial Object	University of Tulane, USA	October 19, 2023
8.	Dr. Surjit Kumar	Spherical Tuple of Operators	IISER Bhopal	July 19, 2023
		Commuting Tuple of Operators Homogeneous Under the Unitary Group	IISc Bangalore	January 03, 2024
9.	Dr. Sounaka Mishra	On Minimum Co-Secure Dominating Set Problem	IIT Bhubaneswar	March 15, 2024
10.	Dr. V Vetrivel	Optimality Conditions for Smooth Program. International Conference on Computations and Data Science,	IIT Roorkee	March 10, 2024

4.13.3.5. Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Dr. R Balaji	Japan	March 01-11, 2023	Research Discussion on Theory of Matrices and Its Applications at University of Tokyo, Komaba, Japan	Without Financial Assistance
2.	Dr. A V Jayanthan	Italy	May 08-12, 2023	Invited Speaker for Workshop: Commutative Algebra and Algebraic Geometry in Prime Characteristics at the Abdus Salam International Centre for Theoretical Physics (ICTP) in Trieste, Italy.	CPDA & Project/PCF
		Vietnam	June 19-23, 2023	Conference	Partially CPDA, partially Vietnamese Institute
		USA	August 02-December 15, 2023	Sabbatical	Purdue University
3.	Dr. Satyajit Roy	UAE	June 20-22, 2023	Talk: Hybrid Nanofluid Flow and Entropy Generation Analysis using Temperature-Sensitive Water Properties' International Conference on Recent Advances in Applied Mathematics (RAAM 2023), BITS Pilani Dubai Campus, Dubai, United Arab Emirates	CPDA

4.	Dr. Saurav Samantaray	France	June 08-24, 2023	Scientific Visitor and Talk: High Order Asymptotic Preserving Semi-implicit RK Schemes for the Two-Fluid Euler-Poisson System in the Quasineutral Limit, University of Rennes, France.	CPDA
			June 26-30, 2023	Paper Presentation at Numerical Methods for Hyperbolic Problems (numhyp23), Bordeaux, France	CPDA
5.	Dr. V Vetrivel	USA Bellevue, WA & Santa Barbara, CA	June 03-09, 2023	Research Collaboration and Invited Lectures' University of California, Santa Barbara	CPDA & Project/PCF
		United States of America	December 04-11, 2023	University of California- Research Visit	ICSR Project
6.	Dr. S Ponnusamy	China	June 06-July 05, 2023	Conference and Joint Research Work With Collaborators from China	NBHM (DAE). Local expenses - by host in China
7.	Dr. A V Jayanthan	Hanoi, Vietnam	June 19-23, 2023	Depth of Binomial Edge Ideals in Terms of Graph Connectivity. Commutative Algebra and Its Interaction With Algebraic Geometry and Combinatorics at Institute of Mathematics, Vietnam Academy of Science & Technology	CPDA & Project/PCF
8.	Dr. Santanu Sarkar	Bochum Germany	June 01-August 21, 2023	Ruhr University Bochum, Germany	Humboldt fellowship
9.	Dr. Neelesh S Upadhye	Germany	December 15-19, 2023	16th International Conference of the ERCIM WG on Computational and Methodological Statistics & 17th International Conference on Computational and Financial Econometrics	CPDA

4.13.3.6. Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Awards:					
1.	Dr. C H Srinivasa Rao	Best Teacher Award	IIT Madras		September 05, 2023

4.13.3.7. Journal Editorial Boards:

Sl. No.	Name of faculty	Position (Editor/ Member)	Journal Name
1.	Dr. V Vetrivel	Member	The Journal of Indian Mathematical Society
2.	Dr. Shruti Dubey	Guest Editor	Computational and Mathematical Biophysics
3.	Dr. R Radha	Member	Sampling Theory, Signal Processing, and Data Analysis, Springer
4.	Dr. R Radha	Member	Frontiers in Applied Mathematics and Statistics

4.13.4. Research and Consultancy:**4.13.4.1. Sponsored Research Projects: (on going & new)**

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in lakhs)	Co-ordinators
1.	A Study on the Weyl-Kac Character Formula of Borchers-Kac-Moody Lie (super) Algebras	2 Years	SERB Startup Research Grant	Rs. 15,35,462	Dr. Arunkumar G
2.	Functional to Calculus in the Space of Tempered Distributions and Its Applications to Finance	December 20-July 31, 2024	Indian Institute of Technology Madras-King's College London Partnership Collaboration Awards (PCA) 2023 Round	£ 5,000 (Approx Rs. 526086.58/- as on 21-12-2023)	Dr. Barun Sarkar (IIT Madras) Dr. Purba Das (KCL) Dr. Suprio Bhar (IIT Kanpur)
3.	Existence and Uniqueness of Fourth Order SPDEs in the Space of Tempered Distributions	October 14, 2022-October 13, 2024	SERB	15,06,574 INR	Dr. Barun Sarkar
4.	Relative Equilibrium of Point Vortices: Theory, Numerics, and Visualisation	December, 2023-2026	DST (MATRIX)	2 Lakhs (pa)	Dr. Priyanka Shukla
5.	Modal and Non-modal Stability Analyses of Flows Through Multi-layer Porous Channel	December, 2023-2026	DST (CRG)	20,24,000 INR	Dr. Priyanka Shukla
6.	Convergence Behavior of Sampling Operators on Certain Mixed Lebesgue Spaces	January 02, 2024-January 01, 2027	SERB, DST, India	Rs. 21,92,674	Dr. ASathish Kumar
7.	Shape Based Search	3 Months	PDSVISION	Rs. 3.54 Lakhs	Dr. Neelesh S Upadhye
8.	Lusternik-Schnirelmann Category and Several Topological Complexities, and Their Applications in Robotics	3 Years	SERB, INDIA	26,52,463 INR	Dr. Soumen Sarkar
9.	K-theory of Hessenberg Varieties	36 Months	Science & Engineering Research Board (SERB)	Rs. 6,60,000	Dr. V Uma
10.	Computational Complexity of Graph Partitioning Problems Related to Graph Coloring Problem	3 Years	SERB	Rs. 6,60,000/-	Dr. Sounaka Mishra
11.	FIST (Fund for Improvement of S&T Infrastructure)	2023-2028	DST-SERB	160 lakhs	PI: Dr. V Vetrivel, Co-PI: Dr. Sivaram A and Dr. Santanu Sarkar

12.	TARE (Teachers Associateship for Research Excellence)	2023-2026	DST-SERB	10.05 lakhs	Dr. V Vetrivel
13.	Expert Committee Meeting	2023	DST SERB	14 lakhs	Dr. V Vetrivel
14.	Direct and Inverse Voronovskaya Results for the Sampling Operators	2022-2025	SERB, DST, India	Rs. 6.6 Lakhs	Dr. ASathish Kumar
15.	Frames and Shift Invariant Systems on Non-abelian Locally Compact Groups	March 29, 2023 3 Years	NBHM, DAE	Rs. 3.98 Lakhs	PI : Dr. R Radha Co PI : Dr.K Sumesh
16.	Microlocal Analysis on the Heisenberg Group and Its Intertwining Properties With Shearlets	January 01, 2024 3 Years	TARE, SERB	Rs. 15 lakhs	PI : Dr. R Radha Dr. Swaraj Paul SRM University

4.13.5. Distinguished Visitors to the Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Dr. Ritesh Kumar Dubey SRM Institute of Science and Technology, Chennai	April 06, 2023	On the Learning of High Order Polynomial Reconstructions for Scientific Computing
2.	Dr. Snehasis Mukherjee Department of Computer Science and Engineering Shiv Nadar Institute of Eminence, Delhi NCR	April 13, 2023	Engineering on Supervised Network for Training with Less Data Interactive Session with M.Sc. and M.Tech. Students
3.	Dr. Harish Guruprasad Department of Computer Science and Engineering, IIT Madras	April 20, 2023	Statistically Consistent Algorithms in Machine Learning
4.	Dr. Venkatesh Rajendran Department of Mathematics Indian Institute of Science, Bengaluru	April 26, 2023	Structure of Regular Subalgebras of Affine Kac-Moody Lie Algebras
5.	Prof. Somesh Kumar Department of Mathematics Indian Institute of Technology Kharagpur Kharagpur	April 27, 2023	On a New Index for Comparisons of Group Effects
6.	Prof. Vaidyanathan Sivaraman Mississippi State University	June 12, 2023	Forbidden Induced Subgraph Characterisations of Hereditary Graph Classes
7.	Prof. Hari Sundar, Kahlert School of Computing, University of Utah	July 26, 2023	Scalable Multi-phase Flows in Complex Domains Using Adaptive Octree Meshes
8.	Dr. Dipankar Ghosh Department of Mathematics, IIT Kharagpur	July 27, 2023	Extremal Resolutions of Certain Ideals and Characterisations of Local Rings
10.	Prof. M S Gowda University of Maryland, Baltimore County, USA	August 17, 2023	Fan-Theobald-von Neumann Systems
11.	Dr. Marian Gheorghe, Faculty of Engineering and Informatics, Department of Computer Science, University of Bradford, UK	August 24, 2023	Developments in Membrane Computing - Kernel P Systems Case Study

12.	Toshiyuki Sugawa Tohoku University, Japan	August 07-27, 2023	Research Collaboration (Invited by Dr. S Ponnusamy)
13.	Solodov Aleksei Petrovich, Moscow State University, Russia	August 07-20, 2023	Research Collaboration (Invited by Dr. S Ponnusamy)
14.	Kudriavtseva Olga Sergeevna, Moscow State University, Russia	August 07-20, 2023	Research Collaboration (Invited by Dr. S Ponnusamy)
15.	Sri Ravi Kumar Iyer, Advisor, Chennai Centre for Global Studies	August 31, 2023	Special workshop on Vedic Mathematics: 16 Sutras of Vedic Mathematics
16.	Mr. Ujjwal Kandhari Digital Ed, India	September 07, 2023	Introduction to Maple & Mobius
17.	Dr. Phil Weir Founder and Director of Flax & Teal Ltd, UK	September 14, 2023	Simulation & Data: 6 Steps from Theory to Impact through Disasters, Engineering & Heritage
18.	Dr. Samudrajit Thapa, PDF, Max Planck Institute for the Physics of Complex Systems, Dresden, Germany	September 14, 2023	Data-driven Modelling of Anomalous Diffusion in Complex, Heterogeneous Medium Using Bayesian Inference
19.	Dr. Subhajit Ghosh, Department of Mathematics, Bar-Ilan University, Ramat-Gan, Israel.	October 31, 2023	Aldous-type Spectral Gap Results for the Complete Monomial Group
20.	Dr. Tapan Kar, Assistant Professor, Krea University, IFMR GSB, Sri City, Andhra Pradesh 517646	September 08, 2023	Research Collaboration (Invited by Dr. Barun Sarkar)
21.	Dr. Rajat Kanti Nath Assistant Professor, Department of Mathematical Sciences, Tezpur University, Assam, India	November 16, 2023	Commuting Probability, Its Generalisations and Various Graphs Defined on Finite Groups
22.	Prof. A V Tetenov Leading Researcher at Sobolev Institute of Mathematics Novosibirsk, Russia	November 29, 2023	On Fractal Square Dendrites and Their Classification
23.	Dr. Vladimir E. Bobkov Department of Computational Mathematics Institute of Mathematics UFRC RAS, Russia	November 30, 2023	On the Antimaximum Principle for Elliptic Equations
24.	Dr. Pranava Jayanti Assistant Professor of Mathematics University of Southern California, Los Angeles, CA, USA	December 07, 2023	Mass Transfer and Global Solutions in a Micro-scale Model of Superfluidity
25.	Prof. Ngo Viet Trung Former Director, Institute of Mathematics, Hanoi, Vietnam	December 18, 2023	Depth Stability of Edge Ideals
26.	Prof. Karoly Simon Institute of Mathematics, Budapest University of Technology and Economics, Hungary	December 20, 2023	Random Fractals
27.	Prof. Diego Klabjan Professor, Department of Industrial Engineering and Management Sciences, Northwestern University	January 10, 2024	Robust Softmax Aggregation on Blockchain based Federated Learning

28.	Dr. Ajay Candadai Ramadoss Indiana University Bloomington	January 18, 2024	Representation Homology of Spaces and the Strong Macdonald Conjectures
29.	Dr. T E S Raghavan Emeritus Professor Department of Mathematics, Statistics and Computer Science, University of Illinois at Chicago	February 15, 2024	Research Atmosphere at ISI Kolkatta in Sixties and Problems of Adaptation by Young Researchers From South India
30.	Dr. Jitendra Rathore Postdoctoral fellow, Harishchandra Research Institute, Allahabad, Uttar Pradesh	February 23, 2024	The Brauer Group and Its Arithmetic
31.	Prof. Shanta Laishram	December 08- 15, 2023	Research Collaboration
32.	Dr. Suprio Bhar Department of Mathematics and Statistics, Assistant Professor, IIT Kanpur	December 25- 29, 2023	Research Collaboration
33.	Dr. Tapan Kar Assistant Professor, IFMR-GSB, Krea University	December 26, 2023	Research Collaboration
34.	Prof. Stephanie Cupit-Foutou Ruhr University Bochum, Germany	December 11- 22, 2023	One of the Two Main Speakers in the Workshop on Spherical Varieties and Related Topics
35.	Prof. Dmitry Timashev Lomonosov Moscow State University, Russia	December 11- 22, 2023	One of the Two Main Speakers in the Workshop on Spherical Varieties and Related Topics
36.	Prof. Ngo Viet Trung Former Director Institute of Mathematics, Hanoi, Vietnam	December 17-20, 2023	Research Collaboration
37.	Prof. Sarthok Sarkar (IIT Delhi)	October 2-4, 2023	Research Collaboration
38.	Prof. Stephanie Cupit-Foutou (Ruhr University Bochum, Germany)	December 11-22, 2023	Series of Lectures: Workshop on Spherical Varieties and Related Topics. Invited lecture: Ramanujan Day Function, December 22, 2023. Department of Mathematics
39.	Prof. Dmitry Timashev (Lomonosov Moscow State University, Russia)	December 11-22, 2023	Series of Lectures: Workshop on Spherical Varieties and Related Topics

4.13.6. Other Activities of the Department/Centre:

Results Obtained in Research Work (From M.S. & Ph.D. Thesis) of the Scholar/Faculty (Last Year Sample Enclosed From Director's Speech)

PhD scholar Mr. Bidhan Paul MA19D003 (student of Dr. V Uma) submitted his thesis titled "K- theory of flag manifolds and related structures" in January 2024. This thesis is based on two joint publications:

1. Bidhan Paul and Vikraman Uma, K-theory of flag Bott manifolds, Forum Mathematicum, August

2023, <https://doi.org/10.1515/forum-2023-0074>

2. Bidhan Paul and Vikraman Uma, Equivariant K-theory of flag Bott manifolds of general Lie type, Mathematische Nachrichten, March 2024, DOI:10.1002/mana.202300423

Bidhan Paul gave a talk titled "Equivariant K-theory of flag Bott manifolds of general Lie type" in the conference titled "Vector bundles and combinatorial algebraic geometry" held at Frankfurt during October 09-13, 2023.

Interdisciplinary Group Achievements of the Departments.**Socially Relevant Activities Carried Out by the Department**

Date	Activities
August 28-29, 2023	Mathematics In-House Symposium 2023 Co-ordinators: Dr. G Arunkumar Dr. A Sathish Kumar
December 22, 2023	National Symposium on Mathematics and Its Applications (NSMA 2023) Co-ordinator: Dr. Priyanka Shukla
February 24-25, 2024	FORAYS 2024 Co-ordinators: Dr. Barun Sarkar Dr. Surjit Kumar
March 02-03, 2024	Institute Open House 2024 Co-ordinator: Dr. T E Venkata Balaji

International Collaboration Achievements by the Department**4.13.6.1. Faculty Visit**

Sl. No.	Name of the Faculty Member	Purpose of Visit	Date & Venue
1.	Dr. Surjit Kumar	Collaborative Research Work and Invited Talk	July 17-21, 2023. IISER Bhopal
		Collaborative Research Work and Invited Talk	January 02-06, 2024. IISc Bangalore
		Collaborative Research Work	February 15-21, 2024 IIT Goa
2.	Dr. Barun Sarkar	Research Collaboration at IFMR Graduate School of Business, Krea University	August 25, 2023. Sri city, Andhra Pradesh
		Attended as Participant-Lectures on Probability and Stochastic Processes XVI	November 17-21, 2023. ICTS-TIFR Bangalore
		For Research Collaboration	December 02-09, 2023. IIT Kanpur
		Discussion Meeting on Probability, Convex Geometry and Complex Analysis	January 04-09, 2024. TIFR-CAM Bangalore
		Research Collaboration	February 20-24, 2024. IIT Kanpur
3.	Dr. R Balaji	Visiting Professor at NIT Mizoram (on Sabbatical Leave)	August 01, 2023-July 31, 2024. NIT Mizoram

4.	Dr. Soumen Sarkar	Academic Research Collaboration Department of Pure Mathematics at Xi'an Jiaotong Liverpool University in Suzhou, China (on Sabbatical Leave)	August 22-December 31, 2023. Xi'an Jiaotong Liverpool University in Suzhou, China
5.	Dr. A V Jayanthan	Visiting Scholar at Purdue University, USA (on Sabbatical Leave)	August 01-December 15, 2023. Purdue University, USA
6.	Dr. Ramesh Kasilingam	Annual Foundation School - III	June 19-July 15, 2023. IISER Thiruvananthapuram
7.	Dr. A K B Chand	Member of Faculty Recruitment Interview (Technical) for Mathematics/Statistics	May 27, 2023. VIT-AP University
		Academic Visit	January 02, 2024. SRM University
			January 04, 2024. Kalasalingam Academy of Research and Education, Srivilliputhur, Tamil Nadu
			January 24, 2024. NIT Rourkela
8.	Dr. Satyajit Roy	National Seminar on Mathematics Education and Applicable Mathematics	September 26-28, 2023. Burdwan, West Bengal
9.	Dr. Arijit Dey	Vector Bundles and Combinatorial Algebraic Geometry	August 09-10, 2023. Frankfurt, Germany
10.	Dr. N Narayanan	To Teach at IITM Zanzibar Campus	August 20, 2023-March 01, 2024. Tanzania
11.	Dr. Arindama Singh	MTTS-Overture: Four Lectures on Linear Algebra	October 14-15, 2023. Karanjia College, Odisha
13.	Dr. A Sathish Kumar	FDP Program: Approximation of Functions by Sampling Operators	February 20, 2024. Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai
14.	Dr. Anuj Jakhar	Research Collaboration	January 11-15, 2024. ISI, New Delhi
		INIAS GBM Meeting	February 16-18, 2024. INSA, New Delhi
15.	Dr. T E Venkata Balaji	Research Science Initiative Chennai 2024 Interviews	February 24, 2024. Vidya Mandir Senior Secondary School, Mylapore, Chennai
16.	Dr. Shruti Dubey	Collaborative Research Work	June 11-14, 2023. IIT Delhi
17.	Dr. Ramesh Kasilingam	Narayani N and Kadayam S Sankaran endowment lecture on Differentiable Spheres	March 11, 2024. Ramakrishna Mission Vivekananda College, Chennai, Tamil Nadu

4.14. Department Of Mechanical Engineering

4.14.1 Introduction:

Mechanical Engineering is one of the major activities in the engineering profession and its principles are involved in the design, study, development and construction of nearly all of the physical devices and systems. Continued research and development have led to better machines and processes, helping mankind.

The Department of Mechanical Engineering at IIT Madras is as old as the Institute itself. Its impact on the Institute and on society is easily demonstrated by noting the alignment of the Department's evolution with key events and technological advances in India and elsewhere. Today, the Department of Mechanical Engineering of IIT Madras attracts and features an

extraordinarily rich and diverse number of talented individuals, with nearly 750 undergraduates, 600 graduate students and over 60 faculty members. The impressive array of students makes the Department the largest in the country and one of the largest in Asia.

In addition to teaching undergraduate and graduate students, the faculty of Mechanical Engineering actively pursues research through graduate students. The current graduate students include nearly 199 Dual Degree (DD), 209 Master of Technology students (M.Tech.), 156 Master of Science (by research) students (M.S.) and 300 students pursuing their doctoral programme (Ph.D.)

4.14.2. Academic Programmes:

4.14.2.1. New Courses Introduced:

Sl. No.	Course No.	Title
1.	ME50XX	Data Sciences for Mechanical Engineers
2.	ME52XX	English Communication Course

4.14.2.3. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024:

Programme	I year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	218	207	180	163	13	781
Dual Degree	4	2			16	22
M.A.	-	-	-	-	-	-
M.Sc.	-	-	-	-	-	-
M.Tech.	126	61	2	-	-	189
M.B.A.	-	-	-	-	-	-
M.S.	23	40	40	24	2	129
Ph.D.	30	52	36	34	58	251
Total	401	362	258	221	89	1372

4.14.2.4. Endowment Prize Instituted:

Prof. PK Raju and Laxmi Endowed Prize for Outstanding Ph.D./M.S. Research Thesis in Mechanical Engineering Department was instituted in the year 2023-24

(i) Award Criteria

To outstanding Ph.D. thesis in the research areas of Mechanical Design/Thermal Engineering of the Mechanical Engineering Department

(ii) Eligibility Criteria

- Ph.D. scholars pursuing research in the areas identified-Mechanical Design/Thermal Engineering, can be nominated for this Award.
- Selection of the award winner will be based on publication record and record and research performance indicated by the students who have an abstract submitted before completing the viva.
- The student can be a regular Ph.D. student or a Direct Ph.D. student and can belong to the TRA/External/Project Staff/PMRF category or supported by an industry sponsored fellowship.

4.14.2.5. Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Nitish Prasad K	ME19D408	10th International Conference on Engineering Failure Analysis	July 06-09, 2024. Athenaeum Intercontinental, Athens	Department
2.	Vijay K	ME22S024	9th Thermal and Fluids Engineering Conference (Hybrid) - ASTFE	April 20-23, 2024. Oregon State University, Corvallis, OR, USA	Department
3.	Shashi Bhushan Gunjan	ME17D002	International Manufacturing Science and Engineering Conference (MSEC 2024)	June 16-20, 2024. University of Tennessee-Knoxville	Department
4.	Pechetti Durga	ME18D350	Cavitation Symposium 2024	June 0-04, 2024. Chania	Department
5.	Rahul Kumar Chowdhary	ME21D303	GIAN Course	March 24-28, 2024.	Department
6.	Vijay K	ME22S024	9th Thermal and Fluids Engineering Conference (Hybrid) - ASTFE	April 20-23, 2024. Oregon State University, Corvallis, OR, USA	Department
7.	Pradeev Elango	ME20D009	IEEE Transportation Electrification Conference & Expo	June 18-20, 2024. Rosemont	Project
8.	Anirban Tudu	ME17D021	ASME International Manufacturing Science and Engineering Conference (MSEC 2024)	June 16-20, 2024., Knoxville Convention Center	Department
9.	Pechetti Durga	ME18D350	Naptha Jhakri Power Plant Visit	March 10-13, 2024. Naptha Jhakri Power Plant	Project

10.	Trino Thomas	ME22S002	9th European Thermal Sciences Conference	June 09-12, 2024. Bled, Slovenia	Department
11.	Krishnadasan V B	ME22D003	9th European Thermal Sciences Conference	June 09-12, 2024. Bled, Slovenia	Department
12.	Bharat Naik	ME20D031	Eurotherm Thermal Science Conference	June 09-12, 2024., Bled, Slovenia	Department
13.	Pratheek Suresh	ME19D404	9th European Thermal Sciences Conference	June 09-12, 2024. Bled, Slovenia	Department
14.	Vishal V	ME19D021	9th European Thermal Sciences Conference	June 09-12, 2024. Bled, Slovenia	Department
15.	Jithu J	ME22D001	9th European Thermal Sciences Conference	June 09-12, 2024. Bled, Slovenia	Department
16.	Umair Hussain	ME19D704	16th World Congress on Computational Mechanics	July 20-25, 2024. Vancouver Convention Center	Project
17.	Kaustubh Deepak Kasle	ME21S038	The 2024 Annual Conference of the UK Association for Computational Mechanics	April 09-11, 2024. Durham University	Department
18.	Arvind K	ME16D204	19th European Mechanics of Materials Conference	May 28-30, 2024. Universidad Politecnica de Madrid	Department
19.	Kartik Ramesh Page	ME22S039	11th European Workshop on Structural Health Monitoring (EWSHM 2024)	June 09-12, 2024. Hotel Dorint Sanssouci Berlin/ Potsdam	Department
20.	Mudapaka Vinay	ME22S031	European Workshop on Structural Health Monitoring (EWSHM 2024)	June 09-12, 2024. Hotel Dorint Sanssouci Berlin/ Potsdam	Department
21.	Kaushal Jagannath Bachhav	ME21S080	11th European Workshop on Structural Health Monitoring (EWSHM 2024)	June 09-12, 2024. Hotel Dorint Sanssouci Berlin/ Potsdam	Department
22.	Pranaydeep Garewal	ME20D012	11th European Workshop on Structural Health Monitoring	June 09-12, 2024. Hotel Dorint Sanssouci, Potsdam	Department
23.	Pramod Kumar Mahato	ME18D016	World Congress on Micro and Nano Manufacturing 2023	September 17-20, 2023. Northwestern University, Evanston, USA	Department
24.	Kshitija Shivaji Mirkale	ME19D705	8th International Conference on Bio-Sensing Technology	May 11-14, 2024. Seville, Spain	Project
25.	Akshay Virpaksha Khandare	ME21S010	9th International Conference on Experimental and Numerical Flow and Heat Transfer (ENFHT'24))	April 10-12, 2024. Imperial College London, Conference center	Department

26.	Danish Ansari	ME19D410	Conference	July 18-27, 2024. Vancouver Convention Centre, Canada	Department
27.	Thomas Jacob	ME21D002	5th International Conference on Numerical Methods in Multiphase Flow (ICNMMF5)	June 25-27, 2024. University of Iceland	Department
28.	Pradeev Elango	ME20D009	Deliver and Assemble Model of the 2-Speed Hybrid Drive	January 10-11, 2024. IGSTC Office	Project
29.	Reddipaga Mani	ME18D043	GAMM 2024	March 17-21, 2024. Otto von Guericke University Magdeburg	Department
30.	Rahul Kumar	ME21D044	94th Annual Meeting the GAMM Annual Meeting 2024	March 17-21, 2024. Otto Von Guericke University, Magdeburg	Project
31.	Yagnik Kalpeshkumar Vaidya	ME22S019	GAMM 2024 (94th Annual meeting of the International Association of Applied Mathematics and Mechanics	March 17-21, 2024. Otto von Guericke University Magdeburg	Department
32.	Mrunal Kanti Das	ME22S023	94th Annual meeting of the International Association of Applied Mathematics and Mechanics	March 17-21, 2024. Otto von Guericke Universitat Magdeburg	Department
33.	Chandora Naresh Khimaram	ME20S053	9th International Conference on Experimental and Numerical Flow and Heat Transfer	April 10-12, 2024. Imperial College London Conference Center	Department
34.	Santhosh P	ME22S095	INFUB - The 14th European Conference on Industrial Furnaces and Boilers	March 30-April 05, 2024. Vidamar Hotels & Resorts	Project
35.	Vignesh	ME22S048	14th European Conference on Industrial Furnace and Boilers	March 30-April 05, 2024. Vidamar Hotels & Resorts Algarve, Portugal	Project
36.	Kartik Ramesh Page	ME22S039	NDE 2023	December 06-08, 2023. The Orchid Hotel	Department
37.	Kaushal Jagannath Bachhav	ME21S080	Conference and Exhibition on Non-Destructive Evaluation (NDE 2023)	December 06-08, 2023. The Orchid Hotel, Pune	Department
38.	Mudapaka Vinay	ME22S031	ISNT NDE 2023	December 06-08, 2023. The Orchid Hotel, Pune	Department

39.	Thacker Setu Rameshbhai	ME23S027	ISNT NDE 2023	December 06-08, 2023 The Orchid Hotel	Department
40.	Thomas Jacob	ME21D002	CompFlu 2023	December 17-19, 2023. IIT Madras	Department
India					
1.	Nandhakumar P	ME17D038	GIAN Course	March 24-28, 2024. IIT Madras	Department
2.	Arshdeep Singh	ME19D053	GIAN Course	March 24-28, 2024. IIT Madras	Department
3.	Kushal Prasad Choudhary	ME18D018	Machine Learning for Fluid Mechanics	April 29-May 05, 2024. (Online)	Department
4.	Abishraj V R	ME18D024	8th National and 2nd International Conference on Refrigeration and Air Conditioning	March 12-14, 2024. IIT Madras	Department
5.	Ashish Kumar Vishwakarma	ME21S062	GIAN Course	March 24-28, 2024. IIT Madras	Department
6.	Sumanta Prasad Dewri	ME21D405	PMRF Annual Symposium 2024	March 02-03, 2024. IIT Indore	Project
7.	Nitin Gotiya	ME21D066	International Conference on Additive Manufacturing	March 03-05, 2024. NIT Warangal	Department
8.	Shubham Kumar Mishra	ME22D024	International Conference on Advances in Water Treatment and Management (ICAWTM-24)	February 29-March 01, 2024. Pandit Deendayal Energy University, Gandhinagar	Project
9.	Kshitija Shivaji Mirkale	ME19D705	PMRF Scholar's Annual Symposium	February 02-03, 2024. IIT Indore	Project
10.	Vijayakumar S	ME19D029	International Conference on Refrigeration and Air Conditioning	March 12-14, 2024. IIT Madras	Department
11.	Siddhant Mohapatra	ME19D701	PMRF Annual Symposium 2024	February 02-03, 2024. IIT Indore	Project
12.	Gunda Sachin	ME21D011	PMRF Scholar's Annual Symposium	February 02-03, 2024. IIT Indore	Project
13.	Bharat Naik	ME20D031	Drops, Sprays, and Atomization	January 16-19, 2024. IIT Madras	Department
14.	Rampurkar Siddhivinayak Sudhakar Rao	ME20D004	Drops, Spray and Atomisation	January 16-19, 2024. IIT Madras	Department
15.	Shashi Bhushan Gunjan	ME17D002	9th International and 30th All India Manufacturing Technology, Design and Research Conference	December 07-09, 2023. IIT BHU Varanasi	Department
16.	Thilagan K	ME17D045	International Conference on Refrigeration and Air Conditioning	March 12-14, 2024. IIT Madras	Department

17.	Matcharla Devi Sri Prasad	ME21S022	International Conference on Sustainable Materials for Engineering Applications (ICSMEA 2024)	January 31-February 02, 2024. IIT Madras	Department
18.	Anirban Tudu	ME17D021	AIMTDR 2023	December 07-09, 2023. IIT BHU Varanasi	Department
19.	Ashish Pratap Ranjan	ME21D049	Workshop on Drops, Spray and Atomisation	January 16-19, 2024. IIT Madras	Department
20.	Nandhakumar P	ME17D038	ASME GT India Conference	December 06-07, 2023. Infosys Bengaluru	Department
21.	Rahul Kumar Chowdhary	ME21D303	NPTEL Workshop	January 16-19, 2024. IIT Madras	Department
22.	Mehsana Ahmed	ME21S077	AIMTDR 2023 Conference	December 07-09, 2023. IIT BHU Varanasi	Department
23.	Gayathri R	ME19D300	Interfacial Engineering at Multiple Spatio-Temporal Scales	January 28-30, 2024. IISc, Bengaluru	Department
24.	Md Yusuf	ME22D029	NPTEL Workshop	February 16-19, 2024. NPTEL Studio IIT Madras	Department
25.	Shakti Swaroop Choudhury	ME19D753	PM24	February 24-27, 2024. Hyatt Regency, Pune	Project
26.	Sumanta Prasad Dewri	ME21D405	International Conference on Sustainable Materials for Engineering Applications (ICSMEA 2024)	January 31-February 02, 2024. IIT Madras	Project
27.	Arnab Gupta	ME19D707	Research Work Collaboration	January 28-February 03, 2024. Vellore Institute of Technology, Vellore	Project
28.	G V Balakrishna	ME19D403	International Conference on Sustainable Materials for Engineering Applications 2024	January 31-February 02, 2024. IIT Madras	Department
29.	Thomas Jacob	ME21D002	The First Indian Conference on Micro Nano Fluidics (ICOM)	September 28-30, 2023. IIT Madras	Department
30.	Darshan Dange	ME20D019	International Conference of Sustainable Materials for Engineering Applications	January 31-February 02, 2024. Chennai	Department
31.	Sukre Mahendra Dilip	ME19D023	4th HT&SE International Conference & Expo	September 27-29, 2023. Chennai Trade Centre, Chennai, India	Department

32.	Siddhant Mohapatra	ME19D701	APS March Meeting 2024	March 02-07, 2024. Minneapolis Convention Centre	Project
33.	Jeughale Ganesh Sanjay	ME20S001	International Conference on Innovation, Communication and Engineering 2023 (ICICE 2023)	November 08-12, 2023. Chennai IITM (Online)	Department
34.	Abhinav Rajan	ME18D035	Solar World Congress 2023	October 29- November 03, 2023. Ashok Hotel, New Delhi	Department
35.	Ashish Pratap Ranjan	ME21D049	Drops, Sprays and Atomisation	January 16-19, 2024. IIT Madras	Department
36.	Md Yusuf	ME22D029	Drops, Spray and Atomisation	January 16-19, 2024. IIT Madras	Department
37.	Trilochan Prasad Nanda	ME17D003	All India Manufacturing Technology, Design and Research Conference 2023	December 07-09, 2023. IIT BHU Varanasi	Department
38.	Sayan Majumder	ME19D411	ISHMT-ASTFE Heat and Mass Transfer Conference IHMTTC 2023	December 13-16, 2023. IIT Patna	Department
39.	Bandana Priyadarshini	ME21D001	AIMTDR 2023	December 07-09, 2023. IIT BHU	Department
40.	Amit Yadav	ME21D408	CompFlu-2023	December 17-09, 2023. IIT Madras	Department
41.	Amit Yadav	ME21D408	NPTEL Workshop	January 16-19, 2024. IIT Madras	Department
42.	Raipilli Ashok Kumar	ME23D032	Interfacial Engineering at Multiple Spatio-Temporal Scales Workshop	January 28-30, 2024. IISc Bangalore	Department
43.	Vikram Balaji	ME18D703	IMTEX ISFT 2024	January 17, 2024. Bangalore International Exhibition Centre	Department
44.	Devendra Nagpure	ME22D034	International Seminar on Forming Technology 2024	January 17, 2024. Bangalore International Exhibition Centre	Department
45.	Mohd Zahid	ME22S059	Interfacial Engineering at Multiple Spatio-Temporal Scales Workshop	January 28-30, 2024. IISc Bangalore	Department
46.	Ronit Kumar Shah	ME20D038	9th international & 30th National All India Manufacturing Technology, Design & Research Conference	December 07-09, 2023. IIT BHU, Varanasi	Department
47.	Sonawane Swaroop Rajendra	ME21S032	ICCMS 2023 Conference	December 18-21, 2023. IIT Gandhinagar	Department

48.	Mehsana Ahmed	ME21S077	AIMTDR 2023 Conference	December 07-09, 2023. IIT BHU	Department
49.	Ranjith Kumar I	ME19D016	Nanoindentation for Al Samples in IITH	January 08-10, 2024. IIT Hyderabad	Project
50.	Rishi Dhar Gandhi	ME22D032	PFAM Conference	September 05-07, 2023. IIT Tirupati	Department
51.	Shikher Verma	ME22D069	29th International Conference on Processing and Fabrication of Advanced Materials	September 05-07, 2023. IIT Tirupati	Department
52.	Pritam Kumar Singh	ME19D058	Workshop on Drops, Sprays and Atomisation	January 16-19, 2024. IIT Madras	Department
53.	Chandrapal Singh Rajpoot	ME21D040	Drops, Sprays and Atomisation Workshop	January 16-19, 2024. IIT Madras	Department
54.	Neeraj C S	ME21D035	CompFlu 2023	December 17-19, 2023. IIT Madras	Department
55.	Surya Ghosh	ME21S020	NPTEL Workshop	January 16-19, 2024. IIT Madras	Department
56.	Prajwal Sanjay Bhide	ME22S013	5th International Conference on Innovative Product Design and Intelligent Manufacturing Systems	December 05-06, 2023. Industrial Design Department, National Institute of Technology Rourkela	Department
57.	Gouri Sankar Pattanaik	ME22D021	FMFP-2023	December 19-21, 2023. IIT Jodhpur	Department
58.	Ashutosh Bharti	ME17D004	9th International Congress on Computational Mechanics and Simulations	December 19-21, 2023. IIT Gandhinagar	Department
59.	Kiran Sivadas	ME22D037	FMFP 2023 Conference	December 19-21, 2023. IIT Jodhpur	Department
60.	Trilochan Prasad Nanda	ME17D003	All India Manufacturing Technology, Design and Research Conference 2023	December 07-09, 2023. IIT BHU, Varanasi	Department
61.	Margam Ramprasad	ME22D031	CompFlu 2023	December 17-19, 2023. IIT Madras	Department
62.	Jeughale Ganesh Sanjay	ME20S001	International Conference on Innovation, Communication and Engineering 2023 (ICICE 2023)	November 08-12, 2023. Chennai IITM (Online)	Department
63.	Sumit Rai	ME22D018	An In-Person Workshop	January 16-19, 2024. IIT Madras	Department
64.	Niraj Kumar	ME18D033	Drops, Sprays and Atomization	January 16-19, 2024. IIT Madras	Department
65.	T N Deepu Kumar	ME18D041	9th International & 30th All India Manufacturing Technology, Design and Research Conference (AIMTDR)	December 07-09, 2023. IIT BHU, Varanasi	Department

66.	Amit Kumar	ME22D071	All India Manufacturing Technology, Design and Research Conference 2023	December 07-09, 2023. IIT BHU, Varanasi	Department
67.	Sunil Kumar	ME20D030	All India Manufacturing Technology, Design and Research Conference (AIMTDR 2023)	December 07-09, 2023. IIT BHU, Varanasi	Department
68.	Koushik Biswas	ME21S037	Conference on Fluid Mechanics and Fluid Power (FMFP)	December 19-21, 2023. IIT Jodhpur	Department
69.	Rajiv Kumar	ME21D027	9th International & 30th All India Manufacturing Technology, Design and Research Conference	December 07-09, 2023. IIT BHU, Varanasi	Department
70.	Surya Ghosh	ME21S020	FMFP Conference	December 19-21, 2023. IIT Jodhpur	Department
71.	Arshdeep Singh	ME19D053	NPTEL workshop	January 16-19, 2024. IIT Madras	Department
72.	Chinmoyee Datta	ME20D401	AIMTDR2023	December 07-09, 2023. IIT BHU, Varanasi	Project
73.	Chaudhary Rajan Hareshbhai	ME21S016	ISNT NDE 2023	December 06-08, 2023. Pune, Maharashtra	Department
74.	Sharmila P	ME17D044	FMFP 2023	December 19-21, 2023. IIT Jodhpur	Department
75.	Sudharsan P L	ME21S035	NDE 2023	December 06-08, 2023. NDE 2023	Department
76.	Gaurav Kumar Yadav	ME16D022	ICAMM 2023	October 17-19, 2023. IIT Indore	Department
77.	Linto Davis	ME18D017	Tribo India 2023	October 04-06, 2023. Srinagar NIT	Project
78.	Mayank Khaparde	ME21D029	6th International and 21st National Conference on Machines and Mechanisms	December 06-08, 2023. NIT Raipur	Department
79.	Mittapally Sandeep Reddy	ME22S007	6th International and 21st National Conference on Machines and Mechanisms	December 06-08, 2023. NIT Raipur	Department
80.	Nilesh Kumar	ME22D041	ASM International Chennai Chapter (HTSE) Conference	September 27-29, 2023. Chennai Trade Centre	Department
81.	Siddhant Mohapatra	ME19D701	Complex Fluids 2023	December 17-19, 2023. IIT Madras	Project
82.	Kaushik	ME23S403	ISNT	November 05-09, 2023. Pune	Project
83.	Srijan	ME23S401	33rd Annual Conference and Exhibition (NDE 2023)	November 05-09, 2023. The Orchid Hotel Pune	Project

84.	Hemanth D	ME20D701	27th National and 5th International ISHMT-ASTFE Heat and Mass Transfer Conference 2023	December 13-16, 2023. IIT Patna	Project
85.	Gayathri R	ME19D300	1st Indian Conference on Micro Nano Fluidics (ICOM 2023)	September 28-30, 2023. IIT Madras	Department
86.	Supratim Saha	ME20D750	The 10th International and 50th (Golden Jubilee) National Conference on Fluid Mechanics and Fluid Power	December 19-21, 2023. IIT Jodhpur	Project
87.	Smruti Parimita	ME18D010	Comp Flu 2023	December 17-19, 2023. IIT Madras	Department
88.	Aveek Mohanty	ME16D019	THERMEC	May 31-June 04, 2023. (Virtual)	Department
89.	Smruti Parimita	ME18D010	3D Graphy Engineering and Medical 2023	December 08-09, 2023. IIT Bombay	Department
90.	Nilesh Kumar	ME22D041	Industrial Visit Regarding Research Work to AWE Industrial Cooling System	November 01, 2023. Bengaluru	Project
91.	Lokesh Malik	ME19D754	ICOM 2023	September 28-30, 2023. IC&SR Building, IIT Madras	Department
92.	Pabitra Kumar Sahu	ME21D062	29th International Conference on Processing and Fabrication of Advanced Materials (PFAM) 2023	September 05-07, 2023. IIT Tirupati	Department
93.	Rishi Dhar Gandhi	ME22D032	29th International Conference on Processing and Fabrication of Advanced Materials	September 05-07, 2023. IIT Tirupati	Department
94.	Gharat Saurabh Mangesh	ME22D010	Kenyon-Style Technical Writing Workshop	July 16-20, 2023. IIT Madras	Department
95.	Mohd Zahid	ME22S059	IHMTC2023	December 13-16, 2023. IIT Patna	Department
96.	Nilesh Kumar	ME22D041	Industrial Visit for Research Work to AWE Industrial Cooling System	August 27, 2023. Bengaluru	Project
97.	Nitin Gotiya	ME21D066	29th International Conference on Processing and Fabrication of Advanced Material	September 05-07, 2023. IIT Tirupati	Department
98.	Saura Som	ME22S082	3rd International Conference on Sports Engineering	November 01-03, 2023. BITS Pilani, Rajasthan	Department
99.	Thiruppathi R	ME15D077	Processing and Fabrication of Advanced Materials	September 05-08, 2023. IIT Tirupati	Department
100.	Shristi Singh	ME21D025	FMFP 2023	IIT Jodhpur	Project

101.	Rajmane Swapnil Narayan	ME20D013	10th International and 50th National Conference on Fluid Mechanics and Fluid Power	December 19-21, 2023. IIT Jodhpur	Department
102.	Abhishek Kumar	ME20D402	The 10th International and 50th (Golden Jubilee) National Conference on Fluid Mechanics and Fluid Power	December 19-21, 2023., IIT Jodhpur	Department
103.	Shikher Verma	ME22D069	29th International Conference on Processing and Fabrication of Advanced Materials	September 05-07, 2023. IIT Tirupati	Department
104.	Nilesh Kumar	ME22D041	Industrial Visit	October 14-15, 2023. Bengaluru	Project
105.	Pulak Roy	ME22D040	ICOM 2023 Conference	September 28-30, 2023. IC&SR, IIT Madras	Department
106.	Siddhant Mohapatra	ME19D701	Indian Conference on Micro Nano Fluidics	September 28-30, 2023. IIT Madras	Project
107.	Rajiv Kumar	ME21D027	International Conference on Processing and Fabrication of Advanced Materials	September 05-07, 2023. IIT Tirupati	Department
108.	Margam Ramprasad	ME22D031	ICOM 2023 Conference	September 28-30, 2023. IIT Madras	Department
109.	Sujith T	ME20D001	Indian Conference on Micro Nano Fluidics 2023	September 28-30, 2023. IIT Madras ICSR	Department
110.	Sadham Usean R	ME19D057	27th National and 5th International Conference ISHMT-ASTFF on Heat and Mass Transfer Conference IHMT	December 11-16, 2023. IIT Patna	Department
111.	Subhas Nandy	ME20D200	ICOM 2023	September 28-30, 2023. IC&SR, IIT Madras	Department
112.	Debasish Ghosh	ME21D003	ICOM 2023	September 28-30, 2023. ICSR, IIT Madras	Department
113.	Abhishek Maurya	ME21D012	Visit to the company Susic Heating Products and Omkar Abrasives	August 08-09, 2023. Bengaluru	Project
114.	D Manonmani	ME22S045	Processing and Fabrication of Advanced Materials	September 05-07, 2023. IIT Tirupati	Project
115.	Sunil Kumar	ME20D030	International Conference on Processing and Fabrication of Advanced Materials (PFAM 2023)	September 05-07, 2023. IIT Tirupati	Department

116.	Rahul Ranjan	ME18D001	4th Heat Treatment & Surface Engineering Conference 2023	September 27-29, 2023. Chennai Trade Center	Department
117.	Sumanta Prasad Dewri	ME21D405	29th International Conference on Processing and Fabrication of Advanced Materials	September 05-07, 2023. IIT Tirupati	Project
118.	Linto Davis	ME18D017	24th International Colloquium Tribology	January 22-24, 2024. Stuttgart	Department
119.	Niraj Kumar	ME18D033	23rd Annual Conference of ILASS-ASIA	October 18-20, 2023. Maison Glad Jeju, Korea	Department
120.	Behera Venkatesh	ME17D201	Trip to Kalpak Instruments & Controls	September 06-11, 2023. Pune	Project
121.	Thilagan K	ME17D045	Inspection and Testing of Flash Chambers	September 13-16, 2023. RANVAC Technologies Pvt. Ltd., Bengaluru	Project
122.	Surya Ghosh	ME21S020	AIAA SciTech Forum	January 07-11, 2024. Hyatt Regency Orlando	Department
123.	Kushal Prasad Choudhary	ME18D018	An Introduction to Machine Learning with Python Programming	September 10-19, 2023. IIT Roorkee (Online)	Department
124.	Jahidul Haque Chaudhuri	ME20D403	An Introduction to Machine Learning with Python Programming	September 10-19, 2023. IIT Roorkee (Online)	Project
125.	Shakti Swaroop Choudhury	ME19D753	VIII International Conference on Particle-Based Methods PARTICLES 2023	October 08-10, 2023. Palazzo delle Stelline Conference Center, Corso	Project
126.	Rakesh Verma	ME21D037	Workshop on Technical and Scientific Writing	July 16-20, 2023. IIT Madras	Department
127.	G V Balakrishna	ME19D403	29th International Conference on Processing and Fabrication of Materials	September 05-07, 2023. IIT Tirupati	Department
128.	Harikrishna R B	ME18D302	NSEST 2023	August 16-17, 2023. ARCI, Hyderabad	Department
129.	Rahul R	ME17D037	Workshop	September 09-13, 2023. IISc Bengaluru	Department
130.	M Rajagurunathan	ME19D018	International Conferences on Structural Integrity (ICONS 2023)	August 22-24, 2023. Mamallapuram	Department
131.	Darshan Dange	ME20D019	Processing and Fabrication of Advanced Materials XXIX	IIT Tirupati	Department

132.	Samiksha Moharana	ME18D002	29th International Conference on Processing and Fabrication of Advanced Materials (PFAM-XXIX)	September 05-07, 2023. IIT Tirupati	Department
133.	Matcharla Devi Sri Prasad	ME21S022	Processing and Fabrication of Advanced Materials XXIX	September 05-07, 2023. IIT Tirupati	Department
134.	Sunil Kumar Prajapati	ME18D044	TribolIndia 2023	October 04-06, 2023. Convocation Complex, University of Kashmir, J&K	Department
135.	Gayathri R	ME19D300	MicroTAS 2023	October 14-18, 2023. MCK International Congress Centre Katowice	Department
136.	Morey Chaitanya Suresh	ME20D017	Technical and Scientific Writing	May 14-18, 2023. IIT Madras	Department
137.	Thilagan K	ME17D045	Visit to M/s RANVAC for Fabrication Inspection	August 10, 2023.	Project
138.	Chinmoyee Datta	ME20D401	24th International Conference on Advances in Materials & Processing Technologies	September 12-15, 2023. University Putra Malaysia, Serdang, Malaysia	Project
139.	Durga Prasad Pydi	ME22D400	8th National Workshop on Research Methodology in Fluid Mechanics	July 10-15, 2023. IIT Jodhpur	Project
140.	Abishraj V R	ME18D024	26th International Congress of Refrigeration-2023	August 20-24, 2023. Paris	Department
141.	Darshan Dange	ME20D019	Workshop on Technical and Scientific Writing	May 14-18, 2023. IIT Madras	Department
142.	Sharmila P	ME17D044	Workshop on Technical and Scientific Writing	July 16-20, 2023. IIT Madras	Department
143.	Sunil Kumar Prajapati	ME18D044	24th International Conference on AMPT 2023	September 12-15, 2023. Tenera Hotel, Bangi, Malaysia	Department
144.	Desu Harsha	ME20S048	International Conference on Recent Advances in Fluid Mechanics and Nanoelectronics 2023	July 11-13, 2023. Bengaluru	Department
145.	Jawahar Prakash J	ME21D018	Advanced Measurement Techniques in Fluid Mechanics	July 09-13, 2023. IISc Bangalore	Department
146.	Bhooshan Gavhare	ME20S019	IPDIMS 2022	November 24-25, 2022. NIT Rourkela	Department
147.	Shreyas Ashokbhai Patel	ME22D047	Advanced Measurement Techniques in Fluid Mechanics	July 09-13, 2023. IISc Bengaluru	Department

148.	Gouri Sankar Pattanaik	ME22D021	IIT Kanpur Workshop	June 15-22, 2023. IIT Kanpur	Department
149.	Jahidul Haque Chaudhuri	ME20D403	Advanced Measurement Techniques in Fluid Mechanics	July 08-14, 2023. IISc, Bengaluru	Project
150.	Eldho Paul	ME22D005	Advances in Robotics 2023 6th International Conference of the Robotics Society	July 03-07, 2023. IIT Ropar	Project
151.	Shakti Swaroop Choudhury	ME19D753	76th IIW Annual Assembly And International Conference in Welding and Joining	June 15-20, 2023. Singapore	Project
152.	Kiran Sivadas	ME22D037	IIT Kanpur Workshop	June 16-20, 2023. IIT Kanpur	Department
153.	Alapati Jaswanth Kalyan Kumar	ME17D413	Advanced Measurement Techniques in Fluid Mechanics	September 09-13, 2023. IISc Bengaluru	Department
154.	Karthik	ME19D026	Advanced Measurement Techniques in Fluid Mechanics	September 09-13, 2023. IISc Bengaluru	Department
155.	Barathula Venkata Sreeram Sarma	ME19D039	Advanced Measurement Techniques in Fluid Mechanics	September 09-13, 2023. IISc, Bengaluru	Department
156.	Muthaiah M	ME16D415	18th OpenFOAM Workshop	July 10-13, 2023. Genova (Online)	Department
157.	Abhishek Shrivastava	ME22D007	Meeting	June 08, 2023. MSTM, Sriperumbudur, Tamil Nadu	Project
158.	Ashutosh Bharti	ME17D004	14th Asia-Pacific Conference on Combustion	May 14-17, 2023. Kaohsiung Taiwan (Online)	Department
159.	Sadham Usean R	ME19D057	10th International Conference on Heat Transfer and Fluid Flow (HTFF 2023)	August 05-08, 2023. Brunel University	Department
160.	Hemanth D	ME20D701	17th International Heat Transfer Conference	August 13-17, 2023. Cape Town International Convention Centre	Project
161.	Niraj Kumar	ME18D033	IMPRINT-II Project Exhibition	May 20-21, 2023. IIT DELHI	Project
162.	Shristi Singh	ME21D025	International Conference on Heat Transfer and Fluid Flow	August 04-08, 2023. Brunel University London	Project
163.	Samiksha Moharana	ME18D002	11th International Conference on Materials for Advanced Technologies (ICMAT 2023)	June 25-29, 2023. Suntec Singapore	Department

164.	Gopa Kumar S	ME18D008	Exhibition cum Review of IMPRINT-II	May 21, 2023. IIT Delhi	Project
165.	Eldho Paul	ME22D005	DIC Workshop	May 06-09, 2023. IISc, Bangalore	Project
166.	Sayan Majumder	ME19D411	17th International Heat Transfer Conference	August 13-17, 2023. Cape Town International Convention Centre	Department
167.	Linto Davis	ME18D017	ECOTRIB 2023	June 20-22, 2023. Bari, Italy	Department
168.	Morey Chaitanya Suresh	ME20D017	29th International Congress on Sound and Vibration	July 08-12, 2023. Hotel Hilton Prague	Department
169.	Ranjith Kumar I	ME19D016	76th IIW Annual Assembly And International Conference in Welding and Joining	July 15-20, 2023. Marina Bay Sands Hotel and Convention Centre	Department
170.	Behera Venkatesh	ME17D201	14th International Conference on the Technology of Plasticity	September 23-28, 2023. Congress center, Mandelieu-La Napoule, Bay of Cannes	Department

4.14.2.6. Students/Scholars Who Won Outside Prizes and Awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Mr. D Nazeer Basha [Guided by Prof. GL Samuel & Dr. Ravi Bathe (ARCI, Hyderabad)]	ME19B052	Best Poster Award	International Conference on Precision, Micro, Meso and Nano Engineering (COPEN - 12), IIT Kanpur
2.	Aravind Nehrujee (guided by Prof. Sujatha Srinivasan and Prof. Sivakumar Balasubramanian, CMC Vellore)		IFNR Young Investigator Award 2023	Indian Federation of Neurorehabilitation (IFNR), 11th Annual Conference IFNRCON 2023, Mumbai
3.	Mr. Natraj H, IDRP Scholar (ME18D301) (guided by Prof. K Srinivas Reddy)	ME18B085	Best Presentation Award	4th Asia Conference on Renewable Energy and Environmental Engineering (AREEE 2023)
4.	Chayan Ranjan Das (ME17D001)	ME18B012	Young Scientist/Researcher Award	Sheffield Hallam University, UK and Fraunhofer IST, Germany
5.	B Prathyusha	ME18B052	Best Poster Award	ASM International
6.	V Vidya	ME21M100	Best poster Award	ASM International
7.	B Prathyusha and	ME21M076	Best Poster Awards	4th International Conference on Heat Treatment and Surface Engineering

8.	Vidya Tiwari Student of Sushanta Kumar Panigrahi	ME21M022	Best Poster Awards	4th International Conference on Heat Treatment and Surface Engineering
9.	Mahendra Sukhre Dilip Student of Anil Kumar Meena	ME21M057		
10.	Barathula Venkata Sreeram Sarma ME19D039	ME15D070	Second Prize in the Joint PhD Colloquium	NTU Singapore
11.	Kuldeep Tolia - ME21S007 Student of Kameswararao Anupindi	ME17D043	Best Paper Award	10th International and 50th National Conference on Fluid Mechanics and Fluid Power (FMFP - 2023)
12.	Chayan Ranjan Das	ME17D001	Young Scientist/ Researcher Award	Influence of Ti and Si Content on the Structure and Mechanical Characteristics of HiPIMS Deposited TiAlSiN Nano-Composite - Paper
13.	Prasmit Naik	ME19D751	Best Paper Award	AIMTDR Conference, IIT (BHU) Varanasi
14.	Sandeep Reddy		Best Paper Award	iNaCoMM 2023, NIT Raipur
15.	Dhanalakota Praveen	ME18D705	Institute Research Award Recipients PhD (January-May) 2023-24	IIT Madras
16.	Barathula Venkata Sreeram Sarma	ME19D039		IIT Madras
17.	Aneesh Vijay Kale	ME19D703		IIT Madras
18.	Ashutosh Panda	ME20S020	Institute Research Award Recipients MS (January-May) 2023-24	IIT Madras
19.	Lalit Yadnyeshwar Attarde	ME21S034		IIT Madras
20.	Deep Singh	ME19D045	Digital Twin System for Monitoring the Health and Power Consumption of Household Appliances	ACCS All India Level Design Competition 2023-2024
21.	A Bhavnashri	ME21B044		
22.	Chappa Harshavardhini	ME21B045		
23.	Chilukuri Rishika	ME21B047		

4.14.2.7. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prizes
1.	Tadeparti Sidharth	ME19B052	Vaidy Krishnan Memorial Prize
2.			Sivasailam Merit Prize
3.			Banco Foundation Prize
4.	Kishore Ram Sathia	ME18B085	Prof. A Ravindran Prize
5.			Prof. G V N Rayudu Memorial Prize
6.	Kallakuri Heramba Datta Sai Uday Krishna	ME21M057	Prof. B Sengupto Prize
7.	Shatakshi Sarangi	ME19B166	Dr. Shankar Dayal Sharma Prize

8.	Hruthik V S	ME18B012	Dr. Susan Calvin Prize
9.	Kalash Verma	ME18B052	Institute Merit Prize
10.	Piyush Kumar Sharma	ME21M100	Prof. Mizar Devadas Pai Memorial Endowment Prize
11.	Anurag Parija	ME21M076	Dr. S Vaidyanathan Memorial Prize
12.	Karthik Soundarajan Kr	ME21M022	S Anantharamakrishnan Merit Prize
13.	Kallakuri Heramba Datta Sai Uday Krishna	ME21M057	Prof. Ramamohana Rao Memorial Prize
14.	Hari Ganesh S	ME15D070	Prof. M S Shanmugam Endowment Prize (Joint Winners)
15.	Kali Prasad	ME17D043	
16.	Deepak Sharma	ME19D751	Prof. R Krishnamurthy Endowment Award

4.14.3. Faculty and Their Activities:

4.14.3.1. Faculty:

Name and Qualifications	Major Areas of Specialisation
Professor	
Dr. Chandramouli P. (Head)	Nonlinear Dynamics, Musical Acoustics and Noise Control
Dr. Abhijit Sarkar	Vibration, Acoustics, Computational Methods
Dr. Amitava Ghosh	Active Brazing of Superabrasives and Development of Abrasive Tools, Advanced PVD Coating for Cutting Tool Applications, Advanced Machining in Micro/Meso/Macro Domain
Dr. Anand Krishnasamy	Low-Temperature Combustion Engines, Surrogate Modelling of Automotive Fuels, Engine Emission Reduction Through Fuel Modifications
Dr. Arunachalam N	High Performance Manufacturing, Prognostics and Health Management of Engineering Systems, Diamond Nano Structures and Wafer Manufacturing
Dr. Arunn Narasimhan	Heat Transfer and Fluid Flow in Biological Systems, Heat Transfer and Fluid Flow in Porous Medium, Phase Change Materials, Convection Heat Transfer, Fluid Mechanics
Dr. Arvind Pattamatta	Microscale Energy Transport, Phase Change Heat Transfer, Multiphase Flows, Electronics & Battery Thermal Management, Computational Fluid Dynamics & Heat Transfer
Dr. Ashis Kumar Sen	Micro Nano Fluidics, Micro Nano Scale Flows, Interfacial Phenomena
Dr. Balaji Srinivasan	Modeling and Simulation of Complex Flows, Scientific Machine Learning, High Performance Computing
Dr. Babu Viswanathan	CFD, High-Speed Reacting Flows, High-Performance Computing
Dr. Chakravarthy Balaji	Battery Thermal Management, Climate Change Studies, Data Centre and High Heat Flux Cooling Technologies, Fundamental Heat Transfer, Optimisation of Thermal Systems, Inverse Problems in Heat Transfer and Numerical Weather Prediction
Dr. Dhiman Chatterjee	Fluid Mechanics and Turbomachinery, Cavitation and Multiphase Flows, Renewable Energy
Dr. Gnanamoorthy R.	Sustainable Materials and Product Design, Architected Materials & Additive Manufacturing, Damage Tolerant and Tribo Design
Dr. Krishnan Balasubramaniam	Nondestructive Evaluation, Materials Characterisation, Online Measurements

Dr. Krishna Kannan	Continuum Mechanics, Thermodynamics, Constitutive Modelling of Polymeric Materials
Dr. Maiya M P	CO ₂ Refrigeration, Sorption Technology, Metal Hydride Systems and Energy Conservation in Ventilation & Air Conditioning
Dr. Mallikarjuna J M	In-cylinder Flow Studies in Engines, HCCI and GDI Engines, Alternate Fuels
Dr. Mani A	Refrigeration, Desalination, Solar Energy
Dr. Mayank Mittal	I.C. Engines, Optical Diagnostics, Fluid Mechanics
Dr. Narasimhan Swaminathan	Computational Materials Science and Mechanics, Radiation Damage in Materials, Multiscale Modelling of Complex Phenomenon in Nuclear and Fuel Cell Materials, Finite Element Method, Li-ion Batteries
Dr. Parag Ravindran	Viscoelasticity and Constitutive Modelling
Dr. Prabhu Rajagopal	Ultrasonic Waves for Nondestructive Evaluation, Health Monitoring and Process Control, Computational Methods for Modelling Elastic Wave Phenomena
Dr. Raghavan V	Numerical Modeling of Flames and Fires, Coal and Biomass Gasification, Heterogeneous Combustion
Dr. Raghu Prakash V	Fatigue and Fracture Mechanics, Structural Integrity Assessment, Product Design.
Dr. Raju Sethuraman	Computational Solid Mechanics, Fatigue and Fracture of Material
Dr. Ramesh A	I.C. Engine Combustion and Emissions, Electronic Engine Management, Alternative Fuels
Dr. Ramkumar Penchaliah	Tribology, Engine Tribology, Coatings, Bio-implants, White Etching Cracks Bearing Failures, Tribology in Machine Elements & Gearbox, FEM Wear Modelling, Corrosion and Lubrication
Dr. Ratna Kumar Annabattula	Stimuli-Responsive Soft Materials, Granular Materials, Coupled Problems in Mechanics
Dr. Samuel G L	Machining, Metrology, Micro-Manufacturing, Laser Material Processing
Dr. Sarit Kumar Das	Heat Exchangers, Two-phase Flow, Nano Fluids, Jet Oscillations, Nuclear Heat Transfer
Dr. Sathyan Subbiah	Machining, Manufacturing Science and Engineering, Extra Terrestrial Manufacturing
Dr. Seshadri Sekhar A	Rotor Dynamics, Condition Monitoring, Tribology
Dr. Shaligram Tiwari	Heat and Mass Transfer, Thermocapillary Convection, Fluid-structure Interaction
Dr. Shamit Bakshi	Liquid Atomisation and Spray Systems, CFD, Droplet Processes
Dr. Shankar Krishnapillai	Structural Dynamics, Machine Design, Renewable Energy, Agricultural Engineering, Sustainable Technology
Dr. Somashekhar S Hiremath	Micro-machining, Fluid Power System Design, Additive Manufacturing of Bio-inspired Cellular Structure, Bio-inspired Textured Tool to Machine Difficult to Cut Engineering Materials, Robotics, System Modeling and Simulation
Dr. Srinivasa Reddy K	Renewable Energies, Solar Energy, Energy Conservation, Energy Environment, Heat Transfer in Two-phase Systems
Dr. Srinivasan K	Jet Flow and Noise, Active and Passive Flow Control, Measurement and Instrumentation
Dr. Sujatha C	Vehicle Dynamics, Machinery Diagnostics, Signal Analysis
Dr. Sujatha Srinivasan	Assistive Devices, Movement Biomechanics, Rehabilitation Engineering

Dr. Sundararajan Natarajan	Computational Mechanics, Moving Boundary Problems, Composite Mechanics
Dr. Sundararajan T	Droplet Combustion, Supersonic Reacting Jet Flows, CFD
Dr. Sushanta Kumar Panigrahi	Innovative Materials Processing, Magnesium and Aluminium Technologies, Metal Matrix Composites, High Performance Sheet Developing, Sheet Metal Forming, Solid State Joining
Dr. Venkatrathnam G	Refrigerant Mixtures, New Processes That Work With Refrigerant Mixtures, Improvement of Performance of Vapour Compression Refrigerators
Associate Professors	
Dr. Anil Kumar Meena	Casting Processes, Cast Irons and Steels Manufacturing, Microstructure and Properties of ADI, Dry and Near-dry Machining Process
Dr. Hariharan K	Sheet Metal Forming, Plasticity, Fatigue and Mechanical Behaviour of Materials
Dr. Kameswararao Anupidi	Fluid Mechanics, Computational Fluid Dynamics, Bio-fluid Dynamics, Turbulence Modelling
Dr. Manivannan P V	Robotics (including Bio-inspired Robotics), Automotive Control Systems (for: Engine, Steering and Transmission Control), Autonomous Road Vehicles (Self-driving Cars) and Unmanned Aerial Vehicles (UAVs), Mechatronic Systems Design, Embedded Controller and Microcontrollers, Sensors, Instrumentation and Control
Dr. Manoj Pandey	Finite Element Analysis, Nonlinear dynamic, MEMS
Dr. Pallab Sinha Mahapatra	Surface Engineering and Wettability Patterning, Open Surface Microfluidics, Multiphase Flow, Single and Multiphase Heat Transfer
Dr. Piyush Shakya	Structural Health Monitoring/Condition Monitoring, Fault Diagnosis and Prognosis, Sensor Integration/Multi-sensor Data Fusion
Dr. Sateesh Gedupudi	Boiling Heat Transfer, Heat Exchangers, Natural Circulation Loops and Heat Transfer in Buildings
Dr. Shyama Prasad Das	Interfacial Hydrodynamics, Heat and Mass Transfer, Turbomachines
Dr. Sivasrinivasu Devadula	Abrasive Waterjet Machining, Machine Tools, Multi-objective Optimisation, Mathematical Modelling, Simulation and Control of Machining Processes/ Machine Tools
Dr. Sourav Ratshit	Multibody Dynamics, Topology Optimisation, Robotics
Dr. Srikrishna Sahu	Sprays, Multiphase Flows, Optical Diagnostics
Dr. Varunkumar S	Computational Mechanics, Moving Boundary Problems, Composite Mechanics
Assistant Professors	
Dr Advaith Sankar	Translational Research on Renewable Energy Storage Systems, Machine Learning Applications Towards Energy Systems and Fluid Flow, EV Thermal Management and Fluid Flow Diagnostics
Dr. Krithika Narayanaswamy	Chemical Kinetic Modeling, Reduction and Optimisation of Reaction Mechanisms for Combustion Applications, 0D and 1D Reactive Flow Simulations.
Dr. Manish Anand	Mechatronics, Biomechanics, Dynamics
Dr. Vishal V R Nandigana	Artificial Intelligence, Membrane Technology, Nanofluidics and Microfluidics
Dr. Vishwanath K.	Turbomachinery Noise

Dr. Vimal Edachery	Sustainable Tribology, Eco-Friendly Lubrication, Electric Vehicle Lubrication, Corrosion, Engineered Micro-Nano Surfaces, Tribology of 2D Nano-Materials, Implant Biomaterials
Emeritus Professor	
Dr. Ramesh Babu N	Manufacturing Engineering—Advanced Machining Processes, Automation, Process Modeling, Precision Machine Tool Development

4.14.3.2.Short-term Courses, Workshops, Seminars, Symposia, and Conferences Organised by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	G L Samuel	Conference - IMPULSE 2023 1st International Conference on Materials Processing Using Lasers and Surface Engineering	December 14-15, 2023. IIT Madras
2.	M P Maiya	International Conference on Refrigeration and Airconditioning	March 13-15, 2024
Seminar:			
1.	GL Samuel	Harnessing Light and Pressure: Exploring the Influence of Femtosecond Laser-Induced High Pressure on Fused Silica Polymorphism by Dr. Arun Krishnan (Laser Scientist, Alpes Lasers, Switzerland)	May 23, 2023 Hybrid Mode: MSB 211
		Advanced Laser Material Processing and Micromachining	July 11, 2023. Shiv Nadar University
Workshop:			
1.	Parag Ravindran	CAE Software Outreach Workshop-8 on Kinematic and Dynamic Analysis of Mechanical Systems Using ADAMS/View Software	March 23-24, 2024
3.	K.Hariharan	Robot Assisted Manufacturing	July 24-25, 2023. ME Department, IIT Madras
4.	R Gnanamoorthy	DX Manufacturing (Digital Manufacturing - 3D Printing) (Nagaoka UT - IITM Joint)	November 07, 2023
Short Term Course:			
1.	Abhijit Sarkar, C Sujatha, P Chandramouli	Vehicle Dynamics and Vibrations (Wheels India Ltd.)	April 21-22, 2023; April 28-29, 2023; May 5-6, 2023; and May 12-13, 2023
2.	Ramkumar P	Skill Development Program: CAD in Tamil	October 01-02, 2023
3.	MDS Section	Workshop on ANSYS Workbench Linear Static Structural Analysis and Modal Analysis	January 20-21, 2024

4.14.3.3.Special Lectures Delivered by the Faculty in Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	V Babu	T Take-off to Touchdown: Inside Commercial Aircraft Engines	CLT	November 04-11, 2023

4.14.3.4. Visits Abroad by Faculty

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Gnanamoorthy R	Brazil	November 25, 2023	Conference	CPDA
2.	Chakravarthy Balaji	South Africa	August 12, 2023	Keynote Lecture at a Conference	CPDA
3.	Sujatha C	USA	May 12, 2023	Conference	CPDA
4.	Sarit Kumar Das	South Africa	August 12, 2023	Conference	CPDA
5.	Krishnan Balasubramanian	USA	June 03, 2023	Conference	CPDA
6.	Prakash Maiya M	Indonesia	July 22, 2023	Conference on Polygeneration	PCF and ICSR
7.	Prakash Maiya M	France and Norway	August 19, 2023	Conference	Projects
8.	Sujatha Srinivasan	Italy	June 28, 2023	Conference	CPDA
9.	Sujatha Srinivasan	Australia	August 27, 2023	Conference	CPDA
10.	Shaligram Tiwari	United Kingdom	August 05, 2023	Conference	CPDA
11.	Raghavan V	Taiwan	May 14, 2023	Conference	CPDA
12.	Raghavan V	Germany	September 01, 2023	Conference	CPDA
13.	Piyush Shakya	JAPAN	August 18, 2023	Conference	CPDA
14.	Shyama Prasad Das	Japan	April 01, 2023	Conference	PCF & CPDA
15.	Sathyan S	USA	June 07, 2023	Conference	CPDA
16.	Pallab Sinha Mahapatra	UK	June 01, 2023	collaboration with University College London (UCL)	CPDA, Project, and External Travel Grant from IOE
17.	S K Karthick	South Korea	July 14, 2023	Conference	CPDA
18.	Srinivas Reddy K	Puerto Rico	June 11, 2023	Conference	CPDA
19.	Srinivas Reddy K	UK	April 28, 2023	Conference	CPDA
20.	Srinivas Reddy K	UK	June 19, 2023	Conference	CPDA
21.	Srinivas Reddy K	South Africa	August 14, 2023	Conference	CPDA
22.	Raghu Prakash V	USA	June 10, 2023	Conference	Project Fund
23.	Babu Viswanathan	USA	May 10, 2023	Conference	CPDA
24.	Raghu Prakash V	Spain	September 10, 2023	Conference	CPDA
25.	Arvind Pattamatta	South Africa	August 11, 2023	conference	CPDA

26.	Prabhu Rajagopal	United Kingdom	June 16, 2023	Visit to University College London and Imperial College London	IITM-UCL Mobility Grant Funded by OGE
27.	Abhijit Sarkar	Czech Republic	July 07, 2023	conference International Congress on Sound and Vibration (ICSV)	CPDA and PCF
28.	Ramkumar P	Malaysia	August 22, 2023	Deshpande Symposium held in USA	CPDA
29.	Arunachalam N	Dubai	July 09, 2023	Conference	CPDA

4.14.3.5.Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Honours:					
1.	Sujatha Srinivasan	Best Faculty Entrepreneur	ICSR on World IP Day		April 2023
2.		Honorary Professor	University College London	Work in Disability Innovations	May 05, 2023
3.	N Ramesh Babu & G L Samuel	Best Paper	9th International & 30th All India Manufacturing Technology, Design and Research Conference		February 2024
4.	Amitava Ghosh	1st Prize: The Best Paper in the Competition	HIPIMS 2023	Paper Titled: Influence of Ti and Si Content on the Structure and Mechanical Characteristics of HiPIMS Deposited TiAlSiN Nano-Composite	June 12-15, 2023
5.	Saritkumar Das	Faculty Members from our Department who appeared in World's Top 2%Scientists-2023 The list jointly announced by Elsevier and Stanford University			
6.	K Srinivas Reddy				
7.	A Seshadri Sekhar				
8.	Krishnan Balasubramaniam				
9.	C Balaji				
10.	Sushanta Kumar Panigrahi				
ii. Awards:					
1.	M Prakash Maiya	Fellowship Award 2023-2024	The Indian Society of Heating, Refrigerating, Airconditioning Engineers - ISHRAE	Monumental Contributions in the field of R&AC/HVAC	February 2024

2.	K Srinivas Reddy	The Sustainability Champion Award 2023	World Sustainability Day Program	October 26, 2023
3.	N Ramesh Babu	Lifetime Achievement Award	Accomplishments and Contributions Made in Manufacturing Domain	December 2023

4.14.3.6. Fellowships of Academies and Professional Societies:

Sl. No.	Name of Faculty	Year of Admission
INAE:		
1.	Krishnan Balasubramanian	INAE Chair for 3 years From July 2023

4.14.3.7. Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1.	K Anand	Guest Editor	Special Issue: Future Energy Carriers - Measurements in Green H ₂ , NH ₃ and e-Fuel Production, Storage, Conversion and Applications, Measurement: Energy Journal Published by Elsevier
2.	Prabhu Rajagopal	Editorial Board	NDT&E International
3.	Shankar Krishnapillai	Editorial Board	Mechanics Based Design of Structures and Machines, Taylor and Francis

4.14.4. Patents:

4.14.4.1. Patents Filed:

Sl. No.	Name of Faculty	Topic of Patent
1.	Prabhu Rajagopal	Seismobrick Unit Cell For Protection Of Buildings And Equipment Against Low-Frequency Seismic Surface Disturbances.
2.	Arunachalam N	Acoustophoresis Assisted Fluid Jet Polishing
3.	Prabhu Rajagopal	A System And Method For Ultrasonic Far-Field Super Resolution Imaging Using Hyperlens And Waveguide
4.	Krishnan Balasubramaniam	A System And Method For Ultrasound Imaging Using Arbitrary Virtual Array Sources Of Aperture Excitation
5.	Krishnan Balasubramaniam	Method And System For Determining Material Property Of Sample Using Edge Wavefront Signal
6.	Seshadri Sekhar A	A Vehicle For Power Generation, Transmission And Storage
7.	Krishnan Balasubramaniam	Staircase Shaped Magnetostrictive Patch (Scamp) Transducer
8.	Prabhu Rajagopal	Secure And Interoperable Federated Blockchain Health Record Ecosystem
9.	Prabhu Rajagopal	A System And Method For Secure Management Of Electronic Health And Medical Records.
10.	Sujatha Srinivasan	A Single-Dof Mobile Arm Support For Therapeutic And Assistive Applications (Mars)

11.	Krishnan Balasubramaniam	Method And System For Remotely Measuring Properties Of A Fluid
12.	Krishnan Balasubramaniam	System And Method For Remotely Monitoring Health Of A Structure
13.	Krishnan Balasubramaniam	A System And A Method For Detecting And Characterizing A Defect In An Object Using Guided Wave Inspection
14.	Krishnan Balasubramaniam	A System And A Method For Detecting And Characterizing A Defect In An Object Using Guided Wave Inspection
15.	Ramesh A	A System And Method For Controlled Combustion In A Direct Injection Engine
16.	Ramesh A	A System And Method For Controlled Combustion In A Direct Injection Engine
17.	Krishnan Balasubramaniam	Method And System For Generating Time-Efficient Synthetic Non-Destructive Testing Data
18.	Sujatha Srinivasan	Modular And Portable Plug-And-Train Robot For Providing Hand Rehabilitation
19.	Sujatha Srinivasan	Modular And Portable Plug-And-Train Robot For Providing Hand Rehabilitation
20.	Arunachalam N	Connected LPG Sensors And Auto cut Valve For Piped Gas Leakage Detection And Prevention
21.	Sathyan Subbiah; Sundararajan T	A System And Method For Removing Moisture From An Autoclave Without Any External Power Source
22.	Ratna Kumar Annabattula V V S D	An Apparatus For Additive Manufacturing Of Functionally Graded Materials And Method Thereof
23.	Ramesh Babu N; Sivasrinivasu Devadula	Apparatus To Prepare Slurry For Abrasive Water Suspension Jets
24.	Prabhu Rajagopal	Mountable Heads-Up Display Device For Navigation
25.	Mani A; Advait S	Twisted Lobe Convergent-Divergent Nozzle For An Ejector And A Method Thereof
26.	Sivasrinivasu Devadula	A Customizable And Portable Inspection Apparatus Operating Using Machine Vision
27.	Sujatha Srinivasan	Multifunctional Mobility Assistance Device For Children With Cerebral Palsy And Lower Limb Weakness
28.	Ramesh A; Mayank Mittal	Mechanically Automated, Speed And Torque Sensitive Two Speed Drive System
29.	Gnanamoorthy R	A System For Calculating The Friction Coefficient Of A Fiber And A Method Thereof
30.	Gnanamoorthy R	A Method For Manufacturing Thermal Insulation Panels By Using Coir Pith Reinforcement And Composition Thereof
31.	Mayank Mittal	A Multi Gaseous Fuel Blending System And Method Thereof
32.	Mayank Mittal; Ramesh A	A System And Method For Investigating In-Cylinder Flow And Combustion In Gasoline Direct-Injection Optical Engine
33.	Sivasrinivasu Devadula; Ramesh Babu N	System For Reliability And Maintainability Analysis And Lifecycle Monitoring Of Machine Tool And Method Thereof
34.	Sushanta Kumar Panigrahi	A Coaxially Guided Modular Apparatus For High-Temperature Multiaxial Formability Evaluation Of Magnesium Alloy Sheets
35.	Prabhu Rajagopal	A Low-Cost, Non-Invasive Flow Measurement Device For Closed Conduits

36.	Prabhu Rajagopal	Pellet Based 3D Printer Extruder For Large Format 3D Printing
37.	Prakash Maiya M	Integrated Adsorption-Evaporation Based Cooling System
38.	Mayank Mittal	A Dual Fuel System And Method For Internal Combustion Engines
39.	Mayank Mittal; Ramesh A	An Internal Combustion Engine For A Vehicle And A Vehicle Thereof
40.	Sushanta Kumar Panigrahi	A Casting Method For Producing High-Performance Magnesium Alloy
41.	Prabhu Rajagopal	An Anti-Sloshing System For A Fuel Tank
42.	Prabhu Rajagopal	A Heat Exchanger Element For A Conduit Of A Vehicle And A System Thereof
43.	Prabhu Rajagopal	An Aquatic Weeding Device And Method Thereof
44.	Prabhu Rajagopal	A Rotary-Wing Aircraft For Flood Rescue And Detection Operations
45.	Prabhu Rajagopal	A Device And Method For Cleaning Blockages In Drainage Systems
46.	Sushanta Kumar Panigrahi	A Method For Producing High Strength Alclad Sheets
47.	Prakash Maiya M	Roof Integrated Solar Powered Desiccant Atmospheric Water Generating Device
48.	Prabhu Rajagopal	A Seed Dispensing Device And Method Thereof
49.	Prabhu Rajagopal	A Heat Exchanger System For A Vehicle
50.	Prabhu Rajagopal	A System And Method For Micro-Metalens Based Super Resolution Imaging Using Bulk Ultrasonics
51.	Ratna Kumar Annabattula V V S D	An Apparatus And Method For Sample Preparation For Triaxial Testing
52.	Sourav Rakshit	Portable Multi-Support Sit-To-Stand Assistive Walker
53.	Samuel G L	Vascular Heating Technique For Endovascular Arteriovenous Fistula Creation
54.	Prabhu Rajagopal	A Two-Wheeled Non-Battery Powered Mechanical Pesticide Spraying Cart
55.	Sushanta Kumar Panigrahi	A Microwave Based Solid State Magnesium Recycling Method
56.	Prabhu Rajagopal	A Chatbot Adaptive For User Interaction
57.	Dhiman Chatterjee; Sarit Kumar Das	A Novel Biradial Multiple Entry Mesochannel Heat Sink Using Dielectric Organic Coolant For Electronic Materials Processing
58.	Sivasrinivasu Devadula	Magnetic Actuator-Based Compact Active Damper For Tool Holders
59.	Hariharan K; Anuj K Tiwari	Method For Development Of Preform Shapes For Incremental Forming And Robo-Forming Applications And Preforming Devices
60.	Ranga Rao G; Sundararajan T	A Process Of Hydrogen Generation From Metal Wastes
61.	Uday Chakkingal; Hariharan K	A Miniaturized Stretch-Flangeability Testing Device And Method Thereof
62.	Shankar Narasimhan; Venkataratnam G	Low Carbon Cost-Effective Vapor Recompression Columns Design Using Extended Pinch Analysis

4.14.4.2. Patents Awarded:

Sl. No.	Name of Faculty	Topic of Patent
1.	Arunachalam N	Highly Adhesive Cvd Grown Boron Doped Diamond Graded Layer On Wc-Co

2.	Arunachalam N	Highly Adhesive Cvd Grown Boron Doped Diamond Graded Layer On Wc-Co
3.	Sathyan Subbiah	Improved Hotwire Cutting Machine
4.	Sujatha Srinivasan	Attachment Mechanism To Convert Manual Wheelchair Into Tricycle Or Motorised Wheelchair
5.	Srinivasan K	Structural Frame For Impingement Noise Reduction
6.	Srinivasan K	Swirl Number Selection For Reduction Of Various Forms Of Jet Noise
7.	Samuel G L	Surface Functionalisation Of Drill Tools With Nano Coated Micro-Scale Reservoirs
8.	Krishnan Balasubramaniam; Prabhu Rajagopal	Guided Wave Mode Selected Ultrasonic Transducers For Leave-In-Place High Bulk-Nondestructive Evaluation, Based On Magnetostrictive Amorphous Metallic Strips
9.	Prabhu Rajagopal; Krishnan Balasubramaniam	Remotely Operable Underwater Robotic Systems
10.	Anand K	High Pressure Injection In Heated Anti Chamber (Hpihac), A Homogeneous Mixture Generation Technique For HCCI Engines
11.	Krishnan Balasubramaniam	Rayleigh Wave Positioning System (Raps)
12.	Ramesh Babu N	Method Of Designing A High Precision Machine Tool
13.	Prakash Maiya M	Energy Efficient Buildings Made Up Of Glass Fibre Reinforced Gypsum With Radiant Cooling And Desiccant Systems
14.	Sathyan Subbiah	A Method Of 3d Shape Fabrication In 2-Axis CNC Machine
15.	Krishnan Balasubramaniam	Devices And Methods Of Sensing Properties Of Fluids
16.	Amitava Ghosh	Hard Particle Mixed Silver-Copper Based Brazing Filler Material For Joining Diamond To Steel Substrate
17.	Amitava Ghosh	Method Of Developing Diamond Dresser Tools Having Grits In Patterned Array
18.	Amitava Ghosh	Hard Particles Mixed Active Silver Based Filler Materials For Brazing Cubic Boron Nitride (CBN) With Metal Substrates
19.	Prabhu Rajagopal	An Automated Surface And Underwater Inspection Robot With Split Hull
20.	Sathyan Subbiah	Method To Develop 3d Objects Using 2d Profile By Sheet Cladding
21.	Anand K	Fuel Bending Injection System For Combustion Engines
22.	Dhiman Chatterjee; Shyama Prasad Das; Chandramouli P	An Optimised And Modular Horizontal Axis Hydrokinetic Energy System For Low Flow Speed
23.	Ramesh Babu N; Sathyan Subbiah	Flow Controlling Unit For Maintaining Constant Fluid Film Gap In Hydrostatic Bearing System
24.	Ramesh Babu N; Sathyan Subbiah	Hydrostatic Bearing Film Thickness Controller Using Cylindrical Tube Diaphragm
25.	Arunachalam N	Grinding Wheel With A Monitoring System And A Method Of Monitoring Thereof
26.	Prakash Maiya M; Shaligram Tiwari	Absorption Refrigeration System With Membrane Dehumidifier For Air Conditioning, Refrigeration And Freshwater Generation.
27.	Samuel G L	A Set-Up Providing Electric Discharge Machining And A Method Of Machining Grooves Thereof

28.	Soundarapandian S	An Additive Manufacturing System And A Method Of Manufacturing A Product Thereof
29.	Srinivasa Reddy K	A Solar Photo-Voltaic Thermal Panel
30.	Krishnan Balasubramaniam; Prabhu Rajagopal	Spherical Robot For Internal Inspection Of Pipelines
31.	Sujatha Srinivasan	Method And Portable Rehabilitation Robot For Providing Therapy To Human Limb
32.	Krishnan Balasubramaniam	Sizing Or Remnant Thickness In Pipes And Plates Using Cutoff Properties By Widening Excitation Bands Of Frequency And Wavelength
33.	Mayank Mittal; Ramesh A	A System And A Method For Detecting Knock In Internal Combustion Engine Of A Vehicle
34.	Srinivasa Reddy K	An Air Handling System For Production Of Water From Atmospheric Air And A Method Thereof
35.	Soundarapandian S	A Method Of Preparation Of Scaffold With Varying Pore Size And Porosity As Bone Replacements
36.	Krishnan Balasubramaniam	Method For Simulation Assisted Data Generation And Deep Learning Intelligence Creation In Nondestructive Evaluation Systems
37.	Seshadri Sekhar A	A Test Rig For Conducting Strain And Vibration-Based Fatigue Analysis Of Rotating Shafts
38.	Krishnan Balasubramaniam	Staggered Magnet Array (Sma) Based Electromagnetic Acoustic Transducer (Emat)
39.	Mayank Mittal	Multi-Gaseous Fuel Composition Internal Combustion Engine System, Gaseous-Fuel Delivery System And Method Of Obtaining Composition
40.	Vishal V R Nandigana	Osmotic Power Generation System
41.	Sujatha Srinivasan	A Walk-Chair With Natural Sit To Stand Motion For Children With Disabilities
42.	Amitava Ghosh	System And Method For Developing Uni-Layer Brazed Grinding Wheels By Placing Grit In A Pre-Defined Array
43.	Prabhu Rajagopal	Segment Actuated Shape Memory Alloy Based Smart Flexible Manipulator
44.	Soundarapandian S; Vijayaraghavan L	A Method For Joining Two Or More Dissimilar Metallic Components And A System Thereof
45.	Soundarapandian S	A System For Additive Manufacturing Of Continuous Fibre Reinforced Thermoset Polymer Composites By Liquid Deposition Modeling And Methods Thereof
46.	Prasad B V S S S	Multiple Cone-Air Splitter Based Fan
47.	Soundarapandian S; Arunn Narasimhan	A Standalone, Portable, Singleuse And Wireless Ventilator System And A Method For Operating Thereof
48.	Ramesh Babu N; Sathyan Subbiah	Hydrostatic Spindle With Membrane-Based Flow Controller To Maintain Film Thickness And Dynamics Of System
49.	Ramesh Babu N; Sathyan Subbiah	Flow Controlling Apparatus With Two Diaphragms Used To Control Hydrostatic Bearing Film Thickness
50.	Krishnan Balasubramaniam	Method And System For Remotely Measuring Properties Of A Fluid
51.	Krishnan Balasubramaniam	System And Method For Remotely Monitoring Health Of A Structure

52.	Prasad B V S S S	Cooling Intricate Parts With An Additive Wall Mounted Pressurized Spray/Jet
53.	Krishnan Balasubramaniam	A System And A Method For Detecting And Characterizing A Defect In An Object Using Guided Wave Inspection
54.	Ramesh A; Mayank Mittal	A System And Method For Controlled Combustion In A Direct Injection Engine.
55.	Krishnan Balasubramaniam	Method And System For Generating Time-Efficient Synthetic Non-Destructive Testing Data
56.	Sujatha Srinivasan	Modular And Portable Plug-And-Train Robot For Providing Hand Rehabilitation
57.	Pallab Sinha Mahapatra	3d Paper-Based Microfluidic Device For Detecting Multiple Adulterants In Liquid Foods
58.	Ramesh A	A Twin Injector Multimode Internal Combustion (Ic) Engine
59.	Sujatha C	Piston Assembly With Helical Flow Channel Improves The Pressure Drop And Mixing Of Magnetorheological Damper
60.	Prabhu Rajagopal	A System For Blockchain Based Microblogging And A Method Thereof
61.	Krishnan Balasubramaniam; Prabhu Rajagopal	A Modular Underwater Vehicle Assembly And Method Thereof
62.	Prabhu Rajagopal	A Homogenising Device For Mixing Sludge Of A Septic Tank
63.	Prabhu Rajagopal	A Feeding Mechanism For A Drilling System
64.	Arunachalam N	Method For Communication In A Multi-Transmission/Reception Point System
65.	Sarit Kumar Das	Super-Hydrophobic Material Coated Graphite Mixed Flow Field Plate, Method For Production And Its Application Thereof
66.	Prakash Maiya M	A Device For Delivering Filtered And Cooled Air For Breathing Of A Subject
67.	Sushanta Kumar Panigrahi	Micro-Extrusion Apparatus
68.	Samuel G L	Microfluidic Device And Method Of Manufacturing Thereof
69.	Balaji Srinivasan	Method For Image Reconstruction Using Unsupervised Deep Learning And System Thereof
70.	Pallab Sinha Mahapatra	A Device To Displace And Remove Liquids For Thermal And Humidity Management, And A Method Thereof
71.	Somashekhar S Hiremath	A System And A Method For Manufacturing A Cost-Effective Triply Periodic Minimal Surface Structure
72.	Sarit Kumar Das	An Organic Nanofluid For Cooling Of Battery Stack And A Method Of Manufacture Thereof
73.	Somashekhar S Hiremath	A System And Method For Bionic Impact Absorption Device
74.	Anand K	A Dynamic Fuel Blending System For Internal Combustion Engines And A Method Thereof
75.	Somashekhar S Hiremath	A System And Method For A Hydraulic Flow Divider
76.	Gnanamoorthy R	Apparatus For Measurement Of Tribological Quantities For Electromechanically Loaded Contacts
77.	Gnanamoorthy R	Integrated Additive Manufacturing Of Multi-Requirement Products Using Multiple Materials
78.	Seshadri Sekhar A	A Vehicle For Power Generation, Transmission And Storage

79.	Krishnan Balasubramaniam	Staircase Shaped Magnetostrictive Patch (Scamp) Transducer
80.	Shankar Krishnapillai	Mango Seed Decorticator
81.	Srikrishna Sahu	System For Treatment Of Exhaust Gases Of Diesel Engines
82.	Shankar Krishnapillai	A Modular Transportation System
83.	Sushanta Kumar Panigrahi	A Modular Micro Bending Apparatus
84.	Sushanta Kumar Panigrahi	A Manufacturing Method To Develop High Performance Bimetallic Sheets
85.	Srinivasa Reddy K	Offshore Floating Wave - Solar Hybrid Energy Converter System And Method Thereof
86.	Sushanta Kumar Panigrahi	A Method For Producing High Performance Cryorolled Ultrafine Grained Bimetallic Composite Sheets
87.	Arvind Pattamatta; Pallab Sinha Mahapatra	A System And Method For Efficiently Transferring Heat From A Heat Source
88.	Pallab Sinha Mahapatra; Arvind Pattamatta	A System And Method For A Heat Transfer Device With Enhanced Efficiency And Thermal Management
89.	Pallab Sinha Mahapatra	High-Sensitivity Molecularly Imprinted Polymer Based Glucose Sensor
90.	Shankar Krishnapillai	An Interchangeable Harvesting Apparatus And Method Thereof
91.	Ramaprabhu S; Krishnan Balasubramaniam	Pressure Sensitive Adhesive Tape Based Flexible Strain Sensor And Method Of Preparation Thereof
92.	Vinu R; Prasad B V S S S; Sundararajan T	Rotary Kiln Incinerator For Generating Energy From Municipal Solid Waste (MSW)
93.	Rajesh R Nair; Sundararajan T	The Method Of Implementation Of Versa Fracking In Oil And Gas Wells
94.	Saravana Kumar G; Prasad B V S S S	A Novel Heat Exchanger Based On The 3d Space Filling Curve

4.14.5. Research and Consultancy:

4.14.5.1. Sponsored Research Projects: (Ongoing & New)

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in Lakhs)	Coordinators
1.	Experimental Investigation of Liquid Atomisation in Slinger Combustor for Small Gas Turbine Engines	May 30, 2017- June 30, 2024	Defence Research and Development Organisation (DRDO)	222.23	Srikrishna Sahu., Chakravarthy S R-000351, AE, Prasad B V S S S-002539, ME, Muruganandam T M-008241, AE

2.	Experimental and Numerical Studies on Improved Combustor Liner Cooling Methodology	May 30, 2017-June 30, 2024	DRDO	96.30	Arvind Pattamatta, Chakravarthy Balaji-005007, ME
3.	National Centre for Clean Coal Research and Development - WP1	September 13, 2018-September 12, 2024	Department of Science & Technology (DST)	37.33	Gandham Phanikumar
4.	National Centre for Clean Coal Research and Development	September 13, 2018-September 12, 2024	DST	269.53	Gandham Phanikumar
5.	DST - NFTDC Centre for Materials & Energy Storage Platforms - H2	February 18, 2019-June 30, 2024	DST	136.00	Prakash Maiya M, Shaligram Tiwari-008239, ME
6.	Fundamental Study of Organic Solvent Transport in Nanochannels for Energy and Environment Applications	May 15, 2020-June 09, 2024	Ministry of Human Resource and Development (MHRD)	98.92	Pramoda Kumar Nayak, Vishal Nandigana-008848, ME
7.	Abdul Kalam Technology Innovation National Fellowship	February 01, 2020-January 31, 2025	Indian National Academy of Engineering	95.00	Sujatha Srinivasan
8.	Gas-Atomisation System for Producing Steel Powders	March 08, 2019-July 31, 2024	Sandvik Asia Pvt. Ltd.	40.18	Shamit Bakshi, Anand T N C-008444, ME
9.	Understanding Acoustofluidics Based Manipulation of Fluid Interfaces and Particles in Microfluidics	September 25, 2019-September 24, 2024	DST	192.29	Ashis Kumar Sen
10.	Desiccant Solar Still	March 06, 2019-June 30, 2024	Aero Nero Solutions Pvt. Ltd.	15.00	Prakash Maiya M
11.	Touch REHAB	February 01, 2020-July 31, 2024	The Ganga Foundation	60.00	Sujatha Srinivasan
12.	Experimental Studies on the Performance Enhancement of Pulsating Heat Pipe used for the Application of Microprocessor Cooling	February 03, 2021-August 02, 2024	DRDO	99.38	Arvind Pattamatta, Pallab Sinha Mahapatra-008846, ME
13.	Concepts for Quantum Phononics	December 23, 2020-December 22, 2025	Science and Engineering Research Board (SERB)	77.49	Prabhu Rajagopal
14.	Development of a Small GDI Optical Engine for Flow and Combustion Studies	March 10, 2021-July 31, 2024	SERB	44.92	Mayank Mittal, Ramesh A-002543, ME

15.	Development and Validation of a Cost-Effective Hybrid Electric Drive Solution for Small Two Wheelers for Reducing CO ₂ Emission (HERCET)	March 26, 2020- August 25, 2024	Indo German Science & Technology Centre	101.16	Ramesh A
16.	Demonstration and Deployment of Community Level Integrated Autonomous Solar Energy System for Space Heating, Drying and Cooking Purposes in Ladakh Region (Sunshine Ladakh)	September 24, 2021- September 23, 2024	DST	359.85	Srinivas Reddy K
17.	ICMR-National Center for Assistive Health Technologies	March 01, 2022- October 31, 2024	Indian Council of Medical Research (ICMR)	384.51	Sujatha Srinivasan
18.	Development of a Thermodynamical Framework to Predict Residual Stress, Shrinkage and Warpage During Additive Manufacturing of Crystallising Polymers	February 21, 2022- February 20, 2025	SERB	6.60	Krishnakannan
19.	Studies on Mixing and Combustion of Methane-Air in the Presence of a Vortex Flow Field	December 06, 2021- December 05, 2024	SERB	10.05	Raghavan V
20.	Polygeneration of Green Diesel, Hydrogen and Electricity Using Waste Cooking Oil	December 16, 2021- December 15, 2024	SERB	10.05	Anand K
21.	Design, Analysis, and Development of Advanced Machineries for Coir-based Product Development: (i) Extra-wide and Shuttle-less Power Looms for Manufacturing Geotextiles and (ii) 3D Printer for Shock Absorbing Customised Industrial Packaging	July 08, 2021-July 07, 2024	Coir Board	99.65	Gnanamoorthy R
22.	Study of Chronic Failure Modes in Offhand Rigid Disc Grinding	January 01, 2022-June 30, 2024	Saint Gobain India Pvt. Ltd.	13.51	Amitava Ghosh
23.	Computational Modeling of Combustion Instability in an Oxidizer-rich Staged Cycle Using LOx and Kerosene	July 23, 2021-April 30, 2024	Indian Space Research Organization (ISRO)	28.13	Varunkumar S
24.	Development of Optimal Spray Technology Using Rotary Atomisers for Improved Desalination and Brine Disposal Systems	March 06, 2023- March 05, 2026	DST	86.36	Srikrishna Sahu

25.	Use of Ultrasound Contrast Agents in Detecting Early Stages of Atherosclerosis	January 23, 2023-January 22, 2026	DST	13.50	Dhiman Chatterjee, Doble Mukesh-008162, BT
26.	Enhancing the Accuracy of Roboforming Through Prediction and Compensation of Elastic Behavior Using Artificial Intelligence Techniques	December 14, 2022-December 13, 2025	DST	100.86	Hariharan, Sourav Rakshit-008663, ME
27.	Establishing Solid State and Liquid State Based Novel Manufacturing Technologies for Recycling Magnesium in to High Performance Sheets	May 31, 2022-May 30, 2025	SERB	67.67	Sushanta Kumar Panigrahi
28.	Design and Development of Multi-Annular Burner Handling Fuel Blends for Direct Flame Impingement Heat Transfer Application	March 22, 2023-March 21, 2026	SERB	30.08	Raghavan V
29.	Green Synthesis of Robust Surfaces for Sustained Drop Condensation and Anti-Icing Applications: Experiments and Data-Driven Modelling	March 10, 2023-March 09, 2026	SERB	38.59	Pallab Sinha Mahapatra
30.	Research and Development of Low GWP Chemicals Including Blends Thereof, to be Used as Alternatives to Substances Controlled Under the Montreal Protocol	August 20, 2022-October 19, 2027	Ministry of Environment, Forest and Climate Change	50.00	Venkatarathnam G, Raghavan V-008293, ME
31.	Development of a Functionally Gradient ZrSi (N, O) Corrosion-Resistant Coating to Improve Tribocorrosion Performance on Ti6Al4V for Hip Implants	February 20, 2023-February 19, 2026	SERB	45.14	Ramkumar P
32.	Pravartak Research Grant for Dr. Sujatha Srinivasan	November 01, 2022-April 30, 2024	IITM Pravartak Technologies Foundation	6.00	Sujatha Srinivasan
33.	Performance Enhancement of Single Layer Superabrasive Wheels by Laser Shock Peening	August 17, 2023-August 16, 2025	DST	49.75	Amitava Ghosh Samuel G L-008197, ME
34.	Development of Cardiac Ischemia-on-a-Chip Model to Investigate Hypoxia-Induced Myocardial Injury and Drug Testing	February 15, 2024-February 14, 2028	ICMR	165.21	Saritkumar Das, Nitish R Mahapatra-008289, BT, Tuhin Subhra Santra-008754, ED, Dhiman Chatterjee-008184, ME
35.	Ventilated Cavitation on Axisymmetric Bodies	February 22, 2024-February 21, 2027	Naval Research Board	59.30	Dhiman Chatterjee, Shamit Bakshi-008191, ME

36.	Nurturing Future Leadership Programme (Malaviya Mission Teacher Training Programme)	February 22, 2024-February 21, 2025	University Grants Commission (UGC)	15.00	Krishnan Balasubramanian
37.	INAE Chair Professorship - Krishnan Balasubramanian	August 01, 2023-July 31, 2026	Indian National Academy of Engineering	0.80	Krishnan Balasubramanian
38.	Towards Decarbonisation of Cement Industry - Model Based Optimisation of a Pyrolysis Technology for Flexible Use of Waste Fuels	June 12, 2023-June 11, 2026	DST	93.87	Varunkumar S, Himanshu Goyal-008954, CH
39.	On the Reductions of Airfoil-Turbulence Noise Through Novel Dimple Configurations	May 11, 2023-May 10, 2026	SERB	16.92	Srinivasan K
40.	Development of a Novel Window for Acoustic Noise Reduction Without Compromising Natural Ventilation	June 12, 2023-June 11, 2026	SERB	24.72	Chandramouli P
41.	Exploring and Establishing an Innovative Aluminium Recycling technology to recycle Aluminium Scraps/ Chips to High Performance Al Matrix Composite Near Net Shape Products	May 31, 2023-May 30, 2026	SERB	40.79	Sushanta Kumar Panigrahi
42.	A Continuum Model to Study Vascular Adaptation in Arteriovenous Fistulae	February 12, 2024-February 11, 2027	SERB	6.60	Parag Ravindran
43.	Damage Tolerance Based Structural Optimisation - A New Paradigm for Design of Stronger, Stiffer and Safer Structures	January 11, 2024-January 10, 2026	Scheme for Promotion of Academic and Research Collaboration	42.49	Raghu Prakash V, Gnanamoorthy R-000104, ME
44.	Brainstorming Workshop on Advanced Manufacturing & Industry 4.0	January 31-July 30, 2024	Scheme for Promotion of Academic and Research Collaboration	8.00	Ramesh Babu N
45.	VAJRA Visiting Faculty - Dr. Chongmin Song	June 01, 2023-May 31, 2024	SERB	18.99	Sundararajan Natarajan
46.	Edu-Cool: Educational Program for Sustainable Heating and Cooling Solutions for India (2020-2023)	October 23, 2023-October 22, 2026	SINTEF Energy Research	37.05	Prakash Maiya M, Satyanarayanan Seshadri-008701, AM, Advait S-008998, ME
47.	GEMESH - Universal IoT Device Gateway for Smart Home or Building Control and Monitoring System Enabled with Blockchain, IoT, Fog and Cloud Computing Technology	September 11, 2023-September 10, 2025	IITM Pravartak Technologies Foundation	49.98	Prabhu Rajagopal

48.	Polymetallic Nodules Transfer And Degradation Studies In Vertical Transport Through A Rigid And Flexible Pipe	April 06, 2023-April 05, 2025	National Institute of Ocean Technology	29.94	Ratna Kumar Annabattula VVSD
49.	Low-cost Prosthetics Design and Fabrication Using Advanced Textile and Composites Technology	October 27, 2023-October 26, 2026	Ministry of Textiles	20.10	Shankar Krishnapillai, Balaganesan G-8202, CW
50.	Additive Manufacturing of Technical Textiles for Sustainable Mobility-Agro Waste Based Materials and Product Design	January 24, 2024-January 23, 2026	Ministry of Textiles	99.95	Gnanamoorthy R Shankar Krishnapillai-008154, ME, Abhijit Sarkar-008418, ME
51.	Team Abhiyaan Sponsorship by Caterpillar	October 01, 2023-June 30, 2025	Caterpillar India Engineering Solutions Pvt. Ltd.	16.00	Sathyan S
52.	Development of a Micropump for Electrospray Microthruster	July 13, 2023-July 12, 2025	ISRO	28.80	Ashis Kumar Sen, Sarith P Sathian-008609, AM
53.	Design of a Parallel Microchannel Evaporator Based on the Flow and Temperature Mal-distribution Studies During Flow Boiling for Spacecraft Thermal Control	July 13, 2023-July 12, 2025	ISRO	38.08	Arvind Pattamatta

4.14.5.2. Industrial Consultancy Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Chandramouli P, Krishnakannan-008246, ME	Seismic Testing of 800 kV CVT	Ge T&D India Ltd.	5.55
2.	Chandramouli P,	Mechanical Endurance Test of Disconnectors	IPL Products	5.66
3.	Chandramouli P, Krishnakannan-008246, ME	Seismic Test on 72.5 kV Gas Circuit Breaker	CG Power and Industrial Solutions Ltd.	4.01
4.	Chandramouli P, Shankar Krishnapillai-008154, ME	Seismic & Mechanical Tests on 420 kV CVT	Siemens Ltd.	4.86
5.	Sujatha C, Parag Ravindran-008305, ME	Seismic Test on 145 kV Isolator	Faraday Electricals Pvt. Ltd.	4.37
6.	Shankar Krishnapillai, BALAGANESAN G-8202, CW	Proposal on Design Analysis of Vehicle Transport Structure	Nefab India Pvt. Ltd.	5.52
7.	Chandramouli P, Parag Ravindran-008305, ME	Seismic and Mechanical Endurance Testing of 420 kV/ 245 kV Isolators	IPL Products	7.38

8.	Shankar Krishnapillai, BALAGANESAN G-8202, CW	Non-Destructive Testing and Analysis of Rope Car Parts for Palani Temple	Arulmigu Dhandayuthapani Swamy Thirukoil	3.25
9.	Chandramouli P, Krishnakannan-008246, ME Parag Ravindran-008305, ME	Seismic Testing of 145/245 kV Disconnectors	Hitachi Energy India Ltd.	9.44
10.	Chandramouli P, Abhijit Sarkar-008418, ME	Seismic & Mechanical Test on 132 kV Current Transformer	Bharat Heavy Electricals Ltd.	5.02
11.	Chandramouli P, Dhiman Chatterjee-008184, ME Piyush Shakya-008770, ME	High Vibration Analysis of PA Fan in Thermal Power Plant	Sembcorp Energy India Ltd.	5.90
12.	Chandramouli P, Parag Ravindran-008305, ME	Seismic Testing of 245 kV Double Break Disconnector	S & S Power Switchgear Equipment Ltd.	3.54
13.	Chandramouli P, Shankar Krishnapillai-008154, ME	Seismic Test of 245 kV Double Break Isolator	K P Buildcon Pvt. Ltd.	4.72
14.	Chandramouli P, Abhijit Sarkar-008418, ME	Seismic Test on 800 kV Triple Pole Circuit Breaker	Siemens Ltd.	4.25
15.	Chandramouli P, Parag Ravindran-008305, ME	Seismic Test on 72.5 kV Circuit Breaker	Hitachi Energy India Ltd.	4.13
16.	Chandramouli P, Abhijit Sarkar-008418, ME	Seismic and Mechanical Test of 420 kV CT	Ge T&D India Ltd.	4.72
17.	Chandramouli P	Ground Vibration Measurement in Factory Premises	Mahindra CIE Automotive Ltd.	2.95
18.	Chandramouli P	Seismic Test on 145kV and 245 kV Double Break Isolators	Elektrolites (Power) Pvt. Ltd.	9.44
19.	Chandramouli P, Parag Ravindran-008305, ME	Seismic Test of 390 kV Lightning Arrester	Elektrolites (Power) Pvt. Ltd.	4.13

4.14.5.3. RBIC projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Development of Low Cost and Efficient Filler Material for Single Tank Storage System for Concentrating Solar Power and Process Heat System	August 13, 2018- August 12, 2024	Indian Oil Corporation Ltd.	133.19
2.	Development Of Algorithm of Prognostic Tool for Maintenance of Helicopter Gears	February 01, 2020- December 31, 2024	Hindustan Aeronautics Ltd.	47.61
3.	In-situ Condition Monitoring of O-ring	September 10, 2020- September 14, 2024	Lam Research Corporation	18.37

4.	Gaseous Fuel Injection in Blast Furnaces	May 13, 2021-May 12, 2024	TATA Steel Ltd.	49.31
5.	Development of a Theoretical Model to Predict Two-Phase Flow Instabilities in Sodium Heated Once-Through Integrated Steam Generator Used in Fast Breeder Reactors	August 20, 2021-August 19, 2024	Indira Gandhi Centre for Atomic Research	42.52
6.	Future Refrigeration India: INDEE+	November 01, 2021-October 31, 2024	Norwegian University of Science and Technology (NTNU)	92.93
7.	Development of Methodology for Integration Steam of Solar Concentrating Collector Field With Coal Based Thermal Power Plant	June 28, 2021-September 27, 2024	Arka Steam Power LLP	16.60
8.	Digital Twin of Sensor Integrated Smart Bearing	August 19, 2021-February 17, 2025	Lam Research Corporation	18.60
9.	Ultrasonic Levitation Based Noncontact Handling of Wafer	August 04, 2021-May 31, 2024	Lam Research Corporation	18.56
10.	Design and Development of a Fully Automated Prototype of the IITM Biomass Gasification System	November 15, 2021-November 14, 2024	Gail India Ltd.	97.84
11.	Flap Wheel Wear Mechanism Study	January 01, 2022-June 30, 2024	Saint Gobain India Pvt. Ltd. (Research & Development)	13.51
12.	Grinding and Performance Evaluation of Rotary Carbide Tools With Novel Geometries for Critical Machining Applications (Phase-I)	January 01, 2022-June 30, 2024	M.S. Tools & Manufacturing Company Pvt. Ltd.	11.02
13.	Development and Evaluation of an On-site Lubrication Condition Monitoring System (OLCMS) Based on a IIOT Enabled Platform	January 01, 2022-September 30, 2024	Indian Oil Corporation Ltd.	332.76
14.	Roller Cam Tappet Design and Verification for CTA 1.16 Fuel Pump	March 01, 2022-September 30, 2024	Delphi-TVS Technologies	4.13
15.	Repeatability Experiments for High Frequency Impact WEA	April 18, 2022-April 17, 2025	Kluber Lubrication Munchen SE & CO.KG	5.26
16.	Development of Model Predictive Control (MPC) Based Dynamic Controller for PFBR Steam Generator Inspection System (PSGIS) Robotic Arm Path Planning and Control in Real Time	June 10, 2022-June 09, 2024	Indira Gandhi Centre for Atomic Research	48.85
17.	To Study Surface Mining Drill Motor Table Pad Wear Behaviour and Develop Life Prediction Numerical Model	June 21, 2022-June 20, 2024	Caterpillar India Engineering Solutions Pvt. Ltd.	9.32
18.	Evaluation and Documentation Support of Establishment of Feasibility for PAUT/TOFD Inspection in lieu of RT for Navy Submarine Weld Inspection	May 16, 2022 - September 30, 2024	Ministry of Defence	369.39
19.	Development Of Coatings for Reduction of Cavitation-Induced Noise In Marine Propeller	March 04, 2022-September 03, 2024	National Physical & Oceanographic Laboratory	47.77

20.	Development of DCMS or HiPIMS Coating Recipe for Various Cutting Tool Applications	September 15, 2022-September 14, 2025	AddLife Coating Systems Pvt. Ltd.	18.59
21.	Using Physics Informed Extreme Learning Machines (PIELM) to Drive Sustainability in Compute	December 15, 2022-June 30, 2024	Intel Corporation	124.50
22.	Design Analysis of Sugar Mill Headstock	December 14, 2022-September 25, 2024	Fives Cail KCP Ltd.	12.63
23.	Design and Performance Analysis of Electric Winch	December 26, 2022-December 26, 2024	Tridel Technologies Pvt. Ltd.	9.97
24.	Research and Development of Gas Gun	January 16, 2023-January 15, 2025	Akiro Protech Pvt. Ltd.	35.68
25.	Evaluate Tribological Performance of Polymer Materials Against Steel With Different Greases	January 16, 2023-January 15, 2025	ZF Commercial Vehicle Control Systems India Ltd.	1.67
26.	Modeling Electrostatic Spray Paint Process With Rotating cups	March 07, 2023-December 31, 2024	Ford Motor Pvt. Ltd.	25.90
27.	Wear Coefficient and Performance of different Materials for Grader	January 23, 2023-July 31, 2024	Caterpillar India Engineering Solutions Pvt. Ltd.	4.42
28.	Design of Green Hydrogen Production From Saline Water	March 01, 2023-August 31, 2024	Lakshmi International Building Materials Pvt. Ltd.	8.12
29.	Prognostics & Health Monitoring of Defence Systems	April 19, 2023-April 15, 2025	Combat Vehicles Research and Development Establishment	64.87
30.	Development of Space Conditioning System for Near Net Zero Build Environment	July 28, 2023-October 27, 2024	Rensol Power Pvt. Ltd.	6.42
31.	Development of a Flex-Fuel Spark-Ignition Engine for Utilisation of Green Hydrogen-CNG Blended Fuels	September 11, 2023-September 10, 2025	TVS Motor Company Ltd.	45.31
32.	To Evaluate the Performance of Grease Samples Based on Hydrogen Embrittlement Propensity in Bearing Steel (SAE 52100)	May 21, 2023-May 20, 2025	National Engineering Industries Ltd.	9.32
33.	Evaluation of Lubricants Performance Using Dynamic Load Pin-on-Disc Tribometer at High Frequency and High Load Condition	November 01, 2023-October 31, 2026	Kluber Lubrication Munchen SE & CO.KG	24.94
34.	Studies on Co-emissions From Cooktop With Multiple Burners	February 19, 2024-June 19, 2025	Whirlpool Of India Ltd.	16.76
35.	Numerical Model Optimisation of Compact Heat Exchangers for Stacked Plates Water Chiller	October 06, 2023-April 05, 2024	Valeo India Pvt. Ltd.	12.98
36.	Analytics Development and Testing for Honeywell Versatilis Transmitter	May 15, 2023-May 05, 2024	Honeywell Technology Solutions Lab Pvt. Ltd.	8.26
37.	Development of Methodology for Integration Steam of Solar Concentrating Collector Field With 18MW Thermal Power Plant	May 30, 2023-May 29, 2024	The KCP Ltd.	16.34

38.	Cooling System Design of EV Aggregates Such as Battery, Motor, Power Electronics	July 15 2023-June 15, 2024	Ashok Leyland Ltd.	14.16
39.	Power Drives Training Program	August 01, 2023-July 31, 2024	Modine Thermal Systems Pvt. Ltd.	3.54
40.	To Study and Validate the Functionality of Tripod and Fixed Assembly as Bearing in Driveshaft	January 01-June 30, 2024	GKN Driveline (India) Ltd.	5.89
41.	Aerodynamic Design of Low Wattage Ceiling Fan	February 05-September 01, 2024	Moving Flux Labs Pvt. Ltd.	5.61
42.	Energy Consumption and Thermal Comfort Studies for Autonomous and Electric Vehicles	February 01-July 31, 2024	Saint Gobain India Pvt. Ltd. (Research & Development)	7.08
43.	Affordable, Rapid Paper-Based Colorimetric Test Kits for Milk Supply Chains	March 15, 2024-January 15, 2025	Rural Mandi Fintech Pvt. Ltd.	18.41
44.	Cold Storages Operating With Low GWP Refrigerants	April 01-September 30, 2024	Ecofrost Technologies Pvt. Ltd.	7.08
45.	Development of an Online Solidified Shell Thickness Measurement	July 20, 2023-July 19, 2025	Tata Steel Ltd.	77.44
46.	Design of Journal Bearing and Rolling Element Bearings Training Program	September 06 2023-September 30, 2025	GE BE Pvt. Ltd.	7.93
47.	Design and Engineering of Parabolic Dish-based CST Systems for Thermal Requirements	September 20, 2023-December 19, 2024	Megawatt Solutions Pvt. Ltd.	11.12
48.	Preliminary Design Review (PDR) and Critical Design Review (CDR) and Validation at Each Stage of Development of WRPS and Alternator of DG Set for S5	September 13, 2023-September 12, 2026	Defence Machinery Design Establishment	41.04
49.	Watch Case Press Blank Manufacturing	November 14, 2023-December 31, 2024	Titan Company Ltd.	22.33

4.14.5.4. Retainer Consultancy: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Venkatarathnam G	Cooling System Design of EV Aggregates Such as Battery, Motor, Power Electronics	Ashok Leyland Ltd.	14.16
2.	Krishnan Balasubramanian	Advise on Curriculum Development for Makers Education	ArcelorMittal Nippon Steel India Ltd.	47.20
3.	Ramkumar P	Power Drives Training Program	Modine Thermal Systems Pvt. Ltd.	3.54
4.	Ramkumar P	Design of Journal Bearing and Rolling Element Bearings Training Program	GE BE Pvt. Ltd.	7.93
5.	Krishnan Balasubramanian	ArcelorMittal XCarb Accelerator Program 2023	ArcelorMittal XCarb	132.80

6.	Ratna Kumar Annabattula VVSD	Feasibility Study for Consultancy to Develop GHE - GSE for HAL	Hindustan Aeronautics Ltd.	6.00
7.	Venkatarathnam G	Improvement of refrigeration equipment	Scigenics Biotech	3.54
8.	Ramesh Babu N	Preliminary Design Review (PDR) and Critical Design Review (CDR) and Validation at Each Stage of Development of WRPS and Alternator of DG Set for S5	Defence Machinery Design Establishment	41.04
9.	Prabhu Rajagopal	Technical Support for Janvikas	Janvikas Trust	3.54
10.	Anuj Kumar Tiwari	Autonomous Delivery Robot	Ottonomy IO Private Ltd.	1.29
11.	Advaith S	Energy Consumption and Thermal Comfort Studies for Autonomous and Electric Vehicles	Saint Gobain India Pvt. Ltd. (Research & Development)	7.08
12.	Venkatarathnam G	Cold Storages Operating With Low GWP Refrigerants	Ecofrost Technologies Pvt. Ltd.	7.08

4.14.6.Distinguished Visitors to the Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Dr. Rogelio Minana - Vice Provost, Global Engagement and Dr. Sriram Balasubramanian, Drexel University	April 10, 2023	Visit R2D2
2.	Dr. Arjan Buis, Strathclyde University	May 15, 2023	Explore Collaborations With R2D2
3.	Prof. Alexander Klimchik, Associate Professor, University of Lincoln, UK	July 12- August 12, 2023	IoE Mobility Grant
4.	Prof. Sergei Savin, Assistant Professor, Innopolis University, Russia	July 24-27, 2023	Workshop on Robot Assisted Manufacturing
5.	Prof. Surendar Marya, Ecole Centrale Nantes, France	September 25, 2023	Research Collaboration and Keynote Talk
6.	Prof. Olga Barrera	October 22- November 03, 2023	IoE
7.	British High Commissioner	January 2024	Research related to human movement and the design and development of rehabilitation and assistive technologies (AT)/devices for people with movement impairments, TTK Center for Rehabilitation Research and Device Development (R2D2)
8.	Dr. Gopalumurugan (Kauvery Hospital)	January 2024	

4.15. Department of Medical Sciences and Technology

The Department of Medical Sciences and Technology

(DMST) at the Indian Institute of Technology Madras was established in February 2023. The Department aims to set up a world-class research environment for medical sciences and technology in order to develop and train the physician-scientists and engineering physiologists of the future.

By applying engineering principles to medical knowledge, this new class of professionals who transcend medicine and engineering have the potential to revolutionise healthcare delivery both within and outside the hospital setting. With a combination of the principles of design, biomechanics, electronics technology and the science of ergonomics, powerful medical devices can be developed that enhance the efficacy, safety, and reliability of medical treatments.

The Department aims to build a platform for the convergence of engineering teams and medical professionals where products are developed with a clear understanding of the unique needs of patients, how a device might interact with various medical treatments, and pre-existing conditions of the

human body.

With this interdisciplinary approach to improving healthcare outcomes by leveraging engineering and medical knowledge, new technologies can be developed that monitor vital parameters of various organs, detect signs of disease or stress, and provide targeted prevention and treatment options. As engineering and medicine continue to produce new joint outcomes, the possibilities are endless. With the right platform and resources, physician-scientists and engineering physiologists will be able to create groundbreaking technology that have a positive impact on patients' lives for generations to come.

IITM has entered into memoranda of understanding (MoUs) with highly respected medical institutions to begin its Ph.D. Programme and B.S. in Medical Sciences & Engineering Programme. The affiliated hospitals include Voluntary Health Services, Sankara Nethralaya, MGM Healthcare, MIOT International, Sri Ramachandra Institute of Higher Education and Research (SRIHER), Madras Medical Mission (MMM) Hospital and Kanchi Kamakoti CHILDS Trust Hospital.

Academic Steering Committee of DMST

The Academic Steering Committee is responsible for overseeing and guiding the development and implementation of the academic programmes and policies of the Department of Medical Sciences

& Technology. The Committee is also tasked with ensuring that the academic programmes are aligned with the Department's overall mission and goals.

1. Dr. KR Balakrishnan
2. Dr. Vijit Cherian
3. Dr. MS Gopalakrishnan
4. Dr. Karthick Kailash
5. Dr. C Kesavadas
6. Prof. R Krishna Kumar
7. Dr. Ajit S Mulasri
8. Dr. JSN Murthy
9. Dr. Rajiv Raman
10. Dr. Rajan Ravichandran
11. Dr. Suresh Seshadri
12. Dr. Sivakumar
13. Dr. S Vijayakumar

International Advisory Panel

1. Dr. Brian Kobilka
2. Dr. Steffen Leonhardt
3. Dr. Raj Murali
4. Dr. James Musick
5. Dr. Venkatraman Sadanand
6. Dr. Vikas Sukhatme
7. Dr. Albert van der Zwan

Courses offered by the Department

1. Four-Year BS Programme in Medical Sciences & Engineering

The BS Programme in Medical Sciences & Engineering is a game-changing interdisciplinary programme that bridges medicine & engineering.

The course structure involves an internship in a hospital to tie theory and practice. The courses in the programme will be taught by both medical & engineering faculty, and will provide a strong research base for students.

The Structure of Physiology Courses offered by the programme include:

- Anatomy and Physiology of Organs
- Mathematical Modelling of the Organ System
- Pathology of the Organ System and its interaction with other systems
- Diagnostics/Measurement System and Treatment Protocols

The Programme will cover the following broad areas:

- Basic engineering principles that are necessary to understand physiology
- Fundamental sciences to understand physiology
- Basics of mathematical methods, machine learning, medical imaging, etc to build mathematical structure

Specialisation in one or more of the following areas:

- Organ-specific Device Development
- Artificial Intelligence applied to Health
- Medical Image Analysis
- Quantitative Pharmacology
- Drug Design and Deployment
- Translational Research in Medicine and Regulatory Processes
- Fundamental Physiological Sciences

Admissions to BS in Medical Sciences & Engineering:

Admissions will be through the IISER Aptitude Test (IAT) and in the first B.S. batch for the limited 30 seats, 20 students were of less than 100 rank in their IAT.

2. M.S. Program

Master of Science (M.S.) is a research-based degree. Therefore, the thesis will not be as rigorous as the doctoral program. students in the middle of their M.S. program can upgrade to a Ph.D. program.

3. Ph.D. Program

The Ph.D. programme for doctors will enable clinicians to delve deep into a problem area of their interest, either independently or in tandem with an engineer from the Department.

4. Joint MD- PhD program with SRIHER

A successful academic collaboration was established between the M.D. programme from SRIHER and the Ph.D. programme from DMST, IITM. The first batch of students is expected to join soon.

DMST: Students intake as on July 1, 2024:

S. No.	Programme	No. of Students Enrolled	
		I Year (2023-24)	II Year (2024-25)
01	Ph.D.	09	02
02	M.S.	-	01
03	B.S.	29	Admission in progress

Department Faculty

Core Faculty

- Prof. Bobby George, Head of the Department
- Prof. R Krishna Kumar
- Prof. Srikanth Vedantam
- Prof. Srinivasa Chakravarthy
- Dr. Anubama Rajan
- Dr. Pradeeba Sridar

Professors of Practice

- Dr. KR Balakrishnan
- Dr. Vijit Cherian
- Dr. Karthik Kailash
- Dr. Ajit S Mullassari
- Dr. JSN Murthy
- Dr. Bhagyam Raghavan
- Dr. Rajiv Raman
- Dr. Rajan Ravichandran

- Dr. Suresh Seshadri
- Dr. S Vijayakumar

Adjunct Faculty

- Dr. M Srinivas
- Dr. RM Anjana
- Dr. Rita Christopher

Department Accomplishments since Inception

- Shankar CoE (Center of Excellence) for Diabetic Research, an initiative along with Emory University, US
- MoU with All India Institute of Medical Science (AIIMS) Delhi
- Setting up state-of-the-art laboratories for Anatomy, Physiology, Organoids, and Medical Imaging, with equipment procured for the first time in India by an educational institute for research

4.16. Department Of Metallurgical and Materials Engineering

4.16.1 Introduction

One of the oldest departments of IIT Madras, the Department of Metallurgical and Materials Engineering (MME), was established in 1959 as the Department of Metallurgy. It was renamed as the Department of Metallurgical and Materials Engineering in 2003. The Department offers B.Tech., M.Tech., M.S. and Ph.D. degree courses, and is actively engaged in research, education, and industrial consultancy. Its teaching, research, and consultancy activities cover a broad spectrum ranging from conventional metallurgy to frontiers of materials science and engineering. The Department is respected for its strong linkages with industry and expertise in industrial metallurgy. Over the years, it has hosted excellent research

infrastructure in the broad areas of materials science and engineering, such as materials processing (forming, joining, casting, particulate processing and nanostructured materials), characterization (X-ray diffraction, electron microscopy, and thermal analysis), mechanical testing, corrosion engineering, surface engineering, computational materials science, and electronic materials. The Department continues to strive for excellence and realizing its vision of becoming a pioneering Department in the areas of materials science and engineering, while consolidating its strength in traditional areas of metallurgical engineering.

4.16.2. Academic Programmes:

The Department offers B.Tech., M.Tech., M.S. and Ph.D. programmes

4.16.2.1. New Courses Introduced:

Sl. No.	Course No.	Title
1	MM5014	Physical Foundations of Materials Science
2	MM5019	Materials Science for Sustainability
3	MM5032	Materials and Methods in Electronic Device Fabrication

4.16.2.2. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024:

Programme	I year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	61	62	52	46	4	225
Dual Degree	-	-	2	1	2	5
M.Tech.	26	26				52
M.S.	4	11	12	3	1	31
Ph.D.	16	28	25	32	55	156
Total	107	127	91	82	62	469

4.16.2.3. Endowment Prize Instituted:

Shankari Subramanyam Impact Grant (SSIG)

Background:

This grant is provided by Dilip Subramanyam, B.Tech., Metallurgy, IIT Madras, 1977, in loving memory of his mother, who passed away in 2006. The grant is to be set up in the amount of \$250,000. It is anticipated that the investment of these funds will provide at least Rs. 10 Lakhs annually to the Department of Metallurgical and Materials Engineering.

Purpose:

This grant aims to provide funds annually or semi-annually to researchers in the Department of Metallurgical and Materials Engineering to further collaborative research within the Institute and industry in India and overseas. At the donor's request, an advisory board exists to guide the Department in its

decision-making process to make the most effective use of grants to achieve the above-stated purpose.

Advisory Board Members:

The initial board members are Mr. M.M. Murugappan (former chairman of The Murugappa Group, Chennai, India), Dr. Pinakin Choubal (CTO, Arcelor Mittal Steel, East Chicago, IL, USA, IIT Madras Alumnus of 1978), Prof. Shravan Kumar (Brown University, Providence, Rhode Island, USA, IIT Madras Alumnus of 1979), Dr. C. Narayan (IBM Research, San Jose, CA, IIT Madras Alumnus of 1978), Dr. Shubha Kumar (IIT Madras Alumna of 1994, Distinguished Alumnus of 2022). In consultation with the advisory board, the Department Head can appoint additional new members from time to time to maintain reasonable strength of numbers.

4.16.2.4. Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/ Seminar/Symposia/ Workshop	Date and Venue
India				
1.	Saisupriyalakshmi J S	MM22S005	International Workshop on "Electrochemical Techniques for Next Generation Batteries"	September 29-30, 2023. SPARC
2.	Aarju Mathew Koshy	MM22D054	AMALGAM 2023 (Material Festival)	April, 2023. IIT Madras
3.	Allamula Ashok	MM20D016	2nd International Conference on Thin Films and Nanotechnology: Knowledge, Leadership, and Commercialization	July 6-8, 2023. IIT Madras
4.	Allamula Ashok	MM20D016	Attended One-Week Summer School on Materials Characterization	July 11-15, 2023
5.	Mufeeda M	MM23D303	Indo-Korea Workshop on Next Generation Energy Storage Materials	November-December, 2023
6.	Ashok Allamula	MM20D016	Nirmaan Pratham Program	December 15, 2023
7.	Arasakumaran K	MM22S006	the CompFlu 2023, t IIT Madras	December 18-20, 2023
8.	Arasakumaran K	MM22S006	Presented a Poster in the Workshop on "Interfacial Engineering at Multiple Spatio-temporal Scales", 2024, IISc, Bengaluru, India	January 29-30, 2024. IISc, Bengaluru, India

4.16.2.5. Students/Scholars Who Won Outside Prizes and Awards:

Sl.No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Abhishek Shukla	MM20D018	Best Poster Award, IIM ATM, 2023	KIIT, Bhubaneswar
2.	P Shruti	MM18D022	Best Poster Award, NMD, 2023	KIIT, Bhubaneswar

4.16.2.6. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl.No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1.	G Swaminathan	MM18D010	Institute Research Award	IIT Madras
2.	Aarju Mathew Koshy	MM22D054	Best Oral Presentation Award, AMALGAM 2023 (Material Festival)	IIT Madras
3.	Allamula Ashok	MM20D016	International Immersion Experience Award	Office of Global Engagement, IIT Madras
4.	Sinu Kurian	MM20D305	Best Poster Award for the "Indian Conference on Micro Nano Fluidics (ICOM) '023"	ICSR, IIT Madras
5.	Mufeeda M	MM23D303	PMRF	MoE
6.	Guguloth Naresh	MM22D021	Best Poster Award, International Conference Organized by the Center for Soft and Biological Matter, IIT Madras	IIT Madras

4.16.3. Faculty And Their Activities:

Name and Qualifications	Major Area of Specialisation (Only 3 Areas)
Professors	
V Subramanya Sarma, Ph.D. (IIT Madras) [HoD]	Materials Processing, Development, Characterisation and Microstructure, Mechanical Property Correlations in Engineering Materials
M Balasubramanian, Ph.D. (IIT Madras)	Advanced Ceramics and Composites, Nanocomposites Processing, Materials Characterisation
S S Bhattacharya, Ph.D. (IIT Madras)	Nanocrystalline Materials—Synthesis, Consolidation, Characterisation and Property Evaluation, Superplasticity of Materials (Analytical and Experimental), Superplastic Forming, Advanced Materials Testing
S Ganesh Sundara Raman, Ph.D. (IIT Madras)	Fatigue and Fracture of Metallic Materials and Their Weldments, Fretting Fatigue, Fretting Wear, High-Temperature Deformation, Coatings, Thermal Spray Processing, Surface Engineering
K C Hari Kumar, Ph.D. (IIT Delhi)	Computational Thermodynamics and Kinetics, ab initio Calculations of Thermochemical and Thermophysical Properties
M Kamaraj, Ph.D. (IIT Madras)	High-temperature Deformation Studies on Steels/Super Alloys, Hot-corrosion Studies, Surface Technology, Development of Wear Surfacing Materials, Tribological Studies on Weld Deposits/Coatings/Composites, Failure Analysis

BS Murty, Ph.D. (IISc, Bengaluru) (On lien - currently at IIT Hyderabad)	Nanocrystalline Materials, Bulk Metallic Glasses, High-entropy Alloys, Composites, Phase Transformations, Electron Microscopy, Atom Probe Tomography
Lakshman Neelakantan, Ph.D. (MPIE Dusseldorf and RUB, Bochum, Germany)	Corrosion Characteristics, Smart Coating for Corrosion Protection, Electro-Dissolution, Planarisation and Deposition
G Phanikumar, Ph.D. (IISc, Bengaluru)	Solidification Using Electromagnetic Levitation and Melt Spinning, Transport Phenomena in Manufacturing Processes, Microstructure Simulation and Characterisation
Parasuraman Swaminathan, Ph.D. (University of Illinois, Urbana-Champaign, USA) Prathap Haridoss, Ph.D.	Printed Electronics, Vapour-deposited Thin Films and Nanoparticles, Optical and Electrical Properties of Doped Metal Oxides, Photovoltaics
(University of Wisconsin-Madison, USA) K Ravi Sankar, Ph.D.	Production and Characterisation of Carbon Nanotubes, Synthesis of CdS Nanocrystals, CO-tolerant PEM Fuel Cell Catalysts
(IISc, Bengaluru) Ranjit Bauri, Ph.D.	High-temperature Deformation, Super Plasticity, Nanocrystalline Materials, Size Effects in Plastic Deformation
(IISc, Bengaluru) N V Ravi Kumar, Ph.D.	Metal Matrix Composites, Aluminium Alloys, Solid Oxide Fuel Cells
(MPI-Stuttgart and University of Stuttgart, Germany)	Processing & Characterization of Precursor Derived Ceramics, Atomistic Design/Molecular Design/ Microstructure Design for the Development of High Performance Ceramics, Investigation of Thermal and Mechanical Properties and Correlation with Structure
V. Sampath, Ph.D. (IISc, Bengaluru)	Shape Memory Alloys/Smart Materials, Composite Materials, Powder Metallurgy, Structure-Property Correlations in Materials
Sabita Sarkar, Ph.D. (IISc, Bengaluru)	Process Modelling/Design of Metallurgical and Chemical Processes, Modelling and Simulation of Flows Through Packed Beds, Fluidised Beds, Heat and Mass Transfer, Granular Flows, Multi-Phase Flows, Reacting Flows
S Sankaran, Ph.D. (IIT Kanpur)	Mechanical Behaviour of Materials, Electron Microscopy, Structure-Property Correlations
Somnath Bhattacharyya, Ph.D. (MPI-Stuttgart and University of Stuttgart, Germany)	Studying Correlation of the Structure and Chemistry of Materials at Atomic Scale with Physical Properties Using Transmission Electron Microscopy, Development of New Methodology Related to TEM/STEM to Study Materials, Studying Nano-bio Conjugation Using Electron Probe
Srinivasa Rao Bakshi, Ph.D. (Florida International University, Miami, USA)	Thermal Spraying, Carbon Nanotube-reinforced Composites, Microstructure Property Correlations at Different Length Scales, Nuclear Materials
Tiju Thomas, Ph.D. (Cornell University, USA)	Energy Materials, Environmental Remediation Materials [Nitrides, Oxynitrides, Oxides (in nano, meso and bulk forms)], Photofunctional Materials (for solar cells, photocatalytic applications), Optical Materials and Devices, Surfaces, Interfaces and Transformation of Nanostructures.
Uday Chakkingal, Ph.D. (Rensselaer Polytechnic Institute, USA)	Metal Forming and Material Processing, Severe Plastic Deformation Processes, Aluminium Alloys, Sheet Metal Forming

Associate Professors	
Ajay Kumar Shukla, Ph.D. (IIT Kanpur)	Process Modelling, Control and Optimisation of Iron and Steel Making, Computational Thermodynamics and its Application to High-temperature Metallurgical Processes, Heat and Mass Transfer
Anand K Kanjarla, Ph.D. (Katholieke Universiteit Leuven Belgium)	Microstructural Approach to Mechanics of Materials, Finite Element Method and Fast Fourier Transform Approach to Crystal Plasticity (CPFEM and CPFFT), Plastic Anisotropy and Crystallographic Texture, Microstructure Evolution in Irradiated Systems
Manas Mukherjee, Ph.D. (Technical University Berlin, Germany)	Metal Foam Production and Characterisation, Physics of Foaming, X-ray Tomography, Solidification
Murugaiyan Amirthalingam, Ph.D. (Delft University of Technology, Netherlands)	Welding Metallurgy, Welding Processes Development, Steels Product Development, in situ 3D Synchrotron X-ray Diffraction and Additive Manufacturing
KG Pradeep, Ph.D (MPIE-Düsseldorf and RWTH Aachen University, Germany)	Combinatorial Alloy Design, Atom Probe Tomography and Field Ion Microscopy, Magnetic Materials, Thin Films and Hard Coatings, Correlative Microscopy, Amorphous and Nanocrystalline Materials Mechanical Behaviour of Materials
Satyesh Kumar Yadav, Ph.D. (University of Connecticut, USA)	Physics and Chemistry of Materials from First-Principles Electronic Structure Modelling, First-Principles Thermodynamics, Modelling of Materials Using Quantum Mechanics Derived Potentials, Understanding Structure, Property, and Processing Relation of Materials
Sreeram K Kalpathy, Ph.D. (University of Minnesota, USA)	Soft Matter: Colloid and Polymer Science, Interfacial Fluid Mechanics, Physical Chemistry of Surfaces, Coating and Printing Methods
Assistant Professors	
Bhuvanesh Srinivasan, Ph.D. (CNRS-University of Rennes, France)	Thermoelectric Materials and Devices for Energy Harvesting Applications
Hema Prabha, Ph.D. (IISc, Bengaluru)	Microscopy, Solar Cells
Rohit Bhatra, Ph.D. (University of Connecticut, USA)	Materials Informatics and Machine Learning based Materials Design and Optimization
Surendra B. Anantharaman, Ph.D (The Swiss Federal Institute of Technology Lausanne (EPFL), Switzerland)	Low-dimensional Semiconductors, Strong Light-Matter Interactions, Optoelectronic Devices, Quantum Materials and Devices, Nanophotonics.
Visiting Faculty	
R Gopalan, Ph.D. (IIT Madras) [Visiting Professor]	Magnetic Materials, Thermo-electric Materials, Fuel Cells
T S Sampath Kumar, Ph.D. (IISc. Bengaluru) [Emeritus Professor]	Nanostructured Biomaterials, Antimicrobial Ceramics and Delivery Systems, Value-added Biomaterials from Natural Wastes
New Young International Faculty mMember	
Shotaro Tada, Ph.D. (Nagoya Institute of Technology, Japan)	Organic Inorganic Synthesis, Polymer Derived Ceramics, Catalysis, Nanocomposites

4.16.3.1. Short-term Courses, Workshops, Seminars, Symposia, Conferences Organised by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	Dr. Surendra B Anantharaman	Asian Thermal Spray Conference & Expo 2023, IIT Madras, Chennai, India	November 02-04, 2023
Seminar:			
1.	MME Department	Prof. EG Ramachandran Distinguished Lecture (11th Series)	April 12, 2023
Workshop:			
1.	Dr Sankaran S	3-day Workshop on Advanced Transmission Electron Microscopy Techniques - Theory & Practice	April 25-27, 2023
2.	Dr. Surendra B Anantharaman	XXII International Workshop on Physics of Semiconductor Devices (IWPSD), Research Park, IIT Madras	December 13-17, 2023

4.16.3.2. Short-term Courses, Workshops, Seminars, Symposia, Conferences, Training Attended by the Faculty Members in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Workshop:				
1.	Rohit Batra	Real World Reinforcement Learning	RBCDSAI ARP Workshop	November 1, 2023
2.	Dr. Tiju Thomas	World Cafe at PSGRKCW	PSGR Krishnammal College for Women	November 23-24, 2023
3.	Dr. Tiju Thomas	International Workshop on Physics of Semiconductor Devices	Research Park, IIT Madras	December 13-17, 2023
4.	Hari Kumar	Computational Thermodynamics	8th MSIT Winter School on Materials Chemistry, Schloß Ringberg, Tegernsee, Germany	January 21-26, 2024
Symposia:				
1.	Ajay Kumar Shukla	Modeling of Large Scale Industrial Reactors Involved in Iron/Steelmaking in an Innovative Way	SIPS2023-Assis International Symposium of Sustainable Iron and Steelmaking (Online)	November 30, 2023
2.	Prof. Ravi Kumar N V	Eco-materials Processing and Design	22nd International Symposium on Eco- materials Processing and Design (ISEPD 2024), Centara Korat, Nakhon Ratchasima, Thailand	January 21-24, 2024

Conference:				
1.	V Sampath and G Swaminathan	Effect of silver addition on cyclic phase transformation behaviour of NiTi shape memory alloy	6th International Conference of the Doctoral School, IASI, Romania	May 17-19, 2023
2.	V Sampath and G Swaminathan	Studies on thermal cycling behaviour of nitico-based shape memory alloys	International Conference on Processing & Manufacturing of Advanced Materials: Processing, Fabrication, Properties (THERMEC-2023) Vienna, Austria.	July 2-7, 2023
3.	Shotaro Tada	XVIII ECerS	European Ceramic Society, Lyon, France	July 2-6, 2023
4.	M Balasubramanian	International conference on Metallurgical engineering & Centenary Celebration	Department of Metallurgical Engineering, IIT-BHU	October 26-28, 2023
5.	V Subramnaya Sarma	Role of Mn Content on Processing Maps, Deformation Kinetics, Microstructure and Texture of As-cast Medium Mn (6-10 wt.% Mn) Steels	International Conference on Metallurgical Engineering and Centenary Celebration (METCENT 2023), IIT BHU, Varanasi	October 26-28, 2023
6.	K G Pradeep	Atom Probe Tomography and Microscopy (APT&M) Conference 2023	KU Leuven, Belgium	September 17-21, 2023
7.	K G Pradeep	4th Edition of Heat Treatment and Surface Engineering - Conference & Expo 2023	ASM International, Chennai Trade Center, Chennai	September 28-30, 2023
8.	V Sampath, G Swaminathan	Influence of Heating Mode on Cyclic Temperature Range of an Ni-Ti Shape Memory Alloy During Partial Transformation Cycling	10th International Conference on Materials Science and Nanotechnology for Next Generation (MSNG 2023), Turkey.	September 27-29, 2023
9.	Shotaro Tada	Polymer-derived Functional Inorganic Materials for Catalytic Small Molecule Activation	15th Pacific Rim Conference of Ceramic Societies (PACRIM15), S8 Polymer-Derived Ceramics (PDCs) and Composites	November 5-9, 2023
10.	Rohit Batra	2nd International Meeting on Energy Storage Devices (IMESD 2023) and Industry-Academia Conclave	-IMESD 2023	-December 8, 2023
11.	Ravi Kumar N V and Bhuvanesh Srinivasan	International Conference on Advanced Ceramics: Recent Developments and New Technologies.	Indian Institute of Technology Patna	February 15-17, 2024
12.	Surendra B Anantharaman	1st India Semiconductor and Packaging Ecosystem Conference (ISPEC 2024)	Mohali, Punjab	February 28-March 02, 2024
Training:				
1.	Rohit Batra	Materials Engineering - A Futuristic Approach	Faculty Development Program, Department of Mechanical Engineering, SSN College of Engineering	February 15, 2024

4.16.3.3. Special Lectures Delivered by the Faculty in Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Surendra Anantharaman	Opportunities in Two-dimensional Materials for Harvesting the Solar Energy	Neyveli Lignite Corporation	September 15, 2023
2.	V Sampath, G Swaminathan	Influence of Heating Mode on Cyclic Temperature Range of an Ni-Ti Shape Memory Alloy During Partial Transformation Cycling	10th International Conference on Materials Science and Nanotechnology for Next Generation (MSNG-2023), Turkey	September 27-29, 2023
3.	V Sampath	Shape Memory Alloys: Principles, Mechanisms and Applications	VIT University, Vellore	October 10, 2023
4.	V Subramanya Sarma	Advanced Characterization Techniques for Power Plant Material	Online Technical Programme, BHEL, Hyderabad	-November 15, 2023
5.	TS Sampath Kumar	Sustainable Bioceramics From Eggshell Waste	10th Anniversary of The International Conclave on Materials, Energy & Climate (ICMEC), Indira Gandhi Delhi Technical University for Women, Delhi	December 18-21, 2023
6.	Rohit Batra	Accelerating Materials Discovery Using Computations and Machine Learning	IIT Roorkee	December 08, 2023
7.	Ajay Kumar Shukla	Modeling Of Large Scale Industrial Reactors Involved In Iron/Steelmaking In An Innovative Way	SIPS2023-Assis International Symposium of Sustainable Iron and Steelmaking (Online)	November 30, 2023
8.	Ravi Kumar N V	AFS Technology on Ceramic Technology for Futuristic Mobility	Mahindra Research Valley/Mahindra Technical Academy	February 02, 2024
9.	M Balasubramanian	National Conference on Advances in Polymer Composites (APC 2024)	MIT Campus, Chrompet	February 24, 2024
10.	Bhuvanesh Srinivasan and Ravi Kumar N V	International Conference on Advanced Ceramics: Recent Developments and New Technologies	IIT Patna	February 15-17, 2024
11.	Tiju Thomas	New Materials for Industry and Medicine, Sponsored by DST-SERB and CSIR	PSGR Krishnammal College for Women	January 30-31, 2024
12.	Surendra B Anantharaman	Emerging Halide Perovskite Semiconductors for Harvesting the Solar Energy	International Conference on Advanced Ceramics: Recent Developments and New Technologies, IIT Patna	February 15-17, 2024

4.16.3.4. Honours and Awards Obtained By Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date Of Award
i. Honours:					
1.	Rahul Sathyanath and Sreeram K Kalpathy	Editor's Pick	Physics of Fluids - AIP Publishing	A Mathematical Model Based Investigation of Liquid Film Dewetting Over Porous Solid Substrates	2023
2.	Dr. Tiju Thomas	Chartered Scientist (CSci)	The Science Council (UK)	Interdisciplinary Scientific Leadership	2023

4.16.3.5. Fellowships of Academies and Professional Societies:

Sl. No.	Name of Fellowship	Name of Faculty	Year of Admission
1.	FIIM (Fellow of Indian Institute of Metals)	Uday Chakkingal	2021

4.16.4. Design and Development Activities:**4.16.4.1. New Facilities Added or Major Equipment Procured:**

Sl. No.	Name of Equipment
1.	Spin Arc Welding: Supported by CPRI/PM/R&D/RSOP/F-1
2.	JEOL JEM F 200 TEM Equipment
3.	Updated Rolling Mill
4.	High - Temperature Furnace Vacuum(2000oC)

4.16.5. Patents**4.16.5.1. Patents Filed:**

Sl. No.	Name of Faculty	Topic of Patent
1.	Sreeram K Kalpathy, Tiju Thomas, Vidhya K V	Polymeric Thin Film-based Heavy Transition Metal Detector

4.16.5.2. Patents Awarded:

Sl. No.	Name of Faculty	Topic of Patent
1.	Dr. Debductta Ray, Dr. P Swaminathan, Dr. L Neelakantan & Mr. Nitheesh M Nair	A Printable Transparent Wifi Antenna
2.	Dr. N V Ravi Kumar, Mr. Bansal Ankit & Mr. Chauhan Ojasvi	Ultrasonic Milling Machine. Inventors have been granted (Indian Patent number: 509345) 17/02/2023
3.	Dr. Ravi Kumar N V, B Lalith Kumar, Gobid Kumar	Stand-alone Miniature In-situ Multiaxial Universal Testing Equipment (ISMUTE). Inventors have been granted (Indian Patent number: 509570), 20/03/2020

4.16.6. Research and Consultancy:**4.16.6. 1. Sponsored Research Projects: (Ongoing & New)**

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in Lakhs)	Co-ordinators
1.	Stress-rupture Property Evaluation of Advanced Superalloys For Small Turbo Fan Engine (STFE) technologies	May 30, 2017-June 30, 2024	DRDO	436	Ravi Sankar K
2.	National Centre For Clean Coal Research And Development - WP8	September 13, 2018-September 12, 2024	Department of Science & Technology	117	Gandham Phanikumar Murugaiyan Amirthalingam
3.	National Centre For Clean Coal Research And Development - WP9	September 13, 2018-September 12, 2024	Department of Science & Technology	93	Sankaran S Gandham Phanikumar
4.	National Centre For Clean Coal Research And Development - WP6	September 13, 2018-September 12, 2024	Department of Science & Technology	23	Gandham Phanikumar Hari Kumar K C
5.	Enhancement of Creep Rupture, Hot Corrosion And Liquation Cracking Resistance of Alloy 617M Through Grain Boundary Engineering	October 11, 2018-September 26, 2024	Advanced Research Centre for Powder Metallurgy & Materials, International	272	Subramanya Sarma V Kamaraj M
6.	Combinatorial Design of Novel Rare-earth Free, High-entropy Based Permanent Magnets	June 01, 2018-May 31, 2024	Max Planck Institute for Nuclear Physics	66	Pradeep K G
7.	Silver Nanowire-Based Transparent And Flexible Tactile And Force Sensors	December 30, 2019-May 04, 2024	Ministry of Human Resource and Development	46	Parasuraman Swaminathan
8.	Fenton-process Adapted For Deactivation of Antimicrobial Resistant Genes And Antibiotic Removal Using Passivation-bypassed Fe-alloy, Rate-controlled Using Photo-activity	December 30, 2020-June 29, 2024	Department of Science and Technology	30	Tiju Thomas Indumathi Manivannan Nambi
9.	Fabrication of Nanostructured Copper Surfaces For Functional Applications	December 30, 2020-June 29, 2024	Science and Engineering Research Board	38	Manas Mukherjee Lakshman Neelakantan
10.	Non-noble Plasmonics And BaTaO ₂ -xNy/CuO Quantum Dot Heterostructure Based Photocatalysts For Tandem Grey Water Reactors	December 29, 2020-June 28, 2024	Science and Engineering Research Board	36	Tiju Thomas Indumathi Manivannan Nambi, CE Sreeram K. Kalpathy

11.	Fatigue Life Prediction Methodology For Additive Manufactured High Temperature Nickel Alloys with Process-Structure-Property Considerations	December 14, 2020-April 13, 2024	Science and Engineering Research Board	10	Sampath V
12.	IR Reflective Polymer/PCM Encapsulations for Rendering Perovskite Photovoltaics Environmentally Robust: Aging, Durability And Efficiency Studies Through Solar Simulations, Spectroscopy And ab initio Simulations	February 10, 2022-February 09, 2025	Department of Science & Technology	12	Tiju Thomas Sreeram K. Kalpathy
13.	Natural and Artificial Porous Materials Filled With Liquid And Solid Dielectrics	July 20, 2021-July 19, 2024	Department of Science & Technology	41	Ravi Kumar N V Dillip Kumar Satapathy-008521, PH
14.	Improvement in Stretch Flangeability of Sheet Metals For Automotive Applications	February 28, 2022-February 27, 2025	Science and Engineering Research Board	34	Uday Chakkingal Hariharan-008833, ME Murugaiyan Amirthalingam-008702, MM
15.	Linking Atomically Resolved 3D Local Structure with Synthesis Methods And Electronic Properties of MXenes: a New Class of 2D Energy Storage Material	March 04, 2022-March 03, 2025	Science and Engineering Research Board	45	Somnath Bhattacharyya
16.	Additive Manufacturing of Osteogenic and Infection Resistance Bone Tissue Engineering Scaffolds	December 15, 2021-December 14, 2024	Science and Engineering Research Board	10	Sankaran S
17.	Computation Driven Design of Entropy Stabilized Fluorite Structured Ceramics And Nanocrystalline Coatings	September 22, 2022-September 21, 2025	Department of Science & Technology	12	Hari Kumar K C Ravi Kumar N V-008275, MM
18.	Computation Driven Design of Entropy Stabilized Fluorite Structured Ceramics And Nanocrystalline Coatings	September 22, 2022-September 21, 2025	Department of Science & Technology	12	Hari Kumar K C Ravi Kumar N V-008275, MM
19.	High Performance Transition Metal Oxynitrides And Doped Rare Earth based Materials as Electrodes For Supercapacitors	March 09, 2022-March 08, 2025	Department of Science & Technology	30	Tiju Thomas
20.	Cold Spray Deposition of Driving Band For ERFB Projectile	February 17, 2023-February 16, 2025	Armament Research Board	68	Srinivasa Rao Bakshi Kamaraj M-005025, MM

21.	Correlative Microscopy of Grain Boundaries in NdFeB Magnets Decorated by Combinatorially Designed Low Melting Eutectics	December 01, 2022- November 30, 2024	Science and Engineering Research Board	22	Pradeep K G
22.	Combinatorial Design of Low-melting Eutectics For Grain Boundary Decoration Towards Development of Advanced Permanent Magnets	March 07, 2023-March 06, 2026	Science and Engineering Research Board	54	Pradeep K G
23.	Flexible Ceramic Fiber Based Triboelectric Nanogenerators For Wearable Smart Gadgets	March 15, 2023-March 14, 2026	Science and Engineering Research Board	56	Ravi Kumar N V
24.	Centre of Excellence on Molecular Materials And Functions	February 01, 2023-January 31, 2026	Ministry of Education	1860	Pradeep T Pijush Ghosh-008484, AM Sundargopal Ghosh-008224, CY Rajnish Kumar-008836, CH Sooraj K-009001, CY T Palaniselvam-009009, CY Tiju Thomas-008673, MM Yamijala S R K Chaitanya Sharma-008973, CY Vimal Edachery-009005, ME
25.	Atomistic Modelling And Materials Design	February 01, 2023-January 31, 2026	Ministry of Education	1081	Ranjit Kumar Nanda Satyesh Kumar Yadav-008837, MM Shantanu Mukherjee-008839, PH Tarak Kumar Patra-008958, CH Yamijala S R K Chaitanya Sharma-008973, CY Sooraj K-009001, CY Rohit Batra-009014, MM
26.	Optimization of The Post Build Heat Treatment Schedule to Achieve Balanced High Temperature Mechanical Properties While Mitigating Mechanical Anisotropy in Additively Manufactured Inconel 718	January 09, 2023-January 08, 2025	Indian Space Research Organisation	31	Ravi Sankar K Murugaiyan Amirthalingam-008702, MM Durga Janaki Ram Gabbita-008320, MM
27.	Development of Composite Compatible Mxene Ink For Future Generation Printed Electronics	November 01, 2023-October 31, 2025	Council of Scientific and Industrial Research	10	Somnath Bhattacharyya
28.	Development of Novel Technologies For The Production of Non-oxide Ceramic Filaments And Fibers Towards India's Strategic Self-reliance	February 22, 2024-February 21, 2025	Department of Science & Technology	41	Ravi Kumar N V Hari Kumar K C-008152, MM

29.	Shape Memory Polymeric Cryogels With Injectable CaP For Spinal Bone Regeneration	June 28, 2023-June 27, 2024	Department of Biotechnology	7	Balasubramanian M
30.	Studies on Optimization of Welding Process Parameters, Microstructure And High Temperature Properties of Spin Arc Weldments of P91 Steel	May 15, 2023-May 14, 2025	Central Power Research Institute	44	Srinivasa Rao Bakshi Kamaraj M-005025, MM
31.	Development of High-Entropy Alloy Coatings For Improved Cavitation And Silt Erosion Resistance of Hydroturbine Components	January 24, 2023-January 23, 2025	Central Power Research Institute	48	Kamaraj M Dhiman Chatterjee-008184, ME
32.	Inspire Fellowship for Ms. Durgambika Venkatachalam - MM21D053	April 01, 2022-March 31, 2027	Department of Science and Technology	9	Lakshman Neelakantan
33.	Atom Probe Tomography and Microscopy Conference 2023 (APT&M 2023), Belgium (September 17- - 21, 2023), Leuven, Belgium	January 22, 2024-July 21, 2024	Science and Engineering Research Board	2	Pradeep K G
34.	Integrated Photovoltaic-Thermoelectric Flexible Energy Harvesting Devices via Additive Manufacturing	January 23, 2024-January 22, 2026	Science and Engineering Research Board	33	Bhuvanesh Srinivasan
35.	Additive Manufacturing of Preceramic Molecular Precursors For The Fabrication of Complex Ceramic Components	January 17, 2024-January 16, 2026	Scheme for Promotion of Academic and Research collaboration	65	Ravi Kumar N V
36.	Green Steelmaking by Hydrogen Assisted Reduction of Iron Oxide	May 09, 2023-May 08, 2026	Science And Engineering Research Board	27	Ajay Kumar Shukla
37.	Capturing The Correlated Electric-field And Thermal Effects on Electronic Materials in Real-time: Augmented Modes of Functionality Tuning	January 20, 2024-January 19, 2026	Science And Engineering Research Board	30	Hemaprabha E
38.	Interface Engineered Zincophilic Surface For Dendrite-free High Performance Anodes For Rechargeable Zn-air Batteries	February 05, 2024-February 04, 2027	Science And Engineering Research Board	49	Ranjit Bauri
39.	AI-driven Materials Laboratory For Thin Films Process Optimization And Discovery	January 22, 2024-January 21, 2026	Science And Engineering Research Board	30	Rohit Batra
40.	Plasmonic Solar Distillation of Agro-Waste Contaminated Water and Sludge Valorization via Amorphous Carbon Production	June 20, 2023-June 19, 2026	Ministry of Education	73	Tiju Thomas Sreeram K. Kalpathy-008687, MM

41.	Portable Sensors With Cellphone Interfacing For Heavy Metal Detection in Water And Soil	June 20, 2023-June 19, 2026	Ministry of Education	54	Sreeram K. Kalpathy Tiju Thomas-008673, MM
42.	Process Modelling of The Manufacturing Process Leading to Turbine Blades of Single Crystal Nickel Base Superalloys And Titanium Alloy Components	October 11, 2023-October 10, 2027	Defense Research & Development Organization	79	Gandham Phanikumar

4.16.6.2. Industrial Consultancy Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Pradeep K G	Correlative Microscopic Analysis of Advanced Ceramics And Wear-resistant Tool Materials.	Carborundum Universal Ltd.imited	15
2.	Srinivasa Rao Bakshi	Testing And Characterization of Materials	Renault Nissan Technology & Business Centre India Pvt. Ltd.	25
3.	Pradeep K G	Microstructure Characterisation of Multi-layer Coating on Glass Substrate	Saint - Gobain India Pvt. Ltd.	7
4.	Subramanya Sarma V	SEM-EDS-EBSD Analysis of Automotive Materials	Stanadyne India Pvt. Ltd.	12
5.	Sampath V	Feasibility Study of Fe-Based Shape Memory Alloys as a Replacement for Steel Reinforcement in Structural Engineering	L&T Heavy Civil Infrastructure	6
6.	Sampath V	Feasibility Study on Fe-Based Shape Memory Alloys (SMA) as a Replacement for Steel Reinforcement in Structural Engineering	L&T Heavy Civil Infrastructure	7
7.	Srinivasa Rao Bakshi	Cold Spraying of Nb Alloys	Vikram Sarabhai Space Centre	5
8.	Murugaiyan Amirthalingam Hari Kumar K C-008152, MM	Testing of C-S And Gas Analysers	Common Code	17
9.	Murugaiyan Amirthalingam Ravi Sankar K-008309, MM Saravana Kumar G-008343, ED	Laser Powder Bed Fusion Additive Manufacturing Facility	Common Code	64
10.	Pradeep K G	Nanotechnology Laboratory	Common Code	5
11.	Pradeep K G	Correlative Microscopy Laboratory	Common Code	142

12.	Ravi Kumar N V	Laboratory For High Performance Ceramics	Common Code	5
13.	Sankaran S Mrs Kanchanamala-273, MM Somnath Bhattacharyya-008682, MM	Central Electron Microscopy Facility -Phase II	Common Code	60
14.	Pradeep K G	National Facility For Atomic Scale Materials Characterization Using Remotely Operable Atom Probe Tomography (NFAPT) Phase II	Common Code	59
15.	Murugaiyan Amirthalingam Hari Kumar K C-008152, MM	Testing of C-S And Gas Analysers	Common Code	5
16.	Murugaiyan Amirthalingam Ravi Sankar K-008309, MM Saravana Kumar G-008343, ED	Laser Powder Bed Fusion Additive Manufacturing Facility	Common Code	5
17.	Pradeep K G	Nanotechnology Laboratory	Common Code	5
18.	Pradeep K G	Correlative Microscopy Laboratory	Common Code	120
19.	Ravi Kumar N V	Laboratory for High Performance Ceramics	Common Code	5
20.	Sankaran S MRS Kanchanamala-273, MM Somnath Bhattacharyya-008682, MM	Central Electron Microscopy Facility -Phase II	Common Code	10
21.	Satyesh Kumar Yadav	Magnetron Sputtering Materials Design Lab	Common Code	100
22.	Ravi Sankar K Ganesh Sundara Raman-005008, MM Murugaiyan Amirthalingam-008702, MM	Electrical Discharge Machining (EDM) Phase II	Common Code	5
23.	Pradeep K G	National Facility For Atomic Scale Materials Characterization Using Remotely Operable Atom Probe Tomography (NFAPT) Phase II	Common Code	50
24.	Andrew Thangaraj Vignesh MuthuVijayan-008464, BT Niket Kaisare-008669, CH Ramkrishna Pasumarthy-008514, EE	Dun & Bradstreet BSc Scholarship	Dun and Bradstreet Technologies and Data Services Pvt. Ltd.	100
25.	Pradeep K G	Design and Development of Atom Resolving Microscope For Budding Material Scientists.	Inductotherm (India) Pvt. Ltd.	30
26.	Hari Kumar K C	Sandvik Scholarship	Alleima India Pvt. Ltd.Private Limited	57
27.	Murugaiyan Amirthalingam Saravana Kumar G-008343, ED	Right2Face 3D Print of Maxillofacial Reconstructive Implants For The Black Fungus-Infected Patients	Super Auto Forge Pvt. Ltd.Private Limited	10

28.	Tiju Thomas	Audio-tactile Graphic For Aiding STEM Education of Visually Impaired Students	Donors	64
29.	Ravi Kumar N V	RJR (Rishi and Jyotsna Raj) Center For Ultrafast Rate Materials Science And Manufacturing	Donors	1493

4.16.6.3. RBIC Projects: (Ongoing & New)

Sl.No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Pradeep K G	Combinatorial Alloy Design - Role of B and N on The High Temperature Stability And Mechanical Behavior of P91 Steel	Indira Gandhi Centre for Atomic Research	45
2.	Murugaiyan Amirthalingam Durga Janaki Ram Gabbita-008320, MM	Characterization of Nano-dispersive Austenite Containing Ferritic Steels With Resistance to Hydrogen Embrittlement	TATA Steel Ltd.	20
3.	Parasuraman Swaminathan Bobby George-008425, EE	Smart Windshield -Wireless Powering of Systems and Integration of Sensors And Displays	Saint Gobain India Pvt. Ltd. (Research and Development)	108
4.	Subramanya Sarma V Hari Kumar K C-008152, MM	Study on Non-metallic Inclusion (NMI) Evolution in Cr-Mo Grade and SAE 52100 Bearing Steel And Improving Steel Cleanliness	SLR Metaliks Ltd. imited	41
5.	Kamaraj M Srinivasa Rao Bakshi-008470, MM Dhiman Chatterjee-008184, ME	Development of Improved Silt and Cavitation Erosion Resistance Coatings For Hydro Turbine Components	Satluj Jal Vidyut Nigam (SJVN) Ltd. imited	26
6.	Somnath Bhattacharyya	Substructural Mapping of Defect Activity in IN 718 Creep Welds	Council Of Scientific And Industrial Research	3
7.	Pradeep K G	Atom Probe Tomography Measurement on Combinatorial Melt High Entropy Alloys	Indian Institute of Petroleum	35
8.	Sreeram K Kalpathy Baburaj A P-008214, AM	Morphology Prediction Maps For Coating of Colloidal Suspensions: Role of Wettability, Solvent Evaporation, Rheology, And Particle Size	Saint Gobain Research India Ltd.	20
9.	Manas Mukherjee Basavaraja Madivala Gurappa-008476, CH	Development of Porous Alumina And Porous Borosilicate Bricks	BMW Steels Ltd.	25
10.	Murugaiyan Amirthalingam Ravi Sankar K-008309, MM Saravana Kumar G-008343, ED	Additive Manufacturing of Forging Tooling, Heat Treatment Fixture And End Components - Part II	Super Auto Forge Pvt. Ltd.Private Limited	19
11.	Pradeep K G	Atom Probe Tomography Measurement on Metallic Samples	Liquid Propulsion Systems Centre	5

12.	Pradeep K G	Chemical Mechanical And Microstructural Characterisation of Metallic Samples	Liquid Propulsion Systems Centre	5
13.	Gandham Phanikumar Samuel G L-008197, ME	Simulation and Experimental Studies in Welding Processes MIG, Laser Welding And Laser-Hybrid For The Materials Such as Al-alloys And Automotive Steels to Understand Defects Such as Porosity And Spatter Formation	Ford Motor Pvt. Ltd.Private Limited	21
14.	Pradeep K G	Microscopic Characterization of Thin Film Coatings on Glass	Saint - Gobain India Pvt. Ltd.Private Limited	87
15.	Pradeep K G	Data Analysis And Interpretation of Atomic Scale Microscopy Results	Common Code - Consultancy	59
16.	Satyesh Kumar Yadav	Study of Thin Film Interfaces During Heat Treatment Process For NiCr Stack	Saint - Gobain India Pvt. Ltd.Private Limited	4
17.	Sreeram K Kalpathy Bhuvanesh Srinivasan-009010, MM	Formulation and Testing of Inks for Digital Printing	Rajdeep Digital Prints LLP	12
18.	Surendra Babu Anantharaman	Characterization of Finding The Suitability of Lignite/Humic Acid For Semiconductor Applications	Neyveli Lignite Corporation India Ltd.imited	41
19.	Murugaiyan Amirthalingam Saravana kumar G-008343, ED Sreeram K. Kalpathy-008687, MM	Consultancy And Testing of Indigenous Binder Jetting AM Sand Printer	Galvano Track Solutions Pvt. Ltd. Private Limited	28
20.	Murugaiyan Amirthalingam	Metallurgical Understanding of Defects Formation in Gold Jewels.	Vispark Jewellery Manufacturers Private	6
21.	Murugaiyan Amirthalingam Ravi Sankar K-008309, MM Saravana kumar G-008343, ED	Additive Manufacturing of Bevel Gear Dies And Induction Coils	IM Gears Pvt. Ltd. Private Limited	16

4.16.6.4. Retainer Consultancy: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Murugaiyan Amirthalingam	Retainer Consultancy Services for Metal Additive Manufacturing Technology Development	Galvano Track Solutions Pvt. Ltd.	11

4.16.7. Faculty Members Participation With Other Institutions Under MoU:

Sl. No.	Name of Faculty	Participation Details	Name of University/Institution Which has MoU
1.	Prof. N V Ravi Kumar	Rishi and Jyotsna Raj Centre for Ultra-fast Materials Science and Manufacturing	IISc, Bangalore, and IIT, Patna

4.16.8. Distinguished Visitors to the Department:

Sl.No.	Name of the Visitor and Designation	Purpose of Visit
1.	Dr. R Balamuralikrishnan, Director, Defence Metallurgical Research Laboratory (DMRL), Hyderabad	Prof. EG Ramachandran Distinguished Lecture (11th Series)
2.	Prof. Madhav Prasad Ghimire, Tribhuvan University, Nepal	Research Collaboration
3.	Dr. Hari P Dahal, American Physical Society, USA	Research Collaboration
4.	Prof. Jean-François Halet, Research Director, CNRS, France	Research Collaboration
5.	Prof. Max Lemme, Chair of Electronic Devices from RWTH Aachen University and CEO of AMO GmbH, Aachen.	XXII International Workshop on Physics of Semiconductor Devices (IWPSD), Research Park, IIT Madras.
6.	Prof. Dr. rer. net. Branko Matovic, Head of Centre for Excellence for the Synthesis, Processing, and Characterization of Materials at Extreme Conditions, Institute of Nuclear Science, Belgrade University, Serbia	Research Collaboration
7.	Prof. Sanjay Mathur, Director of Inorganic and Materials Chemistry, University of Cologne, Germany	Research Collaboration
8.	Prof. Ing. Peter Tatarko, Institute of Inorganic Chemistry, Bratislava, Slovak Republic	Research Collaboration
9.	Mr. Aleksa Lukovic, (Doctoral Student) Institute of Nuclear Science, Belgrade University, Serbia	Research Collaboration
10.	Prof. Femi Olu and an Intern from Jimma University, Ethiopia.	Research Collaboration

4.16.9. Other Activities of the Department/Centre:**Results Obtained in Research Work (From M.S. & Ph. D. Thesis) of the Scholar/Faculty**

- Mr. Chiptalluri M Omprakash has explored the prediction of creep behavior of ni-base superalloy based on continuum damage mechanics approach
- Mr. Dasari Mohan did a study about the accelerated simulation of solidification of multicomponent alloys using phase-field approach
- Mr. Ramakrishnan R investigated the atomistic simulation studies on solidification of ni-based binary alloys
- Mr. Melwin Sajan probed the phase transformation and hot deformation behaviour of boron added hot stamping grade steels
- Mr. Rahul Bhattacharya looked into the effect of cr and al on phase constitution and high temperature oxidation behaviour of al-co-cr-fe-ni high entropy alloys
- Mr. Agilan M looked into the welding and weldability studies on 2195 al-cu-li alloy
- Mr. Nischay Kaushik G investigated the effect of zr and zro₂ on microstructure, mechanical properties and corrosion behaviour of ods9cr steels
- Ms. Swathi E probed the photoresponsive properties of azo-polyurea and its blends with potential use in light-assisted patterning
- Mr. Georgy Kurian K did a study about the optimisation of aluminium alloys for foaming using magnesium blowing agent
- Ms. Kamini probed the fretting wear and sliding wear studies on surface modified ti6al4v
- Mr. Abrar Salam Ebrahim explored investigation of effect of hole edge quality on stretch flangeability of a dual phase steel
- Mr. Karna Sivaji looked into the experiments and simulations on welding of haynes 282 alloy using gtaw and lbw
- Mr. Ramit Kaushik investigated the fretting fatigue behaviour of su-718 alloy
- Ms. Meghna Narayanan probed the direct writing of reactive powders based on electroless nickel deposition on pure aluminium powders
- Mr. Sachin Kumar investigated anodised aluminium oxide template synthesis of cu-pd nanowires for functional application

4.17. Department Of Ocean Engineering

4.17.1. Introduction:

The Ministry of Education and Social Welfare, as per the decision of Council of Indian Institute of Technology, established the Ocean Engineering Centre of IIT Madras in 1977 based on the recommendation of the committee headed by Dr Y Nayudamma. The Department is to act as a Centre of Excellence for advancing the frontiers of science and to provide breakthrough technology and develop education and training programmes in the field of Ocean Engineering. A national advisory committee consisting of the representatives of the then Ministry of Education and institutions such as Council of Scientific and Industrial Research (CSIR), University Grants Commission (UGC), Department of Science &

Technology (DST), Oil and Natural Gas Corporation (ONGC) and Engineers India Limited (EIL), other IITs and user industries with the Director, IIT Madras as the chairman monitored the progress of the Department over the years. A review committee headed by Prof. M G K Menon also reviewed the progress of the Department in 1982, and its recommendation has since been implemented towards progress of the Department as an independent Centre of Excellence. Ever since, several peer reviews were done and recommendations were implemented. The last review of the Department was done in 2013. The recommendations of this review have also been implemented by the Department.

4.17.2. Academic Programmes:

B.Tech. and M.Tech. (Dual Degree) in Naval Architecture and Ocean Engineering, B.Tech. and M.Tech. (Dual Degree) in Naval Architecture and Applied Mechanics, M.Tech. in Offshore Structures

(before Ocean Engineering), M.Tech. in Ocean Technology - UoP (MoES), M.Tech. in Petroleum Engineering, M.S. and Ph.D. in Ocean Engineering (OE) and Petroleum Engineering (PE).

4.17.2.1. New Courses Introduced:

Sl. No.	Course No.	Title
1.	OE5530	Fire Resistant Design of Structures

4.17.2.2. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024:

Programme	I Year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	68	71	63	44	9	255
Dual Degree	-	-	3	2	7	12
M.Tech.	44(OE-33, PE-11)	33(OE-26, PE-7)	1			78
M.S.	7	10	7	3		27
Ph.D.	14	18	21	13	60	126
Total	133	132	95	62	76	498

4.17.2.3. Endowment Prize Instituted:

Sl. No.	Name	Roll No.	Conference	Topic	Award
1.	N Lokesh	(OE19S026)	ICOE 2023 RWTH Aachen University, Germany	Reliability-based Method for Assessment of Fatigue Life of Cracked Tubular Joints	Best Student Paper Award

2.	A Renugadevi	(OE19D203)	OMAE 2023 Melbourne University, Australia	System Reliability Assessment of jacket Structures Using Fault Tree Analysis Method	Outreach Scholarship Award
3.	S Karthikeyan	(OE18D004)	OMAE 2023 Melbourne University, Australia	CFD Simulation of Vortex-induced Vibration of a Flexible Riser With Buoyancy Module Under Uniform Flow Using a Two-way Coupled Model	Outreach Scholarship Award
4.	K Srithar	(OE19D752)	OMAE 2023 Melbourne University, Australia	Hydrodynamic Response Analysis of Ultra-deep Water FPSO System Using Ansys, Aqwa, Wamit and HydRA	Outreach Scholarship Award
5.	Pranitha Bachimanchi	(OE18D701)	OMAE 2023 Melbourne University, Australia	Damage Analysis of OC4 Jacket Under Fatigue Loading by Peridynamic Approach	Outreach Scholarship Award
6.	Soumyashreepani	(OE19D751)	OMAE 2023 Melbourne University, Australia	Motion Response Study of the Floating Dock During the Spar Platform	Outreach Scholarship Award
7.	M Gokulakrishnan	(OE18D020),	ISOPE 2023 Conference	ISOPE Student Award - \$1000 During ISOPE 2023 Conference	ISOPE Student Award

4.17.2.4. Names of Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/Seminar/Symposia/Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Vijay Lakshmi T	OE21D019	Possibility of Tidal Farms for the Gulf of Kutch, 42nd International Conference on Ocean, Offshore & Arctic Engineering	June 11 - 16, 2023. Australia	PMRF
2.	Prashant Kumar	OE21D008	Proceedings of the 15th European Wave and Tidal Energy Conference	September 03 - 07, 2023. Bilbao	Institute Fund
3.	Hitaish	OE18D005	Proceedings of the 15th European Wave and Tidal Energy Conference	September 03 - 07, 2023. Bilbao	
India					
1.	B.Kesavakumar		Geophysical Fluids Lab Workshop and Discussion Meeting	January 5 - 12, 2024	
2.	Vamsi Krishna Kande		In-house Symposium of SCORE	December 21, 2023	
3.	Karthick M, Sandhani GH, Vimalathitthan S		In-house Symposium of SCORE	December 21, 2023	

4.	Ghorai, B, Koorn, N.J Keetels & G.H.		Paper Presentation: Understanding the Soil Mechanical Response of Tickler Chain – Seabed Interaction for Beam Trawl Fishing Gears, Proceedings in the 5th European Conference on Physical Modelling in Geotechnics (Currently Under Review, Manuscript No. ECPMG2024-24)	October 02 – 04, 2023. Delft, The Netherlands	
5.	Ghorai, B, Tiano, J, Molenaar P, Soetaert K, & Keetels G		Predicting the Penetration Depth and Towing Resistance of Beam Trawl Fishing Gears in Sand, Marine Georesources & Geotechnology, Taylor & Francis (Manuscript Id 235969055, Currently Under Review)		
6.	Vimalathitthan, Karthick Murugan, Gouse Sandhani Chavapati, Dilipkumar J, Rajkumar VVS, and Vijay Prakash K		Research Expedition on Sagar Tara Ship to Explore the Optical Characteristics of the Arabian Sea, Guide: Prof. Shanmugam P Team: Ocean Optics & Imaging Laboratory, Department of Ocean Engineering, IIT Madras	February 07 – 20, 2024	
7.	Vimalathitthan, Karthick Murugan, Sai Sudha, Dilipkumar J, RajkumarVVS, and Vijay Prakash K		Research Expedition in Cochin Backwaters to Study Optical Properties of Coastal Water Body, Guide: Prof. Shanmugam P Team: Ocean Optics & Imaging Laboratory, Department of Ocean Engineering, IIT Madras	March 07 – 15, 2024	
8	Vijay Lakshmi T	OE21D019	Exploring Deep Learning Methods for Solving the Navier Stokes Equation: A Review, 7th International Conference on Ship and Offshore Technology	December 08 – 09, 2023. IIT Kharagpur, India	PMRF
			India's Tidal Energy Sustainability, World Ocean Science Congress	February 27 – 29, 2024. India	
9.	Avinash	OE21D011	International Conference on Thermal Fluid and System Design at BIT, Mesra, Ranchi 2024	April 04 – 05, 2024. Ranchi	Institute Fund

4.17.2.5. Names of Students/Scholars Who Won Outside Prizes and Awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Vijay Lakshmi T	OE21D019	Best Paper Award: India's Tidal Energy Sustainability	World Ocean Science Congress, February 27 – 29, 2024. India
2.	Suman Kumar	OE22D012	Best Oral Presentation Award: Wave Powered Maritime Surveillance System	International Workshop on Ocean Energy – Recent Trends 2023
3.	Prashant Kumar	OE21D008	Best Presentation Award: International Workshop on Ocean Energy – Recent Trends 2023	October 30 – 31, 2023. IIT Madras

4.	Suman Kumar	OE22D012	Best Presentation Award: International Workshop on Ocean Energy - Recent Trends 2023	October 30 - 31, 2023. IIT Madras
5.	Kondeti Vijay Prakash	OE20D750	Best Paper Award: Seasonal Analysis of Ocean Heat Content in the Ice-covered Arctic Ocean	February 27 - 29, 2024. WOSC-2024, Chennai,
6.	Kesavakumar B	OE19D204	Best Paper Award: Performance of SMAP Sea Surface Salinity During Extreme Conditions Using Moored Observations in the Bay of Bengal and Arabian Sea	February 27 - 29, 2024. WOSC-2024, Chennai, India

4.17.2.6. Name of Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl. No.	Name	Roll Number	Programme	Prize Name
1.	Kalash Jain	NA19B040	B. Tech.	American Bureau of Shipping Prize
2.	Aaradhy Sirothia	NA18B008	Dual Degree	Goodearth Shipbuilding Pvt. Ltd. Prize
3.	Anurag Vishwakarma	PE21M005	M. Tech.	Institute Merit Prize
4.	Borsutkar Visharad Jaydas	NA18B102	Dual Degree	Class NK - 100 Award
5.	Abirami H	NA18B107	Dual Degree	Class NK - 100 Award & Vedam Design Award
6.	Sony Lambada	OE21M034	M. Tech.	American Bureau of Shipping Prize
7.	Nadikoppula Durga Rao	OE21M025	M. Tech.	Prof. K A V Pandalai Prize
8.	Anurag Vishwakarma	PE21M005	M. Tech.	R R P Sinha & Vimla Devi Prize
9.	Harish S	OE16D203	Ph.D.	Prof. Vallam Sundar Prize

4.17.3. Faculty and Their Activities:

4.17.3.1. Faculty:

Name and Qualifications	Major Area of Specialisation (Only 3 Areas)
Professor	
Prof. S Nallayarasu : [Head]	Analysis and Design of Offshore Structures, Wave Structure Interaction, Hydrodynamic Response of Spar Hulls, Damping Elements in Floating Systems
Prof. K Murali	Computational Hydrodynamics, Sediment Transport and Dredging, Multiphase Flows
Prof. S A Sannasiraj	Wave-structure Interaction, Breaking Waves, Numerical Modelling of Nonlinear Wave Propagation, 1. Climate Change Adaptation of Coastal Infrastructures
Prof. Rajiv Sharma	Analysis, Design and Production of Marine Structures, Modelling and Simulation, Fluid Mechanics for High Pressure and Temperature
Prof. Srinivasan Chandrasekaran	Nonlinear Dynamic Analysis of Offshore Structures, Earthquake-resistant Analysis and Design of Structures, Base-isolated Structures, Semi-active Damping Devices for Response Control of Structures, Wave Energy Devices
Prof. P Shanmugam	Oceanography, Coastal Zone Management, Ocean Optics and Imaging, Satellite Oceanography / Ocean Remote Sensing, Radiative Transfer Modelling and Algorithm Development

Prof. R Panner Selvam	Stochastic Modelling and Simulation Analysis, System Identification, Nonlinear Dynamical Fluid Structure Systems - Applications in Ocean and Wind Engineering
Prof. P Ananthakrishnan	Water Wave Mechanics, Ship Hydrodynamics, Dynamical Oceanography, Ocean Energy Conversion, Air-Sea Interaction, Hydro-Elasticity, Numerical Methods for Nonlinear Wave-Body Interaction Problems, Computational Ocean Acoustics
Prof. Abdus Samad	Renewable Energy, Marine Energy, Wave Energy, Tidal Energy, Fluid machinery, Turbomachinery Design Optimisation, Computational Fluid Dynamics
Prof. G Suresh Kumar	Fluid Flow Through Fractured Reservoirs, Non-Isothermal Single and Multi-Phase Fluid Flow, Thermal/Chemical/Biological Enhanced Oil Recovery, Fluid Flow Through Shale Gas Reservoirs, Pressure Transient Analysis: Fractured Reservoirs, Onshore Oil Spill, Offshore Oil Spill, Hydraulic Fracturing, Shale Gas Production, Coal Bed Methane Production, Groundwater and Contaminant Transport, Fractured Geothermal Reservoir
Prof. Nilanjan Saha	Offshore Wind and Wave Energy, Dynamics Of Offshore Structures, Extreme Value Statistics and Fatigue, Nonlinear Methods in Ocean Engineering, Offshore Soil-Structure Interaction, Stochastic Processes, Filtering and Identification
Dr. V Sriram	Computational Hydrodynamics Wave Structure Interactions, Experimental Hydrodynamics, Extreme Waves, Flooding
Dr. Rajesh R Nair	Petroleum: Geomechanics, Fracturing and Recovery Process, Geostatistics for Reservoir Modelling and Seismic Characterisation and Near Surface Geophysics Including Ground Penetrating Radar Data Analysis and Seismic Refraction
Associate Professor	
Dr. R Vijayakumar	Green Ship Initiatives, Ship-Helo Interactions, Hydro-Acoustic Analysis
Dr. Deepak Kumar	Structural Dynamics, Random Vibration, Nonlinear Dynamics, Stochastic Control and Stability, Time-Frequency Domain Analysis, Structural Dynamics Experiments
Dr. Tarun K Chandrayadula	Underwater Acoustics, Signal Processing, Propagation Modeling
Dr. Suresh Rajendran	Numerical Modelling of Fluid-Structure Interaction, Nonlinear Ship Dynamics and Hydrodynamics, Hydroelasticity, Maneuvering in Waves, Parametric Rolling of Ships
Assistant Professor	
Dr. Abhilash Sharma	Autonomous Vessels, AI for Autonomy, Hydrodynamics
Dr. K. Narendran	Experimental and Computational Hydrodynamics Marine Renewable Energy Fluid and Wave-Structure Interaction
Dr. K G Vijay	Fluid-Structure Interaction Wave Energy Converters Floating Offshore Wind Turbines
Dr. Arjun Jagannathan	Ocean Modelling, Naval Architecture, Hydrodynamics, Turbulence, Numerical Methods, Computational Fluid Dynamics
Dr. Poguluri Sunny Kumar	Nonlinear Wave-Body Interaction, Wind, Wave, and Current Energy Conversion (Ocean Renewable Energy), Waves with Porous Membrane
Dr. Bithin Ghorai	Marine Geotechnics, Foundation Systems for Offshore Renewables, Bottom Trawl Geotechnics, Large Deformation Modelling, Seabed Ploughing, Soil-Structure Interaction

4.17.3.2. Short-term Courses, Workshops, Seminars, Symposia, Conferences Organised by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Workshop:			
1.	Prof. Sannasiraj S A	Organised an Indo - German Transfer Workshop on Coastal Hazards and Climate Resilient Coastal Structure	September 29 - 30, 2023
		MTS Techsym 2023	October 28 - 29, 2023
2.	Prof. Abdus Samad and Dr. Narendran Kumar	International Workshop on Ocean Energy - Recent Trends	October 30 - 31, 2023
3	Prof. A Samad	International Workshop on Emerging Technologies in Air Purification	April 01 - 02, 2024
Short Term Course:			
1.	Prof. Nallayarasu S	Port and Harbour Engineering	December 26 - 30, 2023

4.17.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, Training Attended by the Faculty Members in Academic Institutions and Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution	Period
Workshop:				
1.	Prof. Suresh Kumar G	External Examiner	IIT Guwahati	May 12, 2023
2.	Prof. Suresh Kumar G	Reviewer - Research Proposal under CSIR-Human Development Group - Extra Mural Research-II Scheme (April 2023)	CSIR	April 2023
3.	Ocean Engineering Department	Water Security and Climate Adaptation WSCA	Department of Ocean Engineering and Department of Civil Engineering	October 04 - 07, 2023
4.	Ocean Engineering Department	International Workshop on Ocean Energy - Recent Trends	Department of Ocean Engineering IIT Madras	October 30 - 31, 2023
5.	Prof. Abdus Samad and Dr. Narendran Kumar	International Workshop on Ocean Energy - Recent Trends	IIT Madras	October 30 - 31, 2023
6.	Prof. Sannasiraj S A	Chief Guest for MoES Sponsored Three Days National Workshop on Geospatial and Cutting Edge Technologies for Coastal Protection Measures at The Centre for Remote Sensing and Geoinformatics	Sathyabama Institute of Science and Technology	January 29, 2024
Seminar:				
1.	Prof. Suresh Kumar G	Fluid Flow Through Porous Media: Basics of Modeling, Department of Chemical Engineering	IIT Guwahati	May 12, 2023
		Fluid Flow Through Petroleum Reservoirs: Basics of Modeling	UPES - Dehradun	April 01, 2023
		Petroleum Reservoirs: Basics of Reservoir Simulation	DIT University, Dehradun-	April 01, 2023

2.	Prof. Sannasiraj S A	Keynote Talk: Data Driven Wind-Wave Modelling for Wave Hindcasting and Forecasting, HYDRO 2023 International Conference	NIT Warrangal	21-23 December 21 - 23, 2023
Symposia:				
1.	Prof. Sannasiraj S A	Lecture: Rehabilitation of Marine Structures	SERC, Taramani	August 30, 2023
Conference:				
1.	Prof. Sannasiraj S A	NCCR RAC Board Meeting	NCCR RAC, Cuttack	September 04, 2023
		Chief Guest	Sairam Engineering College	September 06, 2023
2.	Prof. Sannasiraj and Prof. Ligy Philip, CE	Water Security and Climate Adaptation (WSCA 2023)	IIT Madras	October 04 - 07, 2023
3.	Mr. Santosh Kumar B, Prof. Sannasiraj S A, Prof. Murali K	Climate Change Impact on Aging Coastal Infrastructure - Philosophy and Methodology of Assessment, International Conference on Condition Assessment, Rehabilitation & Retrofitting of Structures (CARRS 2023)	IIT Hyderabad	December 10 - 13, 2023
4.	Prof. Abdus Samad and Dr. Suresh Rajendran	Exploring Deep Learning Methods for Solving the Navier-stokes Equation: A Review, Proceedings of the 7th International Conference on Ship and Offshore Technology (ICSOT 2023)	IIT Kharagpur	December 08 - 09, 2023
5.	Prof. Sannasiraj S A	Chaired a Technical Session During HYDRO 2023 International Conference	NIT Warrangal	21-23 December 21 - 23, 2023
Training:				
1.	Prof. Abdus Samad	Wave Energy Converter (Sindhuja 1) Second Sea Trial at Vizag Port,	IIT Madras and VPE joint test via JDA	IIT Madras

4.17.3.4. Special Lectures Delivered by the Faculty in Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Dr. Suresh Rajendran	Invited Talk: Data-driven Controller Based on Reinforcement Learning for Ship Path Following and Collision Avoidance, Marine Robotics School	National Institute of Oceanography (NIO), Goa	November 24, 2023
2.	Prof. Sannasiraj S A	Delivered Lectures: (1) Coastal Disasters and Mitigation (2) Numerical Modelling of Extreme Waves and Storm Surge, Workshop on Modeling and Mitigation of Disaster Events Using CFD	NITT	March 20 - 26, 2024
3.	Mr. Dilipkumar J, Prof. Shanmugam P	Paper Presentation: Novel Multi-Satellite Based Assessment of the Coastal Water Quality: An Operational Approach for Continuous Monitoring	World Ocean Science Congress (WOSC 2024), Chennai	February 27 - 29, 2024

4.	Mr. Vimalathitthan S, Prof. Shanmugam P	Paper Presentation: Revolutionising Ocean Observation: Advancing Oceanic Understanding and Conservation Through UAV Hyperspectral Remote Sensing	World Ocean Science Congress (WOSC 2024), Chennai	February 27 - 29, 2024
5.	Mr. Vijay P K, Prof. Shanmugam P	Paper Presentation: Seasonal Analysis of Ocean Heat Content in the Ice-Covered Arctic Ocean	World Ocean Science Congress (WOSC 2024), Chennai	February 27 - 29, 2024
6.	Mr. Karthick M, Prof. Shanmugam P	Paper Presentation: An Ensemble Machine Learning Model for Turbidity Estimation Using Landsat 8 OLI in Chilika Lagoon, India	World Ocean Science Congress (WOSC 2024), Chennai,	February 27 - 29, 2024
7.	Mr. Kesavakumar B, Prof. Shanmugam P, Mr. Arul Muthiah M	Paper Presentation: Performance of SMAP Sea Surface Salinity During Extreme Conditions Using Moored Observations in the Bay of Bengal and Arabian Sea	World Ocean Science Congress (WOSC 2024), Chennai	February 27 - 29, 2024
8.	Mr. Sandhani C G, Prof. Shanmugam P, Prof. Sannasiraj S A	Paper Presentation: Measurement of Microplastics Size Distribution Using a Scanning Electron Microscope	World Ocean Science Congress (WOSC 2024), Chennai	February 27 - 29, 2024
9.	Ms. Vijaya Lakshmi T, Prof. Abdus Samad	Poster Presentation: India's Tidal Energy Sustainability	World Ocean Science Congress, India	February 27 - 29, 2024
10.	Mr. Avinash, Prof. Abdus Samad	Poster Presentation: In-house Symposium at Center For Innovation, 2024; Poster Presentation: All India Research Scholar Summit, 2024	IIT MADRAS	
11.	Prof. Abdus Samad, Ms. Vijaya Lakshmi T	Poster Presentation: Tidal Farms for Gulf of Kutch - Analysis with AI, In-house Symposium at Center For Innovation, 2024	IIT MADRAS	
12.	Prof. Abdus Samad, Ms. Vijaya Lakshmi T	Poster Presentation: A Strategic Proposal of Tidal Stream Farm in the Gulf of Kutch, All India Research Scholar Summit, 2024	IIT MADRAS	
13.	Prof. G Suresh Kumar	Role of Oil & Gas Industries During Global Energy Transition	RGIPT, Rais, Amethi	April 03, 2024
14.	Prof. G Suresh Kumar	Fundamentals of Multi-Phase Fluid Flow Through Petroleum Reservoirs	UPES, Dehradun	March 12, 2024
15.	Prof. G Suresh Kumar	Fundamentals of Petroleum Reservoir Simulation	DIT, Dehradun	March 12, 2024

4.17.3.5. Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Prof. Sannasiraj S A	Vienna, Austria	August 20 - 24	IAHR Main Congress and IAHR APD Executive Committee Meeting, August 20 - 24, 2023	-
2.	Prof. Sannasiraj S A	Melbourne, Australia	November 15 - 20, 2023	4th Melbourne-India Postgraduate Academy Conference (MIPAC-23), University of Melbourne	

3.	Dr. Suresh Rajendran	China	October 24, 2023	Invited Talk: International Cooperation Conference on Industry-Education-Research-Application Sub-forum of Green and Intelligent Technologies of Ships and Ocean Engineering, Harbin Engineering University	-
4.	Prof. Srinivasan Chandrasekaran	Italy	September 15 - December 15, 2023	Visiting Professor	University of Naples Federico II, Italy
5.	Prof. Srinivasan Chandrasekaran	Thailand	January 05 - April 30, 2024	Visiting Professor	Kasetart University, Sriracha Campus, Thailand
6.	Prof. V Sriram	Germany		DFG Mecator Professorship	Leibniz University of Hannover, Germany

4.17.3.6 Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Awards:					
1.	Prof. Sannasiraj S A	IIT Madras Sustainability Champion Award	IIT Madras	Outreach Activities in Sustainability	October 26, 2023
2.	Prof. Abdus Samad	IIT Madras Sustainability Champion Award	IIT Madras	Outreach Activities in Sustainability	October 26, 2023

4.17.3.7. Fellowships of Academies and Professional Societies:

Sl. No.	Name of Faculty	Year of Admission
Humboldt Fellowship:		
1.	V Sriram	2011

4.17.3.8. Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1.	Rajiv Sharma	Editor	Journal of Offshore Structure and Technology (JoOST) published by STM Journals.
2.	V Sriram	Member	Ocean Engineering
3.	K Murali	Member	Journal of Hydro-environmental Research
4.	Abdus Samad	Editor	Journal of Umm Al-Qura University for Engineering and Architecture

4.17.4. Patents:**4.17.4.1. Patents Filed:**

Sl. No.	Name of Faculty	Topic of Patent
1.	Prof. Vijayakumar R	System and Method for Strain Measurement for Underwater Composite and Flexible Propellers
2.	Prof. Srinivasan Chandrasekaran	A Device for Harvesting Energy and a System Thereof
3.	Prof. Srinivasan Chandrasekaran	A Functionally Graded Material (fgm) Stiffened Coped Beam Used in Offshore and Heavy Industrial Structures
4.	Prof. Srinivasan Chandrasekaran	Offshore Platform With Missile Launcher
5.	Prof. Srinivasan Chandrasekaran	Power Take-off Mechanism Configurable in a Wave Energy Harvesting Device
6.	Prof. Murali K	A System and Method for Measuring Real-Time Meteorological and Oceanographic Data Using a Buoyage Network
7.	Prof. Sannasiraj S A	Indopod Armour Block for Resisting Wave Action
8.	Dr. Suresh Rajendran, Dr. Abhilash Sharma Somayajula	A System and Method for Autonomous Marine Navigation
9.	Prof. Nallayarasu S	Damping Device for Spar Structure

4.17.3.2 Patents Awarded:

Sl. No.	Name of Faculty	Topic of Patent
1.	Prof. Rajesh R Nair	Composition of Drilling Fluid and Method Useful in Drilling Boreholes in Water Sensitive Formations
2.	Prof. Rajesh R Nair	The Method of Implementation of Versa Fracking in Oil and Gas Wells
3.	Prof. Anantha subramanian v	Method and System for Controlling of Fleet of Ship Hydrodynamic Models/Surface Vehicles Over Wi-fi
4.	Prof. Rajesh R Nair	Unified Versa Fracking Device for Enhanced Recovery From Conventional Reservoirs, Hydrates, and Shales
5.	Prof. Anantha subramanian v	Bubble Diverter Bow for Bottom Sonar Transducer Equipped Oceanographic and Research Vessels
6.	Prof. Rajesh R Nair	Unified Fracking Device for Enhanced Recovery From Conventional Reservoirs, Hydrates and Shales Using Shock Waves
7.	Prof. Sannasiraj S A	Highly Efficient Wave Energy Converter
8.	Prof. Sannasiraj S A, Prof. K Murali, Prof. V Sundar, Prof. V Sriram	Method and System Providing Data Modeling for One or More Zones in a Marine Domain
9.	Prof. Jitendra S Sangwai	System and Method for Recovering Energy or Minerals From a Reservoir
10.	Prof. Srinivasan Chandrasekaran	A System for Harnessing Wave Energy
11.	Prof. Srinivasan Chandrasekaran	A Marine Riser Having a Functionally Graded Material (fgm) Layers and a Method of Manufacturing Thereof
12.	Prof. Rajesh R Nair	High Energy Fracking Device for Focused Shock Wave Generation for Oil and Gas Recovery Applications
13.	Prof. Sundar V, Prof. V Sriram	Semi-circular Breakwater Integrated With Oscillating Water Column Device

4.17.4. Research and Consultancy:

4.17.4.1. Sponsored Research Projects: (Ongoing & New)

Sponsored Projects List - Overall projects							
Sl. No.	Project Number	Title	Agency Name	Start Date	Close Date	Sanction Value (Rs. In lakhs)	Coordinator
1.	SP232416790 ENRBX008975	Oscillating Buoy Integrated into a Pile-Supported Floating Breakwater for Sustainable Renewable Power Generation	Naval Research Board	August 23, 2023	August 22, 2026	44.89	Dr. Vijay K G
2.	SP232418660 ENRBX008868	Development of Algorithm for Cooperative Guidance, Navigation and Control of Heterogenous Marine Vehicles	Naval Research Board	October 12, 2023	October 11, 2025	46.50	Dr. Suresh Rajendran
3.	SP232418700 ESERB008975	Oscillating Buoy Integrated into an Existing/New Breakwater for an Eco-Friendly Green Energy Port	Science and Engineering Research Board	August 16, 2023	October 15, 2025	16.58	Dr. Vijay K G
4.	SP232421720 EDSTX008455	Optimisation of a Helical Hydrokinetic Turbine for India's Perennial Streams	Department of Science and Technology	December 05, 2023	December 04, 2025	10.65	Prof. Abdus Samad
5.	NA	O2H - Ocean Water to Hydrogen	Exploratory research grant, IIT Madras	April 01, 2023	April 31, 2024	9.0	Prof. Abdus Samad
6.	SP232422060 EMOES008460	Field Study on Offshore Wind Energy Off Rameswaram Coast Using Semi-Submersible with Truncated Mooring Lines to Simulate Deepwater	Ministry of Earth Sciences, New Delhi	January 01, 2024	December 31, 2025	596.50	Prof. Nilanjan Saha
7.	SP232423610 ESPAR008130	Present & Future of Indian Ecosystem for Blue Economy	Scheme for Promotion of Academic and Research Collaboration	January 31, 2024	July 30, 2024	8.00	Prof. Murali K

4.17.4.2. Industrial Consultancy projects: (on going & new)

Consultancy Projects				
Sl. No.	Faculty	Project Title	Agency Name	Sanction Value (in Lakhs)
1.	Prof. Nallayarasu S	Expert Services in the Ongoing Arbitration Proceedings for Construction of Outer Harbour, Project Varsha	Navayuga Engineering Company Ltd.	47.20
2.	Prof. Nallayarasu S	Preparation of Detailed Project Report for Modification to Existing Shallow Water Berth for Berthing of 45,000 DT Cargo Vessels	Nhava Sheva Distribution Terminal Pvt. Ltd.	59.00
3.	Prof. Sannasiraj S A	Re-design of Groyne Cross Sections in Amabalapuzha, Kattoor, Nellanickal and Ottamassery in Alappuzha District	Kerala Irrigation Infrastructure Development Corporation Ltd.	5.90
4.	Prof. Nallayarasu S	FEA & Fire Analysis for NOA TEG Module	Nov Process and Flow Technologies AS	57.94
5.	Prof. Nallayarasu S	Feasibility Report for Coastal Berth at Manki Under Sagarmala Scheme, Karnataka	Ports And Inland Water Transport Department	42.48
6.	Prof. Nallayarasu S	Fatigue, Fire/Blast and Vibration analyses of Primary Structure for Valhall Project	Nov Process and Flow Technologies AS	78.59
7.	Prof. Nilanjan Saha	Design, Supply, Installation, Commissioning Operation and Maintenance of Navapur Inline Booster Pumping Station for Effluent Disposal Marine Outfall in Sea 7.1km at Navapur Coast; Technical Opinion About Feasibility of Booster Pumping Station	Maharashtra Industrial Development Corporation	28.32
8.	Prof. Sannasiraj S A	Proof Checking the Interface Proposal Project - SP Design	Larsen & Toubro Ltd.	5.90
9.	Prof. Sannasiraj S A	Independent Third-Party Review for Improvement of Kakinada Anchorage Port Facilities Under Sagarmala Program	Ándhra Pradesh Maritime Board	21.24
10.	Prof. Nilanjan Saha	Repairs of Oil Jetty 6 Structure at Kandla	Indian Oil Corporation Limited, Kandla Foreshore Terminal	48.38
11.	Prof. Nilanjan Saha	Vetting of Concrete Pontoon Design & Issuing the Final Approval for the Same for Kochi Water Metro Project	Sealine Marine Services India	6.49
12.	Prof. Nallayarasu S	Development of Area Approach Plan using PM Gatishakti National Master plan (NMP) for Deendayal Port Region	Deendayal Port Authority	59.00
13.	Prof. Nallayarasu S	Pre-Feasibility Study for Development of Deep-water Port in Atlanta Bay at Diglipur and North Andaman Island, and Development of A&N Islands as Regional Ship Construction/Repair Hub in Indo-Pacific Region	Port Management Board	23.60
14.	Prof. Nallayarasu S	FEA Analysis of Module Support and Joints of NOA SRU Module	Nov Process & Flow Technologies Malaysia SDN BHD	16.57

15.	Prof. Nallayarasu S	Review and Vetting of Additions and Alterations by PPP Operator for Upgradation/ Modernisation of MICT	Mumbai Port Authority	35.40
16.	Prof. Nallayarasu S	Freespan Correction Design for Subsea Pipeline	Petro6 Engineering and Construction Pvt. Ltd.	12.76
17.	Prof. Nallayarasu S	Project Management Consultancy Services (PMC) During the Pre-award Stage for Capital Dredging Work for Proposed Container Terminal at Tuna Tekra of Deendayal Port Authority	Deendayal Port Trust	53.10
18.	Prof. Nilanjan Saha	Preparation of Tender Document and Tender Schedule for Desilication Work of Ferry Route in Chilika Lake	Chilika Development Authority	20.64
19.	Prof. Nallayarasu S	Verification of Existing Structure for Berthing and Mooring of 170,000 Displacement Container Vessels at Existing Berth of GTI at JN Port	Gateway Terminals India Pvt. Ltd.	23.60
20.	Prof. Vijayakumar R	Hull Development and CFD Analysis of NGMV Project	Cochin Shipyard Ltd.	10.41
21.	Prof. Sannasiraj S A	Improvements to Vanagiri Fish Landing at Mayiladuthurai District	Executive Engineer Fishing Harbour Project Division Nagapattinam	10.62
22.	Prof. Nilanjan Saha	Coastal Protection Study for Periyannayaki Street, Melmidalam and Kovalam to Enayam Village of Kanyakumari District	Anti Sea Erosion Division Nagercoil	11.80
23.	Vijayakumar R	Equipment and Test Setup for MATSYA 6000	National Institute of Ocean Technology	147.50
24.	Prof. Nallayarasu S	Detailed Design and Project Management Services for the Construction of Breasting Dolphins at OSTT, Visakhapatnam	Visakhapatnam Port Authority	118.00
25.	Prof. Nilanjan Saha	Construction of FLC Study Report Nagapattinam Division	Executive Engineer Fishing Harbour Project Division Nagapattinam	1.18
26.	Prof. Nilanjan Saha	Vetting of Design & Drawing	Coastal Marine Construction & Engineering Ltd.	2.95
27.	Prof. Nilanjan Saha	Shore Protection Studies at Kuttiyandiur Village	Executive Engineer Fishing Harbour Project Division Nagapattinam	10.62
28.	Prof. Nilanjan Saha	Project Management Consultancy Services (PMC) for Dock Zone of Haldia Dock Complex - Drainage Network	Syama Prasad Mookerjee Port, Kolkata	40.12
29.	Prof. Murali K	Setting up of Large-scale Flume at Thaiyur Under the IoE Scheme & Setting Up of Research Fellowships at the Ph.D. Level	International Seaport Dredging Pvt. Ltd.	29.26
30.	Prof. Nallayarasu S	Versova-Virar Sea Link Project - Hydrodynamic Mathematical Model Study	Mumbai Metropolitan Region Development Authority	101.95
31.	Prof. Nilanjan Saha	Project Management Consultancy Services (PMC) for Dock Zone of Haldia Dock Complex - Wind Screen	Syama Prasad Mookerjee Port, Kolkata	29.50

32.	Prof. Nilanjan Saha	Project Management Consultancy Services (PMC) for Dock Zone of Haldia Dock Complex - Rehabilitation and Repair of Old & Damaged Fendering System	Syama Prasad Mookerjee Port, Kolkata	21.24
33..	Prof. Nilanjan Saha	Project Management Consultancy Services (PMC) for Dock Zone of Haldia Dock Complex - Road and Allied Networks	Syama Prasad Mookerjee Port, Kolkata	13.28
34.	Prof. Nilanjan Saha	Independent Engineer Services for Goplapur	Gopalpur Ports Ltd.	35.40
35.	Prof. Nilanjan Saha	Shore Protection Measures to Protect the State Highway Along Neerodi - Erayumanthurai and Puthenthurai	Highways Department	35.40
36.	Prof. Sannasiraj S A	Physical Model Study of Cantilever Promenade-II	Larsen & Toubro Ltd. Construction	85.02
37.	Prof. Sannasiraj S A	Proof Check for the Design of Coastal Protection Works Along Muthalappozhi Coast	Kerala Infrastructure Investment Fund Board	36.57
38.	Prof. Sannasiraj S A	Planning and Design of Bait Curve at North Pamban in Ramanathapuram District	Fishing Harbour Project Division	18.88
39.	Prof. Vijayakumar R	Hydrodynamic Model Testing of Vessels Designed by MDL	Mazagon Dock Ship Builders Ltd.	1054.01
40.	Prof. Nallayarasu S	Upgradation of Fender for Cargo Berth No. 1 to 6 at Kandla	Deendayal Port Authority	70.80
41.	Prof. Sannasiraj S A	Advice to KIIFB During the Execution of Coastal Protection Works in Kerala	Kerala Infrastructure Investment Fund Board	15.15
42.	Prof. Nilanjan Saha	Consultancy Service for Improvements to the Fish Landing Centre with Bait Arch at Keezha Kadiyapattanam in Kanniyakumari District	Fishing Harbour Project Division	14.16
43.	Prof. Nilanjan Saha	Clarification of Design and Issue of GFC Drawings for the Project, Provision of 03 Lane Slipway 500 Ton Capacity at Port Blair	RKEC Projects Ltd.	7.08
44.	Prof. Nallayarasu S	Detailed Project Report (DPR) for Protection and Development of Indira Point Lighthouse, Great Nicobar, Andaman & Nicobar Islands	Directorate General of Lighthouses and Lightships	23.60
45.	Prof. Sannasiraj S A	2D and 3D Wave Flume Studies for the Design of Breakwaters	Vishwa Samudra Engineering	38.35
46.	Prof. Nilanjan Saha	Erection and Commissioning of Two Ferry Crafts in Chilika Lake at Satapada and Bhabanipur	Chilika Development Authority	15.34
47.	Prof. Nilanjan Saha	Modernisation and Upgradation of Fishing Harbour at Visakhapatnam Port	Visakhapatnam Port Authority	94.40
48.	Prof. Nallayarasu S	Detailed Design for the Construction of New Approach Trestle to Cuddalore Marine Terminal	Chemplast Sanmar Ltd.	53.10
49.	Prof. Vijayakumar R	CFD study for MPV	Larsen & Toubro Ltd.	20.06
50.	Prof. Nilanjan Saha	Proof Checking Marine Studies Carried Out for the Green Field Port at Suvali, Gujarat	Arcelormittal Nippon Steel India Ltd.	37.00
51.	Prof. Nilanjan Saha	Construction of 4 MLD Water Treatment Plant at HDC	Syama Prasad Mookerjee Port, Kolkata	107.97

52.	Prof. Sannasiraj S A	Proof Checking the Design and Drawings for Precast Arrangement of Open-pile Structure for Ship Yard Facility at Pandu, Guwahati	L&T Geo Structure Pvt. Ltd.	17.70
53.	Prof. Nallayarasu S	Preparation of Offshore S/S & Export Cable Layout, Specifications, BoQ, Cost Estimate for Wind Power Evacuation System	Power Grid Corporation of India Ltd.	95.58
54.	Prof. Nilanjan Saha	Upgradation of Fish Landing Centre at Chinnangudi Village	Executive Engineer Fishing Harbour Project Division Nagapattinam	23.60
55.	Prof. Nilanjan Saha	Preparation of Detailed Project Report for Remodeling of Temporary Jetty, at Dhamara and Talchua District for Berthing of RORO Vessel	Ports and Inland Water Transport	34.52
56.	Prof. Nilanjan Saha	Marine Dockyard in Port Blair South Andaman -Redesign of Crane Track Beam	Andaman Lakshadweep Harbour Works	3.54
57.	Prof. Nilanjan Saha	FLC at AnnaiNagar & Mela - Kadiyapattinam	Fishing Harbour Project Division	70.80
58.	Prof. Nallayarasu S	Mathematical Model Study for Identifying Dumping Location for Dredged Material at Kamorta in A&N Island	Andaman Lakshadweep Harbour Works	11.80
59.	Prof. Nallayarasu S	Mathematical Model Study for Identifying Dumping Location for Dredged Material at Campbell Bay in A&N Island	Andaman Lakshadweep Harbour Works	11.80
60.	Prof. Nallayarasu S	Detailed Engineering for CSL-Kolkata Ship Repair Unit (CKSRU), Kolkata	Cochin Shipyard Limited	41.30
61.	Prof. Sannasiraj S A	Proof Check for the Design of Parappanangadi Fishing Harbour	Kerala Infrastructure Investment Fund Board	40.36
62.	Prof. Sannasiraj S A	Proof Check for the Design of Chethy Fishing Harbour	Kerala Infrastructure Investment Fund Board	40.36
63.	Prof. Rajesh R Nair	Carrying out Synthetic Aperture Radar (SAR) Data Analysis on the Oil Spill Detection at Ennore Creek, Chennai	Chennai Petroleum Corporation Ltd.	19.91
64.	Prof. Vijayakumar R	Model Testing of Ancient Stitched Boat	Hodi Innovations (OPC) Pvt. Ltd.	35.40
65.	Prof. Sannasiraj S A	IWAI Floating Jetty Design Vetting Along with Approval for Pontoon Design Calculation and Mooring Calculation	West Coast Marine Yacht Services Pvt. Ltd.	11.80
66.	Prof. Sannasiraj S A	Physical Model Study of Breakwaters	JSW Jatadhar Marine Services Pvt. Ltd.	60.18
67.	Prof. Nallayarasu S	Preparation of Feasibility for International Cruise Terminal at Hazira	Deendayal Port Trust (Kandla Port Trust)	29.50
68.	Prof. Sannasiraj S A	Detailed Project Report for Construction of Bait Curve at Thangachimadam Fish Landing Centre in Ramanathapuram District	Fishing Harbour Project Division	19.47
69.	Prof. Sannasiraj S A	Construction of Bait Curve at Amalinagar Fish Landing Centre in Thoothukudi District	Fishing Harbour Project Division	24.78
70.	Prof. Sannasiraj S A	Construction of an Integrated Fish Landing Centre at Nemmelikuppam in Chengalpattu District	Executive Engineer Fishing Harbour Project Division Chennai	16.52
71.	Prof. Nallayarasu S	Detailed Engineering for (Secondary Steel) Scarborough MRU & PWT Module Project	Nov Process and Flow Technologies AS	6.23

72.	Prof. Nilanjan Saha	Design Work for Extension of Bait Arch at Perumanal, Kootapuli and Roachmanager	Fishing Harbour Project Division	87.32
73.	Prof. Sannasiraj S A	Wave Study and Suggesting Suitable Wave Attenuation System for Proposed Floating Solar PV Plant in the Rihand Reservoir, Sonebhadra, Uttar Pradesh	NTPC Green Energy Ltd.	23.60
74.	Prof. Sannasiraj S A	Project Management Consultancy for the Construction of Seawall	Military Engineer Services - 2024	19.98
75.	Prof. Murali K	Online Dredging Monitoring System for Mumbai Port Authority for Three Years Period	Mumbai Port Authority	13.77
76.	Prof. Nallayarasu S	Preparation of Techno-Commercial Feasibility Report for Expansion of Existing Ro-pax Facility at Prince's Dock	Mumbai Port Authority	29.50
77.	Prof. Nallayarasu S	Preparation of Feasibility Study and Detailed Project Report for Redevelopment of Jetties 1, 2, 3, 4, Wet Basin and DC Jetty at Entrance Channel of Visakhapatnam Port	Visakhapatnam Port Authority	82.60
78.	Dr. Suresh Rajendran	Reviewing The Design Aspects of Autonomous Surface Vehicle	Cochin Shipyard Ltd.	34.22
79.	Prof. Nallayarasu S	Detailed Design, Drawings, Estimates, Tender and Monitoring Work for Modification to Existing Piperack Structures from BPCL Jetty (LB-1&2- Ch 0.0) to Tank Farm at Plot 14/15	Ganesh Benzoplast Ltd.	101.24
80.	Prof. Nilanjan Saha	Modernisation & Extension of Jetty for Existing FLC at Bahabalpur in Balasore District	Executive Engineer, Fishery Engineering Division, Bhubaneswar	29.50
81.	Prof. Deepak Kumar	Numerical Analysis and Simulation of Mooring System for a Buoy Suspended Sensor Surveillance System	Naval Physical and Oceanographic Laboratory (NPOL)	9.91
82.	Prof. Nilanjan Saha	Project Management Consultancy Services for Ropax Jetty and Allied Infrastructure Connecting Kaninali and Talachua	Executive Engineer (Civil) Ports & Iwt South Division Berhampur	100.89
83.	Prof. Nilanjan Saha	Design of Breakwaters, Diaphragm Wall at Kulai Fishing Harbour, New Mangalore	Sri Pathy Associates Pvt. Ltd.	23.60
84.	Prof. Nallayarasu S	Detailed Design, Drawings, Estimates, Tender and Monitoring Work for Modification to Existing Piperack Structures from BPCL Jetty (LB-1&2- Ch 0.0) to Tank farm at Plot 14/15 - Part 2	Sea Lord Containers Ltd.	14.28
85.	Prof. Nallayarasu S	Detailed Design, Drawings, Estimates, Tender and Monitoring Work for Modification to Existing Piperack Structures from BPCL Jetty (LB-1&2- Ch 0.0) to Tank Farm (as per Approved DFR by JNPA) - Part 3	Frigorifico Allana Pvt. Ltd.	14.24
86.	Prof. Abdus Samad	Feasibility Study of Hydraulic Type Tidal Energy Harvesting System	Ankur Fertilizer Pvt. Ltd.	2.14

4.17.5. Distinguished Visitors to the Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Command - Dr. Shishir Shrotriya, Dy Director General, QAP (Navy)	August 29, 2023	Discuss Various Aspects Including an MOU
2.	Visit of Andreas Motzfeldt Kravik of Norway's Deputy Foreign Minister	November 24, 2023	Department Visit
3.	Dr. Nuno Fonseca Chief Scientist, SINTEF, Trondheim, Norway	December 13, 2023	Deliver Lecture
4.	Prof. Siddharth Narayan, East Carolina University	December 20, 2023	Deliver Lecture
5.	Professor Firoz Alam, RMIT Australia	January 31 - February 01, 2024	Deliver Lecture
6.	Dr. Carmo Quadros, Institute of Shipbuilding Technology	November 01, 2023	Deliver Lecture
7.	Visitors to the Department from South Korea Dr. Choon-Man Jang and Dr. Sand Moon Lee	November 06, 2023	Department Visit

4.17.6. Other Activities of the Department/Centre:

4.15.6.1. Scholars' Communion of Ocean Research and Engineering Score Held on December 21, 2023

4.17.6.2. Faculty Visit

Sl. No.	Name of the Faculty Member	Purpose of Visit	Date & Venue
1.	Dr. Sunny Kumar Poguluri	Outreach Program	March 06, 2024. JNTUH, Hyderabad
2.	Dr. Bithin Ghorai	Outreach Program	March 27 - 31, 2024. Coimbatore Institute of Technology (CIT), Civil Engineering

4.17.6.3. Student Visit

Sl. No.	Name of the Students	Purpose of Visit	Date & Venue
1.	Tamil Nadu Government School Students from Various Districts	Visited to OE Wave Basin	May 31, 2023
2.	IIEPE Students, Chennai	Visited to OE Wave Basin	May 18, 2023
3.	B. Tech. Student Technical Visit to Kamarajar Port (M.Tech. OE2)	Technical Visit	September 10, 2023
4.	Visit by Government School Students	Education Purpose	October 05, 2023
5.	School Students from the Colorado Academy USA	Visit of Department LAB	January 10, 2024
6.	Satabda Chaudhuri	Update Meeting for TSP Raeng Project, Queen Mary University, London	December 15 - 30, 2023

4.18. Department of Physics

4.18.1. Introduction:

The Department of Physics was established in 1959. The Department conducts research in many frontier areas in the sylvan campus of IIT Madras.

4.18.2. Academic Programmes:

The Department of Physics offers a variety of programmes. It offers the undergraduate programme B.Tech. (Engineering Physics) in coordination with the Department of Electrical

Engineering, three master's programmes namely, Dual Degree (B.S.+ M.S.), M.Sc., IDDD in Quantum Science and Technology, and M.Tech. programmes in Physics as well as the regular doctoral research (Ph.D.) programme.

4.18.2.1. Students on Roll as of September 2023 and M.S. & Ph.D. Admission in January 2024

Programme	I year	II Year	III Year	IV Year	V Year & Others	Total
B.Tech.	46	47	35	30	4	162
Dual Degree	11	14	12	17	18	72
M.Sc.	55	50	-	1	-	106
M.Tech.	9	9	-	-	1	19
Ph.D.	32	36	19	35	44+28	194
Total	153	156	66	83	95	553

4.18.2.2. Student/Scholar Who Attended Conference, Seminar, and Symposia in India and Abroad:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/ Seminar/ Symposia/ Workshop	Date and Venue	Financial Assistance From
Abroad					
1.	Subitan Laskar	PH20D031	MRS Fall Meeting and Exhibit, Boston, USA,	November 26 – December 01, 2023	IIT Madras
2.	Manab Mandal	PH19D035	FLATLANDS beyond Graphene 2023	September 24, 2023. Prague, Czech Republic	IIT Madras
3.	Manab Mandal	PH19D035	19th European Conference on Thermoelectrics	September 17 – 21, 2023. Prague, Czech Republic.	Own/Self
4.	Akshara Dadhich	PH19D055	19th European Conference on Thermoelectrics	September 17 – 21, 2023. in Prague, Czech Republic	IIT Madras
5.	Akshara Dadhich	PH19D055	International Workshop on Advanced Materials Challenges and Standardization Need for Net Zero Technologies (AMCSNZT-2023)	October 09 – 10, 2023. National Physical Laboratory, New Delhi	IIT Madras
6.	Santosh Dasila	PH17D039	13th International Conference on Metamaterials, Photonic Crystals, and Plasmonics	July 18 – 21, 2023. Ecole Nationale Supérieure d'Arts et Métiers, Paris	IIT Madras
7.	Asapu Vinaya Kumar	PH18D021	E-MRS Spring Meeting,	May 29–June 02, 2023. France	IIT Madras
8.	Debjyoti Biswas, Sourav Dutta	PH19D008, PH19D205	International Conference on Quantum Error Correction (QEC 23)	October 30 – November 03, 2023	IIT Madras

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/ Seminar/ Symposia/ Workshop	Date and Venue	Financial Assistance From
9.	Divyajyoti	PH19D057	LIGO-Virgo-KAGRA March Meeting	March 11 – 14, 2024. Louisiana State University, Baton Rouge, USA	IIT Madras
10.	Kaushik Paul	PH19D018	LIGO-Virgo-KAGRA March Meeting	March 11 – 14, 2024. Louisiana State University Baton Rouge, USA	IIT Madras
11.	Mobasir Ameen	PH19D032	CMS Data Analysis School	October 09 – 18, 2023. DESY, Germany	Exchange Visit
12.	Samadhan Kamble	PH20D753	CMS Data Analysis School	October 09 – 18, 2023. DESY, Germany	PMRF
13.	Samadhan Kamble	PH20D753	Operations and Computing Meeting, CMS	October 02 – 06, 2023	PMRF
14.	Anusree Vijay	PH22D032	CMS Data Analysis School	October 09 – 18, 2023. DESY, Germany	Project
15.	Ganapati Dash	PH21D050	CMS Data Analysis School	June 05 – 10, 2023. Geneva, Switzerland	Project
16.	Shanmuga Priya K	PH17D202	15th International Meeting on Ferroelectricity (IMF-2023)	April 10, 2023. Tel Aviv, Israel	IIT Madras
17.	Shanmuga Priya K	PH17D202	Electroceramics for End Users XII 2023 (ECUXII 2023)	November 01 – 04, 2023. United Kingdom	SERB
18.	Sarath N V	PH17D033	European Materials Research Society - Spring Meeting	May 29–June 02, 2023. France	IIT Madras
19.	Manu Mohan	PH17D004	Joint European Magnetic Symposia 2023	August 27 – September 01, 2023. Madrid, Spain	SERB
20.	Suvashis Maity	PH18D024	Astroparticle Symposium 2023	October 23 – November 06, 2023. Institut Pascal, Université Paris-Saclay, Orsay, France	IoE Research Centre for Strings, Gravitation and Cosmology, Indian Institute of Technology Madras, Chennai
21.	Devan C M	PH19D016	EMRS	September 2023. Warsaw University, Poland	IIT Madras
22.	Mitali Madhusmita Prusty	PH18D052	Poster presentation on Magnetic and Magnetocaloric Properties of Arc-melted and Melt-spun Laves Phase Intermetallic Compound TbNi _{1.5} Fe _{0.5} in the IEEE International Conference on Magnetism (INTERMAG 2023)	– May 15 – 19, 2023. Sendai, Japan	IIT Madras

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/ Seminar/ Symposia/ Workshop	Date and Venue	Financial Assistance From
23.	Lavudya Devendar	PH17D044	11th International Conference on Materials for Advanced Technologies (ICMAT 2023)	June 26 – 30, 2023. Suntec City, Singapore	IIT Madras
24.	Akash Mohapatra	PH16D001	11th International Conference on Materials for Advance Technologies (ICMAT 2023).	June 26 – 30, 2023. Suntec City, Singapore	IIT Madras
25.	Buddhadeb Debnath	PH17D027	CMQM2023	June 25 – July 02, 2023	IIT Madras
26.	Anirban Das	PH18D020	Conference on Fractionalization and Emergent Gauge Fields in Quantum Matter	November 29, 2023. ICTP, Trieste, Italy	IIT Madras
27.	Aishwarya Chauhan	PH18D022	Conference on Fractionalization and Emergent Gauge Fields in Quantum Matter	December 04 – 08, 2023. ICTP, Trieste, Italy	IoE Funds
28.	Hari Prasad B J	PH20D010	Conference on Fractionalization and Emergent Gauge Fields in Quantum Matter	December 04 – 08, 2023. ICTP Trieste, Italy	IoE Funds
29.	Sourin Chatterjee	PH19D011	Conference on Fractionalization and Emergent Gauge Fields in Quantum Matter	December 04 – 08, 2023. ICTP, Trieste, Italy	IoE Funds
30.	Renu Yadav	PH18D046	International Conference on Materials for Advanced Technologies	June, 2023. Singapore	IIT Madras
31.	Ramesh Rajarapu	PH18D049	International Conference on Materials for Advanced Technologies	June, 2023. Singapore	IIT Madras
32.	P K Jesla	PH18D059	Oral Presentation on Large Low Field Magnetocaloric Effect in Multicomponent Laves Phase Intermetallic Compounds $Gd_{0.33}Dy_{0.33}Ho_{0.33}Al_2$, $Tb_{0.33}Ho_{0.33}Er_{0.33}Al_2$ and $Dy_{0.33}Ho_{0.33}Er_{0.33}Al_2$ in the IEEE International Conference on Magnetism (INTERMAG 2023) Conference, Sendai, Japan.	May 15 – 19, 2023. (Virtual)	IIT Madras
India					
1.	Manab Mandal	PH19D035	14th International Conference RPGR 2023	November, 20 2023. IISC Bangalore	IIT Madras
2.	Raghunath Sahoo	PH19D024	International Conference on Energy Conversion and Storage	June 21 – 23, 2023. Amrita Vishwa Vedyapeetham, Coimbatore	IIT Madras

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/ Seminar/ Symposia/ Workshop	Date and Venue	Financial Assistance From
3.	Debojyoti Ray Chawdhury	PH21D014	Photonics 2023	July 05 – 09, 2023. IISc Bangalore	IIT Madras
4.	Sugandh Sirohi	PH20D752	Photonics 2023	July 05 – 09, 2023. IISc Bangalore	IIT Madras
5.	Tulika Agarwal	PH18D010	Photonics 2023	July 05 – 09, 2023. IISc Bangalore	IIT Madras
6.	Debojyoti Ray Chawdhury	PH21D014	7th In-house Physics Symposium	October 27 – 28, 2023. IC & SR, IIT Madras	
7.	Sugandh Sirohi	PH20D752	7th In-house Physics Symposium	October 27 – 28, 2023. IC & SR, IIT Madras	
8.	Debojyoti Ray Chawdhury, Sugandh Sirohi, Shouvik Choudhury, Krishna Yadav	PH21D014, PH20D752, PH19D201, PH23D081	International Conference on Material Processing Using Lasers, and Surface Engineering (IMPULSE) 2023	December 14 – 15, 2024. IIT Madras	IIT Madras
9.	Debojyoti Ray Chawdhury	PH21D014	Workshop On Recent Advances in Photonics (WRAP) 2023	December 07 – 09, 2023. IIIT Allahabad	IIT Madras
10.	Sugandh Sirohi, Dr. Shruti Narayanan	PH20D752, PH22R007	Women in Optics and Photonics in India, Conference 2023	January 02 – 03, 2024. IIT Madras	
11.	Debjyoti Biswas, Sourav Dutta	PH19D008, PH19D205	Condensed Matter Meets Quantum Information	September 25–October 06, 2023	IIT Madras
12.	Soham Bhattacharya	PH23R002	ICGC, 2023	December 06 – 09, 2023. IIT Guwahati	IIT Madras
13.	Shanmuga Priya K	PH17D202	International Conference on Thin Films & Nanotechnology: Knowledge, Leadership, & Commercialization (ICTN-KLC 2023)	July 06 – 08, 2023. IIT Madras	IIT Madras
14.	Shouvik Sarkar	PH22D020	Workshop on Advanced 21-cm Cosmology	December 18 – 21, 2023. NISER Bhubaneswar,	CoE Fund
15.	Sagarika Tripathy	PH17D025	Remembering Amal Kumar Raychaudhuri	October 05 – 07, 2023. The Institute of Mathematical Sciences, Chennai	
16.	Suvashis Maity	PH18D024	Young Researchers' Gravity Meeting	September 14 – 15, 2023. Chennai Mathematical Institute, Chennai	
17.	Suvashis Maity	PH18D024	The 10th International Conference on Gravitation and Cosmology	December 06 – 09, 2023. IIT Guwahati	IIT Madras
18.	Dinesh Kumar S	PH18D027	ICTN	July, 2023. IIT Madras	IIT Madras
19.	Dinesh Kumar S	PH18D027	IWPSD	December, 2023. IIT Madras	Project
20.	Dinesh Kumar S	PH18D027	Department Symposium	October, 2023, IIT Madras	IIT Madras
21.	Aminakutty N	PH19D200	ICTN	July, 2023. IIT Madras	IIT Madras
22.	Aminakutty N	PH19D200	WOPI	January, 2024. IIT Madras	
23.	Jyoti Agarwal	PH22D063	IWPSD	December, 2023. IIT Madras	IIT Madras

Sl. No.	Name of the Student/Scholar	Roll No.	Name of the Conference/ Seminar/ Symposia/ Workshop	Date and Venue	Financial Assistance From
24.	Jyoti Agarwal	PH22D063	WOPI	January, 2023. IIT Madras	IIT Madras
25.	Jyoti Agarwal	PH22D063	Department Symposium	October, 2023. IIT Madras	IIT Madras
26.	Laxman Singh	PH22D052	IWPSD	December, IITM	IIT Madras
27.	Laxman Singh	PH22D052	Department Symposium	October, 2023. IIT Madras	
28.	Devan C M	PH19D016	IWPSD	December, 2023. IIT Madras	Project
29.	P K Jesla	PH18D059	Poster Presentation on Nature of the Magnetic Transition in Multicomponent Intermetallic Compound Dy _{0.33} Ho _{0.33} Er _{0.33} Al ₂ , ICC 2023	October 09 – 10, 2023. , Government Engineering College, Bikaner, Rajasthan (Virtual)	IIT Madras
30.	Abhaya Prasada Mohapatra	PH20D035	Poster Presentation on Effect of Hydrogenation on the Structural and Magnetic Properties of Rare Earth intermetallic Compounds Tb _{0.33} Ho _{0.33} Er _{0.33} Ni and Dy _{0.33} Ho _{0.33} Er _{0.33} Ni, International Conference on Magnetic Materials and Applications (ICMAGMA 2023)	December 04 – 06, 2023. Ramoji Film City, Hyderabad.	IIT Madras
31.	P K Jesla	PH18D059	Poster Presentation on Crystal Structure and Magnetism of Gd _{1-x} Y _x Ni (x = 0, 0.5, 0.75, 1) Rare Earth Intermetallic Compounds, DAE – Solidstate Physics Symposium (DAE-SSPS 2023)	December 20 – 24, 2023. Gandhi Institute of Technology and Management (GITAM) Visakhapatnam, Andhra Pradesh	IIT Madras
32.	P Suchismita Behera	N-PDF	Poster Presentation on Investigation of Magnetocaloric Effect in Polycrystalline Spinel oxide ZnFe ₂ O ₄ , DAE-SSPS 2023	December 20 – 24, 2023. GITAM, Visakhapatnam, Andhra Pradesh	IIT Madras
33.	Bubunu Biswal	PH19D002	IWPSD	December, 2023. IIT Madras	Department
34.	Ramesh Rajarapu	PH18D049	Recent Progress in Graphene and 2D Materials Research	November, 2023	Department
35.	Shipra Das	PH21D066	International Conference on Magnetic Materials and Applications 2023	December 04 – 06, 2023. Hyderabad	IIT Madras

4.18.2.3. Students/Scholars Who Won Outside Prizes and Awards:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prize	Prize Awarded By
1.	Athrey C D	PH17D022	Best Thesis Award in Energy Materials (Abayambal and Natarajan Award 2023)	Department of Physics, IIT Madras
2.	Raghunath Sahoo	PH19D024	Best Oral Presentation	2nd International Conference on Energy Conversion and Storage (ICECS-2023). Amrita Vishwa Vidyapeetham, Coimbatore
3.	Raghunath Sahoo	PH19D024	Best Poster Presentation	Advanced Functional Materials and Devices (AFMD 2024). SRMIST, Chennai
4.	Debojyoti Ray Chawdhury	PH21D014	Best Oral Presentation Award	PHOTONICS 2023 Organizing Committee. IISc Bangalore in Collaboration With Springer
5.	Debojyoti Ray Chawdhury	PH21D014	Best Paper Presentation Award	International Conference on Material Processing Using Lasers, and Surface Engineering (IMPULSE) 2023. IIT Madras
6.	Sugandh Sirohi	PH20D752	Best Paper Presentation Award	International Conference on Material Processing Using Lasers, and Surface Engineering (IMPULSE) 2023. IIT Madras
7.	Sugandh Sirohi	PH20D752	Special Price in the Poster Presentation	Women in Optics and Photonics in India Conference 2023 Organizing Committee
8.	Mobassir Ameen	PH19D032	Best poster presentation	CMS Data Analysis School, DESY, Germany
9.	Aminakutty N	PH19D200	NTU India Connect Fellowship	NTU India Connect Program
10.	Lavudya Devendar	PH17D044	Best Poster Prize	International Conference on Thin Films and Nanotechnology - Knowledge Leadership Commercialization (ICTN-KLC 2023), IIT Madras
11.	Anirban Das	PH18D020	Best Poster Award	Spectroscopy of Novel Superconductor Conference, IISc Bangalore
12.	Sasank Budaraju	PH21D850	Best Poster Prize	Workshop on Quantum Monte Carlo Methods at Work for Describing Novel States of Matter, . International Centre for Theoretical Physics
13.	Bubun Biswal	PH19D002	Best Poster Award	IWPSD
14.	Prahalad Kanti Barman	IPDF	Nature Springer Best Poster Award	International Conference on Functional Materials (ICFM) 2024
15.	Ramesh Rajarapu	PH18D049	IR Award	IIT Madras

4.18.2.4. Students/Scholars Who Won Institute Convocation/Institute Day Prize:

Sl. No.	Name of the Student/Scholar	Roll No.	Name of Prizes	Name of Donor
1.	ShivaPrasad U Hulyal	EP19B030	Ms. Hema Balasubramanian Excellence Award	Endowment Prize
2.	Gaurav M Vaidya	PH18B008	Prof. J Sobhanadri Prize	Endowment Prize
3.	Diwakar Gaur	PH21C009	Prof. Chilukury Ramasastry Memorial Prize	Endowment Prize
4.	Ravuri L N Saketh	PH21M008	Sri KrishnaMurthy Sundarambal Prize	Endowment Prize
5.	Neeraj K Udupa	EP19B006	Sri Jandhyala Lakshmi Kantam & Srimati Sitamahalakshmi Prize	Endowment Prize
6.	Mehraj Chhetri	PH21C026	Sri Jandhyala Lakshmi Kantam & Srimati Sitamahalakshmi Prize	Endowment Prize
7.	Suhail Ahmad Rather	PH18D018	Prof A L Lashkar Prize	Endowment Prize

8.	Saroj Kumar Barik	PH16D056	Prof A L Lashkar Prize	Endowment Prize
9.	Athrey C D	PH17D022	Mrs. Abayambal & Mr. Natarajan Award	Endowment Prize
10.	Ankit Anand	PH18D045	Keshav Ranganath Award	Endowment Prize
11.	Minati Tiadi	PH18D300	Keshav Ranganath Award	Endowment Prize

4.18.3. Faculty and Their Activities:

4.18.3.1. Faculty:

Name and Qualifications	Major Area of Specialization (Only 3 Areas)
Professor:	
Dr. Arul Lakshminarayan (Head)	Quantum Information, Complex Quantum Systems, Mathematical Physics
Dr. Aravind G	Autoionization and Autodetachment Resonances in Atomic, Molecular and Cluster Systems
Dr. Dillip Kumar Satapathy	Experimental Soft Condensed Matter Physics, X-ray and Neutron Characterisation of Materials, Organic and Hybrid Thermoelectrics
Dr. Ganesan A R	Applied Optics, Holography, Adaptive Optics
Dr. Harish Kumar N	Superconductivity, Spintronics, Novel Magnetic Materials
Dr. James Frederick Libby	Experimental High Energy Physics, Experimental Particle Physics
Dr. Jatindra Kumar Rath	Photovoltaics, Nanomaterials, CVD
Dr. Kasiviswanathan S	Near-and far-field Response of Plasmonic Structures, Films of Transparent Oxide and Ternary Semiconductors, Systems Exhibiting Quantum Coherence
Dr. Krishnamurthy C V	Non-destructive Evaluation, Microstructural Modelling, Light Scattering
Dr. Manoj Gopalakrishnan	Theoretical Biological Physics, Stochastic Processes, Statistical Mechanics
Dr. Manu Jaiswal	Experimental Condensed Matter Physics, Graphene and 2D Systems, and Confined Water
Dr. Murugavel P	Multiferroic Oxides, Photo-ferroelectricity, Energy Storage Materials
Dr. Nirmala R	Rare earth Intermetallics
Dr. Prafulla Kumar Behera	Experimental High Energy Physics, Detector Development and Instrumentation
Dr. Prahallad Padhan	Magnetic Materials and Heterostructures, Spintronic Devices
Dr. Prasanta Kumar Tripathy	String Theory, High Energy Physics
Dr. Prem B Bisht	Ultrafast Laser Spectroscopy, Fluorescence Microscopy
Dr. Rajesh Narayanan	Condensed Matter Theory
Dr. Ramachandra Rao M S	Correlation Effect in Metal Oxide and Doped Diamond, Electrical, Optical, and Magnetic Properties of Metal Oxide Thin Films and Nanostructures, and Photovoltaic Materials
Dr. Ranjit Kumar Nanda B	Condensed Matter Physics
Dr. Santhosh P N	Multiferroics, Layered Oxide Materials, CuO-based Nanomaterials
Dr. Satyanarayana M V	Quantum Optics, Laser Physics, Photonics
Dr. Sethupathi K	Experimental Condensed Matter Physics, Magnetic Oxide Materials, and Cryogenic Insulation
Dr. Somnath Chanda Roy	Experimental Materials Science, Nanomaterials and Thin Films, Nanotechnology for Energy and Environment
Dr. Srinivas V	Magnetic Materials
Dr. Sriramkumar L	Gravitation and Cosmology
Dr. Subramanian V	Microwave Techniques, Propagation and Devices Dielectrics and Multiferroics
Dr. Sudakar Chandran	Materials for Energy Applications, Defect-structure Property Correlations, Multifunctional Materials

Dr. Sunil Kumar P B	Soft Condensed Matter Physics, Biological Physics, and Computational Physics
Dr. Suresh Govindarajan	String Theory
Associate Professor:	
Dr. Ashwin Joy	Soft Condensed Matter Theory
Dr. Ayan Mukhopadhyay	Theoretical Physics, Quantum Field Theory and String Theory, Quantum Many-body Systems
Dr. Basudev Roy	Soft Condensed Matter Physics, Optics and Optical Tweezers
Dr. Dawood Kothawala	Semi-classical Gravity, Quantum Mechanics of Black Holes, QFT With Minimal Length Scale
Dr. Jayeeta Bhattacharyya	Semiconductors, Optical Spectroscopy, THz Spectroscopy
Dr. Mahaveer Kumar Jain	Semiconductors, Photovoltaics, Chemical Sensors
Dr. Panchanana Khuntia	Experimental Condensed Matter Physics
Dr. Pattabiraman M	Experimental Atomic Physics, Quantum Optics, Magnetometry
Dr. Prabha Mandayam	Quantum Information and Computing, Quantum Optics
Dr. Sivarama Krishnan	Femtosecond Dynamics, Photonics, Quantum Dynamics
Dr. Sunethra Ramanan	Nuclear Structure, Renormalization Group/Effective Field Theory Approaches, Neutron Star Physics
Dr. Vaibhav Madhok	Quantum Information Theory, Chaos and Complex Systems
Dr. Yasir Iqbal	Theoretical Condensed Matter Physics, Strongly Correlated Systems, Frustrated Magnetism
Dr. Prabhat Ranjan Pujahari	Experimental High Energy Physics
Assistant Professor:	
Dr. Abhishek Misra	Electrical Transport in Quantum Materials, Device Physics, Nanoelectronics
Dr. Chandra Kant Mishra	Gravitational Waves
Dr. Ipsita Saha	Particle Physics Phenomenology
Dr. Prasanta Kumar Muduli	Quantum Devices, Quantum Material, Weyltronics, Dirac Fermions, Topological Antiferromagnetic Spintronics
Dr. Rajesh Singh	Soft Matter
Dr. Ravichandran Shivanna	Optoelectronics and Nanoelectronics
Dr. Samir Choudhuri	21-cm Cosmology, Cosmic Dawn and Epoch of Reionization, Low-Frequency Radio Astronomy, Diffuse Synchrotron Emission
Dr. Siddharth Dhomkar	Optically Active Defect Spins, Magnetic Resonance, Machine Learning for Quantum Control, Scanning Confocal Fluorescence Microscopy
Dr. Shanthanu Mukherjee	Condensed Matter Theory
Dr. Vidya Praveen Bhallamudi (ID)	Condensed Matter Physics Magnetism, Magnetic Resonance, Optics
Young International Faculty	
Dr. Nicolas Gheeraert	Circuit QED, Spin-boson Model, Quantum Information
Distinguished Professors	
Prof. G Baskaran, IMSC, Chennai	Condensed Matter Physics and Strongly Correlated Materials
Visiting Faculty:	
Dr. Srinivasan Krishnamurthy, Emeritus Scientist, SRI International, Menlo Park, CA	Dielectric Metamaterials, Nonlinear Absorption and High-intensity Light Propagation in Semiconductors, High-field Transport in Submicron Devices, and Optical Properties of Semiconductors, Modeling MBE Growth

Visiting Faculty Fellow	
Steve Arnold (New York)	
Surendra Singh (Arkansas)	
Periasamy A. (Virginia)	
Prof. Kirill Shtengel	
Prof. Siddharth Ashok Parameswaran	
Dr. Thomas Vojta	
Dr. Alexander Wietek	
Prof. Deepak Dubal	
Dr. Matthew Nguyen	
Dr. Karlo Penc	
Dr. Masahide Yamaguchi	
Prof. Jerome Martin	
Dr. Pavel Maksimov	
Prof. Andriy Nevidomskyy	
Prof. Igor Mazin	
Prof. Hikaru Kawamura	
Prof. Han Yan	
Dr. Ken-Ichiro Imura	
Prof. Eric Castro Andrade	
Prof. Judit Romhányi	
Prof. Harald O. Jeschke	
Prof. Laura Messio	
Prof. Johannes Reuther	
Emeritus Professor:	
Dr. S Ramaprabhu :	Alternative Energy Applications (Hydrogen Production and Conversion, Hydrogen Storage, PEM Fuel Cells) Energy Storage Applications (Batteries and Supercapacitors) Sensors (Biosensors, Gas Sensors and Strain Sensors)
Dr. Neelima M Gupte	Nonlinear Dynamics, Statistical Physics
Adjunct Faculty:	
Prof. V. Balakrishnan, IIT Madras	Dynamical Systems, Quantum Dynamics and Stochastics
Dr. Rajeev Pattathil, Rutherford Appleton Laboratory	Applied Electromagnetics, Computational Electromagnetics, Non-linear Materials
Prof. Peter van Straten, Utrecht University	Novel Accelerator Science
Prof. Sampath Kumaran, Distinguished Professor, Tata Institute of Fundamental Research, Mumbai	Optics and Photonics
Prof. Werner Paulus, Professor, University of Montpellier	Magnetism, Superconductivity, Physics of d- and f-electron Systems (Oxides and Intermetallics), Kondo Lattices, Geometrically Frustrated Magnetism, Spin-chain Magnetism, Multiferroics, Nanomagnetism
Prof. Prellier Wilfrid, Director, CRISMAT Laboratory	Non-stoichiometric Oxides, Low-T Reactivity of Solids, Materials for Energy Storage and Transformation
Prof. Miryala Muralidhar, Professor, Dy. President, Shibaura Institute of Technology (SIT), Tokyo, Japan	Thin Film

Prof. Bent Weber, School of Physical and Mathematical Sciences, Nanyang Technological University, Singapore	Superconductor, Magnetization
Prof. Murukeshan, Director, Centre for Optical and Laser Engineering, Nanyang Technological University, Singapore	Electronic Properties of Novel Two-dimensional and Topological Materials, Quantum Information Processing Science and Technology, Nanoelectronics and Quantum Device Physics, Structural and Electronic Characterizations of Materials Using Scanning Probe Microscopy
Prof. Dr Ronny Thomale, Julius Maximilian's University of Würzburg, Germany	Optical Engineering, Optomechanics
Prof. Shanker Balasubramanian, University Distinguished Professor, Michigan State University, USA	Theoretical Condensed Matter Physics, Strongly Correlated Electron System
Dr Pramoda Kumar Nayak	Two-dimensional Materials, Topological Insulators, Quantum Dots, Van der Waals Heterostructures, Novel Superconducting Materials
Dr. Pietro Vischia	Experimental High Energy Physics

4.18.3.2. Short-term Courses, Workshops, Seminars, Symposia, Conferences Organised by the Faculty Members:

Sl. No.	Coordinator(s)	Title	Period
Conference:			
1.	IoE Center on Soft and Biological Matter	CompFlu 2023	December 18 – 20, 2023
2.	Dr. Somnath Chanda Roy, Dr. Mahaveer Kumar Jain, Dr. P Murugavel, Dr. Abishek Misra	International Conference on Thin Films & Nanotechnology: Knowledge, Leadership, and Commercialization, IIT Madras, India (ICTN-KLC 2023)	July 06 – 08, 2023
3.	International Advisory Committee Member	11th International Workshop on Charm Physics (CHARM 2023), Seigen, Germany	July 17 – 21, 2023
4.	National Organizing Committee Member	16th International Conference on Heavy Quarks and Leptons (HQL 2023), TIFR, India	November 28 – December 02, 2023
5.	Yasir Iqbal (IIT Madras, India), Subhro Bhattacharjee (ICTS Bangalore, India), Yogesh Singh (IISER Mohali, India), Adhip Agarwala (IIT Kanpur, India), Surjeet Singh (IISER Pune, India), Rajesh Narayanan (IIT Madras, India)	International Conference on Highly Frustrated Magnetism, IIT Madras, India	January 07 – 13, 2024
6.	Yasir Iqbal (IIT Madras, India), Subir Sachdev (Harvard University, USA), Ronny Thomale (University of Würzburg, Germany)	Conference on Fractionalization and Emergent Gauge Fields in Quantum Matter, ICTP, Trieste, Italy	December 04 – 08, 2023
7.	Dr. Somnath Chanda Roy	ICTN-KLC 2023 IIT Madras, India	July 06 – 08, 2023
Seminar:			
1.	Prafulla Kumar Behera	Probing New Physics at the LUXE Experiment	November 03, 2023
Symposia:			
1.	Samir Choudhuri, Siddharth Dhomkar, Nicolas Gheeraert	7th Physics In-house Symposium 2023, Department of Physics, IIT Madras, India	October 27 – 28, 2023

Workshop:			
1.	Prem B Bisht (IIT Madras, India), Senthil Ganapathi (University of Southampton)	One-day Hybrid Joint Workshop between IITM-ORC Southampton	May 30, 2023
2.	Sumesh P Thampi and P B Sunil Kumar	Liquid Phase Separation in Biological Systems	December 16 – 17, 2023
3.	Keerthana Kirupakaran, Aswathy Surendran, Sudarsan Padmanabhan, Shanthi Pavan, L Sriramkumar	Workshops on Technical and Scientific Writing	May 15–19, 2023
4.	Venkatraman Srinivasan, Himanshu Goyal, Anand Kanjarla, Niket Kaisare, Sudarsan Padmanabhan, Shanthi Pavan, L Sriramkumar	Workshops on Technical and Scientific Writing	July 17 – 21, 2023
5.	Uday Khankhoje, Parag Ravindran, Anand Kanjarla, Niket Kaisare, Sudarsan Padmanabhan, Shanthi Pavan, L Sriramkumar	Workshops on Technical and Scientific Writing	November 27 – December 01, 2023
6.	Uday Khankhoje, Niket Kaisare, Sudarsan Padmanabhan, Shanthi Pavan, L Sriramkumar	Train the Trainers' Workshop	January 02 – 07, 2024
7.	Organizing Committee	Belle II Physics Week: Precision Vcb Measurements at Belle II, KEK, Japan	October 30 – November 03, 2023
Short term Course:			
1.	Prabha Mandayam and Chandrashekar Radhakrishnan	NPTEL Code Program on Quantum Computing	June, 2023 – November, 2023; January, 2024 – May, 2024

4.18.3.3. Short-term Courses, Workshops, Seminars, Symposia, Conferences, and Trainings Attended by the Faculty Members in Academic Institutions And Public Sector Undertakings:

Sl. No.	Name of Faculty	Title	Institution/Place	Period
Workshop:				
1.	Prabha Mandayam	Condensed Matter Meets Quantum Information	International Center for Theoretical Studies(TIFR)	September 25 – October 06, 2023
2.	Prafulla Kumar Behera	Detectors for MeV-GeV Observations	IIT Kanpur	January 27 – 28, 2024
3.	Samir Choudhuri	Workshop on Advanced 21-cm Cosmology	NISER Bhubaneswar	December 18 – 21, 2023
4.	L Sriramkumar	Indian Pulsar Timing Array Meeting	The Institute of Mathematical Sciences, Chennai	February 05 – 09, 2024
5.	L Sriramkumar	Workshop on (Primordial) Black Holes and Gravitational Waves IBS CTPU-CGA 2024	Institute for Basic Science, Daejeon, Korea	March 18 – 22, 2024
6.	Jim Libby	Belle II General Meeting	Nagoya University, Japan	June 05 – 09, 2023
7.	Jim Libby	Belle II General Meeting	KEK, Japan	October 23 – 27, 2023
8.	Jim Libby	Belle II General Meeting	KEK, Japan	January 29 – February 03, 2024

9.	Yasir Iqbal	Invited Talk: Workshop on A New Spin on Quantum Magnets	Kavli Institute for Theoretical Physics (KITP), University of California, Santa Barbara, USA	July 17 – August 11, 2023
10.	Yasir Iqbal	Invited Talk: Workshop on Exotic Phases, Gauge Field Theories, and Dynamics in Systems with Constraints	Aspen Centre for Physics, USA	June 11 – July 2, 2023
11.	Yasir Iqbal	Invited Talk: Workshop on A Quantum Universe in a Crystal: Symmetry and Topology Across the Correlation Spectrum	Kavli Institute for Theoretical Physics (KITP), University of California, Santa Barbara, USA	May 15 – June 9, 2023
12.	Dr. Abhishek Misra	Co-chair of the 2D Semiconductor Theme in IPWSD 2023	IIT Madras	December 2023
13.	Dr. Somnath C Roy	Nanomaterials for Energy and Environment	IMMT Bhubaneswar (Online)	January 01, 2023
14.	Rajesh Narayanan	Scientific Workshop on the 30-year Anniversary of MPIPKS	Dresden, Germany	September 05 – 11, 2023
15.	Jim Libby	12th International Workshop on the CKM Unitarity Triangle	Santiago de Compostela, Spain	September 17 – 24, 2023
16.	Dawood Kothawala	Workshop On Limiting Compact Objects: Buchdahl Stars	Pune, India	October 30 – 31, 2023
17.	Manu Jaiswal	XXII International Workshop on Physics of Semiconductor Devices (IWPSD 2023), IIT Madras	Chennai, India	December 15, 2023
18.	Jayeeta Bhattacharyya	XXII International Workshop on Physics of Semiconductor Devices	Chennai, India	December 14 – 17, 2023
19.	Samir	Workshop on Advanced 21-cm Cosmology	Bhubaneswar and Kharagpur, India	December 18 – 29, 2023
20.	Nirmala R	Workshop on Magnetism and Magnetic Measurements 2024	Pondicherry, India	January 25, 2024
21.	Ganesan A R	Workshop on Speckle Metrology	Cochin, India	February 22 – 23, 2024
22.	Nirmala R	Workshop on Nanomagnetism: Fundamentals to Applications (WNM 2024)	Vellore, India	February 02, 2024
23.	Arul Lakshminarayan	Workshop on Quantum Chaos	Mumbai and Delhi, India	March 08 – 11, 2024
24.	Sriramkumar L	Workshop on (Primordial) Black Holes and Gravitational Waves IBS CTPU-CGA 2024	Daejeon, South Korea	March 16 – 23, 2024
25.	Abhishek Misra	XXII International Workshop on Physics of Semiconductor Devices 2023	Chennai, India	December 14, 2023
Seminar:				
1.	Yasir Iqbal	Condensed-Matter Physics Seminar at Tata Institute of Fundamental Research (TIFR) Hyderabad	Hyderabad, India	March 28, 2024 28-03-2024
Symposia:				
1.	Ravichandran Shivanna	Photon Quest: Exploring Photovoltaic Materials, Devices, and Bioelectronics Horizons	Jawaharlal Nehru Center for Advanced Scientific Research	
2.	Prem B Bisht	Physics in-House Symposium 2023	IIT Madras	October 27 – 28, 2023

3.	Prem B Bisht	SCOP-2023	PRL Ahmedabad	September 27 – 29, 2023
4.	Prabha Mandayam	Second International Quantum Communication Conclave	CDoT	February 15 – 16, 2024
5.	Samir Choudhuri	Invited Talk: 7th Physics In-house Symposium 2023	Department of Physics, IIT Madras	October 27 – 28, 2023
6.	L Sriramkumar	A K Raychaudhuri Centenary Symposium	Indian Association for the Cultivation of Science, Kolkata	August 11 – 12, 2023
7.	L Sriramkumar	Remembering Amal Kumar Raychaudhuri	The Institute of Mathematical Sciences, Chennai	October 05 – 07, 2023
8.	Jim Libby	Invited Plenary Speaker: Flavour Physics Symposium Celebrating BaBar's 30th Anniversary (Online)	Stanford Linear Accelerator Centre, CA, USA	March 07 – 08, 2024
9.	Santhosh P N	Structure-property Correlations in Certain Oxide Materials	Mahatma Gandhi University, Kottayam, Kerala	February 2024
10.	Aravind G	Theoretical Chemistry Symposium	Chennai, India	December 07 – 10, 2023
11.	Sunethra Ramanan	DAE Symposium on Nuclear Physics	Indore, India	December 09 – 14, 2023
12.	Aravind G	Trombay Symposium on Radiation & Photochemistry TSRP 2024	Mumbai, India	January 08 – 10, 2024
13.	Sunil Kumar P B	Symposium on Active and Living Matter	Mumbai, India	February 22 – 23, 2024
14.	Prabha Mandayam	Global Quantum Symposium 2024	Basel, Switzerland	March 17 – 26, 2024
Conference:				
1.	Sudakar Chandran	Engineering Materials to Harvest Multifunctional Properties	SSN, Chennai	March 02 – 03, 2024
2.	Sudakar Chandran	Sublattice Distortion Controlled Electronic and Optical Properties of Cs ₂ B'B''X ₆ (B' = Ag, Na; B'' = Bi, In; X = Cl, Br) Double Perovskites	SRM Katangulathur, Chennai	February 26 – 29, 2024
3.	Sudakar Chandran	Engineering Materials to Harvest Multifunctional Properties	SSN, Chennai	March 14 – 15, 2024
4.	Prem B Bisht	IMPULSE 2023	IIT Madras	December 14 – 15, 2023
5.	Prabha Mandayam	Raman Conference on Light and Matter Physics	Raman Research Institute	August 14 – 18, 2023
6.	Prabha Mandayam	International Conference on Quantum Technologies and Applications	MAHE, Manipal	February 12 – 14, 2024
7.	Chandra Kant Mishra	26th Capra Meeting on Radiation Reaction in General Relativity	Neils Bohr Institute, Copenhagen, Denmark	July 03 – 07, 2023
8.	Prasanta Kumar Muduli	3rd Quantum Matter Heterostructure Conference (QMH 2023)	IIT Hyderabad	July 18 – 20, 2023
9.	P Murugavel	Recent Advances in Materials (RAM-90)	JNCASR, Bangalore	December 07 – 09, 2023
10.	L Sriramkumar	Conference on Cosmology @ CCSP	Thanu Padmanabhan Centre for Cosmology and Science Popularization, Shree Guru Gobind Singh Tricentenary University, Delhi NCR	November 29 – December 01, 2023

11.	R Nirmala	Talk on Magnetism of Spinel Oxide CuAl_2O_4 : Probing by Bulk Magnetization, Neutron Diffraction and μSR Measurements, India-RAL Neutron and Muon Science Meeting.	JNCASR, Bangalore	June 16, 2023
12.	R Nirmala	Invited Talk: An Update on Intermetallic Magnetocaloric Materials: Alternate Synthetic Strategies, International Conference on Functional Materials for Future Technology IC-FMFT 2023	Vellore Institute of Technology (VIT), Vellore.	April 19 – 21, 2023
13.	R Nirmala	Poster Presentation: Magnetic and Magnetocaloric Properties of Rare Earth Intermetallic Compound $\text{Gd}_3\text{Co}_4\text{Ge}_{13}$, 68th Annual International Conference on Magnetism And Magnetic Materials (MMM 2023)	Dallas, TX, USA.(Online)	October 30– November 03, 2023, (Online)
14.	R Nirmala	Invited Lecture: The World of Magnetic Materials, One-day Workshop on Magnetism and Magnetic Measurements (MMM 2024).	Pondicherry University	January 23, 2024
15.	R Nirmala	Lecture Titled Magnetism Fundamentals: From the Bulk to the Nano, Workshop on Nanomagnetism: Fundamentals to Applications (WNM 2024)	VIT, Vellore	February 02, 2024
16.	Jim Libby	Invited Plenary Speaker: 12th International Workshop on the CKM Unitarity Triangle (CKM2023)	Santiago de Compestela, Spain	September 18 – 22, 2023
17.	Jim Libby	Invited Plenary Speaker: 16th International Conference on Heavy Quarks and Leptons (HQL 2023)	TIFR, Mumbai	November 28 – December 02, 2023
18.	Shantanu Mukherjee	Superconductivity Gordon Research Conference	Les Diablerets, Switzerland.	April 30 – May 05, 2023
19.	Yasir Iqbal	Invited Talk: American Physical Society (APS) March Meeting, Minneapolis, USA	American Physical Society	March 04 – 08, 2024
20.	Yasir Iqbal	Invited Talk: Conference on Recent Trends in Condensed Matter Physics rlated to Quantum Materials	Indian Association for the Cultivation of Science (IACS), Kolkata, India	February 15 – 16, 2024
21.	Dr. Abhishek Misra	As a Co-chair of the 2D Semiconductor Theme in IPWSD 2023.	IIT Madras	December 2023
22.	Dr. Somnath C Roy	ICONN 2023	SRMIST Chennai	March 01, 2023
23.	Dr. Somnath C Roy	MSED 2023	JNU Delhi	October 01, 2023
24.	Dr. Somnath C Roy	N4SN Global Summit	University of Sydney	November 01, 2023
25.	Dr. Somnath C Roy	iSNIOE2	Shiv Nadar University, Delhi	March 01, 2023
26.	Santhosh P N	Competing Magnetic Interactions And Exchange Bias Behaviour in Complex Oxides Materials	SRM institute of Science and Technology, Chennai	March, 2024
27.	Arul Lakshminarayan	Program Dynamical Foundations of Many-Body Quantum Chaos	Paris, France	April 01 – 16, 2023
28.	Nirmala R	International Conference on Functional Materials for Future Technology IC-FMFT 2023	Vellore, India	April 21, 2023

29.	Shantanu Mukherjee	Origin of Pairing Instability in 2D Dichalcogenide Superconductors	Copenhagen, Denmark	April 02 – June 10, 2023 02.04.2023 to 10.06.2023
30.	Ramachandra Rao M S	ICMCTF	San Diego and San Francisco, USA	May 18 – 30, 2023
31.	Rajesh Narayanan	Workshop on Strong Electron Correlations in Quantum Materials: Inhomogeneities, Frustration, and Topology	Sao Carlos, Brazil	June 04 – 17, 2023
32.	Veeturi Srinivas	11th International Conference on Materials for Advanced Technologies ICMAT 2023	Suntec, Singapore	June 26 – 30, 2023
33.	Arul Lakshminarayan	ICTS Program	Bangalore, India	June 19 – 30, 2023
34.	Nirmala R	Users Meeting of RAL Project & Workshop on Data Analysis of Neutron Scattering	Bangalore, India	June 15 – 16, 2023
35.	Chandra Kant Mishra	26th Capra Meeting on Radiation Reaction in General Relativity	Copenhagen, Denmark	June 27 – July 21, 2023
36.	Prabhat Pujahari	Initial Stages 2023 International Conference	Copenhagen, Denmark	June 18 – 24, 2023 18-06-2023 to 24-06-2023
37.	Yasir Iqbal	Workshop on Exotic Phases, Gauge Field Theories and Dynamics in Systems With Constraints	Aspen, USA	June 15 – 28, 2023
38.	Prem B Bisht	International Conference on Photonics	Banglore, India	July 04 – 07, 2023
39.	Neelima M Gupte	Sigma Phi 2023 Conference on Statistical Physik	Chania, Crete, Greece	July 09 – 15, 2023
40.	Ramachandra Rao MS	1st International Conference on Lab-Grown Diamond	Dubai, UAE	July 09 – 11, 2023 09-07-2023 to 11-07-2023
41.	Prabhat Pujahari	XII International Conference on New Frontiers in Physics	Crete, Greece	July 10 – 23, 2023
42.	Sudakar Chandran	IoE Research Initiatives Travel; Invited Speaker at International Conference on Materials 2023	Brisbane, Australia	August 02 – October 30, 2023
43.	Ashwin Joy	The 28th IUPAP International Conference On Statistical Physics	Tokyo, Japan	August 06 – 12, 2023
44.	Prem B Bisht	8th Annual International Student Conference on Optics and Photonics (SCOP 2023)	Ahmedabad, India	September 27 – 29, 2023
45.	Sunil Kumar P B	1st Indian Conference on Micro Nano Fluidics	Chennai, India	September 30 – October 01, 2023
46.	Dillip Kumar Satapathy	Nano MicroFluidics: From Soft Matter to BioEngineering	Chennai, India	September 29 – 30, 2023
47.	Dillip Kumar Satapathy	The 7th International Soft Matter Conference, (ISMC 2023)	Osaka, Japan	September 02 – 10, 2023
48.	Sivarama Krishnan	Annual conference on photonics	Ahmedabad, Indian	September 27 – 29, 2023
49.	Jatindra Kumar Rath	40th European Photovoltaic Solar Energy Conference and Exhibition (EU PVSEC 2023)	Lisbon, Portugal	September 17 – 30, 2023
50.	Neelima M Gupte	International Conference on Nonlinear Science and Applications	Bhubaneswar, India	October 13 – 15, 2023

51.	Sunil Kumar P B	The 6th International Conference on Molecular Simulations	Taipei, Taiwan	October 05 – 10, 2023
52.	Somnath Chanda Roy	International Conference on Materials for Energy and Sustainable Development	Delhi, India	October 27 – 28, 2023
53.	Ganesan A R	International Conference on Trends in Optics and Photonics	Kolkata, India	November 24 – 25, 2023
54.	Prabhat Pujahari	CMS Experiment Data Taking at LHC CERN	France and Geneva, Switzerland	October 01 – 25, 2023
55.	Arul Lakshminarayan	Emerging Topics in Quantum Technology (ETQT 2023)	Palakkad, India	November 02 – 03, 2023
56.	Yasir Iqbal	Simons Associate of the International Centre for Theoretical Physics (ICTP)	Trieste, Italy	November 23 – December 21, 2023
57.	Arul Lakshminarayan	Quantum Information, Processing & Applications	Prayagraj, India	December 08 – 10, 2023
58.	Arul Lakshminarayan	89th Anniversary General Meeting of the Indian National Science Academy	Hyderabad, India	December 06 – 07, 2023
59.	Ganesan A R	International Conference on Optics, Photonics and Lasers OPL 2023	Hiroshima, Japan	December 01 – 07, 2023
60.	Ganesan A R	International Conference on Optics, Photonics and Quantum Information (OPTIQ 2023)	Kochi, India	December 12 – 13, 2023
61.	Dillip Kumar Satapathy	CompFlu 2023	Chennai, India	December 18 – 20, 2023
62.	Basudev Roy	MTOT Conference in IIT Bombay	/Mumbai, India	December 19–20, 2023
63.	Basudev Roy	StatPhys conference	kolkata Kolkata, India	December 21 – 22, 2023
64.	Basudev Roy	Fluorescence Society of India Conference	Chandigarh, India	December 10 – 13, 2023
65.	Arul Lakshminarayan	Bose Centenary Statistics Conference	Kolkata, India	January 29 – 31, 2024
66.	Arul Lakshminarayan	ICQTA, MAHE, Manipal	Manipal, India	February 12 – 13, 2024
67.	Yasir Iqbal	Conference on Recent Trends in Condensed Matter Physics Related to Quantum Materials, Indian Association for the Cultivation of Science (IACS), Kolkata	Kolkata, India	February 15, 2024
68.	Sunil Kumar P B	Disordered and Soft Systems: Recent Trends	Bengaluru, India	March 27 – 28, 2024
69.	Sunil Kumar P B	Physics of Life: Active and Living Matter	Puri, India	February 08 – 09, 2024
70.	Somnath Chanda Roy	iSNIOE2 International Conference at Shiv Nadar University, Greater Noida, NCR Delhi	Delhi, India	March 19 – 20, 2024
71.	Sivarama Krishnan	INSQT Conference	Ahmedabad, India	March 21 – 22, 2024
72.	Sunil Kumar P B	CompFlu2023	Chennai, India	December 16 – 20, 2023
Training:				
Short Term Course:				
1.	Prabha Mandayam	Quantum Computing Semester	Chennai Mathematical Institute	January 22 – 26, 2024
2.	Samir Choudhuri	Summer Training Programme in Physics	University of Madras	July 03, 2023

4.18.3.4. Special Lectures Delivered by the Faculty in Other Institutions:

Sl. No.	Name of Faculty	Topic of Lecture	Institution	Date
1.	Prem B Bisht	Selected Topics in Photonics	UGC Refresher Course at DSB College Naini Tal, Kumaun University.	September 25, 2023
2.	Prem B Bisht	Single Particle Fluorescence Microscopy, Whispering Gallery Modes and Applications	PRL Ahmedabad	September 29, 2023
3.	Prem B Bisht	Tunable Beams for Light-matter Interaction, Bio-engineering and Quantum Optics	IIT Madras	December 14, 2023
4.	Chandra Kant Mishra	Lectures on Gravitational Waves From Compact Binaries and Other Sources, Workshop on Gravitational Waves and LIGO India	Goa University, 2023	November 27 – December 01, 2023
5.	P Murugavel	The Applications of Ferroelectrics: From Bulk to 2D	Anna University	February 27, 2024
6.	L Sriramkumar	Magnetogenesis in Non-trivial Inflationary Scenarios	Seminar, Department of Physical Sciences, Indian Institute of Science Education and Research, Mohali	April 3, 2023
7.	L Sriramkumar	Magnetogenesis in Non-trivial Inflationary Scenarios	Seminar, Chennai Mathematical Institute, Chennai	April 20, 2023
8.	L Sriramkumar	Magnetogenesis in Non-trivial Inflationary Scenarios	Raman Research Institute, Bengaluru	May 29, 2023
9.	L Sriramkumar	Introduction to Cosmology	Summer Training Programme in Physics, Department of Materials Science, University of Madras, Chennai, and Science City, Department of Higher Education, Government of Tamil Nadu (Online Talk)	June 30, 2023
10.	L Sriramkumar	Gravitational Waves and the Stochastic Background	Popular Science Lecture Series, Tamil Nadu Science Forum, The Institute of Mathematical Sciences, Chennai	July 22, 2023
11.	L Sriramkumar	Invited Talk: Magnetogenesis During Inflation: Imprints of Non-trivial Dynamics, A K Raychaudhuri Centenary Symposium	Indian Association for the Cultivation of Science, Kolkata,	August 11 – 12, 2023
12.	L Sriramkumar	Invited Talk: Loop Contributions to the Scalar Power Spectrum Due to Quartic Order Action in Ultra Slow Roll Inflation, Remembering Amal Kumar Raychaudhuri	The Institute of Mathematical Sciences, Chennai,	October 5–7, 2023
13.	L Sriramkumar	Plenary Talk: Genesis of Magnetic Fields During Inflation: Effects Due to Non-trivial Dynamics, Conference on Cosmology	CCSP, Thanu Padmanabhan Centre for Cosmology and Science Popularization, Shree Guru Gobind Singh Tricentenary University, Delhi-NCR	November 29 – December 01, 2023
14.	L Sriramkumar	Gravitational Waves and the Stochastic Background, Prof. M C Valsakumar Memorial Lecture	Academy of Physics Teachers, Kerala, Department of Physics, Cochin University of Science and Technology, Kochi,	January 12, 2024

15.	L Sriramkumar	Invited Talk: Gravitational Waves From the Early Universe, Indian Pulsar Timing Array Meeting	The Institute of Mathematical Sciences, Chennai,	February 5 – 9, 2024
16.	L Sriramkumar	Colloquium on Deciphering the Physics of the Early Universe With Gravitational Waves	Indian Institute of Astrophysics, Bengaluru,	March 05, 2024
17.	L Sriramkumar	Invited Talk: Decoding the Physics of the Early Universe Through Gravitational Waves, IBS CTPU-CGA 2024 Workshop on (Primordial) Black Holes and Gravitational Waves	Institute for Basic Science, Daejeon, Korea,	March 18–22, 2024
18.	Jim Libby	Recent Results From Belle II	IJCLab, Paris, France	October 05, 2023
19.	Jim Libby	Recent Results From Belle II	INFN and Scuola Normale Superiore Pisa, Italy	February 29, 2024
20.	Manu Jaiswal	Thermal Transport in Graphene With Multiple Twisted Interfaces	Keynote Lecture at ICFM, IIT Kharagpur	January 10, 2024
21.	Manu Jaiswal	Heat Dissipation in Nano-electronic Circuits: Status and Challenges	Keynote Lecture at ICREACT-23, SRMIST-Vadapalani	May 03, 2023
22.	Manu Jaiswal	Heat Transport in Graphene & Its Nanostructures	FDP Lecture on Advances in Graphene Science and Technology, CET-Trivandrum	January 18, 2024
23.	Yasir Iqbal	Functional Renormalization Group Approaches to Quantum Spin Systems	Tata Institute of Fundamental Research - Hyderabad	March 28, 2024
24.	Dr. Somnath C Roy	One Dimensional Nanostructures	IIT Delhi	July 31, 2023

4.18.3.5. Visits Abroad by Faculty:

Sl. No.	Name of Faculty	Country Visited	Date	Purpose of Visit	Funding From
1.	Sudakar Chandran	Australia	August –October 2024	CoE Exchange Visit	IoE-CoE and CPDA
2.	Sudakar Chandran	Australia	October – November 2024	Australian Award Fellowship	Australian Award Fellowship
3.	Prem B Bisht	United Kingdom	May 20 – June 20, 2023	Workshop , Lectures and Research Collaborations	Dean (Global Engagement) and CPDA
4.	P B Sunil Kumar	Taiwan	October 06 – October 09, 2023	International Conference on Molecular Simulations	CPDA
5.	Prabha Mandayam	Singapore	June 11 – 16, 2023	Research Collaboration	Project
6.	Prabha Mandayam	Switzerland	March 17 – 21, 2024	Global Quantum Symposium	CPDA
7.	Chandra Kant Mishra	Denmark	July 03 – 07, 2023	Conference	Project
8.	Prafulla Kumar Behera	Switzerland	June 15 – July 25, 2023	Project Research Work in CMS Experiment	Project
9.	Prafulla Kumar Behera	Switzerland and France	September 01 – 15, 2023	CMS Experimental Research Work	Project

10.	Prafulla Kumar Behera	Switzerland and France	November 15 – December 20, 2023	CMS Experimental Work	Project
11.	L Sriramkumar	Korea	March 18–22, 2024	Invited talk: IBS CTPU-CGA 2024 Workshop on (Primordial) Black Holes and Gravitational Waves, Institute for Basic Science (IBS), Daejeon, Korea	Institute for Basic Science, Daejeon, Korea
12.	Dr. Jayeeta Bhattacharyya	Germany	May 01, 2023	Collaboration and Experiments	CoE
13.	Dr. Jayeeta Bhattacharyya	Japan	November 01, 2023	Discussion	DST JSPS Program
14.	Jim Libby	Japan	June 05 – 09, 2023	Belle II General Meeting	IIT Madras
15.	Jim Libby	UK	June 16 – July 03, 2023	Heavy Flavour 2023 – Quo Vadis?, Islay, Scotland	Organisers
16.	Jim Libby	Spain	September 18 – 22, 2023	Invited plenary talk: 12th International Workshop on the CKM Unitarity Triangle (CKM2023)	CPDA and IIT Madras
17.	Jim Libby	France	October 02 – 06, 2023	IJCLab PhD Examiner (two thesis) and Seminar	IJCLab
18.	Jim Libby	Japan	October 23 – November 03, 2023	Belle II General Meeting and Belle II Physics Week (Organiser, Session Chair and Four Talks)	IIT Madras
19.	Jim Libby	Japan	January 16 – February 13, 2024	Belle II General Meeting (Organiser, Session Chair and Speaker), Belle II Program Advisory Committee Meeting (Speaker) and Sabbatical Work as Physics Coordinator of the Belle II Experiment	IIT Madras/ KEK
20.	Jim Libby	Italy	February 27 – March 02, 2024	PhD Examiner at Scuola Normale Superiore (SNS) Pisa and Seminar at SNS/ INFN Pisa	SNS
21.	Jim Libby	Japan	March 18 – 31, 2024	Work as Belle II Physics Coordinator, Sabbatical Leave	IIT Madras/ KEK
22.	Shantanu Mukhejee	Denmark	April 02 – June 10, 2023	Research Collaboration	HRHR Travel Mobility Grant
23.	Yasir Iqbal	USA	March 04 – 08, 2024	Invited Talk: American Physical Society (APS) March Meeting, Minneapolis, USA	CoE QuCenDiEM
24.	Yasir Iqbal	USA	July 17 – August 11, 2023	Invited Talk: A New Spin on Quantum Magnets, Kavli Institute for Theoretical Physics (KITP), University of California, Santa Barbara, USA	CPDA
25.	Yasir Iqbal	USA	June 11 – July 02, 2023	Invited Talk: Workshop on Exotic Phases, Gauge Field Theories, and Dynamics in Systems with Constraints, Aspen Centre for Physics, USA	IoE Faculty Mobility and PCF
26.	Yasir Iqbal	USA	May 15 – June 09, 2023	Invited Talk: A Quantum Universe in a Crystal: Symmetry and Topology across the Correlation Spectrum, Kavli Institute for Theoretical Physics (KITP), University of California, Santa Barbara, USA	IoE Faculty Mobility and Host Institute
27.	Yasir Iqbal	Italy	November 23 – December 21, 2023	Research Collaboration: Simons Associate of the International Centre for Theoretical Physics (ICTP), Trieste	Host Institute

28.	Dr. Somnath C Roy	UK	September 05 – 23, 2023	Collaboration	Global Engagement, UCL, London
29.	Dr. Somnath C Roy	Australia	November 13 – December 02, 2023	Australia Award Fellowship	DFAT, Govt of Australia

4.18.3.6. Honours and Awards Obtained by Faculty:

Sl. No.	Name of Faculty	Name of Award	Awarded By	Awarded For	Date of Award
i. Awards:					
1.	Prem B Bisht	Travel Award to UK	Dean (GE), IIT Madras	Research Collaboration	September 05, 2023
2.	L. Sriramkumar	Best Teacher Award for Excellence in Teaching	IIT Madras, Chennai	Excellence in Teaching	
3.	Dr. Somnath C Roy	High Risk High Reward Mobility Award Grant	Global Engagement, IIT Madras	Initiating Collaboration with UCL	August 01, 2023

4.18.3.7. Fellowships of Academies and Professional Societies:

Sl. No.	Name of Faculty	Year of Admission
INSA:		
1.	Dr. Arul Lakshminarayan	2024
Others:		
1.	Dr. Somnath C Roy, Australia Award Fellowship	2023
2.	Dr. Sudakar Chandran, Australia Award Fellowship	2023

4.18.3.8 Journal Editorial Boards:

Sl. No.	Name of Faculty	Position (Editor/Member)	Journal Name
1.	Subramanian Venkatachalam	Guest Editor, Special Issue on Electromagnetic Metasurfaces and Metamaterials: From Design to Applications	Materials
2.	Prafulla Kumar Behera	Editorial Board Member	Physics
3.	L Sriramkumar	Member of the Editorial Board	Pramana: Journal of Physics
4.	R Nirmala	Advisory Editorial Board Member	Journal of Magnetism and Magnetic Materials Publisher: Elsevier
5.	R Nirmala	Co-Guest Editor	Special Issue on Materials for Energy Conversion and Storage, Journal of Alloys and Compounds Publisher: Elsevier
6.	R Nirmala	Co-Guest Editor	Special issue on Focus Collection on Magnetic Materials and Devices, Journal: Materials Research Express, IOP Publishing.
7.	Manu Jaiswal	Member	Journal of Physics D: Applied Physics

4.18.4. Design and Development Activities:

4.16.4.1. Brief and Specific Details of Process, Instruments, Equipment, Software Designed and Developed: In the Optics and Spectroscopy lab, as part of the EP3291 course, we constructed a Tricolour changeable LED setup for the Newton's Ring experiment. Additionally, we developed a system comprising a heater, temperature sensor, and display unit to measure the thermal coefficient of various materials using Michelson interferometer. In the PH5120 course, we designed a double slit interference setup to investigate the spatial coherence of a sodium source, and we also developed an optical microscope. We conducted a Nd:YAG laser demonstration and observed second harmonic generation by utilizing a KDP crystal.

4.18.4.2. New Facilities Added or Major Equipment Procured:

Sl. No.	Name of Equipment	Value (Rs. in Lakhs)
1.	X-ray Irradiator	170
2.	HPC Servers for GRID	58
3.	Cryogenic Transport System + Glove Box	300
4.	Microwave Vector Network Analyzer	199
5.	Helium Compressor Pump	80
6.	ns Laser for Optics and Spectroscopy Teaching Lab	15
7.	fs Laser	150
8.	Computing Node for GRID	65
9.	ns Laser	18
10.	Closed Cycle Refrigerator for IV, CV, Optical & Electro-Optical Studies	35
11.	Chemical Vapor Deposition Unit	15
12.	Photoluminescence Spectrometer, Including Time Correlated Single-photon Counting Life Time Measurement	63
13.	Spectrofluorometer	35
14.	UV VIS Spectrophotometer	10
15.	Linkam Low Temperature Stage for Electrical and Optical Measurements	18
16.	Femtosecond Laser System	90
17.	Small Angle X-ray Scattering	670
18.	Quantum Control and Measurement System (Quantum Machines)	97
19.	Quantum Scanning Microscope	550
20.	488 nm Laser for Raman Spectrometer (Central Facility)	15
21.	14 T Physical Property System for Heat Capacity	550
22.	HPC Cluster Nodes	122
23.	X-ray Diffractometer	
24.	Abbe Refractometer	0.3304

4.18.5. Patents:**4.18.5.1. Patents Filed:**

Sl. No.	Name of Faculty	Topic of Patent
1.	Sudakar Chandran	An Optoelectronic Device With Enhanced Absorption Of Light
2.	Sudakar Chandran	Enhanced Electrochemical Performance of Co-axially Electrospun Li-rich Layered Oxide/Spinel Heterostructure Nanofibers

3.	Sudakar Chandran	Harnessing Superior Cycling Stability and High-Rate Capability in Al Substituted Sb ₂ S ₃ Nanorods by Constraining the Delithiation to Alloying Regime
4.	Renu Yadav, Abhishek Misra	A Method to Develop Memristors With Layered Materials in One-dimensional Core Shell Heterostructure

4.18.5.2. Patents Awarded:

Sl. No.	Name of Faculty	Topic of Patent
1.	Sudakar Chandran	Tailoring of Blue, Green, Green-red Emission From Inorganic Crystalline (Cd, Zn) Se Quantum Dots - ZnSe Amorphous Phase Composite for White Light Emitting Diode Application
2.	Subramanian Venkatachalam	Microwave Absorbing Kitchen Apron
3.	Biporjoy Sarkar, Dillip Satapathy, Manu Jaiswal	Polymeric Sensor Device For Vapor Sensing, Method Of Sensing And Method Of Preparation Thereof, IN-471375
4.	Vasumathy Ravishankar, Manu Jaiswal, S Ramaprabhu	System And Method To Measure Electrochemical Properties Of Membrane Under Strain, IN-443343
5.	Ramesh Rajarapu, Pramoda Nayak, Abhishek Misra	Method to Synthesize a Rhombohedral (R) Phase Transition Metal Dichalcogenide (TMD) and Implementations Thereof

4.18.6. Research and Consultancy:

4.18.6.1. Sponsored Research Projects: (On going & New)

Sl. No.	Title	Period	Funding Agency	Amount (Rs. in Lakhs)	Co-ordinators
1.	Multiscale Modelling of Chromatin Assembly and Dynamics	2023 - 2024	NSMX	19	Sunil Kumar P B
2.	Inferring the True Nature of Compact Binary Mergers in the Fourth Observing Run (O4) of LIGO and Virgo Detectors	2023 - 2026	SERB	6.24155	Chandra Kant Mishra
3.	Interatomic Coulombic Electron Capture in Quantum Aggregates	2023 - 2026	CEFI	89.88185	Sivarama Krishnan
4.	Development of Nano Sculptured Thin Films Using Glancing Angle Deposition for Wide Band Antireflection and Rugate Filter Applications	2023 - 2025	ISRO	22.96	Somnath Chanda Roy
5.	Understanding and Deciphering the Therapeutic Potential of Established Ayurvedic Remedies	2023 - 2024	UOSX		Prem B Bisht
6.	Inspire Fellowship for Mr. Hareram Swain - PH19D042	2019 - 2024	DSTX	20.59297	Ayan Mukhopadhyay
7.	Inspire Fellowship for Ms. Jesla P K - PH18D059	2019 - 2024	DSTX	19.2512	Nirmala R
8.	Inspire Fellowship for Mr. Immanuel Thekkooden - EE20D035	2021 - 2026	DSTX	9.6256	Bhallamudi Vidya Praveen
9.	Femtosecond X-ray Photonics with Nano- and Micro-scale Droplets: Dynamics and Imaging	2023 - 2025	DSTX	14.8	Sivarama Krishnan

10.	Simulation and Characterisation of Novel Perovskite/Silicon Tandem Solar Cells	2022 - 2025	SERB	10.05	Sudakar Chandran
11.	Table-top Laser Plasma Accelerators for Medical and Industrial Imaging in Developing Economies	2023 - 2025	SPAR	90.87071	Sivarama Krishnan
12.	Inspire Fellowship for Ms. Bhagyalaxmi Pothal - PH21D080	2022 - 2027	DSTX	6.7844	Manu Jaiswal
13.	Charge-Transfer in Quantum Dots: Energy Dependence of Decay Rates	2023 - 2026	CSIR	4.72	Prem B Bisht
14.	Inspire Fellowship for Ms. Shubalakshmi Sahu- PH22D068	2023 - 2028	DSTX	5.8388	Ranjit Kumar Nanda
15.	Inspire Fellowship for Ms. Nickita Acharya - PH21D078	2022 - 2027	DSTX	9.6477	Sivarama Krishnan
16.	Inspire Fellowship for Ms. Anusree S - PH21D077	2022 - 2027	DSTX	9.65024	Abhishek Misra
17.	Measuring the Cosmological 21-cm Signal Using the Square Kilometre Array	2024 - 2026	SERB	31.70343	Samir Choudhuri
18.	Exploring Optical Spins in Nanodiamonds and Two-dimensional Materials for High-resolution Quantum Sensing	2024 - 2026	SERB	33.11	Siddharth Dattatraya Dhomkar
19.	Study of the Galactic Synchrotron Radiation Using Murchison Widefield Array	2024 - 2027		6.6	Samir Choudhuri
20.	Innovative Diamond Coating Technology for Effective Mineralization of PFAS - Forever Chemicals in Industrial Wastewater	2024 - 2026	DSTX	58.25353	Ramachandra Rao MS
21.	Quantum Random Walks Using OAM of Light	February 01 - June 30, 2024	IHUB	0.5	Sivarama Krishnan
22.	Compact Sensor Unit Development	2024 - 2026	PCDA	753.7548	Bhallamudi Vidya Praveen
23.	National Centre for Creation of State of-the-art Facilities for Lab Grown Diamond Technologies	2023	MOCI	24296	Ramachandra Rao MS
Ongoing					
25.	Quantum Emitters Based on Atomic Defects in Diamond and 2D Materials	2020 - 2024	MHRD	97.27	Bhallamudi Vidya Praveen, Pramoda Kumar Nayak
26.	Reprogrammable Polymer Based Soft Actuators	2020 - 2024	MHRD	49.88	Dillip Kumar Satapathy
27.	Whispering Gallery Enabled Light Scattering: Achieving Enhanced Efficiency in Perovskite Quantum dot Sensitized Mesoporous Metal Oxide Whisperonic Solar Cells	2020 - 2024	MHRD	99.41	Sudakar Chandran, Ranjit Kumar Nanda

28.	Numerical Investigations of Quantum Spin Liquids in SU (N) Antiferromagnetic Models	2021 - 2024	Indo French Centre for the Promotion of Advanced Research	17.78858	Yasir Iqbal
29.	Pairing in Neutron-star Matter With Renormalization-Group Based Low-Momentum Interactions	2020 - 2025	Indo French Centre for the Promotion of Advanced Research	21.71132	Sunethra Ramanan
30.	Rheological Studies of Activity of the Cell Membrane, Cytoplasm and Organelles Using New Rotational Mode of Probing in Optical Tweezers	2021 -2025	Wellcome Trust	317.427	Basudev Roy
31.	Development of Technology and Processes to Produce Nanomaterials, Nanocomposites, Nanocoatings, Nanolubricants and Nanoceramics	2021 -2024	Tube Investments of India Limited	109.2624	Ramachandra Rao MS
32.	Tribological Devices by Ultrashort Laser Pulse Texturing: high-Throughput And Precision	2021 -2024	DST	89.14755	Sivarama Krishnan
33.	Sublattice Distortion Tailored A ₂ B'B''X ₆ (A=Cs, B'= Ag, Na; B''=In, Bi, Sb); X =Cl,Br) Inorganic Perovskites for Optoelectronic and Photovoltaic Applications	2022 -2025	Science and Engineering Research Board	47.77696	Sudakar Chandran
34.	Quest for Low-field Large Magnetoresistance at Room Temperature and Quantum Effect in the La _{0.7} Sr _{0.3} MnO ₃ - LaAlO ₃ Superlattice	2022 -2025	Science and Engineering Research Board	31.85136	Prahallad Padhan
35.	Investigation on Electromagnetic Wave Propagation in a Photonic Crystal Having Temporal Dependence of Impedance	2022 -2025	Science and Engineering Research Board	43.7833	Subramanian V, Krishnamurthy C V
36.	Prof. Sashi Satpathy, VAJRA Visiting Faculty	2022 -2025	Science and Engineering Research Board	32	Ranjit Kumar Nanda
37.	Development of Novel 2D Organic-Inorganic Hybrid Halide Perovskite Materials For Efficient Photovoltaic Applications	2021 -2024	Science and Engineering Research Board	10.05	Jatindra Kumar Rath
38.	Study of Self-Powered Wearable Tribo-Electric Nano Generator Fabrics with Different Contact Modes.	2021 -2024	Science and Engineering Research Board	10.05	Sudakar Chandran
39.	Nano, Micro Whispers and Their Applications in Imaging Technologies	2022 -2025	Science and Engineering Research Board	18.029	Prem B Bisht
40.	DST-Materials MAP	2022 -2025	DST	55.85159	Ranjit Kumar Nanda

41.	Indian Participation in the CMS Experiment at CERN: Maintenance, Operation and Upgradation	2022 -2027	DST	1226	Prafulla Kumar Behera, Prabhat Pujahari,
42.	All-Inorganic Solid-State Integrated Halide Perovskite (X)-Ferroelectric-Oxide (O) Bulk Heterojunction (XOBHJ) Solar Cells	2022 -2025	Science and Engineering Research Board	109.31305	Sudakar Chandran
43.	Attosecond Quantum Electronics of van der Waals Systems	2022 -2025	Science and Engineering Research Board	55.34375	Sivarama Krishnan, Abhishek Misra
44.	Quantum Device with Weyl Semimetals	2022 -2024	Science and Engineering Research Board	28.71	Prasanta Kumar Muduli
45.	Multicomponent Magnetic Materials: Tuning the Functionality and Understanding the Magnetic Ground-state	2023 -2026	Science and Engineering Research Board	37.4	Nirmala R
46.	Construction of a Collinear Velocity Map Imaging Spectrometer	2023 -2026	Science and Engineering Research Board	49.54912	Aravind G
47.	4d/5d Transition Metal Ion Based Ordered Double Perovskite Thin Films on (111) Oriented Substrates: Novel Strongly Correlated Oxides	2023 -2026	Science and Engineering Research Board	40.18696	Santhosh P N, Murugavel P
48.	Probing the Phase of Reheating Through Primordial Black Holes, Dark Matter, and Gravitational Waves	2023 -2025	Science and Engineering Research Board	22.368	Sriramkumar L
49.	Identifying the Signatures of Quantum Gravity Through Quantum Entanglement	2023 -2025	Science and Engineering Research Board	22.368	Dawood Kothawala
50.	Synthesis and Physical Properties of Some Novel Geometrically Frustrated Quantum Magnets	2023 -2024	Science and Engineering Research Board	22.368	Panchanana Khuntia
51.	Thermodynamics of Active Matter: Role of Fluid-Mediated Interactions	2022 -2024	Science and Engineering Research Board	21.26	Rajesh Singh
52.	Study of Multicaloric Effect in Low Dimensional Mixed Spinel Oxide Systems for Solid State Refrigeration and Energy Storage Applications	2022 -2024	Science and Engineering Research Board	22.37	Nirmala R
53.	Testing Flavours of the Early Universe Beyond Vanilla Models With Cosmological Observations	2023 -2026	Indo French Centre for the Promotion of Advanced Research	28.06	Sriramkumar L

54.	Weak Radiative Decays of Heavy Flavor Mesons	2022 -2025	Science And Engineering Research Board	10.05	Prafulla Kumar Behera
55.	Flexocaloric Effect on Flexible Single Crystalline Ferroelectric Oxide Thin Film	2023 -2026	Science And Engineering Research Board	47.89	Murugavel P
56.	CsPbBr ₃ Perovskite/Transition Metal Di-chalcogenides Based Composite Solar Cell for Enhanced Power Conversion Efficiency	2022 -2025	Science And Engineering Research Board	10.05	Sudakar Chandran
57.	Synthesis and Investigation of Quantum Spin Liquid Materials	2023 -2026	Science And Engineering Research Board	115.10	Panchanana Khuntia
58.	Dissociative Ionization and photo Detachment of Interstellar Molecules and Chiral Anions	2023 -2025	Indian Space Research Organisation	27	Aravind G
59.	Charge-Transfer in Quantum Dots: Energy Dependence of Decay Rates	2023 -2026	Council of Scientific and Industrial Research	4.72	Prem B Bisht
60.	Innovative Diamond Coating Technology for Effective Mineralization of PFAS - Forever Chemicals in Industrial Wastewater	2024 -2026	Department of Science & Technology	58.25	Ramachandra Rao MS
61.	Inspire Fellowship for Mr. Hareram Swain - PH19D042	2019 -2024	Department of Science & Technology	25.04	Ayan Mukhopadhyay
62.	Femtosecond X-ray Photonics With Nano- and Micro-Scale Droplets: Dynamics and Imaging	2023 -2025	Department of Science & Technology	14.80	Sivarama Krishnan
63.	Inspire Fellowship for Mr. Immanuel Thekkooden - EE20D035	2021 -2026	Department of Science and Technology	9.63	Bhallamudi Vidya Praveen
64.	Inspire Fellowship for Ms. Bhagyalaxmi Pothal - PH21D080	2022 - 2027	Department of Science and Technology	6.78	Manu Jaiswal
65.	Inspire Fellowship for Ms. Shubalakshmi sahu- PH22D068	2023 - 2028	Department of Science and Technology	5.84	Ranjit Kumar Nanda
66.	Inspire Fellowship for Ms. Nickita Acharya - PH21D078	2022 - 2027	Department of Science and Technology	9.65	Sivarama Krishnan
67.	Inspire Fellowship for Ms. Anusree S - PH21D077	2022 - 2027	Department of Science and Technology	9.65	Abhishek Misra

68.	Inferring the True Nature of Compact Binary Mergers in the Fourth Observing run (O4) of LIGO and Virgo Detectors	2023 - 2026	Science and Engineering Research Board	6.24	Chandra Kant Mishra
69.	Measuring the Cosmological 21-cm Signal Using the Square Kilometre Array	2024 - 2026	Science and Engineering Research Board	31.70	Samir Choudhuri
70.	Table-top Laser Plasma Accelerators for Medical and Industrial Imaging in Developing Economies	2023 - 2025	Scheme for Promotion of Academic and Research collaboration	90.87	Sivarama Krishnan
71.	Interatomic Coulombic Electron Capture in Quantum Aggregates	2023 - 2026	Indo French Centre for the Promotion of Advanced Research	89.88	Sivarama Krishnan
72.	Simulation and Characterisation of Novel Perovskite/Silicon Tandem Solar Cells	2022 - 2025	Science And Engineering Research Board	10.05	udakar Chandran
73.	Exploring Optical Spins in Nanodiamonds and Two-dimensional Materials for High-Resolution Quantum Sensing	2024 -2026	Science And Engineering Research Board	33.11	Siddharth Dattatraya Dhomkar
74.	Study of the Galactic Synchrotron Radiation Using Murchison Widefield Array	2024 -2027	Science And Engineering Research Board	6.60	Samir Choudhuri
75.	National Centre for Creation of State of-the-art Facilities for Lab Grown Diamond Technologies	2023 -2028	Ministry of Commerce and Industry	24296	Ramachandra Rao MS
76.	Quantum Random Walks Using OAM of Light	2024	I-HUB Quantum Technology Foundation	0.50	Sivarama Krishnan
77.	Understanding and Deciphering the Therapeutic Potential of Established Ayurvedic Remedies	2023 -2024	University of Southampton	0	Prem B Bisht
78.	Compact Sensor Unit dDevelopment	2024 -2026	Principal Controller of Defence Accounts, New Delhi	753.75	Bhallamudi Vidya Praveen
79.	Development of Nano Sculptured Thin Films Using Glancing Angle Deposition for Wide Band Antireflection and Rugate Filter Applications	2023 -2025	Indian Space Research Organization	26.80	Somnath Chanda Roy

4.18.6.2. Industrial Consultancy Projects: (On going & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in lakhs)
1.	Ramaprabhu S	Development of Photovoltaic-driven Water Electrolyzer Stack for 10L/h H ₂	RMTCT	18.2
2.	Sivarama Krishnan	Femto Science Facility	Common Code	5
3.	Sivarama Krishnan	Femto Science Facility	Common Code	10
4.	Subramanian V	Measurements at Microwave Frequencies (Phase II)	Common Code	5
5.	Arul Lakshminarayan	Raman Spectrometer	Common Code	5
6.	Abhishek Misra	RAMAN Facility (TFL-2DMRI)	Common Code	5
7.	Abhishek Misra	RAMAN Facility (TFL-2DMRI)	Common Code	5
8.	Dillip Kumar Satapathy	XRD Measurements at Advanced X-ray Scattering Laboratory	Common Code	5
9.	Dillip Kumar Satapathy	XRD Measurement at Advanced X-ray Scattering Laboratory -Phase II	Common Code	5
10.	Ramachandra Rao MS	Testing of Internal Samples by Various Sophisticated Instruments- Phase II	Common Code - Consultancy	5
11.	Ramachandra Rao MS	Testing of External Sample by Various Sophisticated Instruments -Phase II	Common Code - Consultancy	5
12.	Dillip Kumar Satapathy	Testing at Soft Materials Laboratory -Internal Testing	Common Code - Consultancy	5
13.	Dillip Kumar Satapathy	Testing at Soft Materials Laboratory-External Testing	Common Code - Consultancy	5
14.	Ramaprabhu S	Indigenous Diaphragm Based Alkaline Industrial Wastewaters Electrolyzer	Sai Pet Preforms	17.70
15.	Ramaprabhu S	Development of Alkaline Anion Exchange Separator Based Fuel Cell	Sai Pet Preforms	16.52
16.	Ramaprabhu S	Prototype Development Of Electrolyser With Stack And Balance Of Plants	DreamGreen Technologies Private Limited	23.60
17.	Ramaprabhu S	Production of Oxygen by Electrolysis of Hospital Wastewaters	H2next Private Limited	14.75
18.	Ramaprabhu S	Development of Photovoltaic-driven Water Electrolyzer Stack for 10L/h H ₂ .	RM Tulpule Charitable Trust (RMTCT)	48.20
19.	Ramaprabhu S	Investigation of Regenerated Cellulose of Amines & Plasticizers Ltd., Mumbai as Separator Component for Seawater Electrolyser	Amines and Plasticizers Limited	8.26

4.18.6.3. RBIC Projects: (Ongoing & New)

Sl. No.	Name of Faculty	Title	Industry	Amount (Rs. in Lakhs)
1.	Ramaprabhu S	Investigation of Tribological Properties of Cylinder Lube Oils	Technology Information Engineering Services Pvt. Ltd.	9.44
2.	Ramaprabhu S	Development of Anion Exchange Membrane Fuel Cell with Indigenous Anion Exchange Membrane and Non PGM Catalysts	H2next Pvt. Ltd.	7.67
3.	Ramaprabhu S	Investigation of Capture of CO ₂ Gas of Materials Provided by Exposome, Mumbai	Exposome Pvt. Ltd.	8.26
4.	Ramaprabhu S	Indigenous Diaphragm Based Alkaline Industrial Wastewaters Electrolyzer	Sai Pet Preforms	17.7
5.	Ramaprabhu S	Development of Alkaline Anion Exchange Separator-based Fuel Cell	Sai Pet Preforms	17.7
6.	Ramachandra Rao MS	Diamond Coatings for Micro-electronics Applications	Applied Materials India Pvt. Ltd.	5.9
7.	Ramaprabhu S	Investigation of Regenerated Cellulose of Amines & Plasticizers Ltd., Mumbai as Separator Component for Seawater Electrolyser	Amines and Plasticizers Ltd.	8.26
8.	Ramaprabhu S	Prototype Development Of Electrolyser With Stack And Balance Of Plants	Dream Green Technologies Pvt. Ltd.	23.6
9.	Ramaprabhu S	Production of Oxygen by Electrolysis of Hospital Wastewaters	H2next Pvt. Ltd	14.75

4.18.7. Distinguished Visitors to the Department:

Sl. No.	Name of the Visitor and Designation	Date of Visit	Purpose of Visit
1.	Prof. Guy Wilkinson FRS, University of Oxford	September 07-09, 2023	Seminar and Collaboration
2.	Dr. Ashok Kumar, Indian Institute of Space Science and Technology, Thiruvananthapuram	November 17, 2023	Seminar
3.	Siddhartha Das, International Institute of Information Technology, Hyderabad	December 12, 2023	Seminar
4.	Dr. Pavan Nukala, Assistant Professor, Center for Nanoscience and Engineering, IISc Bangalore, India	December 15, 2023	Seminar
5.	Amrit Mudher, School of Biological Sciences University of Southampton	December 18, 2023	Seminar
6.	Prof. Sumeet Mahajan, Professor, Faculty of Engineering and Physical Sciences, University of Southampton	December 18, 2023	Guest lecture
7.	Dr. Sanjeev Kumar, Associate Professor Department of Electronic and Electrical Engineering, University College London	December 23, 2023	Seminar
8.	Dr. Nimmi Das, DESY, Hamburg	January 08, 2024	Seminar

9.	Prof. Kirill Shtengel, University of California	January 24, 2024	Colloquium
10.	Dr. Michael Urban, University Paris-Saclay, Orsay, France	January 29, 2024	Seminar
11.	Dr. Sven Froehlich, Institute for Quantum Optics, University of Hannover	January 31, 2024	Seminar
12.	Dr. D. V. Giri, USA	February 05, 2024	Seminar
13.	Henrik Rudolph, Editor-in-Chief, Applied Surface Science (Elsevier)	February 07, 2024	Seminar
14.	Ashish Arora	February 13, 2024	QuanTalks Seminar
15.	Prof. Lorenz S Cederbaum, University of Heidelberg, Germany.	February 14, 2024	Brahmagupta Physics Colloquium
16.	Nicolas Sisourat, Professor, Laboratory of Chemical Physics, University of Sorbonne, Paris	February 15, 2024	QuanTalks Colloquium
17.	Prof. Mohit Randeria, Ohio State University	February 20, 2024	Colloquium
18.	Prof. Nandini Trivedi, Ohio state university	February 21, 2024	Lakshmi Raman Memorial Lecture
19.	Anish Ghoshal, University of Warsaw	February 29, 2024	Seminar
20.	Prof. R. Mahendiran	February 29, 2024	Seminar
21.	Prof. Lucas Goehring, Nottingham Trent University, UK	March 04, 2024	Colloquium
22.	Prof. S Sivaloganathan, Fields Institute of Mathematical Sciences, Toronto and University of Waterloo.	March 13, 2024	Brahmagupta Colloquium
23.	Dr. Sankaran Ramesh, Lund University, Sweden	March 13, 2024	Seminar
24.	Prof. Meenakshi Singh, Colorado School of Mines	March 15, 2024	Seminar
25.	Prof. Anand Jha, Department of Physics, IIT Kanpur	March 27, 2024	Colloquium
26.	Prof. Baidyanath Basu, Retd Prof. of Electronics, IIT-BHU	October 03, 2023	Seminar
27.	Dr. Gopal Dixit, IIT Bombay	September 20, 2023	Seminar
28.	Prof. Guy Wilkinson, University of Oxford	September 08, 2023	Seminar
29.	Dr. Resmi PK, University of Oxford	September 25, 2023	Seminar
30.	Dr. Shrobona Bagchi, Post-doctoral Fellow, Korea Institute of Science and Technology, Seoul	August 22, 2023	Seminar
31.	Pavithran Iyer, Senior Scientist	August 11, 2023	Seminar
32.	Dr. Rajeev Kumar Jain	August 10, 2023	Seminar
33.	I Pagonabarraga, Faculty of Physics, University of Barcelona	August 09, 2023	Seminar
34.	Prof. Jerome Martin	July 27, 2023	Seminar
35.	Dr. Athreya Shankar, CV Raman Post-doctoral Fellow, IISc, Bangalore	April 17, 2023	Seminar

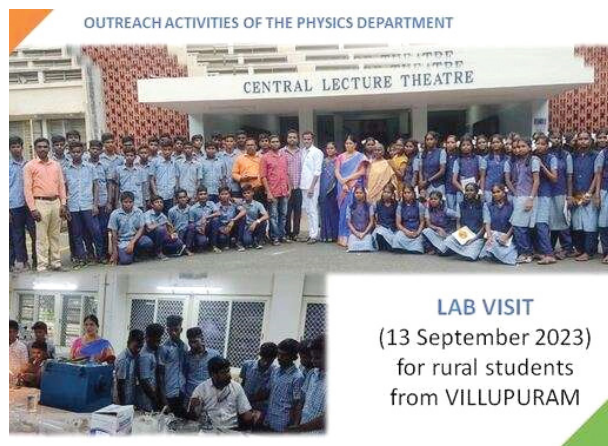
36.	Prof. P Ramadevi, IIT Bombay	March 29, 2023	Seminar
37.	Dr. Chandan Samanta, Post Doctoral Fellow	March 07, 2023	Seminar
38.	Günther Turk, DAMTP, University of Cambridge	March 03, 2023	Seminar
39.	Dr. Hemant Kumar Mishra, Post-doctoral Fellow at Cornell University	March 01, 2023	Seminar
40.	Prof. Julia M Yeomans	September 20, 2023	Brahmagupta Colloquium
41.	Prof. Goutam K Samanta	September 13, 2023	Brahmagupta Colloquium
42.	Dr. Vijayaraghavan	August 16, 2023	Brahmagupta Colloquium
43.	Prof. Jaeyoon Cho	August 02, 2023	Brahmagupta Colloquium
44.	Prof. Wei Li	April 19, 2023	Brahmagupta Colloquium

4.18.8. Other Activities of the Department/Centre:

Socially relevant activities carried out by the Department Outreach activities of Physics Department, September & October 2023



Lab Visit for Rural Students From Vellore School



Lab Visit for Rural Students From Villupuram

International Collaboration Achievements by the Department

Jim Libby serving as elected Physics Coordinator of the Belle II collaboration, KEK, Tsukuba Japan from September 01, 2023-August 31, 2025.

4.18.8.1. Faculty Visits:

Sl. No.	Name of the Faculty Member	Purpose of Visit	Date & Venue
1.	Shantanu Mukherjee	Origin of Pairing Instability in 2D Dichalcogenide Superconductors	April 02 – June 10, 2023. Copenhagen, Denmark
2.	Prem B Bisht	Research Initiatives Travel Grant of Dean, GE (IIT Madras)	May 21 – June 18, 2023. Southampton, UK
3.	Ramachandra Rao MS	ICMCTF	May 18 – 30, 2023. San Diego and San Francisco, USA
4.	Dillip Kumar Satapathy	Beam Time at Photon Factory, KEK, JAPAN	May 20 – 31, 2023. Tsukuba, Japan

5.	Jayeeta Bhattacharyya	IoE Research Travel	May 13 – June 18, 2023. Dresden, Germany
6.	Sivarama Krishnan	Molecular Science and Technology	May 06 – 29, 2023. Trieste, Italy
7.	Basudev Roy	Collaboration Work	May 10 – July 14, 2023. Tuebingen, Germany
8.	Ayan Mukhopadhyay	CEFIPRA Sponsored Research Project	May 08 – June 21, 2023. Paris, France
9.	Jatindra Kumar Rath	Faculty Evaluation Meeting KIIT Bhubaneswar	May 30 – 31, 2023. Bhubaneswar, India
10.	Jim Libby	Belle II Collaboration Meeting	June 04 – 10, 2023. Nagoya, Japan
11.	Prafulla Kumar Behera	CMS Project Work	June 22 – July 15, 2023. Gevena, Switzerland
12.	Prabha Mandayam	Research Collaboration	June 11 – 16, 2023. Singapore
13.	Prabhat Pujahari	LLR at Paris and CERN at Geneva; Visit for CMS Experiment Collaborative Research Work	July 10 – August 05, 2023. Paris, France and Geneva, Switzerland
14.	Dillip Kumar Satapathy	PhD Thesis Defense	August 25 – 26, 2023. Calicut, India
15.	Prafulla Kumar Behera	CMS Project Review Meeting	August 25 – September 10, 2023. Gevena, Switzerland
16.	Ramachandra Rao MS	Visiting USyd on a Bilateral Project (IITM-USyd) Funded by GE Office.	September 06 – 09, 2023. Sydney, Australia
17.	Somnath Chanda Roy	Collaborative Project with University College London	September 04 – 22, 2023. London, UK
18.	Yasir Iqbal	Project Collaboration	September 27 – October 02, 2023. Würzburg, Germany
19.	Suresh Govindarajan	IITM Zanzibar	October 20, 2023 – March 01, 2024. Zanzibar, Tanzania
20.	Jim Libby	Invited Seminar and Conducting PhD Vivas	October 03 – 06, 2023. Paris, France
21.	Jim Libby	Belle II General Meeting and Belle II Physics Week	October 23 – November 03, 2023. Tsukuba, Japan
22.	Prafulla Kumar Behera	DST and DAE Project Review	October 31 – November 01, 2023. BBSR, India
23.	Ramachandra Rao MS	Aquatech, Amsterdam University of Montpellier, France	November 04 – 14, 2023. Amsterdam, Netherlands and Montpellier, France
24.	Somnath Chanda Roy	Collaborative Visit to University of Sydney	November 13 – December 02, 2023. Sydney, Australia
25.	Dillip Kumar Satapathy	Research Project Related to Polymer Science of Mutual Interes;, Invited Talk.	November 08 – 22, 2023. San Sebastian, Spain
26.	Prafulla Kumar Behera	Visit with Dean ICSR to Attend CERN Meeting	November 15 – 18, 2023. Gevena, Switzerland
27.	Prafulla Kumar Behera	Presenting CMS Project Work; Management, and Collaboration meeting	November 19 – December 17, 2023. Geneva, Switzerland
28.	Jayeeta Bhattacharyya	Visit to Center for Organic Photonics and Electronics Research (OPERA) at Kyushu University for Research	November 26 – December 02, 2023. Fukuoka, Japan
29.	Jatindra Kumar Rath	BHEL Samvaad 3.0	November 09, 2023. Delhi, India
30.	Neelima M Gupte	India Secure at @75 93rd Annual Session of NASI	December 02 – 04, 2023. Mumbai, India
31.	Ramachandra Rao MS	Sakura Science Program, Japan Sci. and Tech., SIT, Japan	December 01 – 10, 2023. Tokyo, Japan

32.	Ramachandra Rao MS	Visit Applied Materials, Sunnyvale to Discuss on the Ongoing Collaborative Efforts on Diamond Coatings for Microelectronic Applications	December 16, 2023 – January 01, 2024. San Francisco, USA
33.	Somnath Chanda Roy	DST-SERB Project Presentation	December 19 – 21, 2023. Delhi, India
34.	Ashwin Joy	23rd Inter IIT Staff Sports Meet 2023, IIT Gandhinagar	December 23 – 29, 2023. Gandhinagar, India
35.	Ramachandra Rao MS	Indo-French (CEFIPRA) Collaborative Project Visit	March 14 – 23, 2024. Montpellier, France

4.18.8.2. Student Visits:

Sl.No.	Name of the Students	Purpose of Visit	Date & Venue
1.	Ansu Johnson (PH19D007)	Belle II Collaboration Meeting and Participation in Experimental Operations	January 24 – March 24, 2024. KEK, Tsukuba Japan
2.	Gaurav Sharma (PH19D203)	Participation in Belle II Experimental Operations	February 23 – March 31, 2024. KEK, Tsukuba, Japan
3.	Gaurav Sharma (PH19D203)	ML4HEP 2023 School	August 28 – September 08, 2023. ICTS, Bengaluru
4.	Gaurav Sharma (PH19D203)	EHEP 2023 School	January 27 – February 10, 2024. TIFR, Mumbai
5.	Neeraj Kumar (PH21D012)	ML4HEP 2023 School	August 28 – September 08, 2023. ICTS, Bengaluru
6.	Neeraj Kumar (PH21D012)	BESIII Experimental Operations and Collaboration	December 20 – March 19, 2024. IHEP, Beijing, China
7.	Neha Sharma (PH23D057)	HEP-DAS 2023 School	December 05 – 09, 2023. SINP, Kolkata

4.18.8.3. Activities Initiated

New Faculty Appointments and Retirements:

In the year 2023-24, Dr. Prabhat Ranjan Pujari was promoted to the post of Associate Professor, Dr. Ipsita Saha was appointed as Assistant Professor and Dr. Kasiviswanathan S retired in the month of March 2024.

Degrees Awarded This Year:

The Department awarded 4 Joint Ph.D. degrees, 15 Ph.D. degrees, 4 M.Tech. degrees, 47 M.Sc. degrees,

7 Dual degrees (B.Tech. & M.Tech.), 8 Dual degrees (B.S. & M.S.), and 20 B.Tech. degrees.

The Department Degree Distribution Program of 2023 was conducted on 22nd July, 2023. The event was addressed by the Head Prof. Arul Lakshminarayan and presided over by the Chief Guest Prof. Umesh Waghmare, Professor, Theoretical Sciences Unit, Jawaharlal Nehru Center for Advanced Scientific Research, Bengaluru. A total of 86 students were awarded their degrees at the D3P ceremony.

Other Activities of the Department/Centre:

1. Institute Open House Programme held on March 02 – 03, 2024





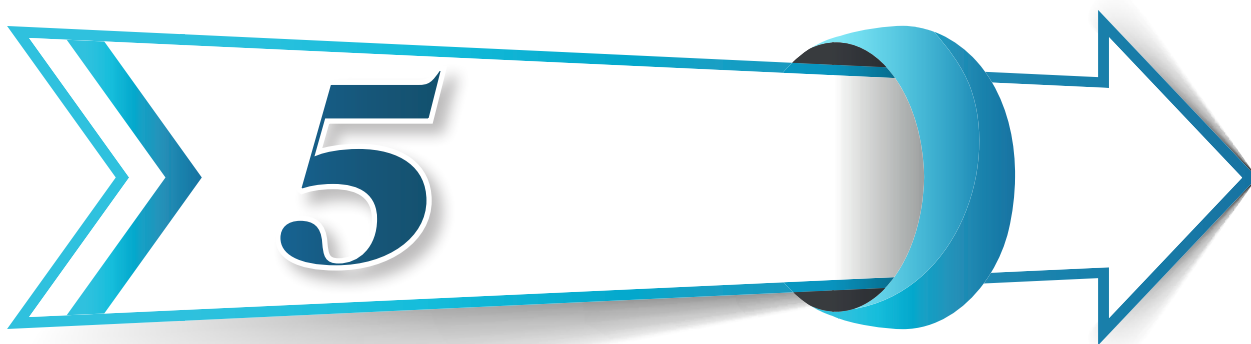
2. Physics In-House Symposium was held on October 27 - 28, 2023



3. Sustainability Award



Sustainability Award Received by Ms. Udhaya Banu



Sophisticated Analytical Instrument Facility

1. Introduction

The Sophisticated Analytical Instrument Facility (SAIF), established with financial support from the Department of Science and Technology (DST), Govt. of India, provides sophisticated instruments and equipment to students, scientists, researchers and faculty members from IIT Madras as well as academia, educational institutions, national laboratories, R&D establishments and industries from all over India in general and south India in particular. Its primary purpose is to enable the scientific community to collect data and carry out analyses using extremely sophisticated analytical equipment for advanced

research at very nominal rates.

The SAIF also undertakes, on request, the servicing of sophisticated analytical instruments at other institutions and provides training in the operation and maintenance of such equipment. Periodically, the SAIF conducts workshops, seminars and conferences to disseminate information on new trends in sophisticated instrumentation and methods in addition to providing training and hands-on experience. Students from educational institutions, colleges and schools visit the SAIF regularly to gain exposure to the use of sophisticated instruments for analysis.

2. Faculty and Officials and Their Activities

2.1. Faculty and officials

Name and Qualifications	Major areas of specialisation
Professor:	
Prof. SS Bhattacharya, Ph.D. [Head]	Nanocrystalline materials - synthesis and characterization, Superplasticity - theoretical and experimental, Metal forming
Adjunct Professor:	
Prof. S Subramanian, Ph.D.	Nuclear magnetic resonance spectroscopy, Electron spin resonance spectroscopy
Officers	
Senior Technical Officer C Baby, Ph.D. (superannuated in May 2023)	Nuclear magnetic resonance spectroscopy, Fluorimetry
KV Rama, Ph.D.	Analytical chemistry, ICP-OES, Thermal and elemental analyses
Technical Officers Sudhadevi Antharjanam, Ph.D.	Single crystal X-ray diffractometry, Optical spectroscopy Materials science

Junior Technical Superintendent NK Gopinath, M.Sc., M.Phil.	Physics, thermal analysis and thermogravimetry
Junior Technicians	
P Thirupathi, IEEE	Electronics and Instrumentation
A Varalakshmi, M.Sc	Chemistry
PV Narayanan, M.Sc	Physics
T Stella Mary M.Sc	Chemistry

2.2.Short-term Courses, Workshops, Seminars, Symposia and Conferences organised by Faculty Members

S. No.	Coordinator(s)	Title	Period
Workshop:			
1.	Dr. Sudhadevi Antharjanam	Single Crystal X-Ray Diffraction - Basics (Online)	January 11, 2024
2.	Dr. Sudhadevi Antharjanam	Single Crystal X-Ray Diffraction Data Analysis (Online)	January 12, 2024

2.3. Special Lectures delivered by the faculty in other Institutions:

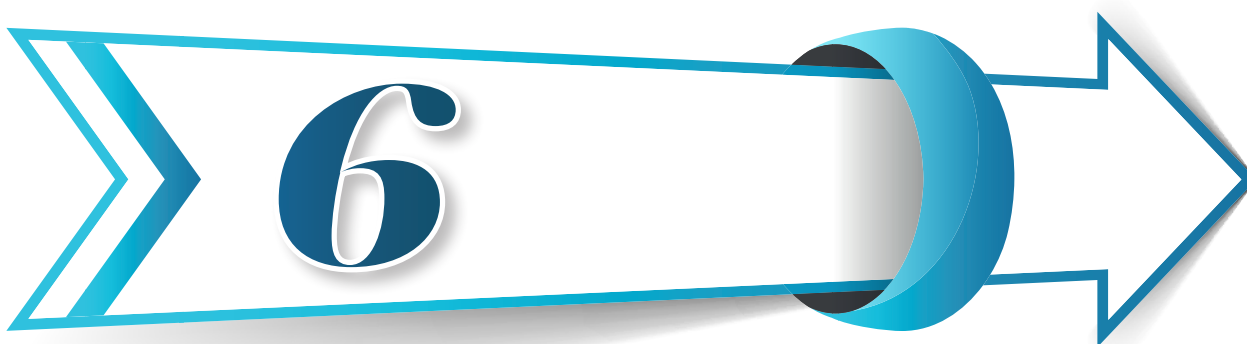
Sl. No.	Name of faculty	Topic of Lecture	Institution	Date
1.	Dr. Sudhadevi Antharjanam	Training on Single Crystal X-Ray Data Refinement	IISER, Tirupati	May 15, 2023
2.	Dr. Sudhadevi Antharjanam	Powder and Single Crystal X-Ray Diffraction	Anna University, Chennai	June 27, 2023

3.Design and Development Activities

3.1.New Facilities Added or Major Equipment Procured

S. No.	Name of Equipment	Value (in INR lakh)
1	Inductively coupled plasma-high-resolution mass spectrometer with ion chromatograph and laser ablation (ICP-HRMS-IC-LA) (currently in the process of being installed)	390

An inductively coupled plasma with a high-resolution mass spectrometer instrument, with ion chromatograph and laser ablation accessories, has been procured at a cost of INR 390 lakhs from M/s Thermo Fisher Inc. The equipment has been supplied and is in the process of being installed.



Centres of Special Facilities

6.1. Centre for Continuing Education

6.1.1. Introduction

The Centre for Continuing Education (CCE) was established in June 1986. The centre supports faculty members in meeting the following objectives of IIT Madras:

- Providing knowledge-based technological services to satisfy the needs of society and industry
- Helping build national capabilities in science, technology, humanities, management, education and research
- Effectively participating and contributing to the Institute's commitment of providing a broad base of learning opportunities through the following major activities:

1. Conducting PhD programmes under the Quality Improvement Programme (QIP) sponsored by the All India Council for Technical Education (AICTE)
2. Conducting short-term courses (STCs) sponsored by the AICTE

3. Writing books under the Book Writing Scheme
4. Conducting Continuing Education Programmes (CEPs) for professionals from industry
5. Developing and conducting User-Oriented Programmes (UOPs) for specific industries through which their engineers acquire higher degrees (M.Tech.)
6. Developing and conducting web-enabled M.Tech. programmes for industries.
7. Conducting courses under the National Programme on Technology-Enhanced Learning (NPTEL)
8. Recording important activities through the facilities in the Central Photographic Section
9. Conducting conferences, seminars, workshops and symposia
10. Allotting ISBN numbers for textbooks and other publications of faculty members
11. Conducting courses under the Global Initiative of Academic Networks (GIAN) sponsored by the Ministry of Education
12. Conducting courses under IIT PAL

6.1.1. Quality Improvement Programme

The faculty development activities under the AICTE that are funded by the Ministry of Education are geared to ensure quality, relevance, excellence and equity in technical education by supporting activities under the Quality Improvement Programme (QIP) scheme. Deputation to the academic programmes (mainly the Ph.D.) of the Institute facilitates the career development of the faculty members

of AICTE-approved technical institutions in the country.

Since the inception of the programme to 2023-2024, 568 faculty members from other institutions have obtained Ph.D. degrees and 610 faculty members have obtained M.Tech. degrees. The M.Tech. programme has been discontinued by the AICTE from 2020 since there are many institutions in the country offering the course.

Period	Ph.D.			M. Tech.		
	Admitted	No. on Roll	Awarded	Admitted	No. on Roll	Awarded
2023-2024	13	13	pursuing	4	4	pursuing
Since inception	(731 + 13) 744	—	568 (643 + 4) 647	—	610	

Short-term training programmes under QIP

The AICTE supports the organisation of short-term courses under QIP for faculty members of engineering institutions, and these courses (AICTE-STC) open avenues in which the Institute's faculty members with rich experience in new and upcoming areas can share their expertise with others. Under this programme, 17 courses (with a total duration

of 17 weeks) were conducted during 2021-2022 and 402 teachers of engineering institutions participated. From 1970-1971 to 2021-2022, 467 (450+17) programmes have been conducted, and 11,881 (11,265 +616) teachers from various engineering colleges have participated and benefited from these courses. The details of the courses conducted in 2021-2022 are given in the following table:

6.1.3. Continuing Education Programmes (CEPs)

Several short-term courses (STCs) were organised for professionals from industry and R&D establishments on an as-needed basis. The programmes were tailor-made

to suit the industries' requirements. From their inception in 1980 to 2023-2024, 1,713 (1,653 + 60) STCs have been conducted, benefitting 5,47,064 (5,42,471 + 4,593) participants. In 2023-2024, 75 STCs were conducted. The following table lists these STCs:

List of CEPs 2023-2024					
S. No.	Department/s	Coordinator/s	Title of the Proceedings	Duration	Number of Participants
1	Mechanical Engineering	Prof. Abhijit Sarkar	Training Programme on Vehicular Vibration	April 21 to May 13, 2023	20
2	Electrical Engineering	Prof. Shanthi Pavan	Practical Filter Design Techniques	May 2 to 24, 2023	50
3	Mechanical Engineering	Prof. Shankar Krishnapillai	Mechanical Workshop Practice for IIPE Students	May 13 to 18, 2023	111
4	Humanities & Social Sciences	Prof. Sudarsan P	IITM Technical & Science Writing Workshops	May 15 to 19, 2023	135
5	Mathematics	Prof. Arindama Singh	MTTS 2023 at IIT Madras	May 22 to June 17, 2023	124
6	Metallurgical and Materials Engineering	Prof. Tiju Thomas	A short course on Surface Degradation and Surface Engineering Solutions for Wear	May 22 to 26, 2023	20
7	Chemical Engineering	Prof. Abhijit P Deshpande	Design Thinking and Rural Product Workshop	May 29, 2023	24
8	Chemical Engineering	Prof. Rajagopalan Srinivasan	Process Safety Fundamentals: Deep Skilling for PI Industries	June 8 to July 31, 2023	25

9	Humanities & Social Sciences	Prof. Sudarsan P	Indian Democracy: Constitution, Parliament, Judiciary and Civil Society	June 16 to 22, 2023	243
10	Engineering Design	Prof. Shankar Ram CS	Control Systems	June 16 to August 11, 2023	15
11	Chemical Engineering	Prof. Abhijit P Deshpande	Design Thinking and Rural Products	June 17, 2023	28
12	Biotechnology	Prof. Madhulika	Short-term Training Programme on Bioethics	June 21 to 23, 2023	22
13	Ocean Engineering	Prof. Rajiv Sharma	Technology Leadership Programme	05 April 2019	30
14	Management Studies	Prof. Thenmozhi	Two days workshop on Finance and Business Acumen: "Mastering Business A	June 26 to 27, 2023	15
15	Electrical Engineering	Prof. Shanthi Pavan	Delta-Sigma Data Converter Design	June 26 to July 7, 2023	24
16	Mechanical Engineering	Prof. Ratna Kumar Annabattula	Design for Manufacture and Assembly	July 1 to August 26, 2023	40
17	Ocean Engineering	Prof. Srinivasan Chandrasekaran	Certification Program on Design & Detailing of Steel Structure	July 1 to 7, 2023	14
18	Electrical Engineering	Prof. Anbarasu Manivannan	Short-term training program on 'Basic Electronics and Instrumentation' for the staff members of the Institute	July 3 to 14, 2023	28
19	Management Studies	Prof. Srinivasan G	2-day Industrial Engineering program for the leather industry	July 7 to 8, 2023	30
20	Management Studies	Prof. Pinosh Kumar Hajoary	Strategy Formulation and Data Visualization	July 10 to 14, 2023	1034
21	Electrical Engineering	Prof. Shanthi Pavan	Short course on Pipeline ADCs	July 10 to 12, 2023	10
22	Ocean Engineering	Vijaykumar R	GET in Naval Architecture and Ship Building	July 10 to 19, 2023	20
23	Management Studies	Kamalanabhan TJ	Supervisory Development Program (SDP)	July 24 to 29, 2023	24
24	Chemical Engineering	Prof. Kannan A	Design of Experiments	July 26 to 28, 2023	27
25	Engineering Design	Prof. Venkatesh Balasubramanian	Design Thinking for Organizational Excellence	August 1, 2023 to March 15, 2024	13
26	Management Studies	Prof. Saji Mathew	Leadership Orientation Program for IMU Directors	August 7 to 8, 2023	11
27	Management Studies	Prof. Kamalanabhan & Prof. Thenmozhi	Executive Program in Leadership and Management	August 5, 2023 to May 11, 2025	20

28	Engineering Design	Prof. Venkatesh Balasubramanian	Design Thinking Based Problem Solving for Road Safety Officers (RSO) of NHAI	August 16 to 25, 2023	8
29	Management Studies	Prof. Kamalanabhan & Prof. Thenmozhi	Project Leadership and Management Development Program (PLMDP)	August 24 to September 2, 2023	25
30	Biotechnology	Prof. Nirav Pravinbhai Bhatt	Analytics Accelerator Programme	August 28 to 30, 2023	28
31	Electrical Engineering	Prof. Shanthi Pavan	Advanced Analog Circuit Design and Mixed-Signal Design	August 28 to September 1, 2023	110
32	Civil Engineering	Prof. Elango Lakshmanan	Groundwater Modelling	September 4 to 8, 2023	9
33	Applied Mechanics	Prof. Satyanarayanan Seshadri	Integrative Design for Sustainability	September 4 to 8, 2023	30
34	Engineering Design	Prof. Venkatesh Balasubramanian	Structured Crash Investigation using Root Cause Analysis Matrix	September 6 to 8, 2023	27
35	Management Studies	Prof. Kamalanabhan TJ, Prof. S. Srinivasan & Prof. Thenmozhi	Leadership Development Program for Young Managers of Indian Oil Corporation Ltd	September 8 to December 2, 2023	25
36	Management Studies	Kamalanabhan TJ	Supervisory Development Program (SDP) Batch 2	September 11 to 16, 2023	27
37	Management Studies	Kamalanabhan TJ	Supervisory Development Program (SDP) Batch 3	September 25 to 30, 2023	21
38	Mechanical Engineering	Prof. Abhijit Sarkar	Vehicle Dynamics and Signal Processing	September 25, 2023 to March 30, 2024	20
39	Civil Engineering	Prof. Murali Krishnan	Bituminous Material Characterization	September 28 to 30, 2023	38
40	Mechanical Engineering	Prof. Ramkumar	Skill Development Training in CAD	October 1 to 2, 2023	24
41	Applied Mechanics	Prof. Manivannan	XR for IOCL Executives	October 3 to 5, 2023	23
42	Management Studies	Prof. Srinivasan G & Prof. Arunkumar	Short-term Business Training programme	October 9 to 13, 2023	30
43	Electrical Engineering	Prof. Anbarasu Manivannan & Prof. Jeevandoss CR	Advanced Electronics Manufacturing: SMT Fabrication	October 9 to 20, 2023	15
44	Management Studies	Prof. Kamalanabhan TJ & Prof. Thenmozhi	BLOOM program	October 9 to 14, 2023	28

45	Engineering Design	Prof. Venkatesh Balasubramanian	Design Thinking for Safe Roads and Organizational Excellence	October 18, 2023 to March 29, 2024	16
46	Applied Mechanics	Prof. Manivannan	XR Technologies for Practicing Engineers	November 15, 2023 to May 14, 2024	26
47	Metallurgical & Materials Engineering	Prof. Tiju Thomas	Coatings Solutions for Emissions Reduction Enhanced Energy Efficiency and Reliability of Coal-based Thermal Power Plants	November 20 to 24, 2023	9
48	Central Electronics Centre	Prof. Anbarasu Manivannan & Prof. CR Jeevandoss	Advanced Electronics Manufacturing: SMT Fabrication	November 20 to December 1, 2023	15
49	Management Studies	Prof. Kamalanabhan & Prof. Thenmozhi	Project Leadership and Management Development Program (PLMDP)	November 20 to 29, 2023	20
50	Management Studies	Prof. Kamalanabhan & Prof. Thenmozhi	BLOOM Program for L&T managers	December 1 to 7, 2023	27
51	Ocean Engineering	Prof. Nallayarasu	Port and Harbour Engineering	December 4 to 8, 2023	22
52	Management Studies	Prof. Vijayalakshmi & Prof. Rupashree Baral	FDP on Research Quality & Productivity	December 4 to 9, 2023	30
53	Management Studies	Prof. Arshinder Kaur	Blockchain and Business Relevance	December 19, 2023	69
54	Electrical Engineering	Prof. Lakshminarasamma N	Digital Controller for Power Applications	December 20, 2023 to February 17, 2024	137
55	Electrical Engineering	Prof. Sarathi R	Two-day programme on Condition Monitoring of Power Systems	December 22 to 23, 2023	31
56	Humanities & Social Sciences	Dr. Sudarsan Padmanabhan & Mr. Sashikanth Ananthachari	Performance Traditions of the Mahabharata in Tamil Nadu	January 2 to 7, 2024	85
57	Applied Mechanics	Prof. Satyanarayanan Seshadri	Drops Sprays and Atomization	January 17 to 20, 2024	38
58	Management Studies	Prof. Kamalanabhan & Prof. Thenmozhi	BLOOM program for L&T 2024	January 17 to 23, 2024	23
59	Management Studies	Prof. Pinosh Kumar Hajoary	Certification Course on Strategy Formulation and Data Visualization - 1 2024	January 22 to 26, 2024	400
60	Management Studies	Prof. Kamalanabhan & Prof. Thenmozhi	Embracing ESG through Responsible Leadership	January 22 to 24, 2024	18

61	Chemistry	Prof. Pradeep	A Hybrid Course on Water Quality	January 22 to April 30, 2024	466
62	Biotechnology	Prof. Karthik Raman	Synthetic Biology	February 1 to 21, 2024	30
63	Management Studies	Prof. Vijayalakshmi	Design Thinking: Fundamentals and Applications	February 3 to 4, 2024	4
64	Management Studies	Prof. Pinosh Kumar Hajoary	Certification Course on Strategy Formulation and Data Visualization - 2 2024	February 5 to 9, 2024	94
65	Engineering Design	Prof. Venkatesh Balasubramanian	Capacity-building Workshop for Master Trainers	February 6, 2024	40
66	Management Studies	Prof. Kamalanabhan & Prof. Thenmozhi	Project Leadership and Managerial Development Program (PLMDP-3)	February 7 to 16, 2024	16
67	Management Studies	Prof. Pinosh Kumar Hajoary	Certification Course on Strategy Formulation and Data Visualization - 3 2024	February 19 to 23, 2024	175
68	Management Studies	Arun Kumar G	Workshop on Strategic Thinking and Execution	February 19 to 20, 2024	15
69	Civil Engineering	Prof. Vidya Bhushan Maji	Geotechnical Investigation and Foundation Design	February 21 to 23, 2024	15
70	Engineering Design	Prof. Palaniappan Ramu	Introduction to Optimization Surrogates and Robust Design	February 5 to 12, 2024	25
71	Management Studies	Prof. Rupashree Baral & Prof. Nibu John Thomas	Faculty Development Program	March 4 to 12, 2024	15
72	Management Studies	Prof. Srinivasan S	Training Programme on Statistical Package for Social Science	March 9, 2024	20
73	Management Studies	Prof. Kamalanabhan & Prof. Thenmozhi	Leadership and Managerial Development Program for Emerging Leaders	March 11 to 15, 2024	29
74	Mechanical Engineering	Prof. Somashekhar	Artificial Intelligence: Building the Bridge Between Automation and Information Technology	March 18 to 23, 2024	32
75	Central Electronics Centre	Prof. Anbarasu Manivanan	Understanding the Requirements of ISO/IEC	March 25 to 28, 2024	6
Total					4,563

6.1.4. User-Oriented Programmes

User-Oriented Programmes (UOPs) are designed to suit the requirements of industrial organisations. Two-year M.Tech. programmes are organised to meet the specific needs of the associated industries. So far, 28 programmes have been conducted or are being conducted by the Departments of Civil Engineering, Ocean Engineering, Mechanical Engineering, Engineering Design, and Management Studies.

List of User-Oriented Programmes (UOPs)				
S. No.	Department/s	Coordinator/s	Title of the Proceedings	Project No.
1	Management Studies	Arshinder Kaur, Lata Dyaram	VLM Project	CCE/UoP/28/ PGPEX-VLM/21-22
2	Civil Engineering	K Ramamurthy, Koshy Varghese	Construction Technology & Management (CT&M)	CCE/CEP/UoP/24/ KR&KV/CE/19-20
3	Civil Engineering	K Ramamurthy, Koshy Varghese	Construction Technology & Management (CT&M)	CCE/CEP/UoP/26/ KR&KV/CE/20-21
4	Civil Engineering	Rupen Goswami	Post-Graduate Diploma in Bridge Engineering (PGDPBE)	CCE/CEP/UoP/27/ RG/CE/21-22

6.1.5. Web-enabled M.Tech. programmes for industries

IIT Madras has been actively interacting with leading industries through R&D, consultancy projects, and continuing education programmes. Several projects have been undertaken towards the development of products and processes. Based on Senate approval and guidelines and the needs of industries, IIT Madras has come up with web-based M.Tech. programmes with adequate opportunities for student-teacher interaction. In these programmes, post-class interaction is facilitated by an effective course management platform. Candidates have to take approved core and elective courses of their choice and can complete the entire M.Tech. programme at their own pace. On completion of each course, a certificate will be awarded, and on finishing the required credits in different categories, the candidate will be eligible for a master's degree. The candidate may also do a set of laboratory experiments and projects as defined by the curriculum. Seven

programmes jointly worked out with industries by the concerned departments have been approved by the Senate. The details are given in the table below. The web-enabled M.Tech. (Automotive Technology) course was started in May 2017. Five automotive industries sponsored 29 students for this course in the first year. This was followed by two other courses offered by the Department of Electrical Engineering, namely M.Tech. (VLSI) with 27 students and M.Tech. (Communication Systems Engineering) with 49 students. The second batch of students joined the M.Tech. (Automotive Technology) programme in November 2018. Two more automotive industries sent their candidates for this programme for the second batch. The second batch of students joined the M.Tech. (VLSI) and M.Tech. (Communication Systems Engineering) programmes in September 2018. A new web-enabled programme, M.Tech. (Information Security) was started in September 2018 with 33 students. A new web-enabled programme, M.Tech. (Aerospace Engineering), was started in August 2021 with 20 students.

List of Senate-approved web-enabled M.Tech. programmes for industries		
S. No	Department	Title
1.	Aerospace Engineering	Mathematical Methods for Aerospace Engineers
2.	Aerospace Engineering	Aerodynamics and Aircraft Performance
3.	Computer Science and Engineering	M.Tech. in Computer Science and Engineering with specialisation in Information Security
4.	Electrical Engineering	Master's in Communications Systems Engineering
5.	Electrical Engineering	Master's in VLSI
6.	Mechanical Engineering	Automotive Technology
7.	Metallurgical and Materials Engineering	Industrial Metallurgy

	2018	2019	2020	2021	2022	2023	Companies	Total Earnings (amount in Rs.)	Number of Faculty
Aerospace Engineering	0	0	0	20	38	46	1. Munitions Indian Limited (MIL) 2. Airbus 3. HAL	3,06,92,600	10
EE-Comm	46	24	16	34	18	19	1. Qualcomm 2. Valeo 3. Infineon 4. Synopsys 5. Analog 6. Bharath Electronics 7. Cypress 8. NXP 9. Open Silicon 10. SILAB 11. HCL	3,88,90,900	12
EE-VLSI	26	23	33	38	38	29			
EE-Microelectronics	0	0	20	4	26	26			
EE-Multimedia	1	8	6	7					
CS-Soft Security	29	30	23	25	25	27	1. Qualcomm 2. BNY 3. Valeo 4. Infineon 5. Synopsys 6. Analog	3,69,80,000	10
ME-Automotive Technology	21	15	0	7	0	22	1. Lam Research 2. Mahindra 3. Tata motors 4. Siemens Games 5. Daimler	57,65,000	10
ME-Machine Design			21	19		24		91,72,000	
Industrial AI						45	1. TCS 2. Virtusa 3. NXP 4. ISRO	3,59,28,841	10

6.1.6. Conferences

IIT Madras has instructed faculty members (vide circular No. F.R.150/3/2011 dated March 31, 2011) to register all national and international conferences, workshops, seminars, symposiums and other such events organised by them with the CCE. The following programs were registered with the CCE in 2023-2024:

S. No	Coordinator	Department	Title	Period	No. of Participants
1	Prof. Deleep R Nair	Electrical Engineering	INUP - Industrial Training Workshop on Photovoltaic devices	April 10 to 12, 2023	2
2	Prof. Anindita Sahoo	Humanities & Social Sciences	All About 'Voice': A Crosslinguistic Perspective	April 14 to 15, 2023	21
3	Prof. Sankaran	Metallurgical & Materials Engineering	Student body of the department of MME, Metsa's annual technical festival AMALGAM 2023	April 21 to 23, 2023	67
4	Prof. Arun Rajkumar	Computer Science and Engineering	Third Conference on Deployable AI	June 5 to 7, 2023	17
5	Prof. Benny Raphael	Civil Engineering	International Symposium on Automation and Robotics in Construction (ISARC) 2023	July 3 to 6, 2023	152
6	Prof. Smita Srivastava	Biotechnology	Hands-on Training Workshop on Fermentation-Assisted Biomanufacturing	July 3 to 5, 2023	31
7	Prof. David Kumar	Aerospace Engineering	Workshop on 'How to Build and Fly Drones'	July 3 to 9, 2023	3
8	Prof. Somnath Chanda Roy	Physics Department	International Conference on Thin Films and Nanotechnology - Knowledge, Leadership and Commercialization (ICTN-KLC) 2023. Website: ictn-klc.org	July 6 to 8, 2023	208
9	Prof. Tiju Thomas	Metallurgical & Materials Engineering	Electrochemical Energy Storage Technologies: Current Research and Translational Trends	July 7 to 9, 2023	34
10	Prof. Pradeep KG	Metallurgical and Materials Engineering	Summer School on Materials Characterization	July 11 to 15, 2023	24
11	Prof. Ethayaraja Mani	Chemical Engineering	Sustainable and Applied Nanotechnology for Agriculture and Health	July 19 to 21, 2023	84
12	Prof. Deepa Venkitesh	Electrical Engineering	Workshop on Advances in Optical Communication	July 22 to 23, 2023	2
13	Prof. Santosh Kumar Sahu	HSS	Contemporary Economic & Financial Challenges and Opportunities	July 24 to 25, 2023	50
14	Prof. Sachin S Gunthe	Civil Engineering	Workshop on Atmospheric Aerosol Measurements and Modeling over India: Past decade, current status, and challenges ahead	July 26 to 28, 2023	39

15	Prof.Sayan Gupta	Applied Mechanics	Perspectives in Nonlinear Dynamics 2023	August 1, 2023	137
16	Prof. Ponnusamy S	Mathematics	International Workshop on Geometric Function Theory (IWGFT 2023)	August 18 to 20, 2023	93
17	Prof. Sanjay Kumar	Chemistry	Chemistry in-House Symposium (CiHS)	August 23, 2023	350
18	Prof. Murugaiyan Amirthalingam	Metallurgical and Materials Engineering	#Right2Face - Technology for Patient-specific maxillofacial reconstructive implants by 3D printing	September 1, 2023	70
19	Prof. Sathyanarayanna Gummadi & Prof. Shantanu Pradhan	Biotechnology	BIOMERS 2023 - Research Scholars Symposium	September 9, 2023	7
20	Prof. Mahaligam S	Biotechnology	International conference on Cancer Biology: Molecular Mechanisms, Genomics and Molecular Therapeutics	September 14, 2023	163
21	Prof. Merin Simi Raj	Humanities & Social Sciences	Memory, Ecology, and Sustainability	September 20 to 22, 2023	309
22	Prof. Suresh Kumar Rayala	Chairman, GATE	One day Training Programme: GATE 2024 and JAM 2024 Examination awareness session	September 27, 2023	125
23	Prof. Ashis Kumar Sen	Mechanical Engineering	Indian Conference on Micro nano fluidics (ICOM)	September 29, 2023	219
24	Prof. Sannasiraj	Ocean Engineering	International Conference on Water Security and Climate Adaptation	October 4 to 7, 2023	4
25	Prof. Manu Santhanam	Civil Engineering	Brainstorming workshop on Future Trends in Defense Technologies	October 14, 2023	1
26	Prof. Sriram V	Ocean Engineering	ISOPE - Pacific/Asia Offshore Mechanics Symposium (ISOPE - PACOMS 2024)	October 19, 2023 to January 31, 2025	100
27	Prof. G. Rajesh	Aerospace Engineering	15th International Symposium on Experimental and Computational Aerothermodynamics of Internal Flows	October 24, 2023	103
28	Prof. Sannasiraj	Ocean Engineering	MTS TechSym 2023: A National-Level Technical Symposium on Offshore Renewables for a Blue Economy	October 28 to 29, 2023	89

29	Prof. Abdus Samad & Dr. Narendran K	Ocean Engineering	International Workshop on Ocean Energy - Recent Trends	October 30 to 31, 2023	4
30	Prof. Kamaraj M	Metallurgical and Materials Engineering	Asian Thermal Spray Conference and Expo 2023	November 2 to 4, 2023	157
31	Prof. Vijayalakshmi V	Management Studies	International Conference on Management Research 2023	November 16 to 18, 2023	146
32	Prof. John Bosco Lourdasamy	Humanities & Social Sciences	Religion and Technology in an era of Rapid Digital and Climate Change (RaTiRDACC 2023)	November 21, 2023	51
33	Prof. Richa Agrawal	Management Studies	Indo-German Colloquium 2023	November 24 to 25, 2023	14
34	Prof. Vijayalakshmi V	Management Studies	EMBARK'23	November 25, 2023	5
35	Prof. Indumathi Manivanan Nambi	Civil Engineering	Dive into Eco-toxicology: Zebra Fish and Wastewater	November 27 to 28, 2023	4
36	Prof. Venkatesh Balasubramanian	Engineering Design	Road Safety Hackathon Finale: 'India-specific Advanced Driver Assistance Systems (ADAS)'	December 1, 2023	22
37	Prof. Lelitha Devi	Civil Engineering	Recent Advances in Pavement and Traffic Engineering	December 1 to 2, 2023	100
38	Prof. Shiva Nagendra SM	Civil Engineering	8th Indian International Conference on Air Quality Management (IICAQM 2023)	December 4, 2023	79
39	Prof. Satyanarayanan Seshadri	Applied Mechanics	Energy Summit 2023	December 5 to 8, 2023	134
40	Prof. Kothandaraman Ramanujam	Chemistry	The Energy Summit 2023: Pre-conference Workshop	December 5, 2023	45
41	Prof. Sanjay Kumar	Chemistry	Theoretical Chemistry Symposium 2023 (TCS 2023)	December 7 to 10, 2023	563
42	Prof. Pradeep T	Chemistry	CoE Winter School 2023	December 11 to 15, 2023	36
43	Prof. Uma V	Mathematics	Workshop on Spherical Varieties and related topics	December 11 to 22, 2023	30
44	Prof. Saravanan U	Civil Engineering	Structural Health Monitoring of Bridges: The way forward	December 11, 2023	14
45	Prof. Enakshi Bhattacharya	Electrical Engineering	XXII International Workshop on Physics of Semiconductor Devices, IWPSD 2023	December 12 to 16, 2023	460

46	Prof. Thillai Rajan A	Management Studies	The Confluence Conference on Start-Ups and Venture Capital	December 13 to 15, 2023	75
47	Prof. Samuel G. L	Mechanical Engineering	International Conference on Material Processing With Ultra-fast Lasers & Surface Engineering (IMPULSE) - 2023	December 14 to 15, 2023	98
48	Prof. Sunil Kumar PB	Physics Department	CompFlu 2023 (Complex Fluids International Conference)	December 16 to 20, 2023	531
49	Prof. Pradeep T	Chemistry	International conference on Molecular Matter - Emerging directions for sustainability	December 16 to 18, 2023	118
50	Prof. Shantanu Pradhan	Biotechnology	Advanced Bioimaging Workshop 2023	December 18 to 21, 2023	21
51	Prof. Deepa Venkitesh	Electrical Engineering	Workshop on Optical Communication	December 18 to 22, 2023	123
52	Prof. Nallayarasu	Ocean Engineering	Scholars' Communion for Ocean Research and Engineering (SCORE)	December 21, 2023	4
53	Prof. Shantanu Pradhan	Biotechnology	Workshop on Protein Expression & Purification	December 22 to 23, 2023	11
54	Prof. Sujatha N	Applied Mechanics	Women in Optics and Photonics in India 2023	January 2 to 3, 2024	162
55	Prof. John Ebenezer Augustine	Computer Science and Engineering	25th International Conference on Distributed Computing and Networking (ICDCN)	January 4 to 7, 2023	99
56	Prof. Kothandaraman Ramanujam	Chemistry	Recurring Outreach activities (workshop hands-on lecture series) by the electrochemical society-IITM chapter	January 4, 2024 to December 30, 2030	107
57	Prof. Yasir Iqbal	Physics Department	Highly Frustrated Magnetism	January 7 to 13, 2024	185
58	Prof. Ranjith Mohan	Aerospace Engineering	Unmanned Aerial Vehicles (Theory and Practice)	January 9 to 13, 2024	93
59	Prof. Krishna Vasudevan	Electrical Engineering	Energy Finance Conference India	January 18 to 19, 2024	60
60	Prof. Gandham Phanikumar	Metallurgical and Materials Engineering	MicroSIM for modelling of microstructure evolution	January 22 to 26, 2024	1
61	Prof. Aslam Kunhi Mohamed	Civil Engineering	3rd Technologies for low carbon and lean construction (TLC 3) Week 2024	January 28 to 31, 2024	98
62	Prof. Manikandan MS	Aerospace Engineering	Geophysical Flows: From the Field to the Lab - Hands-on Workshop and Discussion Meeting	January 5 to 12, 2024	4

63	Prof. Rajesh R Nair	Ocean Engineering	International Conference-cum-workshop on 'History Science and Technology of South Asian Ceramics'	January 8 to 12, 2024	100
64	Prof. Hema A Murthy Emeritus	Computer Science and Engineering	EEG Signal & Cognition	January 8 to 10, 2024	32
65	Prof. Gnanamoorthy R	Mechanical Engineering	International Conference on Sustainable Materials for Engineering Applications (ICSMEA 2024)	February 1 to 3, 2024	137
66	Prof. Subash S	HSS	Micro Small and Medium Enterprises in India: Growth and Performance	February 17, 2024	1
67	Prof. John Bosco Lourdusamy	HSS	Circuits of Exchange and Indian Ocean Hinterlands c.1400-1800	February 16 to 18, 2024	25
68	Prof. Vinu R	Chemical Engineering	Indo -Japanese workshop: Frontiers in Analytical and Applied Pyrolysis for Energy and Environment (FAAPEE-2023)	February 26 to 27, 2024	5
69	Prof Thenmozhi M	Management Studies	CIFIL Symposium on Fintech Challenges 2024 (CSFC)	February 26, 2024	65
70	Prof. Krishna Jagannathan	Electrical Engineering	Thirtieth National Conference on Communications 2024	February 28 to March 2, 2024	144
71	Prof. Sankaran S	MME	Advanced diffraction and spectroscopic techniques in TEM and their Application in Materials	February 26 to March 1, 2024	12
72	Prof. S.Sankaran	Metallurgical and Materials Engineering	Recent trends in Materials Science and Metallurgy - Amalgam 2024	March 1 to 3, 2024	60
73	Prof. Deepa Venkitesh	Electrical Engineering	PMRF Symposium 2024	March 3 to 4, 2024	220
74	Prof. Murugaiyan Amirthalingam	Metallurgical and Materials Engineering	All India Research Scholars' Summit 2024	March 4 to 7, 2024	326
75	Prof. M.Prakash Maiya	Mechanical Engineering	8th National and 2nd International Conference on Refrigeration and Air Conditioning (NCRAC 2024)	March 13 to 15, 2024	96
76	Prof. Venkatesh Ramaiyan	Electrical Engineering	Joint Indo-Japanese Smart City Conference 2024	March 28 to 29, 2024	15
77	Prof. Chandra Annavarapu	Civil Engineering	Civil Engineering Association Festival 2024	March 29 to 31, 2024	579
TOTAL					7085

6.1.7. National Programme on Technology Enhanced Learning (NPTEL)

A Joint Initiative of the IITs and IISc, Funded by the Ministry of Education (MoE)

NPTEL: A Joint Initiative of the IITs and IISc - Funded by the MoE

The NPTEL project was initiated in 2003 by 7 IITs (Bombay, Delhi, Guwahati, Kanpur, Kharagpur, Madras, and Roorkee) to provide quality education to anyone interested in learning from the IITs with funding from the Ministry of Education, Government of India. IIT Madras is the Coordinating Institute of this multi-institutional project.

NPTEL Courses Developed

Together, several web and video-based materials for the basic sciences, humanities and social sciences, management, and engineering courses have been developed. Since 2003, a total of 2989 courses have been developed (434 web courses and 2555 video courses) in association with 88 partnering Institutes including IITs, IISc, IIITs, IISER, IMSc, ISI, and others. NPTEL courses are used extensively by students and faculty members across the world to further their knowledge on various subjects. The learning material is supplemented with references and recommended reading material and contains self-assessment quizzes for students. The online web portal, <http://nptel.ac.in>, has more than 170 million views. NPTEL's YouTube channel (<http://www.youtube.com/iit>) is the most subscribed educational channel, with 2.60 million+ channel subscribers, 592 million+ views, and 65056+ hours of video.

NPTEL Online Courses (NOC)

Since 2014, online courses of 4-, 8-, and 12-week durations have been offered, typically on topics relevant to students in all years of higher education along with basic core courses in sciences, humanities, management, and engineering. Currently, the courses are offered from January or July through the SWAYAM portal (<https://swayam.gov.in/>). Any interested learner can join and learn from the course absolutely free. An in-person proctored examination conducted at the end of the course provides an opportunity to get certified through participating institutions and industries. From March 2014 till the completed January 2024 semester, 6887 courses have been offered, in which 2,84,20,108 learners enrolled and 44,37,852 learners registered for the certification exams. During the ongoing January-April 2024 semester alone, a total of 28,23,698 students enrolled and 8,08,016 registered for the exams for 719 courses. During the July-October 2024 semester, 734 courses are planned to be offered and opened for enrollment.

Role of CCE of IIT in NOC

The CCE of a participating institute holds the administrative control of the NPTEL online courses

offered by that institute. Besides the financial management of the programme at the institute level, the final course completion certificates are also issued by the institute concerned, and are jointly signed by the Chairman, CCE and the Institute NPTEL Co-ordinator.

Live Sessions by NPTEL Course Instructors and PMRF Scholars

In order to address learners' course-related queries, 947 faculty-driven live interactive sessions were organised through YouTube during January-December 2023. Additionally, 9028 problem-solving sessions pertaining to the contents of the week were organised during the same period through some Prime Minister's Research Fellows (PMRF) to answer any additional questions or doubts.

Transcripts and MP3 versions of Video Lectures

All NPTEL video lectures are transcribed and edited so that students can access the content in video lectures and as textual material (in PDF format). The same text is also used for subtitling the video lectures. The audio of a video lecture is extracted as an MP3 file, which is small in size compared with the corresponding video lecture. This file, coupled with the text transcript, serves as a good educational resource. So far, more than 110648 lectures have been transcribed and more than 91738 (verified and unverified) videos are available with subtitles in English. The transcript files can be accessed through the URL <https://nptel.ac.in/course.html>.

Translation of text transcripts to local languages

To assist and ease the transition of learners who have undergone their schooling in their regional language, the NPTEL has initiated the translation of course content into 11 Indian languages, viz. Assamese, Bengali, Gujarati, Hindi, Kannada, Malayalam, Marathi, Odia, Punjabi, Tamil and Telugu. This endeavour ensures better and effective knowledge transfer and improvement of English skills, as it enables learners to follow along with English-speaking instructors with the help of subtitles in their preferred language. Translated versions of lectures in various languages are available on SWAYAM and NPTEL portal (<https://nptel.ac.in/translation>) as PDF transcripts, e-books, subtitles below videos, scrolling text below videos, and in some cases as audio files. A total of 25230 hours of lectures of 1,139 courses have so far been translated into regional languages.

Use of NPTEL video and Web material as GATE preparation aids

Considering the importance of the Graduate Aptitude Test in Engineering (GATE) as a qualifying exam for graduate studies as well as an opportunity for jobs in public sector undertakings (PSUs), the NPTEL has developed a dedicated portal for GATE preparation with

a repository of relevant courses. The portal, started with corporate social responsibility (CSR) support from Amadeus Labs Bengaluru, maps GATE syllabuses with NPTEL videos, thereby lowering aspirants' reliance on private coaching institutes. Currently, GATE syllabuses of 12 disciplines have been mapped with NPTEL contents. Furthermore, recordings of live mentoring sessions (for the disciplines AE, BT, CE, CH, CS, EC, EE, XL, MA, ME, MT and PH) have been made available on the portal for aspiring students. In addition to the portal, the video solutions are also available to the public through the YouTube channel NPTEL GATE Preparation. This channel, with 12.5K subscribers, has been loaded with more than 400 hours of video. A question bank with more than 1000 questions for each GATE subject has been prepared for the BT, CY, CE, CSE, EE, EC, ME, PH & XL departments for the students to take up mock tests (<https://gate.nptel.ac.in/>).

NPTEL Local Chapters (LCs)

To encourage more students to participate in NPTEL online courses, SWAYAM-NPTEL local chapters are being formed in colleges and universities with the approval of the management. These local chapters provide a platform for learners' continuous engagement with NPTEL, thus providing opportunities for mentoring support for the students, fee waivers for the needy students of LCs, and implementation of credit transfer. Today there are 6292 SWAYAM-NPTEL local chapters, out of which 6240 are based in India and 52 are located abroad. Approximately 85% of the total course enrollments are from the local chapter colleges. (<https://nptel.ac.in/localchapter>)

NPTEL Awareness Workshops

Workshops are routinely conducted for the students and faculty of other institutes to create awareness about the NPTEL. The participants are briefed on the features of NPTEL MOOCs, the online certification process, domain certificates, credit transfer mechanisms, and other initiatives such as soft skills training, internship opportunities, FDP certification, supporting SPOCs for attending conferences, and special lectures by industry experts. So far 469 workshops have been conducted, with more than 2,00,000 teachers and students attending them. During the pandemic, e-workshops were conducted for faculty and students. (<https://nptel.ac.in/workshops>)

NPTEL Lab Workshops

Many colleges across the country, be they engineering or science, particularly in colleges from Tier 2 and Tier 3 towns, have poor laboratory facilities for performing experiments. To provide an opportunity for the NPTEL course toppers to experience world-class facilities that might motivate them further, week-long laboratory workshops are conducted at top institutes such as the

IITs, IISERs, and IIITs. A total of 12 lab workshops have been organized so far. (<https://nptel.ac.in/workshops>)

Collaboration with Industry

NPTEL's efforts towards bringing in industry perspectives to its technically rich courses have led to the inception of the NPTEL Industry Associate (NIA) programme. With an aim to bridge the gap between academia and industry, the NPTEL partners with the organisations in a mutually beneficial manner by offering courses jointly, upskilling and reskilling of the existing industrial workforce, etc. Supporting fee waivers for needy students through CSR initiatives, internships and job opportunities for course toppers, and mock interviews by industry experts are also being explored as part of this association. The NPTEL is currently engaged with 97 industry partners. (<https://nptel.ac.in/nia>)

NPTEL Stars

The 'NPTEL Stars' initiative was launched in 2019 to recognise the learners who continue with their learning in NPTEL for a long time. The learners are categorised into 7 categories (Domain Scholars, Superstars, Evangelists, Motivated Learners, Enthusiasts, Discipline Stars, and Believers) depending on the number of courses they complete within a specified timeframe and their performance. During January-December 2023, 6498 learners completed the specified hours of learning from a particular area, earning domain/star certification. (<https://nptel.ac.in/nptelstars>)

Soft Skills Training

In addition to improving learners' technical skills through online courses, soft skills training programmes of up to 2 weeks are also arranged free of cost for the students of Local Chapter colleges to improve their employability. Assessment of employability, online interactive sessions on communication skills, writing skills, résumé building, interpersonal skills, and the importance of social networking in the context of job search, and online mock interviews are conducted as part of this programme. A total of 3918 students from 227 colleges have been certified on successful completion of the training programmes. (<https://nptel.ac.in/localchapter>)

Internships

Internship opportunities with the course instructors are arranged for the topper students of NPTEL online certification exams. Internships of 4, 6, 8, 10 or 12 weeks are arranged in the Institute, and a faculty is attached. This provides opportunities for the students to interact with the instructor and be motivated to pursue higher studies or identify projects that they may want to be part of at the Institute. So far 193 students have completed internships (<https://nptel.ac.in/internship>) during the period.

6.2. Office of Industrial Consultancy and Sponsored Research (IC&SR)

Report on R&D activities carried out during Fiscal Year 2023-24

1. Introduction

The Office of Industrial Consultancy and Sponsored Research (IC&SR) at IIT Madras was set up in 1973 to foster and promote funded research activities as well as relationships with industries and other organisations both from India and abroad.

The IC&SR Office facilitates faculty's active participation in various interactive programmes organised for the benefit of industries and the Institute. It also plays a pr-active role in providing

legal support for memoranda of understanding (MoUs) with funding agencies, and intellectual property (IP) protection and commercialisation. In addition, it provides administrative support for carrying out sponsored research projects and consultancy assignments, procurements (equipment & others) for projects, project staff recruitment and related establishment activities, maintenance of accounts, and funding agencies' compliance such as issuing of UCs and statements of account, GST, TDS, etc.

Some of the major activities of the Centre are:

- Sponsored research programmes
- Consultancy projects: research-based, retainer, and institutional
- Collaborative projects with organisations and industries in India and foreign countries
- ISRO-IITM Space Technology Cell projects and other Cell/focused centre projects
- IP protection (patenting) and technology transfer
- Faculty and student entrepreneurship and incubation
- Faculty research enhancement: New faculty initiation and seed grants, exploratory research, support for sustaining research, Institute Research and Development Award, and funding for maintenance of equipment
- Common research facilities: Procurement, installation and access to users through the Equipment Reservation System (ERS) portal
- Facilitation of international research collaborations
- Centres of Excellence in frontier areas
- Facilitation of industry-institute research interactions
- Outreach: Participation in research and development (R&D) events; communicating R&D activities through print & social media
- Participating in various national R&D and Intellectual Property Award competitions.

2. Main Functionaries and Officers

Designation	Name
Dean (IC&SR)	Prof. Manu Santhanam
Deputy Registrar (IC&SR)	Mr. Thangapandian P
Chief Manager (Technical)	Dr. Arumugam V
Chief Manager (Admin)	Mr. Chidambaram K
Chief Manager (IT)	Mr. Ilayaraja E
Chief Manager (F&A)	Mr. Ravi Sadagopan (up to February 29, 2024)
Chief Manager (F&A) i/c	Mr. Ganesh K (since March 1, 2024)
Chief Manager (Legal)	Mr. Bimalendu Sahu
Legal Advisor (IPM)	Ms. Sumitha Vibhu

3. Research and Innovation Awards Received During the Year

During FY 2023-24, IIT Madras received the following awards in recognition of its quality research, innovation, entrepreneurship and technology transfer, among others:

a) The National Institutional Ranking Framework (NIRF) is awarded by the Ministry of Education, Government of India. IIT Madras was placed in:

- First position in the Overall Category of India Rankings 2023 for the fifth consecutive year (2019 to 2023)
- First position in the Engineering Category of India Rankings 2023 for the eighth consecutive year (2016 to 2023)
- Second position in the Research Institution Category and
- Second position in the Innovation Category of India Rankings 2023.



b) The CII Industrial Intellectual Property Awards 2023: IIT Madras won the CII Industrial Intellectual Property Award 2023 in the category of academic institutions having the Best Patent Portfolio (2018-23). This award was given by the Confederation of Indian Industry (CII) on November 20, 2023 at a function held in New Delhi and was received by Prof. Manu Santhanam, Dean (IC&SR).



4. Funds Received for R&D Activities

IIT Madras continues to receive funds for sponsored projects and consultancy projects, and royalty receipts for technology transfer from various funding agencies, industries and other organisations. The funds received during FY 2023-24 are given below.

R&D Activity	Number of Projects	Received Amount (in INR lakh)
Sponsored Research Projects	684	598,95.33
Industrial Consultancies	926	220,91.66
Research-Based Industrial Projects	463	133,64.84
Corporate Social Responsibility Projects	104	96,00.45
Technology Transfer	19	1,50.14
Total	2196	1051,02.42

5. Sponsored Research

During FY 2023-24, 331 sponsored research projects with a total sanctioned value of INR 568,21.97 lakh were sanctioned for the Institute by various Government agencies, industries and other organisations, both from India and abroad. These projects are being executed by 224 faculty members as Principal Investigators.

5.1. Details of Sponsored Research Projects Sanctioned During FY 2023-24

The details of the sanctioned projects agency-wise (number and sanctioned value, in descending order of sanctioned amount) are given below:

S. No.	Agency Name	No. of Projects	Sanction Value (in INR lakh)
1	Ministry of Commerce and Industry	1	242,96.00
2	Department of Telecommunications	2	177,54.53
3	Science and Engineering Research Board	94	26,67.25
4	Department of Science & Technology	62	19,30.00
5	Ministry of Education	20	14,95.79
6	Ministry of Defence	2	1305.75
7	Ministry of Textiles	6	9,96.95
8	Indian Railways Institute of Signal Engineering & Telecommunications	1	9,05.00
9	Ministry of Electronics & Information Technology	5	7,27.98
10	IITM Pravartak Technologies Foundation	8	5,96.75
11	Ministry of Earth Sciences	1	5,96.50
12	Indian Council of Medical Research	6	496.05
13	Department of Biotechnology	10	383.76
14	Indian Space Research Organisation	6	291.32
15	Naval Research Board	6	289.97
16	Conference (various agencies)	27	254.80
17	Central Power Research Institute	4	222.18
18	Tamil Nadu Health System Reform Program	1	197.00
19	Bureau of Police Research and Development	1	148.50
20	National Institute of Ocean Technology	4	121.91
21	Defence Research & Development Organisation	2	115.15
22	Continuing Education Programmes (various agencies)	4	114.00
23	Kerala Highway Research Institute	1	90.00
24	Indo French Centre for the Promotion of Advanced Research	1	89.88
25	Ministry of Petroleum & Natural Gas	1	65.36
26	Biotechnology Industry Research Assistance Council	1	50.00
27	IIT Mandi iHub & HCl foundation	1	49.37
28	Bill and Melinda Gates Foundation, US	1	42.16
29	Ministry of Youth Affairs and Sports	2	41.66
30	Indian Council of Social Science & Research	5	40.72
31	ILT Bhilai Innovation and Technology Foundation	1	40.00
32	Indo-German Science & Technology Centre	1	39.00

33	SINTEF Energy Research, Norway	1	37.05
34	Council of Scientific and Industrial Research	4	36.44
35	Department of Atomic Energy	4	28.07
36	University College London, United Kingdom	1	28.03
37	IHUB NTIHAC Foundation, IIT Kanpur	1	20.44
38	Various agencies for Centre for Innovation & Entrepreneurship activities	1	20.00
39	German Research Foundation	1	19.35
40	The Technical University of Berlin, Germany	1	18.18
41	Caterpillar India Engineering Solutions Private Limited	1	16.00
42	International Advanced Research Centre for Powder Metallurgy & New Materials	2	30.42
43	University Grants Commission	1	15.00
44	ETH Zurich, Research University, Switzerland	1	14.09
45	Google Asia Pacific Pvt. Ltd.	5	11.44
46	Qualcomm India Pvt. Ltd.	1	10.93
47	Tamil Nadu Startup and Innovation Mission, Dept. of Micro, Small and Medium Enterprises, Govt. of Tamil Nadu	1	9.83
48	UGC-DAE Consortium for Scientific Research	1	9.36
49	Intel Technology India Pvt. Ltd.	1	7.50
50	Indian Institute of Information Technology Design and Manufacturing, Kurnool	3	7.50
51	I-HUB Quantum Technology foundation, Indian Institute of Science Education and Research (IISER)	2	5.74
52	IIT Palakkad Technology IHub Foundation	2	5.41
53	Harman International (India) Pvt. Ltd.	1	5.00
54	Microsoft Research Lab India Pvt. Ltd.	3	4.04
55	Indian National Science Academy	1	3.65
56	MeiTY Startup Hub	1	2.00
57	Indian National Academy of Engineering	2	1.20
Total		331	568,21.97

During FY 2023-24, 680 sponsored projects were ongoing in the Institute, out of which 331 were initiated during this year.

5.2. Major Research Projects Undertaken

- The Ministry of Commerce and Industry sanctioned a project titled 'National Centre for Creation of State-of-the-art Facilities for Lab Grown Diamond Technologies' with a sanction value of INR 242.96 crore for a period of five years, starting from May 2023. This project aims:
 - To develop high-pressure high-temperature technology to cater to the increasing demand for the growth and treatment of eco-friendly gem-quality lab-grown diamonds;
 - Complete indigenisation of microwave plasma CVD unit by developing a first-of-its-kind energy-efficient solid-state microwave generator; and
- Skill development and training on diamond growth and processing techniques.
- The Department of Telecommunications funded a consortium titled 'Development of Advance Optical Communication Testbed' with IIT Madras as a lead member for a period of three years, starting from June 2023. This project will be executed along with a few other institutions and organisations. The funds sanctioned for IIT Madras are INR 168.45 crore. This project aims to develop telecommunication products and solutions to promote their commercialisation and enable affordable broadband and mobile services in rural and remote areas.

- Munitions India Limited funded a research project titled 'Development of smart artillery projectile' with a sanction value of INR 50.97 crore for a period of three years starting from December 2023. This project aims to develop and provide working prototypes of a new smart artillery projectile, which has the capability of being guided to a designated target using satellite-based radio navigation systems.
- FedEx Corporate Services Inc., US funded INR 38.14 crore towards the creation of the FedEx Centre of Excellence in Smart and Sustainable Supply Chain and Logistics over a period of five years. This centre
 - aims to create a framework towards Carbon Net Zero in logistics and supply chains;
 - will build a global platform for fostering innovation and enabling environmental and social sustainability in logistics and supply chains with cutting-edge digital transformation technologies; and
 - will be a resource centre for technology and processes in logistics.
- The National Bank for Agriculture and Rural Development sanctioned a project titled 'Rural Self Employment Training Institutes E-Learning AI Platform' with a sanction value of ~ INR 18.60 crore over a period of four years. This project aims to develop a learning management system, including the creation of educational content and a dissemination system, among others.
- The Department of Telecommunications funded a project titled 'Development of 6G: THz Test Bed with Orbital Angular Momentum and Multiplexing' for a period of three years, starting from June 2023. This project will be implemented by IIT Madras along with three other institutes. The sanction value for IIT Madras is ~INR 9.09 crore. As part of this project, IIT Madras aims to develop orbital angular momentum (OAM) multiplexing communication and baseband systems and full duplex wireless communication systems. Additionally, it will contribute to the development of a 6G THz test bed with orbital angular momentum and multiplexing, among others.

In 2023-24, 883 new consultancy assignments with a sanctioned value of INR 58,487.56 lakh were initiated by faculty members in the Institute. The details of the various types of assignments undertaken are given below:

Type of Consultancy	Number of Projects	Sanctioned Value (in INR lakh)
Research-based Industrial Project	194	257,82.32
Institutional Consultancy	543	162,35.73
Retainer Consultancy	45	10,61.41
Corporate Social Responsibility	78	149,48.80
Internal Testing	13	2,85.00
External Testing	10	1,74.30
Additional funds sanctioned during 2023-24 for previously funded projects		117,99.85
Total	883	702,87.41

About 200 faculty members were actively involved in executing consultancy projects. The total number of ongoing consultancy projects are 1097, out of which 883 were initiated during FY 2023-24.

5.3. Research Collaborations with Foreign Organisations and Institutions

IIT Madras continues to carry out research collaborations with several foreign organisations and institutions from 23 countries. During FY 2023-24, ~130 international projects were undertaken, funded by various foreign entities (~85). A pictorial representation of the countries with which IIT Madras collaborated during FY 2023-24 is illustrated below.



6. Corporate Social Responsibility

Projects in various research areas were funded by about 55 organisations under the scheme of Corporate Social Responsibility activities, as defined in Schedule VII of the Companies Act 2013. In FY 2023-24, 78 such projects were undertaken, with a total value of INR 149,48.80 lakh. The summary of the CSR projects undertaken is given below:

Type of Consultancy	Number of Projects	Value (in INR lakh)
Corporate Social Responsibility	78	149,48.80
CSR Additional Funds (additional funds sanctioned in 2023-24 for previously funded CSR projects)		31,12.86
Total		180,61.66

7. New Faculty Initiation Grant/Scheme

The Institute provides funds of INR 5 lakh for all new faculty members to initiate research in their areas of specialisation at IIT Madras. This funding also helps them to prepare and apply for sponsored project proposals and external research grants and establish their research activities at IIT Madras. This scheme is operated as a project at IC&SR. During 2023-24, 34 new faculty members were funded under this scheme. Out of this, six faculty members were funded by the TT Jagannathan Endowment fund, four by the Arunachalam Murugappa Murugappa Arunachalam (AMM) Endowments fund, three by an Alumni fund (1993 batch) and the other 21 by IC&SR research funds.

8. New Faculty Seed Grant/Scheme

In addition, new faculty members were given an even larger seed grant, to the tune of INR 25-28 lakh, for setting up experimental facilities to work on focused research areas. In exceptional cases where proposals require special equipment, the Institute supports the project with up to INR 50 lakh on a case-by-case basis based on review. In 2023-24, 13 faculty members were funded under the New Faculty Seed Grants Scheme with a total sanctioned value of INR 598.24 lakh.

9. Industrial Associateship Scheme

The Industrial Associateship Scheme facilitates industry personnel's access to the Institute's Central Library resources with a nominal annual payment. It also provides an opportunity for industries to interact with faculty members for their R&D requirements. 44 companies (18 large scale, 14 medium scale and 12 small scale) took membership under this scheme during the calendar year 2023.

10. Other Programmes

10.1.ISRO-IITM Space Technology Cell Joint Projects

Under this association, the Indian Space Research

Organisation (ISRO) have been funding research projects at the Institute that are of interest to ISRO since 1986. In 2023-24, five new projects with a sanction value of Rs. 1,45.16 lakh were funded, and in addition nine new projects were recommended for funding. In total, 18 projects with a value of Rs. 5,81.59 Lakhs were funded under the programme.

10.2. DRDO Industry Academia-Ramanujan Centre of Excellence (DIA-RCoE):

The Defense Research and Development Organisation (DRDO)'s erstwhile Research and Innovation Centre at IIT Madras Research Park was re-christened as the DRDO Industry Academia-Ramanujan Centre of Excellence (DIA-RCoE), based on the long-term directed research policy of the Ministry of Defence. A memorandum of understanding (MoU) in this regard was signed between IITM and DRDO on May 23, 2022 (for a period of 25 years). The DIA-RCoE is operated as a Centre of Excellence Project by the IC&SR Office, and the Dean (IC&SR) is the Chief Coordinator for this activity. The DIA-RCoE will facilitate and undertake multidisciplinary directed basic and applied research in the following research verticals: Electronics, Micro Electronics and Computational Systems (EMECs), Naval Systems and Naval Technologies (NSNT), Advanced Combat Vehicle Technologies (ACVT), and other areas mutually agreed upon for defence and security needs. During FY 2023-24, five projects with a sanction value of INR 578.64 lakh were ongoing, funded through this centre.

11. Technologies for Social Development

IIT Madras has ongoing activities for the development and transfer of technologies of immediate relevance to society. These activities are undertaken through the following three schemes:

1. Socially Relevant Projects
2. Rural Technology Action Group (RuTAG)
3. Centre for Social Innovation & Entrepreneurship (CSIE)

A write-up on the activities of the above projects is given in Annexure 1(a) & 1(b).

12. Distinguished Visitors to the Centre:

Delegations from many organisations and academic/ research institutions visited IIT Madras for discussions on possible collaborative research work. In addition, during the year, a few organisations held virtual meetings for research collaborations. Some of these organisations are listed below:

- Chennai Petroleum Corporation Ltd.
- Exxon Mobil Corporation
- Hyundai Motor Company, South Korea
- L&T Construction

- LAM Research Corporation
- LTIMindtree
- Micron Technology
- National Institute for Micro, Small and Medium Enterprises
- NLC India Ltd.
- Starburst Accelerator, France
- Takenaka Corporation, Singapore
- Tata Steel Ltd.
- The India Cements Ltd.
- Valeo, France

13. MoUs/Agreements signed

In 2023-24, about 995 MoUs/agreements for research collaborations were signed by IIT Madras with industries and other organisations from India and abroad. The names of a few such organisations are given below:

ABB Global Industries and Services Pvt. Ltd.	Gujarat Themis Biosyn Ltd.	Saint-Gobain India Pvt. Ltd.
Adani Enterprise Ltd.	Hero MotoCorp Ltd.	Samsung India Electronics Pvt. Ltd.
Aditya Birla Science & Technology Company Pvt. Ltd.	Hexagon Manufacturing Intelligence India Pvt. Ltd.	Satluj Jal Vidyut Nigam Ltd.
Airbus Group India Pvt. Ltd.	Hilti Corporation	SBA Info Solutions Pvt. Ltd.
Amazon Seller Services Pvt. Ltd.	Hindustan Aeronautics Ltd.	Schneider Electric Systems India Pvt. Ltd.
Ametek Instruments India Pvt. Ltd.	Hindustan Computers Limited	SciArtRUs Inc.
Amines and Plasticizers Ltd.	Hindustan Unilever Ltd.	SecureFoundry Inc
Analog Devices, Inc.	Honeywell Technology Solutions Lab Pvt. Ltd.	Signaltron Systems Pvt. Ltd.
Ansys Software Pvt. Ltd.	Housing Development Finance Corporation	Sony Semiconductor Solutions Corporation
Apex Laboratories Pvt. Ltd.	Hyundai Motor India Ltd.	Sterlite Technologies Ltd.
Apollo Hospitals Enterprise Ltd.	IBM India Pvt Ltd	Supreme Court of India
Apollo Micro Systems Ltd.	ICICI Bank Ltd.	Swinburne University of Technology
Apple Inc.	IComm Technologies Pvt. Ltd.	Tata Electronics Pvt. Ltd.
Applied Materials Inc. Ltd.	India Cements	TATA Passenger Electric Mobility
ArcelorMittal Nippon Steel India Ltd.	Indian Air Force	Tata Steel Ltd.
Ashok Leyland Ltd.	Indian Navy	Tech Mahindra Ltd
Astra Zeneca	Indian Oil Corporation Ltd.	Tejas Network Ltd.
Ather Energy Pvt. Ltd.	Indian Railways	Tel Aviv University
Australian National University	Integra Software Services Pvt. Ltd	The Arizona State University
Automotive Robotics India Pvt. Ltd	Intel Technology India Pvt. Ltd.	Thermax Ltd.
Avironix Pvt. Ltd.	ISMO Bio-photonics Pvt Ltd	Titan
Axiom Space Inc.	ITC Ltd.	Toyohashi University of Technology

Bharat Biotech International Ltd.	Johns Hopkins University	Tractors and Farm Equipment Ltd.
Bharat Electronics Ltd.	JPMorgan Chase Bank	Tribhuvan University
Bharat Forge Ltd.	Kaspersky Lab Singapore Pte Ltd	TVS Electronic Ltd.
Bharat Heavy Electricals Ltd.	Keysight Technologies Inc.	UChicago Argonne, LLC
Bharat Sanchar Nigam Ltd.	KLA Corporation	Unilever Industries Pvt. Ltd.
Bill & Melinda Gates	Larsen & Toubro	University College London
Biocon Ltd.	LG Soft India Pvt. Ltd.	University of Birmingham
BioEnergo Oy, Finland	LTIMindtree Ltd.	University of Luxembourg
BMW Steel Ltd.	Lund University	University of Naples
Carl Zeiss SMT GmbH	Manipal Technologies Ltd.	University of Plymouth
CEAT Ltd.	Maruthi Suzuki India Ltd.	Valeo India Pvt. Ltd.
Columbia University	Media.Net Software Services (India) Pvt. Ltd.	Vascrisk LLC
Cummins Technologies India Pvt. Ltd.	Micron Technology	Vasitars Pvt. Ltd.
Dabur India Ltd.	NLC India Ltd.	Vellon Space Pvt. Ltd.
Deakin University	NXP Semiconductors Pvt. Ltd.	Vellore Institute of Technology
Destination 2D Inc	Oxford University	Virginia Polytechnic Institute and State University
Dredging Corporation of India Ltd.	Pentair India Pvt Ltd	Vison Group Co. Ltd.
Eicher Motors Ltd.	Pfizer Healthcare India Pvt. Ltd.	Voltas Ltd.
Eubix Technologies Pvt Ltd	Phoenix Medical Systems Pvt. Ltd.	Waycool Foods And Products Pvt. Ltd.
Eucellis Biotech LLP	Pidilite Industries Ltd.	Western Sydney University
Everest Industries Ltd.	Planytics Solutions Pvt. Ltd.	WhizHack Technologies Pvt. Ltd.
Express Infrastructure Pvt. Ltd.	Prasad Corporation Pvt. Ltd.	WM Global Technology Services India Pvt. Ltd.
Fertis India Pvt. Ltd.	Quantum Copper, Inc	Yokogawa Technology Solutions India Pvt. Ltd.
Foxconn Technology (India) Pvt. Ltd	Radisys India Ltd.	Zemblance Hydrocarbons Pvt. Ltd.
Fugro Geotech (India) Pvt. Ltd	Rajdeep Digital Prints LLP	Zentech Incorporated
GE Industries Pvt. Ltd.	Reliance Industries Ltd.	Zydus Lifesciences Ltd

14. Intellectual Property (IP) Applications Filed and Granted

The Institute has continued to file many intellectual property (IP) applications, including patent applications, during FY 2023-24 in the areas of science, engineering and technology. IITM has achieved a milestone of filing more than 365 patent applications (one patent application per day) during FY 2023-24. Details of these applications are given below:

IP Applications Filed	Number
Indian patent applications filed	293
Indian copyright, trademark and design applications filed	41
PCT and international patent applications filed	85
Total applications filed	419

Patents/Other IPs Granted: 435 patents and 10 other IPs (copyright and design) were granted/registered to the Institute during FY 2023-24 for applications filed previously. Details are given below:

Patent Description	Number of Patents Granted
Indian patents granted	420
International Patents granted	15
Other IPs granted (copyrights and design)	10

Patent Applications Published: Details of patent applications published during FY 2023-24 for the Institute's patent filings are given below:

Patent Application Description	Number of Patent Applications Published
Indian patent applications	226
International Patent applications	65

A brief write-up on IP filing and maintenance, technology commercialisation, and related activities are given in Annexure 2.

15. Technology Transfer/Royalty

Many technologies/IPs are being developed/created in the Institute and transferred to industry and other organisations. In 2023-24, INR 1.50 crore was received towards Technology Transfer fees and royalties.

Some of the technology licensees (organisations) from whom funds were received during the current period are given below:

- Archean Chemical Industries Limited
- Centre of Excellence in Wireless Technology
- Ceratattva Innotech Private Limited
- ChemBioSens Private Limited
- Cyber Security Works Private Limited
- Detect Technologies Private Limited
- FIB-SOL Life Technologies Private Limited
- Indian Institute of Information Technology Design and Manufacturing Kurnool
- ISMO Bio-Photonics Private Limited
- Neomotion Assistive Solutions Private Limited
- Online Solutions (Imaging) Private Limited
- Rajvision
- Ricovr Healthcare Inc
- Solinas Integrity Private Limited
- Synkromax Biotech Private Limited
- Tejas Networks Limited
- Vascrisk LLC
- Vortex Engineering Private Limited

16. Research Fund

To promote research activities at IIT Madras, the Board of IC&SR decided to use its corpus to support several new initiatives. A part of the earnings of the IC&SR Office from consultancy projects was invested in term deposits, and the interest earned through them was used to support various schemes such as Exploratory

Research Projects (ERPs), New Faculty Initiation Grant (NFIG), R&D Award and IP Cell activities. From an initial amount of INR 50 crore, the corpus has been increased to INR 120 crore.

The broad allocation for expenses for this financial year is as given below:

a) R&D Award: The IC&SR Office provides 50% of the

award money to all the awardees of the Institute Research & Development Awards from its Research Fund. A total of INR 65 lakh was provided to three awardees from the IC&SR funds.

b) Exploratory Research Projects: This initiative is to support projects from faculty member who has a “breakthrough” idea and wishes to initiate work without waiting for their proposal to be sanctioned by the funding agency. Under this scheme funds are given maximum of INR 10 lakh for the period of 12 months. 31 Projects were sanctioned during the Financial year 2023-24 with the total value of Rs. 278.90 Lakhs.

c) New Faculty Initiation Grant: This is a start-up grant up given to new faculty members, maximum of INR 5 lakhs During FY 2023-24, 21 faculty members were funded through the Research Fund and 13 other faculty members were funded through various alumni funding.

d) Patenting and Commercialisation Activities by the IP Cell: A maximum amount of INR 50 lakh is earmarked for this purpose per year.

e) Maintenance of Capital Equipment and Operation of Research Facilities (RFME Scheme): Under the Research Funds for Maintenance of Equipment (RFME) scheme, the IC&SR Office supports the maintenance and operation of major (costing INR 30 lakh & above) research equipment and facilities. The support is only for annual maintenance charges, hiring a technical person and consumables (in special cases, 50%) for maintaining and operating select research facilities (for 1 year) that are made available to faculty members and students of the Institute (other than the equipment’s home department) for at least four hours per day or 20 hours per week. Budget support is normally for a maximum of INR 8 lakh per faculty. To avail funds under this scheme, the equipment booking for all internal users should be enabled through the Equipment Reservation System (ERS) portal of the Institute, i.e. <https://ers.iitm.ac.in/webroot/home.php>. During FY 2023-24, funds for 29 instruments, with a total amount of INR 170.84 lakh, were sanctioned under the RFME scheme.

17. Augmenting Research Infrastructure:

The Institute continues to augment research infrastructure by procuring high-end research equipment and facilities through Institute of Eminence (IoE) funds and the IC&SR Research Fund.

17 (a). Common Instrument Facility Phase I

The IC&SR Office established the Common Instrument Facility (CIF) Phase I, with the following six instruments, at Room No. 118, NAC Building in 2020 through Research Funds. All the equipment is used by researchers. All users can book instrument time through the ERS portal and need to pay nominal charges from project accounts for their usage.

- Atomic Force Microscopy (AFM)
- Differential Scanning Calorimetry (DSC)
- Scanning Electron Microscopy with EDAX (SEM)
- Thermogravimetric Differential Thermal Analyser (TG-DTA)
- X-ray Diffraction (Powder) System (XRD)
- X-ray Fluorescence System (XRF)

17 (b). Common Instrument Facility Phases II & III

During FY 2023-24, nine instruments that were ordered through IoE funds in the previous year were received, and one more instrument was ordered with the support of IoE funds. This equipment was placed under the Common Instrument Facility Phases II & III, and are open to all users through the ERS portal for a nominal charge. The instruments’ names and procurement status (as on March 31, 2024) are given below:

S. No.	Equipment Name	Location	Eqp. Status (as on March 31, 2024)
1	High Resolution Transmission Electron Microscopy (HR-TEM)- 200kV with scanning transmission electron microscopy (STEM), energy dispersive spectroscopy (EDS), charge-coupled device (CCD) & electron energy loss spectroscopy (EELS)	Room No. 135, Humanities and Sciences Block (HSB)	Installed & inaugurated on February 5, 2024
2	High Resolution FT-NMR Spectrometer -400 MHz + UPS (NMR 400)	MRI-MRS Centre	Installed

3	Micro-Raman/Photoluminescence spectrometer	Room No. 119, New Academic Complex (NAC) -1	Installation in progress
2	Powder X-ray diffractometer (P-XRD)	Room No. 138, HSB	Installation in progress
5	X-ray photoelectron spectrometer (XPS) with ultraviolet photoelectron spectroscopy (UPS)	Room No. 119, NAC-1	Installation in progress
6	Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) + fume hood (PCI Analytical)	Room No. 119, NAC-1	Installation in progress
7	Ultra High-Resolution Electron Beam Lithography System	Room No. 126, HSB	Installation in progress
8	Variable Pressure High Resolution Scanning Electron Microscope (VPSEM) with energy dispersive spectroscopy for study of conducting, non-conducting and biological samples	Room No. 21, NAC-2	Installation in progress
9	High resolution Field Emission Scanning Electron Microscope (FESEM) with in situ tension-compression testing attachment	Room No. 21, NAC-2	Installation in progress
10	High Precision Automated Scratch Tester (CIF Phase III)	Room No. 20, NAC-2	Purchase order (PO) issued

HR-TEM was inaugurated on February 5, 2024



IIT Hyderabad organised InvenTiv-2024, an R&D Innovation Fair for Indian higher education institutes under the aegis of the Ministry of Education, Government of India. The event took place during January 19-20, 2024 at the IIT Hyderabad campus.

18. Outreach Programmes

The Institute continues to disseminate information on research undertaken, technology developed, and academic activity to stakeholders, alumni, public, industry and other organisations through participation in R&D expos, organising industry meetings, and communication through print and social media. A few brief details on these activities are given below:

18 (a). Participation in InvenTiv-2024, R&D Innovation Fair



The scope of the R&D fair was also widened during this event and included IITs, IISc, NITs, IISERs and government and private institutions in the top 50 engineering institutes as ranked by the National Institutional Ranking Framework (NIRF). InvenTiv-2024 was inaugurated by Shri Dharmendra Pradhan, Honourable Minister for Education and Skill Development and Entrepreneurship, Government of India.



Through more than a hundred stalls, the event showcased various innovations happening at these institutions on five themes, namely, (1) Affordable Healthcare, (2) Agriculture, (3) Defense & Aerospace, (4) Industry 4.0 and (5) Sustainable Technologies (clean energy, climate change, e-mobility, etc.). About 350 delegates from industries, government agencies, academia, and media participated in the event. During this event, prototypes were demonstrated, and presentations were made on the technologies showcased. The following technology developments at IIT Madras were showcased in the event.

S. No	Name of the Project/Technology Showcased	Name of the PI/ Inventor (Faculty) & Department
1	Smart Eye - Technology Platform for Endoscopy	Mohanasankar Sivaprakasam, Professor, Dept. of Electrical Engineering
2	An industrial internet of things (IIoT)-enabled thermal error compensation module for precision machine tools	Sivasrinivasu Devadula, Associate Professor, Dept. of Mechanical Engineering
3	IIoT for Multi-point and Multi-Parameter Sensor for Hostile Processes	Krishnan Balasubramanian, Professor, Dept. of Mechanical Engineering
4	Steam Generating Heat Pump for Industrial Decarbonisation	Satyanarayanan Seshadri, Associate Professor, Dept. of Applied Mechanics & Biomedical Engineering

18 (b). Department-Industry Meetings & R&D Expos

As part of the Golden Jubilee celebrations, the IC&SR Office facilitated department-industry meetings & R&D expos to enhance institute-industry research collaborations. During FY 2023-24, the following five department-wise industry meetings were organised at the IC&SR building. They were attended by the Director, Dean (IC&SR), Dean (Alumni & Corporate Relations) and the respective departments' HoDs, faculty members, and research students. A good number of industry persons and domain experts also attended these events. During each event, an R&D expo was organised to demonstrate the significant R&D activities of the department, IPs created and details of patents granted. The main event had focused presentations on the research carried out by both faculty members and industry collaborators, apart from panel discussions.

Department Name	Event Name	Main Event Date
Chemical Engineering	CHAINS 2023	April 5, 2023
Chemistry	ChemAIM 2023	August 11, 2023
Engineering Design	EngineerED 2023	September 12, 2023
Applied Mechanics & Biomedical Engineering	AMBE 2023	September 27, 2023
Management Studies	SANKALP 2.0	March 20, 2024

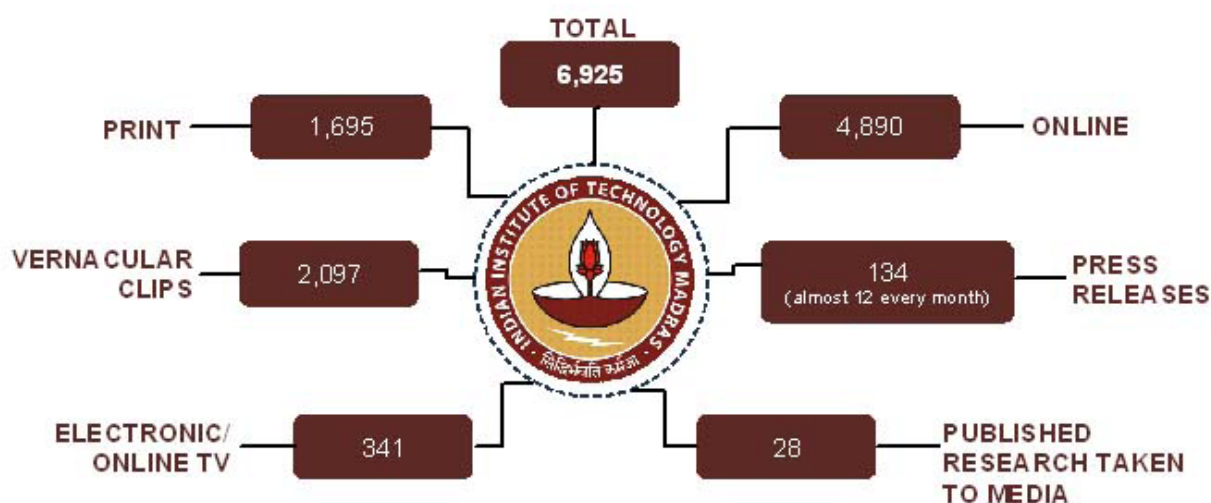


19. Social Media & Positive Messaging

IIT Madras is one of the few high-ranking academic institutions in India that is prompt, active, and well connected on social media. During FY 2023-24, our Facebook page had a reach of over 1,25,40,953 and 1,45,02,637 impressions; IIT Madras' tweets have 44,05,128 impressions annually; and we have note-worthy LinkedIn impressions of 2,39,74,247. We are also ahead of the curve in our presence across other social media platforms like Instagram and YouTube. We are concentrating more on short-form videos by involving as many IIT Madras stakeholders (professors, students etc.) as possible. The statistics for FY 2023-24 are given below:

Twitter					
Impressions	Engagements	Engagement rate	Retweets	Replies	Likes
44,05,128	3,25,186	9.71%	17,845	3,789	1,48,328
LinkedIn					
Impressions	Clicks	Reactions	Comments	Reposts	Engagement rate
2,39,74,247	15,61,013	3,98,762	5,783	4,664	8.00%
Facebook					
Reach	Impressions	Likes & Reactions	Comments	Shares	Link Clicks
1,25,40,953	1,45,02,637	1,74,713	4,650	6,362	65,413
Instagram					
Reach	Impressions	Engagements	Engagement rate	Video Views	Followers
53,01,428	57,31,804	6,24,173	25.56%	8,41,090	8,344
YouTube					
Views	Watch time (hours)	Impressions	Impressions CTR	Subscribers	
4,01,713	17,974	53,48,032	4.80%	5,081	

Print Media: IIT Madras continues to disseminate information about its academic, research outcomes/ activities and IP outcomes to the public through Print media and the statistics for FY 2023-24 are given below:



20. Other Information

- Administration of consultants' engagement in the Tulyatā Utthita Laghū-tva Anuprayoga (TULA) Project Information System by the IC&SR team
- Vendor portal enhanced with payment status featured
- Redmine ticketing system integrated with TULA portal
- Intellectual property management (IPM) website (with Technology Transfer Office, TTO

information) updated

- Job portal refreshed with new domain: <https://careers.icsr.in/>

21. No. of Project Staff Employed

About 3250 project staff, as on March 31, 2024, were involved in carrying out project activities and their administration. Out of these, 1935 staff joined during FY 2023-24.

Annexure 1(a)

Report on Socially Relevant Projects

1. SRP Project Name:

Community screening of Kasimedu fisherwomen for cervical cancer using a self-sampling kit and an indigenous innovative detection device.

Name of the Professor:

Dr. Rayala Suresh Kumar

Designation & Department:

Professor, Department of Biotechnology

Community screening of cervical cancer in rural areas is the key objective of this project. This study used an indigenous device to detect high-risk human papillomavirus (hrHPV) in women. A one-step polymerase chain reaction (PCR), loop-mediated isothermal amplification (LAMP) PCR, that is suitable for a rural setup and places which have no sophistication, is optimised in this project. An in-house indigenous device to detect positive amplicons was developed. The device is unique in that it is handy, can be carried into the field, and can be used without much sophistication. A green fluorescent annular ring indicates a positive reaction and a specific technique is used to identify a positive result. Including more women in community screening of HPV using a one-step procedure is an important first step in the detection of cervical cancer. More training camps will be conducted to determine the incidence of hrHPV in this population cohort.

2. SRP Project Name:

Farmer-friendly, point-of-use, portable heavy metal sensors with a cellphone interface: A new technical aid for the agricultural sector

Name of the Professor:

Dr. Sreeram K Kalpathy

Designation & Department:

Associate Professor, Department of Metallurgical and Materials Engineering

Objectives of the Project:

- Enabling farmers to assess soil quality indexes, allowing them to make decisions about managing soil and agriculture.
- Developing a portable device technology for heavy

metal detection in soil and water that can provide a route for a new tech-enabling business.

- Wider access to local soil data, which will enable the government or farmer cooperatives to make timely interventions for crop sowing.

Visible Output:

1. A provisional patent was filed based on the inventions from the project:

Invention title: "Polymeric thin film-based heavy transition metal detector",

Inventors: Sreeram K Kalpathy, Tiju Thomas, Vidhya KV, Indian Patent Application No.: 202341040751 (Filed provisionally) dated June 15, 2023

2. The preliminary studies done as part of the project were instrumental in achieving larger funding from the Ministry of Education, Government of India.

Project title: Portable sensors with cellphone interfacing for heavy metal detection in water and soil

Funding amount: INR 53.48 lakhs

Funding Agency: Ministry of Education, Government of India.

Project duration: June 2023 - June 2026.

3. The work done in the project received positive media coverage in several popular national dailies and e-news websites.

- The Hindu (September 22, 2023): <https://www.thehindu.com/news/national/tamil-nadu/iit-madras-develops-portable-device-to-detect-water-soil-quality/article67335196.ece>

- Press Information Bureau (September 19 2023): <https://pib.gov.in/PressReleaseDetail.aspx?PRID=1958739#:~:text=Indian%20Institute%20of%20Technology%20Madras,determine%20soil%20and%20water%20quality>

- DTNext (September 19 2023): <https://www.dtnext.in/news/city/parts-of-n-chennai-suffers-blackout-as-power-line-trips-785432?infinitemscroll=1>

- UNI Varta (Hindi, September 19, 2023): <http://www.univarta.com/news/other-states/story/3053875.html>

- Dinamani (Tamil, September 20, 2023): <https://www.dinamani.com/all-editions/edition-chennai/chennai/2023/Sep/19/a-portable-instrument-for-monitoring-water-quality-design-by-iit-chennai-4075548.html>

3. SRP Project Name:

She-ViL STEM

Name of the Professor:

Dr. Pijush Ghosh

Designation & Department:

Professor, Department of Applied Mechanics & Biomedical Engineering

Overview

Female participation in STEM fields is significantly less than male participation. She-ViL STEM, an initiative by IViL (IIT for Villages), aims to bridge this gap by fueling rural school-going girls with knowledge and field experience. The programme includes providing mentorship to talented rural schoolgirls from grades 8 and 9 by the students and women faculty of IITM. Through multiple workshops held at the IITM campus, the students will be guided by their mentors to pursue careers and higher education in STEM-related fields. This is a replicable model that can be adopted by other top-tier institutions.

Objective

The She-ViL STEM project aims to inspire rural girl students to explore opportunities in STEM and the arts and impart them with essential skills for their future careers through a series of events and workshops organized by IViL at IIT Madras.

Selection of Students

Written exams and interviews were conducted for students from four government schools in Tamil Nadu: Govt. Girls Higher Secondary School, Ayakkaranpalam, Nagapattinam; Govt. Girls High School, Kelambakkam; Govt. High Secondary School, Nellikuppam; and Govt. High Secondary School, Maraimalai Nagar. After careful assessment, 25 students from these schools were selected to participate in the programme.

Project Timeline

1. Written tests and interviews were conducted in November and December.
2. The winter session of the program was conducted from January 28 to February 1.
3. The summer session of the program was conducted from April 13 to 17.

Implementation

The students participated in the following sessions throughout the programme:

1. Interaction with Women Faculty: Dr. Indumati Nambi from the Civil Engineering Department and Dr. Swati Sudhakar from the Applied Mechanics Department engaged with the students, inspired them to pursue their goals, and shared insights about women in STEM fields.

2. Critical Thinking Sessions: IViL volunteers conducted sessions on various topics in aptitude, where the students learned to solve logical reasoning problems. These sessions were important for the students in competitive exams and helped improve their thinking ability.
3. Lab Visit: The students visited an environmental lab where they learned about water pollution parameters and conducted water quality testing on samples from their neighbourhood. This experience raised awareness and instilled a sense of environmental responsibility in the students.
4. Communication Sessions: Over 10 hours of training were provided to students to enhance their English conversational skills for daily life. These sessions were led by professional English trainer Ms. Hemaravi. At the end, the students engaged in a group activity, applying their newly acquired skills to practical situations.
5. Career Guidance: Facilitated by a career guidance expert, the students were introduced to a wide array of career opportunities available after completing the 12th grade. This empowered them to make informed decisions regarding their future paths.
6. Case Study Sessions: Conducted by IViL volunteers, these sessions focused on teaching students how to analyse and solve a problem. Engaging in debates and discussions, students worked together to arrive at solutions for various societal issues presented during the sessions.
7. Computer Education Sessions: Sessions for on computer skills were conducted by IViL volunteers for the students, introducing them to fundamental computer skills, programming basics, internet usage and artificial intelligence.
8. CFI Sessions: The Electronics and 3D Printing Club at the Centre for Innovation organised hands-on sessions for the students. During these sessions, the students gained practical experience in 3D modelling, 3D printing, and building electronic circuits using Arduino.
9. Mentor-Mentee interaction: Each group of three students was assigned an IITM student as their mentor. During daily interaction sessions, the students discussed their session learnings, career aspirations, interests, and studies with their mentors. Mentors provided motivation and guidance, fostering a strong rapport with the students.

Future Plans

Our intention is to maintain long-term contact with the students. We are strategising to organise online sessions for them in collaboration with the schools. Additionally, we aim to refine and implement an improved model of the program in the upcoming years.

Annexure-1(b)

Rural Technology Action Group (RuTAG), IIT Madras

The major activities of RuTAG during the year 2023-2024 are given below:

Project-related Activities:

1. Small-scale Mango Seed Decorticator



The decortication of mango stones or seeds is an important technological step in utilizing this part of the mango, which is otherwise a waste product. Because of mango stones' size, shape and tough shell walls, manual decortication is a difficult, tedious, time-consuming, and labour-intensive process.

In addition, the high volume of stones present at factory sites justifies the need for mechanical devices to separate the outer shell (pericarp) from the seed (kernel).

This decorticator takes in a mango stone and separates the pericarp from the seed (kernel). This small-scale decorticator has been designed and developed at RuTAG IITM. Mango seed decorticators are not commercially available anywhere in India. After successful trials with our decorticator, which has a success rate of 90-95%, it is now ready for business development.

This technology provides livelihood opportunities by putting agricultural waste to use. Mango kernel oil, used in the cosmetic and confectionery industries, has good export potential. The woody part of the mango seed is used in briquette making. This technology promotes sustainability by enabling a clean environment, as well as adds value to mango stones, resulting in livelihood opportunities for rural populations.

Small-scale mango seed decorticator field trials and a need identification workshop with local farmer groups was organised in Chittoor, Andhra Pradesh, on June 10, 2023.

2. Fruit & Vegetable Vending Cart: Commercialisation Through Crossfyre Online Platform



The cart was developed and handed over to a vendor inside the IIT Madras campus by Union Education Minister Shri Dharmendra Pradhan, and the patent has been filed and approved.

After the cart's successful launch, we have received continuous dissemination enquiries through the Crossfyre platform from non-governmental organisations (NGOs), individuals and governmental agencies. We are in the process of licensing the cart through the Technology Transfer Office, IIT Madras.

3. Small-Scale Dehydrator for Fruits and Vegetables

RuTAG IITM is in the process of developing small-scale dehydrators for fruits and vegetables using HPDS technology. Mr. Achuthan, Presevi Industries; Mr. Sujith, HOD of Government Polytechnic, Thrissur and Dr. Sunil Jerome (Asst. Prof. in Government Engineering College, Thrissur) are involved in fabricating the machine. The fabrication stage has been initiated.

4. Spray Drying of Jaggery



The Tamil Nadu Rural Transformation Project (TNRTP) or Vazhndhu Kattuvom Project (VKT) in Erode district approached RuTAG IITM to develop a technology for drying jaggery. The farmers engaged in jaggery making as a cottage industry use manual methods for powdering the jaggery. Due to severe labour shortages in the areas, they requested the

development of a suitable technology for drying jaggery, which will be useful in fetching a better price for the project as well as solving the issue of severe labour shortages.

This project aims to improve the traditional jaggery-making process by implementing a spray drying technology. This aims to reduce the time required for jaggery-making, increase yield, and improve its quality. The technology is expected to be cost-effective and eco-friendly, and can be used in both rural and urban areas.

The project has been initiated. Prof. Srikrishna Sahu and two interns visited Balaramar Agri Farmers Producer Company (FPO) Limited, Kavindapadi, Erode to take things forward.

5. KVIC Project Implementation at MDTC Nadathara, Thrissur



RuTAG IIT Madras has completed the dissemination project 'Electronic Jacquard handlooms for weaving fine Korai grass mats' under funding support from the Khadi and Village Industries Commission (KVIC). The project has been implemented in the Multi-Disciplinary Training Centre (MDTC), KVIC Nadathara, Thrissur.



Training was conducted for 21 weavers from Thrissur and nearby districts of Kerala. This includes 13 participants who are new to the handicraft. The artisans were trained to weave full-size mats, ensuring full understanding of the modern handlooms. Further to this, a training programme was conducted for five participants using general and tailor-made software installed in desktop computers, to make them self-reliant in the craft. They were also provided with handouts to enable their independent functioning. Through the project, apart from technology implementation, enhancing the skilling capabilities of the mat weavers was a key deliverables. This

project enabled the training of artisans from Thrissur and other nearby districts of Kerala.

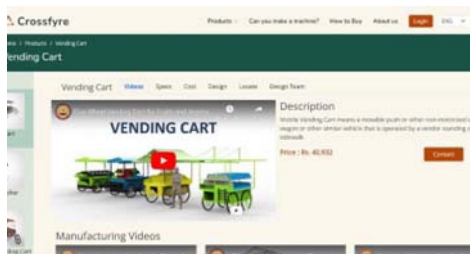
The installation and inauguration of the electronic Jacquard handloom took place in the first week of June, and the weavers' and design training commenced on June 13, 2023.

6. Collaboration with Webel Technology Limited, West Bengal

Webel Technology Limited (WTL), a Govt. of West Bengal undertaking, had approached RuTAG IIT Madras for technology support relating to natural fibres, further to which a meeting with IIT Madras faculty was scheduled.

This was followed by a virtual meeting with the WTL team to discuss future implementation plans.

7. Crossfyre: An IT-enabled Platform for Design and Fabrication of Open Source Technology



Based on the fabricator survey and TNRTP welders' workshop, we organized 30- 40 fabricators to get involved with the Crossfyre online platform as registered welders.

As part of the commercialisation of other RuTAG technologies, we are in the process of adding technology details from other IITs' RuTAG centres.

Parallel to this, some bugs and fixes in the website have been rectified by an outsourcing service.

8. Design, Fabrication and Field Trials of 1-tonne Charcoal Kiln



RuTAG has designed and fabricated a charcoal kiln for the efficient production of charcoal from the abundantly available fuel wood tree *Prosopis juliflora*. In order to increase the production of charcoal,

this project entails designing a 1-tonne capacity, cost-effective kiln that is suited for a variety of wood kinds with optimised air flow and combustion characteristics. The aim of the characterisation process was to examine the potential uses of the different byproducts (volatile emissions and residues). The team is considering increasing the kiln's energy efficiency and decreasing its volatile gas emissions by returning the flue gas for combustion.

Further to the initial field trials of the upgraded 1-tonne charcoal kiln, field trials of a portable 1-tonne charcoal kiln, also developed at RuTAG, IIT Madras, were conducted at Sadhana Nature Organic Garden, Kayappakam, Mathuranthagam, on August 15, 2023.

Commercialisation of Technologies

Small-scale Paddy Thresher

RuTAG is in dialogue with M/S Alto Precision Industries Bangalore regarding the commercialisation of the small-scale paddy thresher. They witnessed the field trials at Madhuranthagam in this regard. RuTAG IITM is in touch with IIT Madras's Technology Transfer team to initiate the process.

Mango Seed Decorticator

Mr. Krishnadoss, an entrepreneur based in Chennai is in touch with RuTAG regarding the commercialisation of the small-scale mango seed decorticator, in coordination with the Technology Transfer team. RuTAG has initiated commercialisation activities relating to this device with beneficiaries in Ratnagiri, Maharashtra.



RuTAG IITM Workshops, Events, and Field Trials

Need Identification Workshop at Gandhigram Trust, Dindigul

The RuTAG team and Prof. A Mani, Ex-faculty from Mechanical Department, IITM visited the Gandhigram Trust in connection with a need identification workshop. This included visits to the Trust's food processing unit, saponification unit, textile weaving and spinning unit, ayurvedic medicine preparation unit, etc., where problem statements were drafted. We are in the process of initiating a literature study relating to the technological needs.

Need Identification Workshop and Field Survey regarding Small-scale Dehydrator for Fruits and Vegetables

The RuTAG IITM team, in coordination with Mr. Achuthan (Presevi Industries) conducted a need identification survey among farmers in Uthukkottai and the neighbouring districts of Tiruvallur district in connection with the development of a small-scale dehydrator for fruits and vegetables. A technology need identification workshop relating to their agricultural activities was also conducted for the target group.

Right Start Teacher Training Programme

Science with RuTAG Technologies

An event titled 'Right Start Teacher Training Event' was conducted at Vana Vani School in the IITM campus. The ASHA teacher training, based on technology, was conducted by RuTAG for about 100 rural teachers, who were trained in science through some of our RuTAG technologies.



Design Thinking and Rural Products Workshop I for Rural Welders (Jointly with TNRTP)

A training programme was conducted for welder trainers of a community skills school in coordination with TNRTP/VKT on May 30, 2023. The workshop was coordinated by Prof. Saravanakumar and Prof. Palaniappan Ramu from the Engineering Design department and Dr. Balaganesan from the Central Workshop, IIT Madras. The outcome of the design



thinking session for rural welders resulted in a set of solutions, ideas, and prototypes that address the specific needs and challenges faced by this group. These included new tools, techniques, and training programs that improve safety, productivity, or job satisfaction, as well as strategies for marketing or networking to expand their business opportunities. The workshop also involved collaboration and feedback from the welders themselves, as well as experts in design and engineering.



Design Thinking and Rural Products Workshop II for Rural Welders (Jointly with TNRTP)



On the successful completion of the one-day workshop on 'Design Thinking and Rural Products' for rural welders, the second batch of the training workshop was conducted for welders on June 17, 2023 in response to a request from the TNRTP.

Testing of 1-tonne Capacity Charcoal Kiln

The field trials of the portable 1-tonne charcoal kiln developed at RuTAG were conducted at Sadhana Nature Organic Garden, Kayapakkam, Madhuranthagam.

Commissioning and Training of an Electronic Jacquard Handloom at Nadathara

RuTAG successfully completed the erection of, commissioning of, and training on a 192-hook electronic Jacquard handloom for weaving fine Korai design mats at MDTC Nadathara, Thrissur under the



funding of the KVVC.

CSR Summit

RuTAG put up a stall and presented developed technologies to the Honourable IT Minister of Tamil Nadu, potential investors, and government organisations. Additionally, RuTAG engaged in collecting problem statements.

PALS-RuTAG Proposal Writing Workshop

A proposal writing and ideation workshop was organised by the Pan Alumni Leadership Series (PALS) & RuTAG IIT Madras on April 28 and 29, 2023 for the faculty and students from PALS-affiliated engineering colleges across Tamil Nadu. Around 300 participants attended the workshop. The workshop was organised with coordination support from PALS and RuTAG as a two-day event.

Annexure-2

Detailed Activities of the Intellectual Property Management (IPM) Cell, IIT Madras, 2023-2024

A. Programme Initiatives

1. Inventor Interactions about IP

Over 400 meetings/interactions were held with inventors at the IPM Cell during FY 2023-24 to create awareness and provide details about the various type of IPs, including patents, trademarks, copyrights and design patents, Institute IP policy, IP protection, and licensing avenues.

The IPM Cell visited various departments at IIT Madras to engage with faculty members, address their IP queries, and gather feedback. These departments included Biotechnology, Computer Science Engineering, Management Studies, Applied Mechanics, Ocean Engineering, Engineering Design, Mechanical Engineering, and Metallurgical and Materials Engineering.

2. Workshops

- On September 19, 2023, the IPM Cell organised a workshop named 'Have an Idea (HAI) Program - Idea to Asset'. It was a session where faculty, research scholars, and student inventors came together to brainstorm and discuss ideas before submitting an invention disclosure form (IDF). The session covered the basics of intellectual property, patentability search demo, filing process, and IP operation flow. Over 100 students and faculty members participated.
- During FY 2023-24, the IPM Cell organised several IP awareness workshops:
 - i. On July 26, 2023, at the TT Jaganathan Auditorium, IC&SR building. The sessions covered IP basics, patentability search demos, filing processes, and IP operations flow.
 - ii. On August 12, 2023, at Hall 2, IC&SR building. The workshop focused on the basics of IP drafting and filing processes.
 - iii. On November 29, 2023, at Hall 3, IC&SR building. The sessions included basics of IP, patentability search demos, patent filing process, and IP operation flow.
- During October, November, and December 2023, the IPM Cell organised presentations by professional IP attorneys on IP protection and drafting, focusing on domains like high-tech inventions and fields including chemical, biotechnology, electronics

& communication, and computer science. Many researchers attended the presentations.

- The IPM Cell delivered IP awareness presentations in the various events organised in the Institute. These included:
 - i. General IP protection for GDC, IIT Madras on December 14, 2023,
 - ii. Basics of IP, patentability search demos, and filing processes for the Inter IIT Tech Meet 12.0 on December 21, 2023,
 - iii. A presentation at the Robert Bosch Centre for Data Science and Artificial Intelligence, IIT Madras, covering the basics of IP, patentability search, non-patentable inventions, and filing processes, on December 11, 2023,
 - iv. A patentability search demo, presented to the Council of Scientific & Industrial Research (CSIR) team on January 9, 2024, and
 - v. The IP process flow followed at IIT Madras was presented to members of the MIT Art, Design and Technology (MIT-ADT) University on January 25, 2024.

3. Search and Techno-commercial Evaluations

- The IPM cell has an efficient in-house search team for performing prior art searches across different technology domains prior to filing a patent application, which resulted in reducing attorney costs for external searches.
- The in-house search team is currently using three paid databases—Questel Orbit, Derwent Innovation, and an AI-based search tool, XLSCOUT—to conduct effective prior art searches. We hold two subscriptions to Questel Orbit: an advanced version called 'Orbit Intelligence', with limited access at only the IPM Cell, and a lighter version called 'Orbit Express', with unlimited access that inventors can access through a self-register login using their Institute email ID. XLSCOUT has been enabled for students' unlimited usage through their LDAP accounts (Institute library accounts).
- The IPM cell provides constant support and guidance to inventors for performing Level 1 pre-IDF searches, using the databases mentioned above, and through discussions.

- The IPM in-house search team conducted patentability searches for about 100 inventions for Indian filing and 50 IDF's for PCT/National Phase filing. The IPM Cell coordinated with empanelled attorneys for about 30 external patentability searches in FY 2023-2024.
- As part of our assistance, we performed novelty checks and provided reports for over 60 IITM Pravartak proposals.
- The IPM Cell has facilitated 29 in-house provisional patent filings through the e-filing portal of the GOI's patent office, thereby ensuring the novelty of all inventions by filing before their publications and retaining the priority of these applications.
- The techno-commercial evaluations (TCE) for the potential IPs are performed by a third party (KPMG) to identify top potential IPs before proceeding for PCT/international filings and commercialisation.

4. Virtual IDF Discussions, Inventor Guidance, and Pre-PCT/PCT Committee Discussions

- Inventors reach out to the IPM Cell through email/ telecom to seek clarifications on IP processes,

filing activities and prior art searches. The IPM Cell provides continuous guidance to all inventors, including faculty members of various departments, in achieving valid disclosure content for patent filing and patent protection in other jurisdictions through the Patent Cooperation Treaty (PCT) route. Inventors approached us with different queries such as filing procedures, inventor ownership, applicant ownership, validity of an invention, and clarifications on search reports, revenue sharing, and licensing agreements etc. More than 119 virtual discussions were conducted for invention and pre-PCT discussions. The IPM Cell also supports students through one-on-one consulting. Every month, an average of around 25 IDF meetings were organised, offering guidance and insights into IP filing and inventors' self-searching using licensed databases.

- As a management practice, the IPM Cell coordinates and organises a monthly PCT sub-committee meeting with Institute panel members, to seek their approval before the international filing activities for eligible inventions.

B. IP Management

1. Applications Cleared

- The applications filed by the IPM Cell in the Indian Patent Office are regularly monitored as of the time of writing. All the applications filed prior to 2012 have been granted by the Indian Patent Office. The processes of all patent applications have been managed through an expedited route for the early grant of patents to the Institute. Overall, 291 patent applications have been expedited by filing form 18A along with early publication (Form 9).

2. Patents Filed

- In FY 2023-24, the Institute filed 293 Indian patent applications and a total of 41 other form of Ips, including copyrights, trademark, and design applications in India.
- Further, the Institute also filed 85 patent applications in different jurisdictions outside India, including PCT applications and National Phase (NP) applications.
- Thus, the Institute filed a total of 419 intellectual property (IP) filings during this financial year.

3. Publication of Patents

- During this financial year (2023-2024), the Institute's 226 Indian patent applications and 65 international patent applications were also published by the Indian Patent Office, the World Intellectual Property Organization (WIPO), and other foreign patent offices.

4. Grants

- The Institute also received a total of 420 Indian patent grants and 15 international patent grants during FY 2023-2024. 36 applications were granted within the span of a year and 13 applications within 7 months.

5. Maintenance of Patents & Compliances to Indian Patent Office

- The Institute's IPM Cell renewed a total of 555 Indian patents in-house. The Institute renewed 28 international patents through empanelled attorneys.
- Further, the IPM Cell has also filed a working statement of patents (Form 27) for 318 applications, a statutory requirement of the Patent Office, for each patent to the Indian Patent Office before September 2023.

6. Online Filing and Other Activities

- During 2023-2024, the IPM Cell carried out the in-house online filing of 29 provisional patent applications for securing priority before any publication of the inventions in journals. The in-house online system has been extended to other activities like a) Renewal and maintenance of Institute IPs, b) Obtaining statutory approval from the National Biodiversity Authority (NBA) for filing IPs and working statement of Patents through Form-27.

- The Institute also facilitated in-house online filing for postdating the provisional applications, adding co-applicants, and time extensions.
- Further, the Institute initiated filing Form-8 for adding inventors' names on the patent certificate and Form-28 to claim the fee reduction provided by the government for educational institutions.

7. Facilitation of Attorney-Inventor Interactions

- The IPM Cell follows every patent application from filing to renewal with attorneys, by looping in inventors and assisting the attorneys and inventors with all the relevant forms. The IPM Cell also attends hearings before the Patent Office with attorneys and inventors. Further, the IPM Cell facilitates payments

and reconciliation of all accounts between inventors and the Institute.

- The IPM Cell liaises with the legal team for joint IP filing by ensuring proper IP agreements are expected by the parties prior to IP filing.

8. Maintenance of IP records

- The IPM cell maintains and furnishes data for various requirements such as the Atal Ranking of Institutions on Innovation Achievements (ARIIA), NIRF, the Ministry of Education (MoE), HOD, the International Organization for Standardization (ISO), and others.
- The IPM Cell also maintains the IP portfolio details of all departments and faculty.

9. Revenue Generation through Technology Transfer/Royalties

S. No.	Technology Licensee Name	Receipt (~INR lakh)
1	Vascrisk LLC	60.68
2	Tejas Networks Limited	28.00
3	Ricovr Healthcare Inc	11.28
4	Archean Chemical Industries Limited	11.00
5	Rajvision	10.00
6	Online Solutions (Imaging) Private Limited	4.00
7	Neomotion Assistive Solutions Private Limited	4.00
8	FIB-SOL Life Technologies Private Limited	3.58
9	Synkromax Biotech Private Limited	3.42
10	Neomotion Assistive Solutions Private Limited	3.38
11	Center of Excellence in Wireless Technology	2.48
12	Solinas Integrity Private Limited	1.80
13	ChemBioSens Private Limited	1.75
14	Cyber Security Works Private Limited	1.19
15	ISMO Bio-Photonics Private Limited	1.18
16	Vortex Engineering Private Limited	0.76
17	Detect Technologies Private limited	0.76
18	CeraTattva InnoTech Private Limited	0.47

6.3. Central Electronics Centre

1. Introduction

The Central Electronics Centre (CEC) was established in 1971 with the main objective of servicing and maintaining the wide variety of sophisticated electronic equipment at the Institute. A key attribute of this centre is the blend of an academic environment and an industry-like working atmosphere.

The centre is housed in a dust-free environment. The CEC has a team of qualified, experienced and talented staff members, trained in India and Germany in various aspects of electronic instrumentation, testing and calibration. The infrastructural facilities and equipment have been continually enhanced over

the years using Government of India (GOI) funds and successive Indo-German collaborative projects.

When the centre was established, in 1971, a critical need for training service engineers for maintaining electronic equipment was foreseen, and an 18-month training programme, the first of its kind in the country, was started in the same year. The length of the training programme was subsequently extended to 24 months. In view of the large demand for trained personnel both within and outside the Institute, conducting such long-term training programmes has become one of the important activities of the CEC.

The centre has diversified its activities and now offers the following services:

- Servicing and maintenance of electronic equipment/instruments
- Offering two-year training programmes for manpower development
- Conducting the Electronics module of the workshop class for B.Tech. students
- Calibration of electronic test and measuring instruments
- Calibration of temperature sensors
- Testing of
- Lighting systems
- Batteries
- Electronic products (environmental, safety, and electromagnetic interference and electromagnetic compatibility [EMC/EMI] testing)
- Development of custom-built equipment
- Consultancy services to industries in the above-mentioned areas
- Servicing and maintenance of personal computers and printers

So far, the CEC has provided expertise and services in the above areas to more than 230 industries/organizations inside and outside the country.

As the centre has expanded its activities, most of the laboratories have been upgraded. In 2001, the CEC received the ISO 9001:2000 quality certification for having established quality systems in its services. The centre also received the NABL accreditation in 2004

for testing and calibration laboratories in accordance with ISO/IEC 17025 standards. The ISO and NABL accreditations are actively maintained through adherence to the specified processes and procedures of the current versions of the standards.

2. Activities

2.1. Servicing of Electronic Equipment

The Centre is responsible for servicing & troubleshooting all the electronic equipment available in the institute, both with and without circuit diagrams. The details of the number of jobs completed are given below:

Total Number of Jobs Completed	Notional Value (saved for the Institute)	Category (Customer Satisfaction Index, CSI)		
		Simple	Medium	Complex
		98.82%	99%	100%
335	INR 19.04 lakh			

2.2. Electro-technical Calibration

This service includes the calibration of electronic test and measuring Instruments like digital multimeters (DMMs), power supplies, oscilloscopes, data acquisition systems (DAQs), temperature indicators, power analysers, LCR meters, decade resistance boxes, decade capacitance boxes, etc. with NABL accredited certificates. The following are the details of the jobs completed:

Total Number of Jobs Received	Notional Value (saved for the Institute)	CSI
49	INR 2.56 lakh	99%

2.3. Thermal Calibration

This service includes the calibration of temperature sensors like resistance temperature detectors (RTDs), thermocouples, thermistors with and without indicators, and furnaces, with traceability to national and international standard with NABL accredited certificates. The following are the details of the jobs completed:

Total Number of Jobs Received	Notional Value, Rs. 250/point (saved for the Institute)	CSI
33 (more than 200 sensors and Furnace)	INR 10.08 lakh	99%

2.4. Electrical and Electronic Testing

This service includes the testing of lighting systems, UPS systems, power supplies, batteries, and the safety, environmental, and EMI/EMC testing of electronics products, as per ISO Standards as applicable for particular products with NABL accredited certificates. The following are the details of the jobs completed:

Total Number of Jobs Completed	Notional Value (saved for the Institute)	CSI
23	INR 0.81 lakh	100%

2.5. Servicing of Personal Computers

The centre takes care of servicing & troubleshooting the personal computers and printers available at the Institute. The following are the details of the jobs completed:

Total Number of Jobs Received	Notional Value (saved for the Institute)	CSI
468	INR 10.71 lakh	99.60%

2.6. PA System Services

Public address system services are provided by this Centre for almost all the Institute functions or the functions organised by the students at IIT Madras. The total number of PA system service jobs rendered during the period is 450.

2.7. Preventive Maintenance of UPS Systems

To reduce UPS downtime, the centre conducts preventive maintenance service of UPS systems at regular intervals.

2.8. Classroom Maintenance

The centre supports the Institute in the maintenance of the AV systems for hybrid classrooms in the Class Room Complex (CRC), Raman Block, Ramanujam Block, and in all departments.

2.9. Support to Research Scholars

- Design and fabrication of LED driver circuit for an Aerospace Engineering student
- Soldering of an SMD vertical shrouded header and components in four printed circuit boards (PCBs) for an M.Tech. student from Electrical Engineering
- Design and fabrication of an optical isolation circuit to drive 6 injectors for a student from the Mechanical Engineering department
- Soldering of SMD components in two PCBs for an Electrical Engineering Ph.D. student
- Soldering of SMD components in PCBs for Team Avishkar Hyperloop
- Design and fabrication of a microphone array with power supply and DAQ for a student from the Mechanical Engineering department
- Design and fabrication of a wave peddle monitoring system for a student from the Ocean Engineering department
- Design and fabrication of a driver for an injector and a DAQ for phase-locked measurement for a Mechanical Engineering student
- Modification of AC motor to DC motor with speed indicator for Civil Engineering students

2.10 Surface-mount Technology (SMT) Fabrication

Job Description	Boards	Department	Faculty In-Charge
Voltage sensor board	20	Electrical Engineering	Prof. Krishna Vasudevan
Fan decoupling board	8	Electrical Engineering	Prof. Krishna Vasudevan
DC blocking capacitor board	4	Electrical Engineering	Prof. Krishna Vasudevan
LCL capacitor board	3	Electrical Engineering	Prof. Krishna Vasudevan
Raftar, Centre for Innovation (CFI)	1	Engineering Design	Prof. G. Saravana Kumar
PSEB H-Bridge	2	Electrical Engineering	Prof. Krishna Vasudevan
Current sensor board	11	Electrical Engineering	Prof. Krishna Vasudevan
AFE board	1	Applied Mechanics	Prof. Arun Kumar Thittai
Transceiver switchboard	1	Applied Mechanics	Prof. Arun Kumar Thittai
On semi conv H-Bridge	3	Electrical Engineering	Prof. Krishna Vasudevan
Electronics Club, CFI	1	Electrical Engineering	Prof. Arun Karuppaswamy B

3. Workshops, Training Programmes and Courses

3.1. B.Tech. Electronics Workshop

The Centre has regularly been offering the Electronics module of the Workshop course (WS1302) for B.Tech./ Dual Degree (first year) students. This year, the Centre handled parts of the 2023 batch of students. 462 students attended the course.

3.2. HRD Training Programmes attended by CEC Staff

Following are the human resource development (HRD) events that Centre staff attended:

S. No.	Name of Staff	Programme Title	Institution	Period
1.	Dr. K Sulochana	PTP Proficiency Testing Provider Assessor's training ISO/IEC/17043:2023	NABL	October 12-13, 2023
2.	N Karthiyayini	PTP Proficiency Testing Provider Assessor's training ISO/IEC/17043:2023	NABL	October 12-13, 2023

3.3. Short-term Courses

- The CEC conducted a short-term training programme on Basic Electronics and Instrumentation for the technical staff working in various departments of IITM from July 3-14, 2023. 29 staff members attended the programme.
- The CEC conducted a training programme on Advanced Electronics Manufacturing: SMT Fabrication for 15 students and one teacher from Kaushal College ITI, Ranchi, sponsored by PanIIT from October 9-20, 2023.
- The CEC conducted a training programme on Advanced Electronics Manufacturing: SMT Fabrication for 15 students from Murugappa Polytechnic, Chennai, from November 20-December 1, 2023.
- The CEC conducted a short-term training programme on Basic Electronics and Instrumentation for nine newly-recruited junior technicians from January 1-12, 2024.
- The CEC conducted a short-term training programme on 'ISO/IEC 17025:2017: General Requirements for the Competence of Testing and Calibration Laboratories' for the Indian Coast Guard and IITM's Central Skill Training and Fabrication Facility (CSTF) staff. Six staff attended the training programme.

4. Design and Development Activities: Sponsored Projects

Description	No. of Jobs	Amount
Fabrication and installation of wave probes for IITM Thaiyur Campus	1	INR 8.5 lakh

4.1. New Facilities added and Major Equipment Procured

S. No.	Name of Equipment	Source of Funding	Value (in INR lakh)
1	Battery testers and battery capacity analysers with record storage	Institute	1.86
2	Programmable DC Load: 120V/30A/300W with standard accessories	Institute	2.48
3	Siglent 40V/30A/360W power supply	Institute	2.49
4	Mobile medical device calibration facility	CSR project	99.9

4.2. MoUs Signed by the Centre

- A Memorandum of Understanding (MoU) was signed between IITM and the PanIIT Alumni Reach for India foundation on September 5, 2023 to conduct a two-week training programme in Advanced Electronic Manufacturing for final-year Industrial Training Institute (ITI) and diploma students in the Electrical and Electronics streams.
- An MoU was signed between IITM and the Murugappa Group on August 21, 2023 to conduct a training programme in Advanced Electronic Manufacturing for diploma students in the Electrical and Electronics streams.

5. Research and Consultancy

5.1. Industrial Consultancy Projects (Ongoing & New)

Description	No. of Jobs	Amount in INR
Testing of electrical and electronics products, including safety and environmental testing	70	17.43 lakh
Development of LED bulbs and tubelights	01	6 lakh
Environmental testing for EMD Electronics instruments	01	16.5 lakh
Testing of electronics controller for Grundfos	01	4.45 lakh

6.4. P.G. Senapathy Centre for Computing Resources

6.4.1. Introduction

The Computer Centre at IIT Madras was established in 1973 to provide centralised computing resources and support to the academic initiatives of the institute. Over the years, the Computer Centre's organisation has evolved with this increase in requirements. In 2007, the infrastructure of the Centre was significantly upgraded through an endowment given by S Gopalakrishnan in the name of his father PG Senapathy.

The activities of the Centre are organised under five verticals:

1. High-Performance Computing Environment (HPCE),
2. E-Services,
3. Network,
4. Data Centre, and
5. Workflow.



Each vertical is focused on continually improving its services to meet the needs of the IIT Madras community. The Computer Centre has been ISO 9000 certified since 1999. The TUV has certified the Computer Centre as an ISO 9001:2015 standard management system for a period of three years, from August 2020 to August 2023, after

conducting the final auditing as per TUV NORD CERT procedures. Currently, it maintains all its processes in conformance with ISO 9001:2015 standards and is certified along with other units at the institute by TUV NORD. This section presents the background of each vertical and a summary of its annual activities.

6.4.2. High-Performance Computing Environment

The High-Performance Computing Environment (HPCE) group was established to cater to the ever-increasing demand for supercomputing facilities from researchers at IIT Madras.

A new cluster, named Aqua, has been added to the HPCE. It is mainly based on a water-cooled system, with 280 CPU nodes and 15 GPU nodes, a 1PB parallel system, and 200TB of storage in the NAS file system. The following are some active research areas that use the Aqua cluster: aerospace

engineering; atmospheric and ocean modelling; analysis of large structures; flows and combustion modelling; atomistic simulations; computational material sciences; social, ecological and physical network modelling; numerical weather prediction and data assimilation; molecular modelling, spectroscopy; and VLSI. This machine, which caters to the needs of the research community, mostly uses parallel programming. The detailed system configuration is as below:

**Total Compute Power:**

- 11680 Cores; 30 GPU Accelerators
- 734 TFlops Rmax (1,106 TFlops Rpeak)

System Performance:

- CPU: 587 TFlops Rmax (896 TFlops Rpeak)
- GPU: 147 TFlops Rmax (210 TFlops Rpeak)

CPU Nodes/GPU Nodes: The CPU nodes are implemented in a HPE Apollo 2000 Gen10 based solution (2U chassis) with HPE Apollo XL170rGen10 servers. Each node is configured with: Dual Intel Xeon Gold 6248 20-core, 2.5 GHz processors of 192GB, a 2 TB SATA disk, and a single-port Mellanox HDR100 HCA per node. The GPU nodes are implemented in a HPE Apollo 2000 Gen10 based solution (2U chassis) with HPE Apollo XL190rGen10 servers. Each node is configured with Dual Intel Xeon Gold 6142 16-core, 2.6 GHz processors of 192GB, a 2 TB SATA disk, a

single-port Mellanox HDR100 HCA, and 2 x NVidia V100 32GB GPUs – PCIe per node.

Storage Configuration/Cooling System: 1 petabyte PFS (HPE Lustre Storage) with minimum 25 GB/s write performance and 200 TB NAS storage. The air-cooled liquid chiller units fit multiples of hermetically sealed SCROLL compressors with four chiller units (36 TR each), seven CRV units and two PAC units.

The HPCE group also maintains machines from various departments and centres. It supports users in improving code and organises training programmes related to the effective use of the facility. This group maintains all commercial software-related licences and implements the 80:20 policy for all commercial software procured by the Computer Centre for HPCE users. Detailed information about the HPCE, including the latest usage statistics and software availability, is posted at the website hpce.iitm.ac.in.

6.4.3. E-Services:

The E-Services vertical focuses on services such as Web system configurations, e-mail, Web access, Web security, storage solutions, virtualisation, and Web services. Several new services were enhanced and added to by the group. The services maintained and initiated by the group are listed here:

Mail Services

1. IIT Madras (email.iitm.ac.in and zmail.iitm.ac.in)
2. Students (smail.iitm.ac.in)
3. Alumni (alumni.iitm.ac.in)
4. Retirees (retiree.iitm.ac.in)
5. Conferences (wmail.iitm.ac.in)
6. Projects (imail.iitm.ac.in)

Web Services

1. Virtual hosting
2. Mailing lists
3. Employee user web portal
4. Websites
5. Shared hosting
6. Moodle (online learning platform)
7. Posting to campus community portal
8. Online web portals for user registration
9. Online statistics of service usage

Security and Monitoring Services

1. Firewall tuning
2. Hack solutions

3. Security gateway (spam appliances)
4. Web application firewall (WAF)
5. Log analytics
6. Digital certificates
7. IT Infrastructure monitoring (NAGIOS)
8. Antivirus

Storage Solutions

1. Backup and restore processes
2. Disaster recovery
3. Server and desktop consolidation by virtualisation (VMWARE)
4. Hyper converged infrastructure (HCI)

User Management Services

1. Active Directory Service (ADS)
2. Lightweight Directory Access Protocol (LDAP)

Development and Deployment services

1. Convocations
2. Distinguished Alumnus Awards
3. User registration for IC&SR
4. HPCE Web-based user management
5. Faculty and staff portal
6. Web-based training
7. VTLS support (Library)
8. Support for students' elections
9. Support for the JEE
10. Support for the HSEE
11. Support to departments with Web services
12. Support to the Office of Alumni Affairs
13. Support to the Placement Office
14. Support for conferences
15. Support to the Office of IC&SR
16. Support to Citrix academic

Other Services

1. SMS gateway
2. Google API services
3. Intranet services
4. Project management support
5. Online ticketing system
6. Home portal for staff/faculty
7. Cloud services (own cloud)
8. Authenticated mail service
9. Local/global FTP
10. VDI (Virtual Desktop Infrastructure)
11. Resource-booking system
12. Microsoft licensing
13. Request trackers
14. M.S./Ph.D. online exams through Moodle
15. English O-level exam through Moodle
16. Digital certificates
17. Open virtual desktop infrastructure
18. Google Hangouts
19. Online portal registration links



A virtual machine is a software computer that, like a physical computer, runs an operating system and applications. An operating system installed on a virtual machine is called a guest operating system. The virtual machine gets a CPU, memory, video cards, access to storage, and network connectivity from the host it runs on.



VMware server: Before virtualization



After virtualization



E-Services Server Area in Data Center

Email Gateway: Sonic WALL

All incoming mails and outgoing mails go through this appliance.

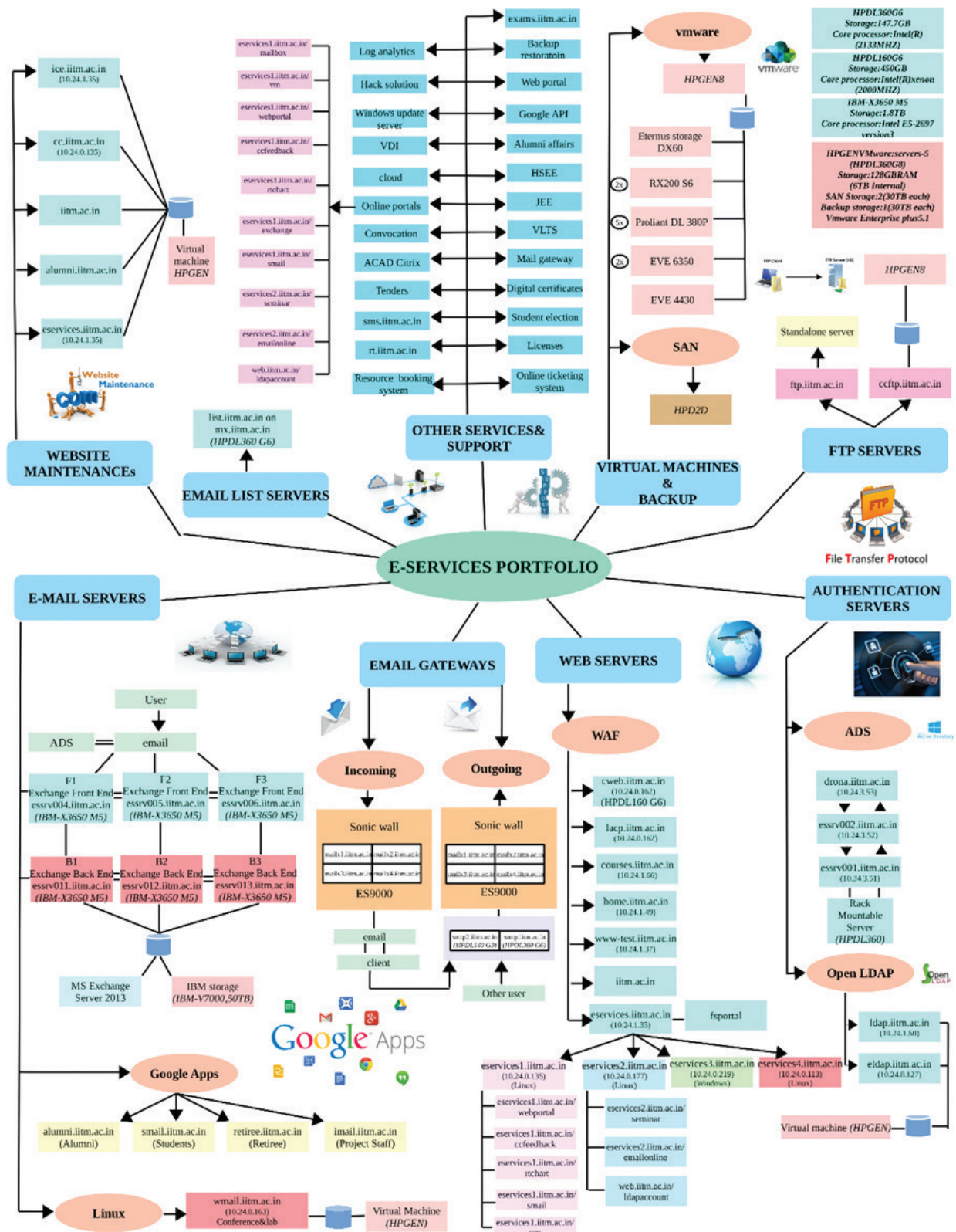


Web Application Firewall: WAF Fortinet 1000 series
Acts as the firewall for websites



E-Services portfolio

For services offered by E-Services and help, visit: <https://eservices.iitm.ac.in>.





6.4.4. Network

The campus computer network was established in 1994, connecting about 18 buildings in the Academic Zone, using telephone cables. The initial bandwidth was 64 kbps. Today, we have a fibre-backbone high-speed network connectivity of 10 Gbps for all the buildings in the Academic Zone. In addition, a backbone inter-connecting the three zones (Academic Zone, Hostel Zone and Residential Zone) is also operational. The total number of nodes in the campus is approximately 25,000. The network equipment in the Academic Zone was upgraded to provide 100/1000 Mbps connectivity to the nodes. All the buildings in the Academic Zone are

provided with dual fibre connectivity. Facilities for video conferencing, virtual classrooms, webcasting important events, EDUROAM and VPN are also provided under the network service. The network vertical also oversees the procurement of external network services, as well as the design, installation and maintenance of the network structure, switches and cabling across the IIT Madras campus. A summary of the key activities of the Network group for the year under consideration is as follows:

1. Conducting online examinations and online courses.
2. Webcasting important Institute events.
3. Network connectivity to newly constructed New Academic Complex (NAC)-II Building and G8 quarters.

6.4.5. Data Centre:

The function of the Data Centre is to ensure the appropriate management of facilities so that all verticals of the Computer Centre function efficiently and without interruptions. These facilities include:

uninterrupted power supply, backup power supply (DG set), CCTV, climate control, access control, water leakage systems, fire protection under BMS, and office space maintenance. The Data Centre operates and maintains the following equipment:

S. No.	Description of Equipment	Capacity	Quantity
1	Diesel generator set (Caterpillar) with 12 V/200 AH (Exide)	600 kVA	2
2	Synchronising panel for parallel operation	3 X 600 kVA	1
3	UPS (SOCOME) with 12V/200 AH (batteries): 96nos.	200 kVA	2
4	UPS (SOCOME) with 12V/200 AH (batteries): 60 nos.	200 kVA	2
5	UPS (SOCOME) with 12V/150 AH (batteries): 32 nos.	80 kVA	1
6	UPS (Emerson) with 12 V/42 AH (batteries): 34 nos.	30 kVA	1
7	UPS (DELTA) with 12 V/65 AH (batteries): 40 nos.	30 kVA	1
8	UPS (DELTA) with 12 V/42 AH (batteries): 32 nos.	20 kVA	1

9	PRAC AC (Blue Star)	17 TR (60 kW)	7
10	PRAC AC (Blue Star)	13.5 TR (48 kW)	2
11	PAK AC (Blue Star)	11 TR	4
12	PAK AC (Blue Star)	5.5 TR	2
13	Ductable split AC (Blue Star)	8.75 TR	2
14	Ductable split AC (Blue Star)	5.5 TR	6
15	RO plant (Excel Water System)	250 LPH	1
16	Air-cooled type chiller (YORK)	36 TR	4
17	CRV Row Based (Vertiv)	11 TR	6
18	PAC (Vertiv)	10 TR	2

The Data Centre has upgraded the Building Management Systems with the latest technology as follows:

BMS

1. Enterprise Buildings Integrator (EBI) R430 server
2. CP IPC panel - 1 no. (with IPC controller - 1 no.)
3. CP SPC panel - 3 nos. (with SPC controller - 8 nos.)
4. Battery monitoring system for all UPS

Single Zone (FAAST)

5. VESDA panel for network area (fire alarm aspiration seeing technology)

Security system

6. CCTV Camera:
 - IP-based IR indoor/outdoor (Capture): 27 nos.
 - Sixteen-channel encoder: 2 nos.

Fire system

7. Fire alarm system:
 - Intelligent photoelectric smoke detector: 84 nos.
 - Response indicator: 40 nos.
 - Intelligent heat detector: 2 nos.
 - Temperature sensor: 2 nos.
 - Manual pull station: 4 nos.
 - Hooter: 9 nos.
 - Isolator module: 3 nos.
8. Firefighting:
 - Gas release panel (Ravel): 2 nos.

Door access system:

9. Access control:
 - TEMA server: 1 no.
 - Biometric card reader: 4 nos.
 - Emergency push switch: 13 nos.

PA system:

10. Plena 480 W amplifier (Bosch)

Infrastructure Development:

1. 2 x 160 kVA UPS were removed and 2 x 200 kVA UPS were installed for Department servers.
2. 12V/42Ah batteries (32 numbers) were replaced for 20 kVA UPS systems.
3. 12V/42Ah batteries (34 numbers) were replaced for 30 kVA UPS systems.
4. 12V/28Ah batteries (9 numbers) were replaced for 3 kVA UPS systems.



Chiller Units



6.4.6. Workflow

The implementation of enterprise resource planning (ERP) software, or what is internally referred to as Workflow, is done by the Workflow group at the Computer Centre. The group works with various sections in the Institute to support system usage and capture changes in requirements involved in process development activities, maintaining reporting websites that collect data from Workflow, and generating reports using new software tools.

Online processes have the distinct advantages of transparency, accessibility, and analytics.

Processes such as the ICICI payment gateway, NOC process creation, examiner honorariums, obtaining provisional certificates, linear grade card for the online M.Tech. programme, grade card to storage, all faculty levels' access to Workflow, etc. were introduced. All these processes have a tracking system, which is Task Summary. The Task Summary screen has been enhanced. The reports are flexible and data can be searched with ease. Like optimised processes, there are SLAs (Service Level Agreements) implemented at various steps of the process to move them automatically to avoid delays in

completing the processes, and automatic email triggers for each process.

Enhancements to the synopsis and thesis evaluation process were carried out. A new A5 thesis process was introduced for scholars.

Along with regular development and optimisation activities, a new portal for web-enabled programmes such as online M.Tech. and EMBA has been created. This portal enabled the management to design the curriculum for new programmes in flexible periods instead of a rigid semester or quarter system. Moodle support has been assigned to the Workflow team this financial year. As soon as the Student Electives Allocation Tool (SEAT) allocation for electives gets completed, the courses are moved to Workflow and then to Moodle. Similarly, immediately after the course add/drop week, the courses are updated in Moodle. All the Moodle service requests, managing the Moodle server, and the security of the same are taken care by the Workflow team.

Like in the previous financial year, the data extracted from Workflow has been analysed and utilised by the Administration to align our internal processes to support our vision for IIT Madras.

Faculty/Staff Members and Areas of Work

S. No.	Name	Designation	Area of Focus
1	Prof. Gandham Phanikumar (MME)	Chairman	Overall coordination and planning
		Faculty-in-Charge	E-Services
2.	Prof. Kameswararao Anupindi (ME)	Faculty-in-Charge	High-Performance Computing Environment
3	Prof. Rahul Ratnakar Marathe (MS)	Faculty-in-Charge	Workflow
4	Banavath Baman	TO (Systems)	Training
5	S Anand Kumar	TO SS (Systems)	Mail domains, mail gateways, server hardware, VMWARE, Web services, virtualisation, support services
6	V Selvaraju	TO SS (Systems)	Network design, servers, switches, campus network maintenance and administration
7	TV Subba Rao	Tech. Supdt. (Systems)	Workflow—Administration Module
8	R Thiruneelagandan	Tech. Supdt. (Systems)	Planning, operations and maintenance of DG sets, UPSes, ACs, BMS, furniture and all Data Centre-related equipment
9	P Gayathri	Tech. Supdt. (Systems)	High-performance computing, system software, installation of open-source applications and commercial applications, user education development
10	M Irudayaraj	Tech. Supdt. (Systems)	Web programming, Linux, E-Services
11	R Madhanarasan	JTS (Systems)	Data Centre, BMS and ISO
12	E Arun	JTS (Systems)	Workflow
13	P Mahesh Mithreevan	Sr. Tech. (Systems)	Computer network, servers, switches, campus network, maintenance
14	CS Sundar	Jr. Supdt.	Administration

Apart from the permanent staff listed above, there are Project Officers, Project Associates and Project Technicians assigned to each vertical in the Computer Centre to support the various activities of the Centre.

6.5.1. Central Skill Training & Fabrication Facility

Introduction

The Central Skill Training and Fabrication Facility (CSTF), formerly known as The Central Workshop (CWS), was established in the year 1959 as part of the Department of Mechanical Engineering, with the support of the Federal Republic of Germany, to train B.Tech. students in various shopfloor techniques and fabrications. The CSTF is now an academic facility of IIT Madras and has the ISO 9001:2015 quality certification.

The CSTF's core activities are to offer hands-on training to B.Tech./Dual Degree (DD) students and to support the fabrication works of students and research scholars of the various departments of this Institute. The practical training offered by the CSTF is part of the B.Tech./DD academic curriculum requirement. The CSTF offers the following course codes: WS1031, WS1032 and WS1303. The CSTF's facilities are modernised from time to time based on technological needs for skill training and fabrication.

1. Facilities under the CSTF

The CSTF has facilities in different shops and sections. The list of shops and sections with their facilities are given below.

S. No.	Shop/Section/Lab	Facilities
1	Carpentry	Woodworking with planing, circular saw cutting, turning, thickness reducing, polishing processes and hand operated power tools.
2	Fitting & Tool Room	Filing, drilling, tapping, jig boring, tool milling, engraving, marking, slotting, grinding and cutting.
3	Machine Shop	Horizontal and vertical milling machines, lathes, planing machine, radial drilling machine, tool and cutter grinder, CNC lathes, CNC milling machines, universal milling machines and Computer Aided Manufacturing software.
4	Gear Shop	Spur, helical & bevel gear cutting and gear inspection.
5	Electrical Shop	Trainers for single-phase electrical circuits, three-phase Direct On Line and star-delta starter trainers.
6	Instrument Shop	Calibration of pressure gauges up to 1000 bar, precision machines, and Rapid Prototyping Machines (3D printers).
7	Welding Shop	Arc welding, gas welding, brazing, TIG welding, plasma arc cutting and arc welding simulator.
8	Foundry Shop	Sand molding, melting and die casting machines.
9	Smithy Shop	Open hearth furnace.
10	Pneumatics and Hydraulics	Basic and advanced pneumatics trainers Electro-pneumatic trainer Basic and advanced hydraulic trainers
11	FRP	Manufacturing polymer-reinforced composites by hand lay-up process
12	Plastics	Introduction to plastics, demonstration and production of hand-operated, semiautomatic injection and compression moulding of plastics
13	Instrumentation & Communication Lab	Introduction to basic communication systems. Exercises on optical fibre communication. Introduction to various kinds of transducers. Microprocessor-based control applications, example of stepper motor control and traffic light controller and PLC.

2. Training of Students

- The CSTF offered workshop courses WS1301, WS1302 and WS1303 (exclusively for the students of the Engineering Design department) to B.Tech./DD (1st year) students of the 2023-24 batch.
- The details of the students and training modules are given below.

Department	No. of Students	Training Modules
1. Electrical Engineering	155	1. Power Tools 2. Engineering Physics 3. Mechanical Engineering 4. Metallurgical & Materials Engineering 5. Aerospace Engineering 6. Chemical Engineering 7. Naval Architecture & Ocean Engineering 8. Civil Engineering 9. Biological Engineering 10. Computer Science and Engineering
2. Machining Process: Turning	44	
3. Machining Process: Milling	221	
4. Foundry & Smithy	70	
5. Plastics & FRP	74	
6. Welding	119	
7. Electrical	82	
8. Electronics	129	
9. Pneumatics & Hydraulics	47	
10. Instrumentation & Communication	90	
11. Engineering Design	79	
Total	1110	

3. Fabrication Works and Other Activities of the CSTF

- The CSTF offers support for manufacturing experimental set-ups and their accessories to the B.Tech./M.Tech. students and M.S./Ph.D. scholars of the Institute. A total of 1411 work orders were executed during the year 2023-2024.
- The CSTF provides support as a skill training centre to train trade, technical and graduate trainees having ITI, Diploma and B.E. qualifications. The candidates with relevant trades undergo training for the maintenance of buses in the auto shop. After obtaining the adequate training, the trainees are placed as project staff at research projects and start-up companies.
- The auto shop maintains the Institute buses and procured five electric buses with the funding support of the 1981 batch of IITM alumni.
- CSTF staff members are actively participating in the product development of IIT Madras-incubated startup companies.

4. Other Important Contributions for Institute Development

- The CSTF has created the Digital Manufacturing lab to train students on 3D printing and to understand digital manufacturing processes. It trained 570 B.Tech. students (of the 2023 batch) from November 25 to December 14, 2023.
- The CSTF is equipped with the Central Metal Additive Manufacturing facility to support Institute research scholars in metal 3D printing.

6.5.2 Central Glass Blowing Section

Established in 1971, the Central Glass Blowing Section (CGBS) is one of the important infrastructural facilities of the Indian Institute of Technology Madras. The facility undertakes the design and fabrication of sophisticated glass apparatus for research and development in various departments. It has a range of modern glassworking equipment that has been largely procured from Germany under a collaborative programme.

The apparatus includes a horizontal-cum-vertical lathe, a universal forming lathe and a high-vacuum system. The section is also well equipped with a good number of sophisticated burners, drilling and

cutting machines, grinding and polishing equipment, and such other tools necessary for fashioning varied glass apparatus. It has an adequate facility for quartz working and has developed a high level of expertise in this area.

The sophisticated apparatus fabricated include cryostats, spherical and cylindrical Dewar flasks, lugging probes, laser housing tubes with water jackets, reactor tubes, vacuum tube collectors (for solar energy), and quartz ware.

The Central Glass Blowing Section undertook 710 work orders from various departments between April 1, 2023 and March 31, 2024.

7.1. Office of Alumni and Corporate Relations (A&CR)

Introduction:

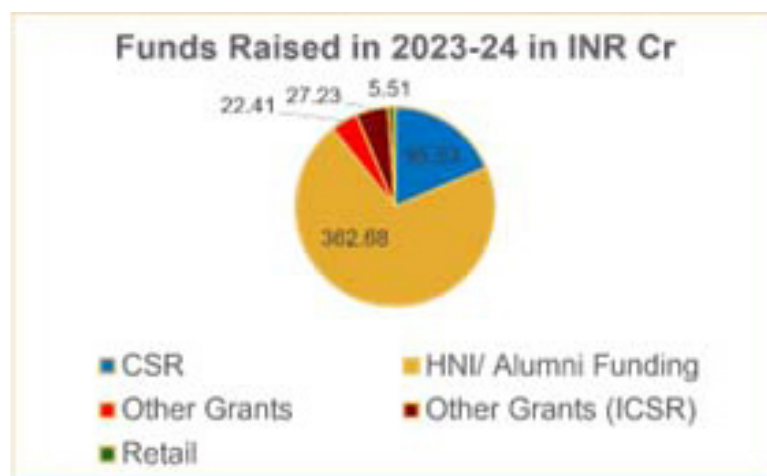
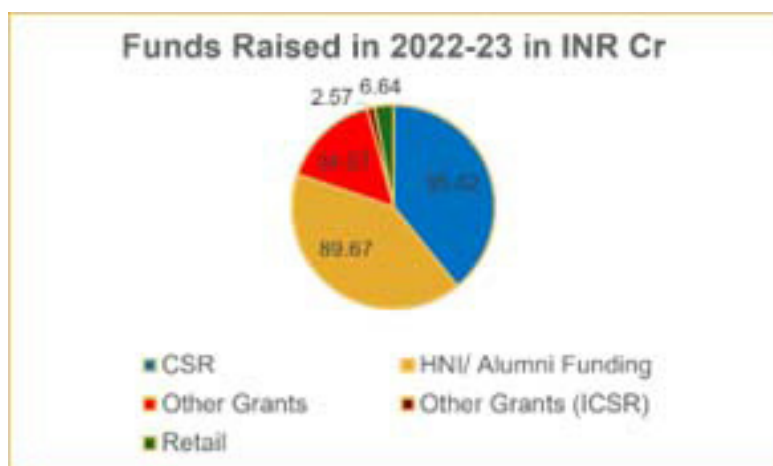
The Office of Alumni and Corporate Relations aims to be the unifying thread between the Institute, its alumni community, and the corporate world. Bringing these entities together to rally forward and support IIT Madras' drive towards global excellence in education, research, innovation and entrepreneurship, sustainability and social impact. The vision of the Office of A&CR is to promote the global stature of the Institute and

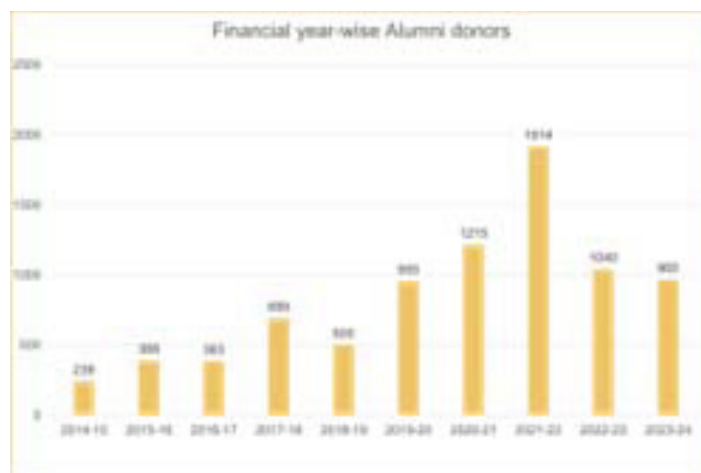
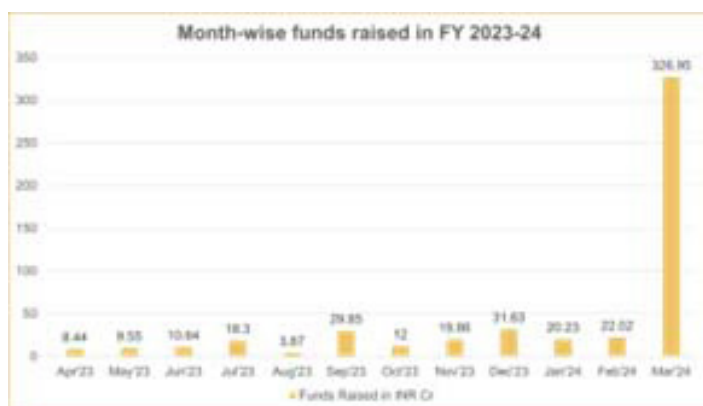
aid in nation-building by meaningfully engaging with the diverse alumni and corporate networks. The Office of A&CR strives to raise funds and create an ecosystem comprising of the alumni community, industry leaders, entrepreneurs, and foundations where each of these entities work cohesively and collaboratively to foster pioneering research initiatives, student projects and the infrastructural development at the Institute.

Financials:

The Financial Year 2023-24 has been a landmark year in the journey of the Office of A&CR as well as the Institute, setting a fundraising record of INR 513 Cr through benevolent alumni donors, inspired corporate partners and philanthropists. The community came together in support of technology centres of excellence, student scholarships and wellness programs, and research projects of various departments.

Statistics of Funds Raised in Financial Year 2023-24:





Major Donations

FY 2023-24 saw the IITM alumni community, corporate partners and other industry leaders coming together to further the cause of technology research, enhance students' lives and contribute directly to nation building through their association with IIT Madras' vision.

Alumni Giving

From establishing an exclusive School/Department for Data Science and AI to setting up a Centre of Excellence for Diabetics Research, from giving dreams wings through the Project BrIlghT Future scholarship to enhancing the BSc Online course, IIT Madras' alumni community played a pivotal role in the Institute's development in the last financial year.

Key Alumni and Philanthropic Trust Contributors of FY 2023-24

S. No.	Name of the Donor	Funds Contributed (INR)
1	Krishna Chivukula	228.92 Cr
2	Sunil Wadhwani	30.47 Cr
3	Kris Gopalakrishnan	25.34 Cr
4	Girish Reddy	11.61 Cr
5	Nilekani Philanthropies	6 Cr
6	Gururaj Deshpande	4.14 Cr
7	Jaishree Deshpande	4.08 Cr
8	Subramonian Shankar	3.68 Cr
9	Karthik Ramakrishna Sarma	2.96 Cr
10	Venkata Rangan D	2.48 Cr

Current Name	
1977 Batch	Amol Shet
Aadithya Shanmuga Priyaa M	Amrith Rajasekaran
Aananth C N	Anandan P
Aarushi Bijalwan	Anand Joshi
Aarvee Associates	Anand Kumar
Abhijeet Kumar	Anandkumar R Kannurpatti
Abhijeet Ranjan	Anand S
Abhijit Das Gupta	Anand Srinivasan
Abhilash B	Anand V
Abhinav A Achreja	Ananthakrishnan
Abhinav Garg	Ananth Raghavan
Abhinav Singh Rajawat	Anaparthi V Krishna Swaroop
Abhiram Ravi	Anerao Nitesh Sadanand
Abhiram Shankar	Aniket Vijay
Abishek K	A Nikhil Chaitanya
Achintya Krishna Sarkar	Anilesh Kollagunta Krishnaswamy
Acsys Investments Private Limited	Anil G
Adapa Praveen Surendra	Anindita Sahoo
Adarsh Kumar	Anindya Roy
Aditya C	Anix Anbiah
A Durga	Ankit Sanghvi
Ajay Dhankarghare	Ankit Sinha
Ajay Gupta	Anonymous
Ajay Singh	Antonette Molson
Ajeyaa GK	Anuradha Ramaswami
Ajita Rajendra	Anuvetha Govindarajan
Ajith Kuttai Venkatraman	Apolak Borthakur
Ajit Paranjpe	Apollo Micro Systems Ltd.
Akarsh B	Appan Thirumaligai
Akhil Sharma	AP Srinivas
Akshay Krishna	Apte Govind Dattatraya
Akshit Ashok Salecha	Aravind .K
Alok Mohatta	Aravind Padmanabhan
Amarnath GN	Arjun Dasgupta
Amarnath N	Arockiarajan A
Ambi Parameswaran	Arun Duggal
Amitava Das Gupta	Arun Gajanan Bahulkar
Amit Garg	Arun G Venkatraman
Amoghavarsha T H	Arun Ramamoorthy
Amol Ramesh Kaikini	Arun Roshan G
	Arun Swaminathan

Arvind A
AS Balasubramanian
Ashish Agarwal
Ashoka Mody
Ashok BD
Ashok Deobhakta
Ashok Khanna
Ashok Krishna
Ashok Kumar T
Ashok Mantravadi
Ashok S Kanagal
Ashok Venkat Rao
Ashwin Mahalingam
Aswani Kumar Yeraguntla
Atmakuri Ram Kumar
Ayalur Subramaniam Subbaraman
B Balaji
Badarinath Karri
Balachander Narasimhan
Balaji Narasimhan
Balaji Ramakrishnan
Balakrishnan Ranganathan
Balakrishnan S
Balakrishnan Subramanian
Balaram Ganesh
Balasubramanian K
Balasubramanian N
Balugari Venkata Sai Samanvith Reddy
Banavar Venkatanarayan
Barath M
Baskaran Sankaran
Batchu Sai Praneet
Bathini Varshith
Bathulapalli Sobha
B Balakrishnan
Bezawada Sashi Kanth
Bhagatwala Ankit Vijay
Bhamidipati Sravan
Bhanu Prakash Gotluru
Bharadwaj Srinivas
Bharath D

Bharath Natarajan
Bharathreddy Takulapalli
Bharath Reddy V
Bhargav Ramakrishna Reddy
Bhaskar Banerjee
Bhaskar Krishna Vamsi Manepalli
Bhaskar Rao N
Bhasker Rao S
Bhavya Balu
Bhogeswara Rao Karuparthi
Bhosle SB
Bhupathi Swetha
Bolishetty Laxminarayana
B Sharmila
BVS Sai Kiraan
Carmo Quadros
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Chaitanya Kodeboyina SK
Chakrakody Girish Shastry
Chakravarthi Chigurupati
Chakravarthi P
Chalikonda Venkata Rama Mohan
Chandanaveetil Kakkarakkal Dhananjayan
Chandrakala Rao Rednam
Chandramouli Visweswariah
Chandrasekaran CN
Chandra Sekhar Chekuri
Chandrashekar S
Chandra Sumeer
Chandu Thekkath
Chaudhari Ajaykumar Raysingbhai
Chennakesav Nagula
Chidambaram KG
Chitra Krishnasami Bharathi
Chitra Nayak P
Chokawala Rahul Shantilal
Computer Age Management Services
D Mukesh
DV Satyanarayana Gupta
Damodaran V

DA Muthana
Daria S Nair
Dasarathy Raghavan
Dasari Pradeep Kumar
Datta Sai Krishna Vardhan Reddy Karna
David Koilpillai
Debashish Gupta
Deepak Johnson
Deepak Kumar Garg
Deepak Sekar
Deepa Ramaswamy
Deepthi Kumar MB
Deeptika suguna gottipati
Deleep R Nair
Desikan Srinivasan
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Dheeresh Reddi
Dhiraj Kumar
Dhruv Jain
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Dipanjana Chatterjee
Dixit Paresh Kunjibhari
Dosapati Satyanarayana
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Durga Shankar CFA
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Edara Praveen Kumar
Elayaperumal A
Erangi Sasidhar
Eric Wang
Essense Labs
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Ganapathy Raman

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Ganesh Mohan
Ganesh Rajan
Ganesh Sankaran
Ganesh Shankar Jagadale
Ganesh Vaideeswaran
Garani Ravi Narayan
Gautham R
Geatesh Tampy K
George Koshy
George Kurian
George Mathew
George Vergese
Giridharan PS
Girija Vaidyanathan
Girish Reddy
Gitakrishnan Ramadurai
Gita Srinivasan
Godavarthi Veda Sri
Gokul Pichumani Krishnan
Gopalakrishnan R
Gopalakrishnan R
Gopalakrishnan S
Gopal Bethmangalkar
Gopi Koteeswaran
Gopinath K
Gorugantula VI Srikanth
Goru Niranjana
Gosika Mounika
Govinda Rajan K
Govindavaijhalala Raghuram
Gowtham Kumar Ramani Kumar
Goyal Virat
G Prema
Grama Bhashyam
G Srilakshmi
G Srinivasan
G Sunder Raman
Gudla Rahul
Guhan Jayaraman

Guha Vaidhyanath Ramanathan
Gummalla Mallika
Gunasekaran P
Gururaj Deshpande
Guru Sankar S
Gyan Prakash
Hanumath Sai Srikanth Vidyasagar Sadhu
Hari Balakrishnan
Hariharan Manoharan
Hari Krishna Kanagala
Harikrishnan EA
Harisanker Pradeep
Harish Doraiswamy
Harish Thadani
Hariswaran S
Harne Vinay Chandrakant
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Hemanth Kumar Bilihalli
Hemanth Nagaraj
Hemvardhan Sonigara
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Hithesh N
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Jacob Thomas
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Jai Kumar K
Jaishree Deshpande
Jalaj Thakor
Janakiram D
Jayaganesh K
Jayanthi Shekhar
Jayarama Darapureddi
Jayaraman Kasinathan
Jayashree Nimmagadda
Jay Srinivasan
Jeevanandham Shanmugam
Jiten Patel
Jobin Jacob Kavalam

Jonnagiri Raghuvir Reddy
Joseph Mathew
Jose Varghese
J Vinod Kumar
Jyothilal KR
Jyotirmaya Tripathy
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K Durga Saran
K Giridhar
K Soundaranathan
K Vijay
Kaarthik Raja MV
Kal Bittianda
Kallakuri Srinivasa Murty
Kalyanaraman S
Kalyan Muthukumar
Kama Raju P
Kapaleaswaran TN
Karan Khinchi
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Karthikai Rajan V
Karthika S
Karthik MAS
Karthik R
Karthik Ramakrishna Sarma
Karthik VK
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Kartikey
Karunakaran Chakravarthy
Kasbekar Vikram Sitaram
Kashreddy LLC
Katukooru Pradeep Reddy
Kaushik Murali
Kaushik Ramnath Rajan
Kaustubh Ghormade
KBSN Viswanath
KC Sivakumar
Kesava Rao K
Keshav N

Kiran Adhithya Ramakrishnan
Kiran Rokade
Kishalay Datta
Kishor E
Kodali Gokul
Kompella Nagamohan
Kosaraju Pavan Krishna
Kota Kishore
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Kovvuri Aswani Reddy
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Krishnamurti Rao R
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Krishnan Jayaram Pillai
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Krishnan Narayanan
Krishnan Ramachandran
Krishna Sadashiv
K Saral Kumar
K Suresh
Kudallur Ravi Raman
Kulakarni Saicharan
Kumar Pavan
Kumar Swaminathan
Kunapareddy SSK Abhinav
Kushal Singh Thakur
K Vasantha Rao
Lakshminarasimha Sarma K
Lakshmi Narayanan Venkatasubramani
Lalitha Balasubramhanya
Lal Ninan
Lokachari Prakash Sai
L Srikanth Kiran Kolli
Madhav Pola

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Mahadev Potharaju
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Mahesh Ramachandran
Maheshwar Saireddy
Mahidhar Tatineni
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Manish Kumar Prajapat
Manish T Valoor
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Manoj NP
Manoj R
Markandeyulu G
Mayank Lodha
M Chetan
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Megha Waikar
Mehul Bhardwaj
Milind Agrawal
Milind Gadre
Milind Brahme
Minal Patil
Mohamed Azad
Mohamed Saad Sheriff
Mohammad Aaftab Vankiripalli
Mohan Achuthan
Mohana Krishna
Mohanasundaram SV
Mohan Narayanan
Mohan R
Mukesh Sundaram
Mukkavilli Seetharam
Mukundan CV
Mukund Srinivas

Munnaluru Naga Krishna Prasad
Muraleedharan VR
Murali K
Murari S
Murugavel M
M Vikram Rao
MV Kalyan
N Saileswaran
Nagarajan Balasubramanian
Nagarajan R
Nagarajao Harshadeep
Nagaraj N.
Nagaraj TM
Nagarani Ram Shewaram
Naik Arun Nilkanth
Nandakumar P
Nandana Nandakumar
Nandan Nilekani
Narasimhan Raghavan
Narasi Sridhar
Narayanan Thondugulam
Naresh Rao
Natarajan Ramachandran
Naveen Kumar Salutagi
Naveen Reddy Chatlaparthi
NC Kumar
Neelotpal Shukla
Nelakuditi Srihari
Nihit Gupta
Nikhil Goray
Nikhil Kumar Jogimahanti
Nikhil Mallareddy
Nilkamal Adak
Nimit Arora
Nimit Nigania
Niranjan Kumar SM
Niranjan Kundapur
Niranjan M Gowda
Nirmal Lekshminarayanan
Nitin Chauhan

Nivethitha S
N Lakshmi Narayanan
N Narendranath
Noshir Sarosh Contractor
N Raghavan
N Ramani
NR Dave
NR Ravishunkar
NVS Raghavendra Mahesh Bolisetty
NVV Satya Suresh Chouta
Odaiyappan P
Olikara C
PB Sunil Kumar
P Mahalakshmi
Padmanabhan Ranganathan
Padmashree Yandagoudar
Pallat Aravind
Pannala Suresh
Pant Raj Kumar
Paramahamsan Harinarayanan
Paresh Chari
Paresh Pattani
Paruchuri Divya
Parvathinathan V
P Aswath Hari
Patel Nirav Ashokbhai
Patkar Sudhir Prabhakar
Pattabiraman Neelakantan
Paul Thomas
Pavitra Tejaswi
P Balasubramanian
Peruvemba Chandrasekar
Pesaru Kalyan Reddy
Phani Kishan Addepalli
Phanindra Gunturu
Phillis Thomas
Pijush Ghosh
Pinakin C Chaubal
Pinjala Venkateswara Rao
Piyush Mor

Piyush Shobhane
Piyush Uthra
PM Prahalad
Poonepalle Suresh
Prabhakaran R
Prabhakar Konath
Prabhakar Raghavan
Pradeep C
Pradeep Natarajan
Pradeep Simha AR
Pradeep V
Pradip Kumar Sikdar
Prakash Keshaviah
Prakash R
Pranesh Srinivasan
Prasad Setty
Prasanna SV
Prasanna Venkatesh Rengasamy
Prashanth Khambh Ammettu
Prateek Mishra
Praveen Krishnan
Praveen Kumar P
Praveen Seshadri
Praveen Tumuluri
Preetam Kumar Ghosh
Preeti Aghalayam
Premkumar T Devanbu
Purnanand Elango
P Vikram Kumar
R Aravind
R Mohan Ramachandran
R Sarathi
Radhakrishna Chilukuri
Radhakrishnan S
Raghava M
Raghavendra S
Raghavendra SM
Raghavendra Sai
Raghav Gopalarathnam
Raghunandan Char

Raghunathan Rengasamy
Raghu Rama Krishna S
Rajagopal S
Rajan Sharma
Rajan Varadarajan
Rajasekar K
Rajendran S
Rajesh G
Rajesh G
Rajesh Gandham
Rajesh J
Rajesh Katamreddy
Rajesh R Nair
Rajiv C Lochan
Rajiv Khanna
Rajiv Sampath
Rajni Ravindran
Raj Rajani Vinodkumar
Raju Jairam
Rakesh Jhunjhunwala
Rakesh K
Ramachandran S
Ramachandran Sivasankar
Ramananda Kedlaya H
Ramanan L
Ramanathapuram Anantharaman Venkitachalam
Ramasamy K
Ram CN
Ramee Sivasubramanian
Ramesh CN
Ramesh M
Ramesh Babu P
Ramesh B Subramanian
Ramesh Kumar Chopra
Ramesh M
Ramesh N
Ramesh Ramachandran
Ramesh Sreedharan
Ramesh Srinivasan
Ramesh Sundaram

Ramji Raghavan
Ram K
Ram Mohan Mahadevan
Ram Narayan K
Rampe Sruthi Kalpana
Ram Seetharam
Ramshankar N
Ram Shriram
Ramya Koneru
Rangarao Gururajan
Ranga Srinivasan
Rangaswami Arun Kumar
Ranjan D
R Ashwin
R Athindran
Rathindra Singh Nahar
Ratnesh Kumbhkar
Ravi KN
Ravi George
Ravindran
Ravindran Sundar
Ravi Ramnath
Ravi Sankar K
Ravishankar J
Ravishankar MV
Ravi Unadkat
R Balamuralikrishnan
Reji Varghese
R Gururaj
Rishabh Thakur
Rishi Raj
RM Muthukumar
Robbi Hemanth Shiva Kumar
Robert Bob Nathan
Rohini S Chakravarthy
Rohith Kuppli
R Phani Prasanth
R Srinivasan
Rukmini Vijaykumar
Rusi Governor
R Venkateswaran

S Balaji
S Chandrasekaran
S Lakshminarasimhan
S Padmanaban
S Ramakrishnan
S Swaminathan
Sachin Athalye
Sachin Gangrade
Sachin Kadloor
Sadagopan R
Saeel Shrivallabh Pai
Sai Aditya Velichala
Sai Ganesh Bhaskaran
Sailesh Ramakrishnan
Sai Nithin Krishna Jonnalagadda
Sai Venkatesh Kolli
Saleena N
Salil Sanjeev Anjali Akolkar
Sameer Pethe
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Saminathan M
Sam Kantimathi
Sampath Kumar R
Sampath Rangarajan
Sanath Duraiswamy
Sanat Kumar Dash
Sandeep Akula
Sandeep Raghunath Badawe
Sandeep SK
Sandhya Ramanathan Girish
Sangam Nath
Sangeeta Balachandar
Sangeeta Lele
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Sannasiraj SA
Santhanam L
Santhosh Kumar J
Santoke Burjor Tehmurasp
Saravanakumar Annamalaisami
Saravana Kumar Loganathan
Saravanan U

Sarthak Singh Gaur
Sarvesh Agrawal
S A Sank Vasa
Sathyakama S
Satish Balwant Joshi
Satish Kumar K
Satish Pai
Satish Ramakrishna
Satish Shenoy
Satyajit Kumar Dutta
Satyajit Sahoo
Satyam Santosh
Satyan CR
Satyanarayana Kondle
Satyanarayana Rao KBS
Sauparna Sarkar
Savithri Ramurthy
Sayani Das
Sehej Kaw
Seshanka Palukuri
Seshasayee KV
Seshasayee Sampat Kumar
Seshasayi Sreenadh J
Sethuraman Lakshminarayanan
Sevugan Chetty N
Shaikh Faruque Ali
Shaik Shabbir Hussain
Shaik Zakir Hussain
Shaji C
Shalini Puchalapalli
Shamanth Shankar
Shankar N
Shankar H
Shankar LS
Shankar TS
Shankar Venkateswaran
Shantanu Pradhan
Shanthi Balasubramanian
Sharat MR
Sharath Coorg

Sharat Potharaju
Sharma Mukesh Chandrakantbhai
Sharma Subramanian Narayan
Shashank Koduri
Shashank Sudhakar Jadhav
Shashi Bhusan Mishra
Shenoy Ravindra Vaman
Shikha Raj
Shikhar Prakash
Shilpa Menon
Shine Nagpal
Shiny Joseph
Shital Sudhakar Chiddarwar
Shivakumar Venkataraman
Shivkumar Kalyanaraman
Shivram Sridhar
Shobhit Rai
Shreya Karmakar
Shreyash Bhattarai
Shreyas Mehta
Shripati Acharya
Shuba Kumar
Shubham Shukla
Shubhang Varma
Shyam Santosh Nair
Shyam Venugopal
Siba Prosad Mookherjee
Siddhartha Chinthapally
Sidhant Thole
Sidhyansh Saxena
Sivakumar Arumugam
Sivarama Krishnan
Sivaram S
Siva Sai Krishna Venigalla
S Kalyani
S Krishnasami Bharathi V
S Narayanan
Soma Sekhar Dhavala
Somnath Chanda Roy
Soorya G

Soumen Kumar Bag
Sourya Varenva
Souvik Basu
Squarepoint Foundation
S Radhakrishnan
Sreedhar U
Sreekanth Rajagopalan
Sreekanth V
Sreenivasan Mahalingam
Sreenivasarao Kollu
Sreerama Murthy GUB
Sree Ram Kishore Duvvuri
Sreeramoju Veera Praveen
Sreeram Srinivasan
Sridharakumar Narasimhan
Sridharan Prem Kumar
Sridharan S
Sridharan Srivatsan Sri
Sridhar R.
Sridhar Ramaswamy
Sridhar Tayur
Srihari Cadambi
Srihari Kumar G
Sriharsha Ananthoju
Srikanta TN
Srikanth NV
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Srikumar K
Srinath Mahesh
Srinath S
Srineash VK
Srinivasa Chandramouli
Srinivasa Krishna Kumar T
Srinivasa Murthy Dhulipala
Srinivasa Murthy G

Srinivasan S
Srinivasa Narayanan
Srinivasan Family Trust
Srinivasan V
Srinivasan Venkatachary
Srinivasan Viswanathan
Srinivasa Rao Bakshi
Srinivasa Rao Patibandla
Srinivas BS
Srinivas MA
Srinivas Murthy S
Sriram A
Sriram R
Sriram Thiagarajan
Srishan Sridhar
Srivaths Ravi
Srivatsa S
Srividhya Sankaranarayanan
SR Thangavelu
S Srinath
SS Sarma Evani
Subarajah Subbiah A
Subashini R
Subhashini V
Subhojyoti Mukherjee
Subrahmanyam Kuppa
Subramanian G
Subramanian N
Subramanian P
Subramanya Gautam Sadasiva
Subramanya Uppala
Subramonian Shankar
Suchitra Srinivasan
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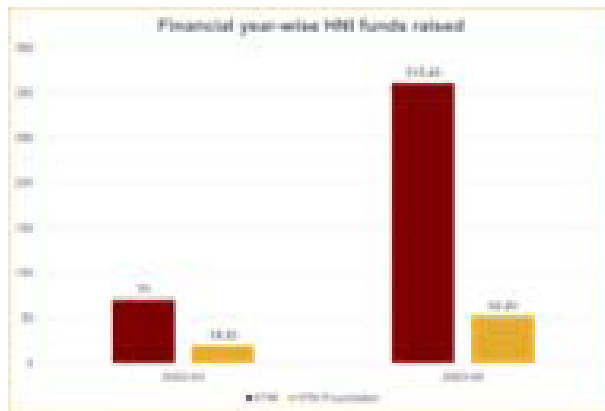
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Sukumar K
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Sumant Ranganathan
Sundaresan Vaidyanathan
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Sundi Sundaresh
Sunil Dorairajan
Sunil Godbole
Sunil Vasantrao Diwakar
Sunil Wadhwani
Sunishtha Singh
Sunitha E
Surabhi Koppuravuri
Surendra Lele
Suresh Garimella
Suresh Govindarajan
Suresh Kumar Ayodhya
Suresh PV
Suresh S
Suresh Sriramulu
Surinder Singh Sahni
Surya Kiran Satyavolu
Suryanarayanan Balasubramanian
Susanna Maria Baby
Susheela Mahadevan
Sushilkumar Shah
Sushrut Ranade
Suvinay Subramanian
S Vivek
SV Madhavan

Swami Nathan
Swaminathan P
Swapnil Jain
TR Mohan
Tadepalli Venugopal
Taleyarkhan Rusi Pesi
Tamhane Aniruddha Manoj
Tanima Verma
Tanya Tomar
T Aswin
Teja Krishna Mamidi
Thakkar Arpankumar Sureshkumar
Thangaraja J
Thenmozhi M
Thumparthy Viswanatha Rao
Tilak Gopalarathnam
Tirumala R Ranganath
TM Rajkumar
Trideep Singh
Uchila Umesh
Uday Grover
Ulhas Parlikar
Umesh Subramanian
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V Raghavan
V Srinivasa Chakravarthy
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Varun Ramakrishna Pattabhiraman

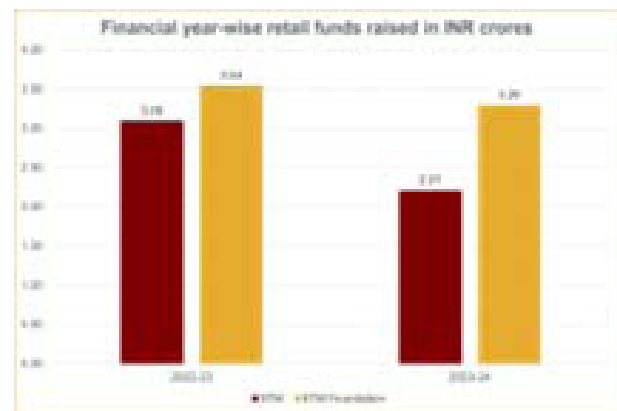
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Vasudevan Guruswamy
Vasudevan Jagannathan
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Vellayan Subbiah
Vempaty Nageshwara Rao
Vemulapalli Raviteja
Vemulapati Sree Venkateswarlu
Venkataraman Ravi
Venkataram B
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Venkatasubbarao B
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Venkateshwarlu Sonathi
Venkat Narayanan S
Venkatraghavan Ganesan
Venkatraman VR
Venki Ayyagari
Venugopal Srinivasan
Vidyalakshmi MR
Vignesh J
Vignesh Natarajan
Vijayakumar A
Vijayalakshmi S
Vijayanand Vusirikala
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Vikas Devannagari

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Vinod A
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Vivek Badami
Vivek Jaiswal
Vivek NR
Vivek Padmanabhan
Vivek Sagi
Vivek Sarda
Vivek Sharma
Vivek Yadav
V Sashidharan
V Shankar
VS Kamal Hasan Behara
VS Ram
Vudaya Kiran Vemuluru
V Varadharajan
Vyas Sekar
Yandapalli Srikanth
Yargop Ulhas Narayan
Yogesh Gupta
Yogesh S
Yogitha BM
Y Praveen
Y Sai Prem
Yuvaraju Maddiboina

HNI Fund Flow (in INR crore)



Retail Funds Raised (in INR crore)



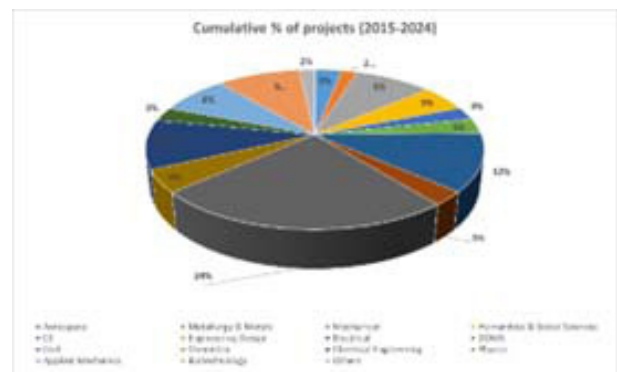
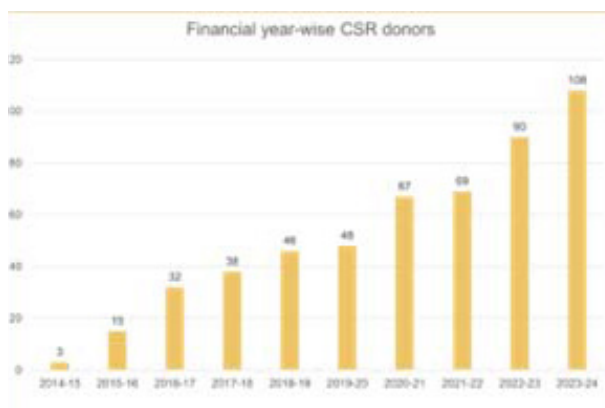
Corporate Giving (Corporate Social Responsibility):

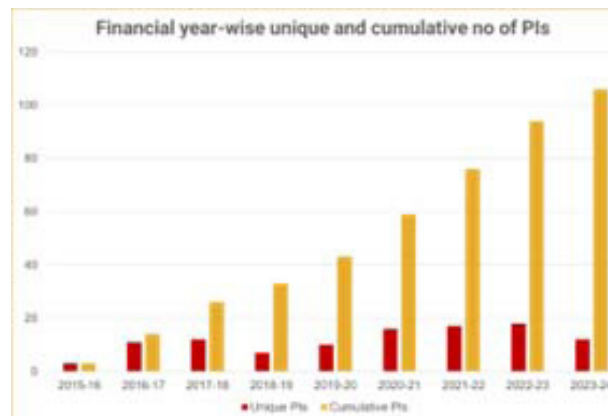
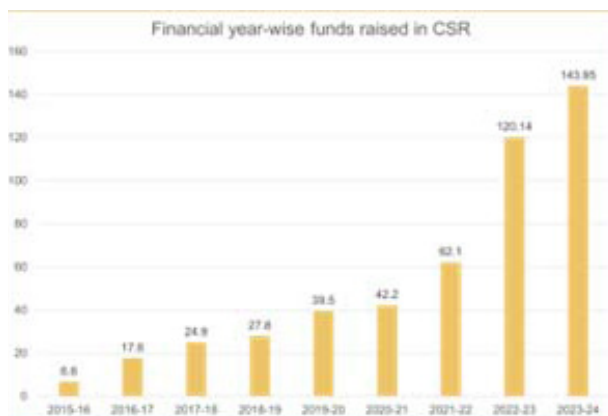
“Technology drives our world today. Does it drive your CSR?” With this as their guiding principle, the CSR Partnerships team at the Office of Alumni and Corporate Relations has been helping corporate firms across the country leverage their CSR funds towards technology research at IIT Madras.

Our Corporate Social Responsibility partnership collaborations broadly fall under any of the following three key broad categories:

- Deployment of technology via scalable solutions for larger benefit, such as RTCs (Rural Technology Centres) and the Institute’s B.S. online degree programme
- Development of research & technology for long-term impact, such as the Centres of Excellence and research projects
- Facilitation of equal access to education and skilling which directly benefit the underprivileged.

S. No.	Key CSR Donors (FY 23-24)
1	FedEx
2	Power Finance Corporation
3	Walmart
4	Hyundai
5	HSBC
6	Prazim Trading
7	OnePlus Technology Services
8	Reddington
9	Indinfravit
10	IndusInd Bank





Complete List of Corporate Partners for FY 2023-24:

Corporate Partners	
Accenture	Computer Age Management Services
AICL Communications	CredAvenue Securities Private Limited
Alleima India Pvt. Ltd.	D&B Tech
Alphagrep Securities	Datadirect Networks India Private Limited
Altair Engineering	E-Care India Pvt. Ltd.
Ambernath Organics Private Limited	Electronic Arts Games (India) Pvt. Ltd.
American Express	Encora Digital India Pvt. Ltd.
Ansys Software Pvt. Ltd.	Excellerate Softech India Pvt. Ltd.
Anunta Technologies	Excelra Knowledge Solutions Pvt. Ltd.
APA Engineering	Fedbank Financial Services
Aptiv	FedEx
Aspire Systems Pvt. Ltd.	Ford India
AT&T Global Network Services India Pvt. Ltd.	GE
Avalon Technologies Limited	Geojit Foundation
Baker Hughes	Griptonite Games India Private Limited
Borgwarner	Hindustan Colas Private Limited
BPCL	HSBC
Capgemini	Hydromaterials
Cargill	Hyundai
Castle Ships Pvt. Ltd.	IBM India Pvt. Ltd.
Chennai Petroleum Corporation Limited	ICICI Home Finance
Cholamandalam Investment And Finance Company Limited	IDBI
Cholamandalam MS Risk Services	Indian Oil Corporation Limited
CME Group	IndInfravit
Cochin Shipyard Limited (Assitive Lab @ IITMRP)	Indus Towers
Cochin Shipyard Limited (Neomotion)	IndusInd Bank
	Infineon Technologies India Pvt. Ltd.
	International Seaport Dredging Pvt. Ltd.

Ipsos Research Pvt. Ltd.	RM Tulpule Charitable Trust
Ittiam Systems Pvt. Ltd.	Ruhrpumpen
Jan Shiksha Sanstha	Sabre Travel Technologies Private Limited
Johnson Controls (India) Pvt. Ltd.	SBI General Insurance Company Limited
Kotak Mahindra Bank Limited	Schaeffler India Limited
L&T Technology Services Limited	Sembcorp
Learning Links Foundation (Amazon India)	Solerminds Solutions & Technologies
LG Soft India Pvt. Ltd.	St. Gobain
Lightstorm	Sunanda Global
MacDermid Alpha Electronics Solutions India Pvt. Ltd.	Super Auto Forge Private Limited
Magna International	Sutherland Global Services Limited
MediaNet	Synegene
Mercedes-Benz Research & Development India	TAFE Foundation
Milacron	Tamilnad Mercantile Bank
Mistral Solutions Private Limited	Tanla Foundation
Mphasis	Tata AIA Life Insurance Company Limited
MRF	Tata Elxsi Ltd
Nagarro	Texas Instruments
NBCC	Thales DIS CPL India Pvt. Ltd.
NIIF Infrastructure Finance Limited	Thales DIS Technology India Pvt. Ltd.
NineLeaps	The Boeing Company
Nordex Engineering	Tiger Analytics India Consulting Pvt. Ltd.
NSE Foundation	Tower Research Cap
Ocwen Financial Solutions Private Limited	Transunion Global Capability Centre Limited
OnePlus Technology India Pvt. Ltd.	Trident Pneumatics Pvt. Ltd.
Pioneer	Trimble Technologies
Portescap India Pvt Ltd	TTK Prestige Limited
Power Finance Corp	Tube Investments Of India Ltd.
Prazim Trading	Venus Safety & Health Pvt. Ltd.
Promantus	Verizon Data Services India Pvt. Ltd.
Reddington Foundation	Vertiv
Renault-Nissan Technology And Business Centre India Private Ltd.	Voltas
	Walmart
	Wipro Cares (Wipro Foundation)

Merit-cum-Means Scholarships:

Indian Institute of Technology Madras (IIT Madras) Alumni and CSR partners have rallied together to provide financial support to 100% of B.Tech. students whose annual parental income is in the INR 1 lakh to 5 lakh category for two consecutive years (2022-23 & 2023-24).

This Merit-cum-Means (MCM) Scholarship, in combination with the two-third tuition fee waiver by the Government of India for students in this category, covers the entire tuition fees of eligible B.Tech./Dual Degree students belonging to the Environmentally Weaker Section (EWS), General (GE), and Other Backward Classes (OBC) Categories. This support frees up the students to focus completely on their studies and future academic pursuits without having to worry about their financial situation or education loans.



Donor-defined scholarships

There are more than 35 unique donor-defined scholarships, where the students are selected on the basis of various criteria set by the donor. These could include factors such as the department, degree, parental income and academic performance. 146 students were given financial assistance through this initiative for the academic year 2023-24.

Distinguished Alumni Awards

The Distinguished Alumni Awards (DAA) are the highest awards given by IIT Madras to its alumni, in recognition of achievements of exceptional merit and excellence. These prestigious awards acknowledge outstanding accomplishments in the areas of entrepreneurship, leadership and management, academia, social and technological innovation, and service to humanity at large. The Distinguished Alumni Awards have been presented annually by the Institute since their inception in 1996. The following eminent alumni are the awardees for the year 2023.



Events

•Launch of Chairs

Launch of the Kripalu Chair for Transformational Leadership

The launch of the Kripalu Chair for Transformational Leadership was held on July 17, 2023 at AMM Hall, ICSR building. The event was attended by Mr. Anand Kripalu (1980/BT/EE) and Mrs. Sukanya Kripalu, who have endowed the chair along with their family. It was also attended by a few of his batchmates and friends.



Launch of the Muthuraman and Sumathi Visiting Chair in Urban Mining

The launch of the Muthuraman and Sumathi Visiting Chair in Urban Mining was held on September 5, 2023 at AMM Hall, ICSR building. The event was attended by Mr. Muthuraman and Mrs. Sumathi, who have endowed the chair along with their family. It was also attended by Mr. TV Narendran (CEO, Tata Steel), Mr. Ramasami (Former Secretary, Department of Science and Technology (DST), Govt. of India). The first occupant of the visiting Chair is Dr. R Ratheesh, Director, Centre for Materials for Electronics Technology (CMET), Hyderabad.



Launch of the R Srinivasan International Visiting Chair

The launch of the R Srinivasan International Visiting Chair was held on February 9, 2024 at Hall 2, IC&SR building. IIT Madras has partnered with the Redington Foundation to set up an International Visiting Chair Professorship, named the R Srinivasan Chair. The occupants of the Chair will undertake research in logistics and the supply chain, including sustainable supply chain management.



Launch of the Raju Venkataraman Chair

The launch of the Raju Venkataraman Chair was held on March 1, 2024 at the Director's Senate Room, Admin building. The event was graced with the presence of Mr. Raju Venkataraman and his family (wife, son, daughter, and adorable grandson).

The chair aims to create leadership roles and more people who will help achieve Mr. Raju's dream of creating more job opportunities.



•Faculty Fellowships

Dr. V Ganesan Faculty Fellowship

The launch of the Dr. V Ganesan Faculty Fellowship was held on June 6, 2023 at the Central Lecture Theatre (CLT). The event was attended by the donors, Prof. Anilkumar Amrutur and Mr. Venkata Srinivasan (Dr. V Ganesan's son), and their families.



•Other Lectures & Events

RV Chakrapani International Fellowship Announcement Ceremony

The R.V. Chakrapani International Student Fellowship, sponsored by Aarvee Associates, was announced on January 23, 2024 at AMM Hall, IC&SR building. This fellowship will support international students studying at IIT Madras, encouraging greater inclusion and fostering diversity on the IITM campus, one of the Institute's key priorities.



Distribution of Electronic Kits to Government Schools in Rural Area

Distribution of Electronic Kits to Government Schools in Rural Area was held on February 14, 2024 at the Director's Senate Room, Admin building. Thiru. J Kumaragurubaran, IAS, Secretary to Government, School Education Department, Government of Tamil Nadu, distributed the electronic kits to teachers from 20+ schools.



•Alumni Meets and AlumNite

Parents' Day & AlumNite 2023

Parents' Day & AlumNite were jointly held on July 21, 2023 at the Open Air Theatre (OAT), which was attended by 2900+ people (graduating students along with their families), who participated in and greatly enjoyed the games, music and celebrations.



Freshie-Alumni Meetup 2023

A new event initiative, the Freshie-Alumni Meetup was held on August 13, 2023 at the Student Activities Center (SAC) to facilitate interaction between the freshers and young alumni and to create a warm and welcoming atmosphere at the Institute.

The event was very well received. Pradeep Gullipalli (Tiger Analytics) interacted with attendees and shared several nuggets of wisdom, including coping with pressure, making the best use of IIT Madras, and having the right approach and attitude.





•Reunions

Class of 1983 Ruby Reunion

The Class of 1983 Ruby Reunion was held on November 15, 2023 at AMM Hall, IC&SR Building and was attended by 20 alumni.

Reunion 23-24

Reunion 23-24 was held on December 27, 2023 at TTJ Auditorium. 80+ alumni from Batches 1993, 1998, and 2003, accompanied by their family members, attended the reunion. Prof. Kamakoti, Director of IIT Madras, welcomed the batch at the TTJ Auditorium.



Golden Reunion: Class of 1974

Golden Reunion: Class of 1974 was held on January 30, 2024 at the Terrace Hall above Campus Cafe. 50+ alumni, accompanied by their family members, attended the reunion.



•CSR Workshops and Summits

ASSOCHAM: CSR & Sustainability Conference & Awards for 2022

The Associated Chambers of Commerce and Industry of India (ASSOCHAM) Southern Region Corporate Social Responsibility (CSR) & Sustainability Conference & Award Ceremony for 2022 was held on 23rd June 23, 2023 at Radisson Blu, Egmore. IIT Madras was the Academic Partner for the Summit. IITM's B.S. online programme won the first place in the Best CSR project - Education and Skill Category. This event brought extensive publicity & branding for IIT Madras. There was a 10-minute address by an IITM representative, brochures were distributed to 130+ participants, and the contact information of delegates was captured.



CSR Changemaker: Faculty Recognition Event

CSR Changemaker: Faculty Recognition Event, on July 19, 2023, was an initiative by the A&CR Office to recognise and acknowledge all the IITM faculty members who have contributed to society through CSR collaborations at IIT Madras. Shri. S Krishnan, IAS, Additional Chief Secretary to the Government Industries Department, Tamil Nadu Government, honoured the faculty members as the guest of honour. 87 faculty members and their families participated in the event, which culminated with a celebratory dinner.



Sustainability and CSR Live Week Conference and Exhibition 2023

IITM was the official Knowledge Partner for the CSR Live Week Conference, a two-day high-visibility CSR event encompassing panel discussions, an exhibition, book launch and awards, held on September 29-30, 2023 at New Delhi. IIT Madras speakers participated in 5 of the 6 panels, addressing a 200+ audience. There was extensive media coverage across leading daily newspapers. 10 pages' exclusive content from IITM were featured in the CSR Good Book '23 with 2500+ copies in circulation amongst leading government offices including ministries, corporates and academia across India.





10th India CSR Summit and ESG Forum 2023

The 10th India CSR Summit & ESG Forum, the sector's most awaited and prestigious event, was curated and hosted by CSRBOX. It took place on October 11-12, 2023 at New Delhi. IITM was the official Gold Partner for the India CSR Summit 2023, one of Asia's largest CSR events. Kaviraj Nair, the Chief Executive Officer, Office of Institutional Advancement, IIT Madras, addressed the packed audience on how IIT Madras harnesses green energy using technology.

The event also featured displays of our work & proposals, and our team interacted with interested corporate partners and shared key projects and CSR collaboration opportunities under education, health, water, sanitation, and village development, among others.



Launch of the FedEx Center for Smart and Sustainable Supply Chains

IIT Madras is collaborating with FedEx Express (FedEx), a subsidiary of FedEx Corp, to establish the FedEx Centre of Excellence (CoE) for Smart and Sustainable Supply Chains, which is supported by a five-year grant from FedEx. The launch was held on December 6, 2023 at AMM Hall, IC&SR building.

The CoE will be an industry-academia bridge, focusing on five pillars: environmental sustainability, commercial sustainability, social sustainability, digital focus, and collaboration, to reshape global standards in measuring, tracking, and reducing emissions towards net zero in the logistics sector.

SBI General: Inauguration of Hyperthermia Breast Cancer Treatment Device

The launch of the Thermal Therapy Device for Adjuvant Treatment of Locally Advanced and Recurrent Breast Cancers, supported by SBI General, was held on January 18, 2024. This technology, developed at IIT Madras by Prof. Kavitha Arunachalam from the Department of Engineering Design, aims to provide an affordable and indigenous solution for advanced-stage breast cancer patients, with a focus

on improving treatment outcomes and reducing maintenance costs compared to imported systems.

On the occasion we had Mr. Kishore Kumar Poludasu, MD & CEO, SBI General Insurance; Mr. Anil TJ, Regional Head - South 1, SBI General Insurance; Mr. Rathin Lahiri, Head Marketing & CSR, SBI General Insurance; and Mr. Clifford D'Costa, CSR Manager, SBI General Insurance, with us for the launch of this groundbreaking device.



Building India 2047 – Innovative Technologies for a Better Tomorrow – IIT Madras CSR Summit & Awards

Building India 2047 – Innovative Technologies for a Better Tomorrow – IIT Madras CSR Summit & Awards, an annual flagship event, was held on February 17, 2024 at TTJ Auditorium, IC&SR building.

The event brought together industry leaders and leading researchers to discuss solutions for societal challenges. The summit included round-table discussions, stalls featuring innovative CSR collaboration opportunities at IIT Madras, and networking opportunities for industry and academic leaders, culminating with awards. 50 awards were conferred upon leading corporates in recognition of exceptional partnerships and outstanding tech-driven CSR collaborations.



Inauguration of the Green Hydrogen Micro Grid and Battery Engineering Lab

The Green Hydrogen Micro Grid and Battery Engineering Lab was inaugurated on February 23, 2024 at the Chemical Engineering Lab & Engineering Design department building. These labs were inaugurated by Mr. Manoj Kumar Singh, Chief Regulatory Officer and CSR, Indus Towers in the presence of Prof. Raghunathan Rengaswamy, Dean (Global Engagement) and Prof. R. Sarathi, Dean (Planning), IIT Madras. This project reflects accurate state estimations for battery packs, lifespan prediction, and effective thermal control, catering to the widespread use of rechargeable Li-ion batteries across industries.





Inauguration of low-cost technologies for road safety improvement & release of report on improving safety of public transit buses in Chennai

IIT Madras, together with the Renault Nissan Technology & Business Centre India (Renault Nissan Tech) and the Greater Chennai Police, has launched 'Low-Cost Technologies for Road Safety Improvement' at Police Commissionerate & Labour Statue junctions. IITM has also released a report on 'Improving Safety of Public Transit Buses in Chennai' in collaboration with the Metropolitan Transport Corporation on March 2, 2024 at AMM Hall, IC&SR building.

Dr. Alby John Varghese, IAS, Managing Director, Metropolitan Transportation Corporation, Chennai and Mr. Hirotake Harada, Senior Vice President - Engineering, Renault Nissan Tech, were the Chief Guest and Guest of Honour, respectively.



•Inaugurations

Inauguration of 2 New Centres by Shri Rajeev Chandrasekhar

The following centres were virtually inaugurated by Shri Rajeev Chandrasekhar, Hon'ble Minister of State for Electronics and Information Technology & Skill Development and Entrepreneurship on 27th March 2023 at TTJ Auditorium, IIT Madras:

- Veena and Pratap Subrahmanyam Centre for Digital Intelligence, Security Hardware and Architecture (V&PS-CDISHA), donated by Shri Pratap Subrahmanyam [1985/BT/ME], Fellow at VMware, Inc.
- MacDermid Alpha Center of Excellence in Advanced Electronics Manufacturing and Skills Development, donated by Element Solutions, Inc.



Inauguration of the IIT Madras Gift Shop

The IITM Gift Shop was inaugurated with great enthusiasm at the IITM Campus's Heritage Centre by the Director, Prof. Kamakoti, on June 9, 2023. The IIT Madras Gift Shop is expected to become a central point for students, alumni, faculty, and visitors to take home a piece of IITM's rich legacy. This is a collaborative effort from the Office of Alumni and Corporate Relations, the Heritage Centre, and the IIT Madras Alumni Association.



CAMS IITM Fintech Innovation Lab (CIFIL) Inauguration

This state-of-the-art Fintech Innovation Lab was inaugurated on August 30, 2023 at CIFIL, DoMS. The CIFIL plaque was inaugurated by Smt. Nirmala Sitharaman, Hon'ble Finance Minister, Government of India last December, and the site was formally inaugurated by Mr. Anuj Kumar, President and CEO, CAMS and Prof. Kamakoti, Director, IITM.



Launch of the School of Sustainability - October 7, 2023

The School of Sustainability (SoS) was launched on October 7, 2023 by the Chief Guest Shri Jayant Sinha, Member of Parliament and Chairperson, Parliamentary Standing Committee on Finance, in the presence of Prof. Kala Vairavamoorthy, Executive Director, International Water Association (Guest of Honour), Prof. V Kamakoti, Director, IIT Madras, Prof. Ashwin Mahalingam, Head, School of Sustainability, IIT Madras, and Prof. Rajnish Kumar, Associate Head of the school.



Launch of Shankari Subramanyan Impact Grant

The launch of the Shankari Subramanyan Impact Grant was held on November 2, 2023 in the Director's Conference room.

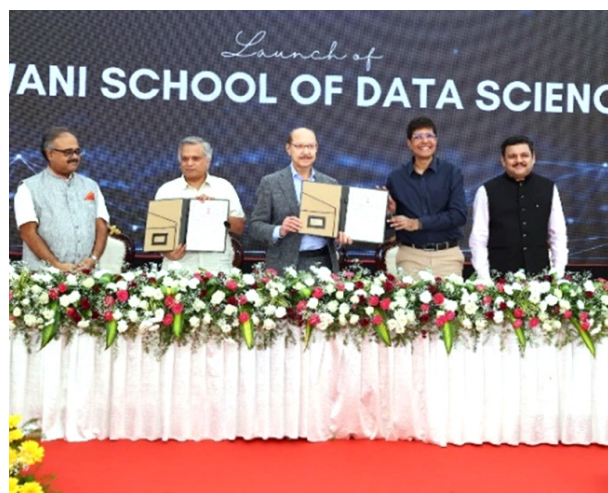
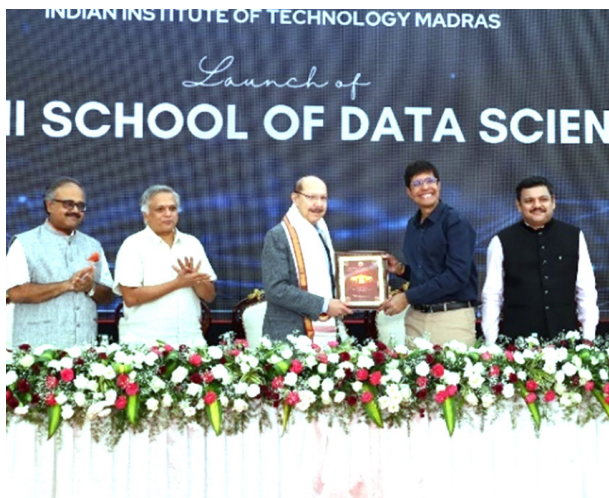
The event was attended by Mr. Dilip Subramanyam from the batch of 1977, his wife Mrs. Janaki, his brother Mr. Chohee Vasanth from the batch of 1980, and their batchmates.



Launch of the Wadhvani School of Data Science & AI

A Memorandum of Understanding (MoU) was signed between Mr. Sunil Wadhvani and IIT Madras to establish the Wadhvani School of Data Science and AI with an endowment of INR 110 crores. A distinguished alumnus of IIT Madras and the Co-founder of IGATE and Mastech Digital, Mr. Wadhvani's endowment makes this one of the largest single contributions made by an alumnus to the Institute. The launch was held on January 30, 2024 at Terrace Hall, in the presence of faculty, students, alumni, and researchers.

With a vision to be among the top AI-focused schools worldwide, the Wadhvani School of Data Science and AI also aims to advise the Government and policymakers on Data Science and AI-related policy areas.



Launch of the Walmart Center for Tech Excellence

The Walmart Center for Tech Excellence was launched on February 28, 2024 at the Stilt floor, New Academic Complex (NAC) and CLT.

This Centre is dedicated to empowering micro-, small and medium enterprises (MSMEs) in the manufacturing and retail sectors. It will develop cutting-edge solutions that will help MSMEs adopt artificial intelligence (AI) along with digitisation to drive operational efficiency and profitability.



•Alumni Visits

Over the Moon with Team Chandrayaan 3 - ISRO IITM Alumni Felicitation Ceremony

Over the Moon with Team Chandrayaan 3 - ISRO IITM Alumni Felicitation Ceremony was held on October 8, 2023 at SAC. The Chief Guest for the event was Dr. S Unnikrishnan Nair, Director of the Vikram Sarabhai Space Centre (VSSC), ISRO. Dr. P Veeramuthuvel, Project Director, Chandrayaan-3 who was one among the 12 other scientists who were felicitated, was awarded the Distinguished Alumnus Award for 2024. The event was attended by students from IIT Madras, government schools, and city colleges.



Rishi and Jyotsna Raj Center for Ultrafast Materials Science and Manufacturing MoU Exchange Ceremony

Rishi and Jyotsna Raj Center for Ultrafast Materials Science and Manufacturing MoU Exchange Ceremony was held on February 22, 2024 at the Conference Room, 2nd Floor, IC&SR building.

This center will develop systems that integrate software, material science, hardware and design for the electrification of ceramics and metals manufacturing and will serve as the breeding ground for researchers who will form and grow new hi-tech companies that implement the mission of this center. The center will promote interdisciplinary training in science, engineering design and software directed towards the mission of the center.



Launch of Electric Buses

The launch of five electric buses was held on March 25, 2024 at the Director's Senate Room, Admin building. The electric buses were made possible by a generous contribution from the esteemed alumni batch of 1981.



•WLI Events

WLI Grant Announcement of 2024 Awardees

The WLI Grant Announcement was held on March 7, 2024 at AMM Hall, IC&SR building.

Launched in 2021, Women Leading IITM (WLI) is a program to nurture, develop and support women talent at IITM along their study/professional career. This programme is funded by some of our US alumni with the overarching goal of achieving a more gender-balanced & nurturing campus. It benefited 17 grantees in 2021, 24 grantees in 2022, 34 grantees in 2023, and 38 grantees this year.



•Corporate Engagement Activities

Innovating for India's Water Security Panel Discussion with IndusInd Bank

A panel discussion titled Innovating for India's Water Security was held on March 22, 2024 at the Manohar C Watsa Stadium. In our efforts to address challenges around water security in India, we engaged in a thought-provoking panel discussion with Prof. V Srinivas Chary, Director at the Administrative Staff College of India (ASCI); Ms. Roopa Satish, Head - Portfolio Management & CSR, IndusInd Bank; Ms. Matilda Lobo, SVP, Head - CSR, IndusInd Bank; Dr. Kamlesh Chaudhari, Founder, Eynet Aqua; Mr Riddish Soni, Founder, AUMSAT; Mr. Kumar Thangavel, Founder, Real Tech Systems - iTank; and Prof. Sachin S Gunthe, Professor and former Head of the Max Planck Partner group on bioaerosol research at IIT Madras. The panel discussion was expertly moderated by Prof. Ashwin Mahalingam, Head - School of Sustainability at IIT Madras.

The panellists delved into the complex issues surrounding water security and presented insightful solutions and collaborative strategies to ensure water sustainability for communities.



•DAA Ceremony

DAA Ceremony: Dr. Azeez Mohammed

Dr. Azeez Mohammed (1993/BT/ME), a DAA recipient of 2023, visited the campus to receive his award in person on July 20, 2023. He is currently the President and CEO of Covanta Holding Corporation.



DAA Ceremony - Prof. Rajesh Rajamani

Prof. Rajesh Rajamani (1989/BT/ME), a DAA recipient of 2023, visited the campus to receive his award in person on September 14, 2023. He is currently the Benjamin YH Liu/TSI Applied Technology Chair Professor, Department of Mechanical Engineering, University of Minnesota.



DAA Ceremony - Prof. BS Sathyaprakash

Prof. BS Sathyaprakash [1981/M.Sc./Physics], DAA 2021, visited campus to receive his award in person on November 22, 2023. He is currently the Elsbach Professor of Physics and Professor of Astronomy and Astrophysics at Pennsylvania State University.



DAA & YAAA Ceremony 2023

The DAA & Young Alumni Achiever Award (YAAA) Ceremonies were held on December 15, 2023 at CLT. The event was attended by 7 DAA awardees and 1 YAAA Awardee with their family members. The awardees include: Prof. Ram Mohan Narayanan, Mr. Naveen Tahilyani, Mr. Karthik Sarma, Prof. Venkatesan Guruswami, Ms. Vidhya Srinivasan, Prof. Rajan Varadarajan, Mr. R Madhavan and Prof. Vyas Sekar (YAAA recipient).

DAA Ceremony: Mr. Ram Sundaram

Mr. Ram Sundaram [1988/B.Tech/CE], DAA 2023, visited campus to receive his award in person on February 9, 2024 at Director's Senate Room, Admin building. He is a Former Partner, Goldman Sachs, USA.



•Events in-collaboration with CII & the Harvard Club of Chennai

Interactive Session on ESG and Sustainability with Mr. Rajeev Peshawaria at IIT Madras

Mr. Rajeev Peshawaria is the CEO of the Stewardship Asia Centre (SAC) in Singapore, and Founder President of the Leadership Energy Consulting (LEC) Company in Seattle, WA. He interacted with CII members and faculty of IIT Madras. The event was held on November 24, 2023 at Hall 2, IC&SR building.



Preparing for the Rise of India with Padma Shri Sridhar Vembu at IIT Madras

Shri Sridhar Vembu, Founder, Zoho interacted with CII members and faculty of IIT Madras. The event was held on December 21, 2023 at the Director's Senate Room, Admin building.



Alumni Outreach Event with the Harvard Club of Chennai: Fireside Q&A with Mr. K Nanthakumar, IAS

On May 27, 2023, the Office organised a Fireside Q&A on TN School Education in collaboration with the Harvard Club of Chennai, featuring Mr. K Nanthakumar, IAS, Secretary, Human Resource Management (HRM) Dept, the former Commissioner of School Education for Tamil Nadu.

The event was well-received by alumni from both IIT Madras as well as Harvard University.



• Alumni & HNI Visits

Visit by Mr. Schwark Satyavolu (1996/BT/ME): June 10, 2023



**Visit by Mr. RV Chakrapani (1984/BT/CE):
June 29, 2023**



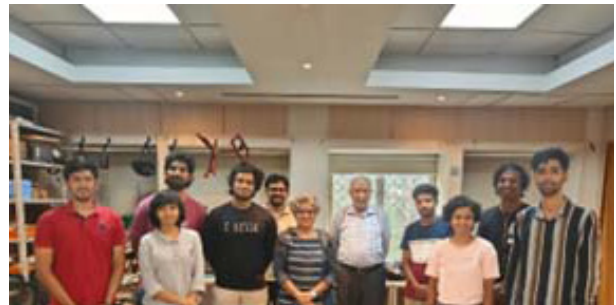
**Visit by Mr. Subramonian Shankar (1971/BT/EE):
September 29-30, 2023**



**Visit by Mr. Venkat D Rangan (1981/BT/ME):
December 25 & 28, 2023**



Mr. Ranjit Padmanabhan (1981/BT/EE): December 27, 2023
Mr. RV Guha (1986/BT/ME): January 3, 2024
Dr. Prakash Keshaviah (1967/BT/ME): January 14-16, 2024
Mr. Venu Aravamudan (1985/BT/CE): January 17, 2024
Mr. Sunil Wadhwani (1974/BT/ME): January 30, 2024



Visit by Mr. Ram Shriram, Founder & Managing Partner, Sherpalo Ventures: March 6, 2024.



•CSR Partnerships: MoU Signing Ceremonies



Indian Oil Corporation Limited: MoU Signing Ceremony

Indian Oil Corporation Limited is collaborating with IIT Madras to support the Digital Technology Devices for Newborn Care project ('Arogya Vardhini').

The Arogya Vardhini Project is an initiative aimed at improving child health through innovative technology. Prevention of infant mortality requires skilled care and demands flexible and responsive systems of intervention, and this project intends to improve child health by monitoring the growth and development of the infant and ensuring the child is growing well.

The MoU was signed by Prof. Mahesh Panchagnula, Dean (Alumni & Corporate Relations), IITM and Mr. Balakrishna Naik, Chief General Manager - HR, Indian Oil Corporation Limited (IOCL) in the presence of Prof. Mohanasankar Sivaprakasam, Professor, Department of Electrical Engineering, Head - Healthcare Technology Innovation Centre (HTIC), IITM, and few other staff of IOCL. This event was held on May 5, 2023 at Hall 1, IC&SR building.

LG Soft India: MoU Signing Ceremony



An MoU signing ceremony with LG Soft India was held on February 16, 2024 at the Conference Room, 2nd Floor, IC&SR building. This project, supported by a substantial grant from LG Soft India, aims to create a Hardware Security Module (HSM) specifically designed for embedded applications, ensuring enhanced security and Post-Quantum Cryptography (PQC) agility. This collaboration will make a significant impact on the field of automotive cybersecurity.



Tiger Analytics: MoU Signing Ceremony

An MoU signing ceremony with Tiger Analytics was held on March 7, 2024 at Dean's Room, ACR Office, IC&SR building. Tiger Analytics supported the Merit-cum-Means scholarship for INR 30 lakh in endowment mode.

Power Finance Corporation: MoU Signing Ceremony



An MoU signing ceremony with the Power Finance Corporation was held on March 11, 2024 at New Delhi. The Power Finance Corporation Ltd. (PFC) is partnering with IIT Madras to set up a research undergraduate anatomy laboratory in the Department of Medical Sciences and Technology under PFC's CSR initiative. The project aims to utilise and develop a state-of-the-art Anatomy Lab for undergraduates that will aid in effective technology-integrated teaching and learning practices for the first-of-its-kind B.S. Degree Program in Medical Sciences & Engineering.

Chennai Super Kings: MoU Signing Ceremony



An MoU signing ceremony with the Chennai Super Kings was held on March 18, 2024 at the Director's Conference Room, Admin Building. The Chennai Super Kings have joined hands with the Indian Institute of Technology Madras (IIT Madras) to champion sustainable initiatives during IPL 2024.

The partnership aims to leverage the collective expertise, vision and resources to drive positive change within the community with innovative strategies to adopting renewable energy solutions, including waste management practices, to promote sustainability during matches this season.

Aptiv PLC: MoU Signing Ceremony



An MoU signing ceremony with Aptiv PLC was held on March 21, 2024 at the Sudha & Shankar Innovation Hub. Aptiv PLC's collaboration with IIT Madras will significantly boost innovation and entrepreneurship at IIT Madras.

The funding will support two key programmes, Pratham and Akshar, under Nirmaan, the pre-incubator at IIT Madras. The funding will also support the Office of Innovation and Entrepreneurship (I&E) to further its

mission. It was a pleasure collaborating with Aptiv PLC and their team on this exciting initiative.

TMB Foundation: MoU Signing Ceremony



The MoU signing ceremony with the TMB Foundation was held on March 22, 2024 at the Dean (IC&SR)'s Conference Room, IC&SR building. The TMB Foundation offers full scholarships for students with annual parental income of INR 1-5 lakh and partial funding for those with INR 5-8 lakh. This assistance benefits 30 students annually, easing their financial burden.

•Lectures & Talks

Student Interaction with Shri Sridhar Vembu

Student Interaction with Shri Sridhar Vembu happened on March 20, 2023 at the CFI Facility in Sudha & Shankar Innovation Hub.



Leadership Lecture Series for FY 2023-24:

Mr. Nagaraja Rao Harshadeep: October 20, 2023

Dr. Andrew Forrest AO: November 3, 2023

Mr. R. Dinesh: November 8, 2023

Mr. Anu Rathninde: November 24, 2023

Dr. C. Mohan: January 17, 2024

Dr. Aravind Srinivas: January 18, 2024

Mr. Alok Ohrie: January 19, 2024

Mr. Deepak Sekar: February 8, 2024

Mr. Vysa Sekar: February 26, 2024

Mr. Girish Ananthanarayanan: February 28, 2024



7.2 Office Of Global Engagement (OGE)

Introduction

The Office of Global Engagement (OGE) at IIT Madras is dedicated to expanding the institution's global footprint and fostering collaborative partnerships worldwide through faculty and student exchange programs, joint research initiatives, and international conferences. The following are the verticals for our operations:

1. International Academic Programs
2. International Conference Secretariat
3. Institute of Eminence
4. International Collaborations

International Academic Activities

The OGE manages a wide range of activities related to both outbound and inbound programs. This includes coordinating international student and faculty

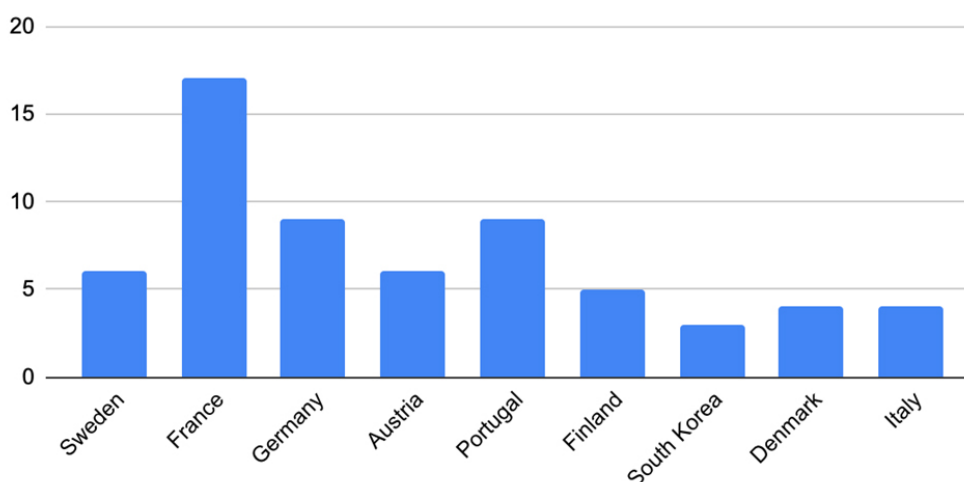
exchanges, establishing and maintaining global partnerships, facilitating collaborative research projects, and overseeing study abroad programs. Additionally, the office supports international students and visitors at IIT Madras, ensuring a smooth integration and enriching experience on campus.

Outbound Activities

1. Semester Exchange

Outbound activities are carried out to ensure the students from IIT Madras can obtain the necessary international exposure. The semester exchange program is a coursework-based study program in which students pursue academic programs in foreign host institutions for a period of 6 months to 1 year. For the academic year between April 2023 and March 2024, around 40 students took up semesters abroad as a part of the semester exchange program.

Semester Exchange (IITM Students)



2. Internships, Summer Schools, and Other Outbound Programmes

Other than the semester exchange program, students in IIT Madras participate in various other outbound activities through programmes such as international internships, summer schools, conferences, poster or oral presentations, competitions, etc. More than 100 students have visited foreign institutes or organisations as part of these programmes. Students utilise external scholarships/grants such as Mitacs, the Charpak Scholarship, the German Academic Exchange Service (DAAD) scholarship, the European Community

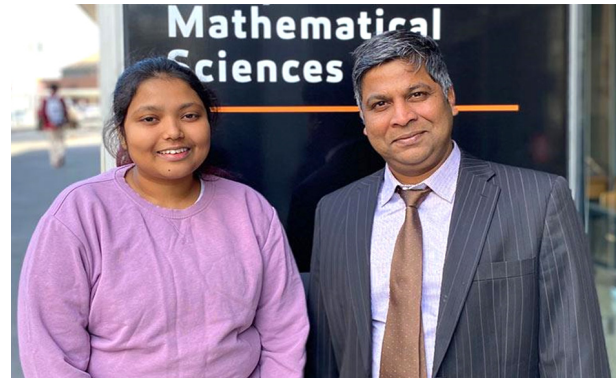
Action Scheme for the Mobility of University Students (Erasmus) programme, and other such programmes to fund their visits to partner institutes. We also have a few programmes that are exclusive to a few top Indian institutions, including IIT Madras, one of the premier institutes in India. A few such programmes are mentioned below.

AUT internship programme

Bindushree Basavanna, a B.Tech. (Aerospace Engineering) student at IIT Madras, interned at the AUT School of Engineering, Computer and Mathematical Sciences, under the supervision of senior lecturer Dr. Ashwin Polishetty during June-August 2023.

Asia Fellowship programme, NUS

This opportunity was open to undergraduate students in their third year or above and focuses on 'Sustainability and Climate Change'. The theme for this year is 'Sustainability on Campus'. Two students, Sarvani Cheruvu (EE18B120) and Ashwin Upamanyu Dev (ME19B085), were selected to visit the NUS campus in Singapore for one week (June 5-9, 2023). For the next four weeks, they worked together on improving the sustainability of the IIT Madras campus and made a presentation at the end of the program. One faculty member from IIT Madras, Dr. Venkatraman Srinivasan, accompanied them to NUS.



Bindushree Basavanna and Dr. Ashwin Polishetty



Group photo with all AFP participants from all over Asia, Ashwin Upamanyu Dev and Sarvani Cheruvu presenting their work in NUS.

POSCO Global Young Leaders Program (GYP)

The POSCO Global Young Leaders Program selects top university students from around the world to study at the Pohang University of Science and Technology (POSTECH), experience Korean culture, and learn about POSCO, with all expenses covered. Graduates become POSCO ambassadors, promoting its global corporate citizen spirit.

Through a rigorous selection process, Kothapalli

Sathvik Joel (CS19B025) was shortlisted for this program.

Sakura Science Exchange Program (SSP)

The Japan Science and Technology Agency (JST) invited 50 Indian university students to Japan for FY2023 as part of the Sakura Science University Program 2023. JST invited five students from IIT Madras, who were selected for a research and exchange program with Japan.





In the picture, students from IIT Madras and 50 students from all over India participate in the Sakura Science program.

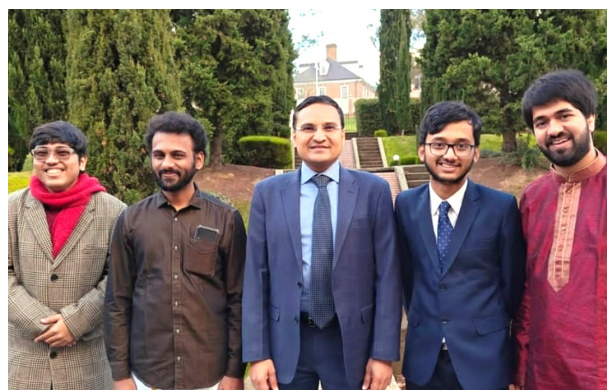
ANU FRT awards

The Future Research Talent (FRT) awards are jointly offered by the Australian National University (ANU) College of Science, ANU College of Health and

Medicine, and ANU College of Engineering, Computing and Cybernetics to students from India. Sivashankar B, a Ph.D. scholar from the Department of Mathematics, was selected to participate in this program.



Mr Sivashankar is awarded the completion certificate for the FRT program from Nobel Laureate Prof. Dr. Brian Paul Schmidt.



Sivashankar, along with other participants of the FRT program.

International Cooperative Graduate Program (ICGP)

An ICGP agreement was signed with NIMS, Japan, where research scholars from IIT-Madras can pursue their research at NIMS Japan for 6-12 months. Mr. Mohit Murlidhar Ludhwani (MM20D008) was selected for the programme in November 2023.

Global Challenge Lab 2023

Through this programme, over 800 students worldwide participated in a 12-day virtual hackathon exploring UN Sustainable Development Goal 7: Affordable and Clean Energy. As a part of the programme, cross-institutional

teams were formed to create new products or services that help solve some of the world's greatest challenges. The program took place during 6 - 18 July 2023, across multiple time zones. Seventy-nine students from IIT Madras participated in the programme.

Erasmus Staff Week in FUB

Through the Erasmus International Staff Training week, four staff members from the Office of Global Engagement visited Freie University Berlin (FUB), Germany, between June 26, 2023 and June 30, 2023. We had several participating institutions from around the world as a part of this programme.



Participants from different institutes at Freie University Berlin's Erasmus Staff Week.

3. International Immersion Experience (IIE)

The International Immersion Experience (IIE) programme aims to facilitate highly motivated students who work on cutting-edge research at IIT Madras to travel to a partner institution abroad and vice versa.

Fourth Edition: Building upon the success of the previous editions, the fourth edition of the information session was held on June 2, 2023 at the AMM Hall (Hall III), in the Industrial Consultancy and Sponsored

Research (IC&SR) building. Over 100 PhD scholars attended the event, reaffirming their commitment to pursue global research collaborations. This session focused on further reinforcing the program's impact and outlining the nomination and application process for interested scholars. After a rigorous selection process, 28 PhD scholars were selected for the 4th cycle of the IIE award, and on July 21, 2023, award letters were given to the selected students.



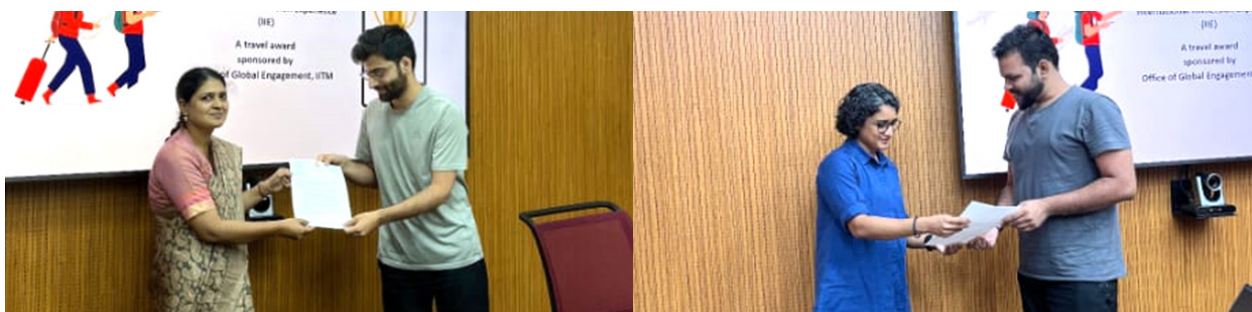
The information session conducted by the office of Global Engagement about the 4th cycle of the IIE program.

The award session where Prof. Raghuathan Rengaswamy and Prof. Preeti Aghalayam conferred the award to selected scholars.

Fifth Cycle: Similar to the previous cycle, we had many applications for the 5th cycle, and 28 PhD scholars were selected for the award. The award session was conducted on February 19, 2024 at 11 AM in Hall

I of the IC&SR building. The award was conferred by Prof. Raghunathan Rengaswamy, Dean of Global Engagement; Prof. Preeti Aghalayam, Director-in-Charge, IITM Zanzibar; and Dr. Malati Raghunath.





The selected students for the 5th cycle of the IIE award. Prof. Preeti Aghalayam and Dr. Malati Raghunath conferred the awards on the students.

4. Joint Ph.D. Programme

The Joint Doctoral Program (JDP) at IITM is a unique opportunity for PhD scholars to gain substantial research exposure and enhance their thesis work by providing opportunities to collaborate with any of our 18 partner institutes and universities. Under the program, IITM Ph.D. scholars can conduct research work for a duration of 12 to 18 months with a host faculty in one of our partner institutes. As a part of this programme, we had eight students visit our partner institutes.

The Office of Global Engagement, IIT Madras, organised a JDP information session for all interested Ph.D. students. The session's aim was to provide an overview of the programme, including the various opportunities available, the scholarship details, and the application process. It was scheduled for March 31, 2023, from 12 PM to 1 PM, at Hall II, IC&SR building, IIT Madras. We also had another information session on September 26, 2023 about the Joint Ph.D. Program in NTU & ANU.

5. Information Sessions

The Office of Global Engagement organises information sessions to inform students about the various opportunities available for student outbound-related activities. Please find the list of events organised by the academic unit of the GE office given below.

S. No.	Name of the Programme	Date
1	DAAD Information Session	August 23, 2023 and February 8, 2024
2	Finnish Indian Consortia for Research and Education (FICORE) Visiting Scholar Info Session for Ph.D. Scholars	September 8, 2023
3	Choose France Tour 2023	September 8, 2023
4	Information session: Columbia University M.S. Financial Economics degree	November 30, 2023



Information sessions on the Charpak scholarship and DAAD, presented by the respective coordinators.

6. Events

These events were organised by the Office of Global Engagement at IIT Madras to foster international collaboration, provide insights into global issues, and enhance educational opportunities. The talks and seminars aimed to bring distinguished experts and academic leaders to share their environmental, health, and technology knowledge. Additionally, the sessions facilitated direct interaction with top universities and institutions worldwide, offering students and faculty valuable networking and learning opportunities.

- Interactive session with Prof. Guy Littlefair, Auckland University of Technology (AUT), New Zealand
- **Invitation:** Distinguished Talk by Hon. Steven Guilbeault on the environment and climate

**"CAN HE LEAD A NORMAL LIFE?
NO, HE'LL BE AN ENGINEER"**

It's often said that engineering is "the application of science". This definition, however, illustrates the key problem for engineering and engineers: It – and they – are sublimated beneath "science" and not considered to constitute a discipline in their own right. For whereas science is concerned with discovery, engineering is concerned with the innovation necessary to make those discoveries manifest. And therefore everything we see, hear, touch, or otherwise encounter outside the natural world only exists because of engineering and engineers. Professor Guy Littlefair will reveal how his journey through education, experience, industrial practice, and the academy led to him reimagining tertiary engineering education and, through a \$ 55 million Australian common wealth investment, resulted in establishing the Centre for Advanced Design in Engineering Training.

PROFESSOR GUY LITTLEFAIR
Pro Vice-Chancellor International,
Dean of the Faculty of Design,
Creative Technologies at Auckland University of Technology.

24th April, 4:00 pm (IST)
Hall III, ICSR Building, IIT Madras Campus.

For Registration:

For queries, contact: outbound@ge.iitm.ac.in, +91 89256 01118

Global Academic Activities, Office of Global Engagement
Indian Institute of Technology Madras

7. Networking Events

International Relations Conclave in IIT Roorkee

The conclave was organised by IIT Roorkee from November 6-7, 2023. Mr. Sivaguru Nathan from the Global Engagement office attended the meeting representing IIT Madras. It had different stakeholders from various IITs and NITs in India involved in the internationalisation of higher education come together on a platform to discuss various challenges and brainstorm solutions. The speakers were from

change.

- Guest lecture by Prof. Alex Maier from the Australian National University on the topic 'Can malaria parasites help us to build a novel anti-parasitic drug delivery system?'
- **Exclusive Invitation:** Meet Columbia University, NYU-Tandon, Boston University, GW & others on campus.
- **CAMM Seminar:** Advanced Microscopy and Materials Webinar Series
 1. **Title of Talk I:** 'Sustainable Energy Storage Technologies: From Materials to Devices'
 2. **Title of Talk II:** 'Low-carbon Emission Technologies for the Manufacturing of Sustainable Materials'
- **Webinars:** European Institute of Innovation and Technology (EIT) Urban Mobility Master School

IIT MADRAS
Indian Institute of Technology Madras

Australian National University

SEMINAR INVITATION

"ACHILLE'S HEEL AND TROJAN HORSES – CAN MALARIA PARASITES HELP US TO BUILD A NOVEL ANTI-PARASITIC DRUG DELIVERY SYSTEM?"

24 August 2023
3 PM to 4 PM

Dr Alexander Maier
Professor
ANU College of Science

BT Seminar Hall, Block 1
Biotechnology department

Register Here

different governmental agencies like the Department of Science & Technology and Study in India (who gave an overview of the policies, challenges and steps taken to mitigate the challenges). Also present were representatives of funding agencies like the Indo-French Centre for the Promotion of Advanced Research (CEFIPRA) and the Indo-German Science and Technology Centre (IGSTC), who provided information on the programmes available and how they can be put to best use by the participating institutes.



International Relations Conclave 2023 participants in IIT Roorkee.

Heritage Network General Assembly 2023

The Heritage Network aims to strengthen Higher Education Cooperation (research and training) between Europe and India in the field of Engineering Sciences. The group has 14 Indian and 14 European institutes as partners. The annual General Assembly

was conducted at Universidad Politécnica de Madrid in its Boadilla Campus in Madrid from June 1-2, 2023. It was kicked off by H.E. Mr. Dinesh K Patnaik, the Indian Ambassador to Spain; Prof. Guillermo Cisneros, UPM Rector; and Prof. Raghunathan Rengaswamy, Dean, Global Engagement at IIT Madras and President of the Heritage Network since 2021.



The general assembly participants in UPM, Spain. H.E. Mr. Dinesh K Patnaik, Indian Ambassador to Spain; Prof. Guillermo Cisneros, UPM Rector; and Prof. Raghunathan Rengaswamy, Dean, Global Engagement at IIT Madras and President of the Heritage Network.

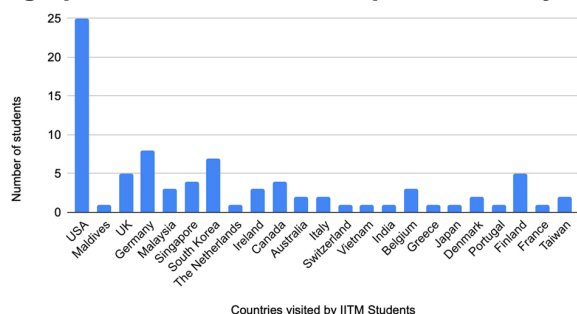
8. OGE Travel Grant Programme

The OGE Travel Grant (TG) programme is an initiative designed to support IITM students in their research and technology endeavours to engage with the global community. This programme offers financial assistance to students seeking to travel abroad and at the national level (for international students at IITM) for various technical purposes, including presenting

papers at internationally-recognised technical conferences. Moreover, it extends its support to enable participation in workshops, competitions, internships, research programmes, and exchange programmes, thereby fostering holistic development among IITM students.

The OGE Travel Grant Fund was started in January 2024. Eighty-five students have benefited so far, having participated in various opportunities abroad.

In graph: OGE Travel Grant recipients for the year 2023



Inbound Activities

1. Full-time International Admissions for the Academic Year 2023-2024

1. Promotions

The Applications & Scholarships Webinar with the Admission & Scholarship Committee of IITM, held exclusively for international students at 4 pm on April 4, 2024, garnered significant interest. With 439 registrations and 280+ attendees, it was a successful event.

The webinar provided comprehensive information to international students interested in pursuing Master's and Ph.D. programs at IIT Madras with full scholarships. Participants included Sethu, Luke, Nigar, and Thukaram from OGE, Prof. Raghunathan Rengaswamy (Dean, GE), and Prof. Benny (Head of Department, Civil Engineering) from IITM. Students Aakash and Robin Shah also attended the event.

Prof. Raghu highlighted the abundant opportunities available at IIT Madras during this webinar. Prof. Benny elaborated on the prospects within Civil Engineering while also discussing the significance of the CV Chakrabarti Scholarship and encouraged the international community to submit applications to IIT Madras.

In summary, the webinar successfully showcased the opportunities offered at IIT Madras to an international audience, boosting direct applications.

2. Admissions

Master's programmes (M.Tech, M.A.)

44 full-time international students were enrolled in various departments at IIT Madras for the academic year 2023-2024.

International Interdisciplinary Master's Programme (I2MP):

The institution welcomed its third batch of students, comprising 14 individuals from diverse countries.

Ph.D.

For the Ph.D. program, six students were admitted to IIT Madras on full scholarships. Furthermore, two students transitioned from M.Tech. programmes to Ph.D. tracks.

AARDO IITM Scholarship:

Established in 1962, the African-Asian Rural Development Organization (AARDO) comprises 34 members, with 18 representing Africa and 15 representing Asia, all serving as full members. Functioning as an inter-governmental autonomous body, it is committed to promoting cooperation for sustainable and inclusive advancements in technology and rural development.

For the 2024-2025 intake, we received 14 project proposals from various faculty members covering topics ranging over thermography, 3D printing, biomass ash, etc. Following a rigorous selection process, three students were chosen for the M.S. programme under two projects from two countries.

Joint Doctoral Program

The Joint Doctoral Program (JDP) at IITM offers Ph.D. scholars a unique opportunity to enhance their thesis work through substantial research exposure and collaboration with 19 prestigious partner institutes and universities worldwide. Under this programme, scholars can engage in research for 12 to 18 months with a host faculty at one of the partner institutes.

In the previous academic year, we enrolled four

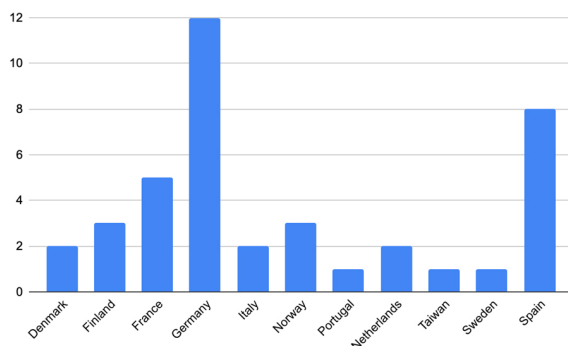
inbound students from various universities, such as the University of Melbourne, ECN, etc., including one student from Mexico.

3. Semester Exchange

In terms of semester exchange, IIT Madras hosted 39

exchange students from various European countries, including Spain, Norway, France, and Sweden, as well as a few from the Far East, notably Taiwan. These students received comprehensive support throughout the semester, covering orientation, academic assistance, and cultural immersion activities.

In graph: Inbound exchange numbers during the academic year 2023-2024.



4. Short-term Visits

Shibaura Institute of Technology: Study visit

Every year, we host a group of students from the Shibaura Institute of Technology in IIT Madras during the months of March and August as a part of the Engineering English program for a short-term study visit. The students are given English classes and

campus tours, and they visit various labs, Heritage Centre and the Research Park during their stay at IIT Madras. The students are also exposed to a culturally immersive experience in IIT Madras by arranging visits to various cultural heritage sites in and around Chennai. In August 2023, we hosted 11 students and two faculty members from the Shibaura Institute of Technology during August 13-26, 2023.



Shibaura Institute of Technology students visit various sites in and around Chennai.

Auckland University of Technology

The study visit to IIT Madras by students from Auckland University of Technology (AUT) aimed at providing a comprehensive understanding of the myriad opportunities available at IITM. The primary objectives were to expose AUT students to the research prowess and industrial capacities of IITM, immerse them in the rich cultural background of India, and provide a firsthand experience of the unique academic structure in the country. Seven students and two faculty members visited IIT Madras for a duration of 4 weeks during November 25-December 22, 2023. The students were separated into three groups under the guidance of three faculty advisors at IIT Madras in the areas of Mechanical Engineering, Metallurgical,

and Material Engineering.

Project supervisors from IIT Madras & their students:

1. Prof. G Samuel
 - Logan Biddle (BE (Hons), Mechanical)
 - Ben Stoffels - Butlin (BE (Hons), Mechanical)
 - Siraj Al-Bayati (Bachelor of Engineering Technology, Electrical)
- 2 Prof. Murugaiyan Amirthalingam
 - Hrithik Khemani (Bachelor of Engineering Technology, Mechanical)
 - Sai Koli (BE (Hons), Construction) (CE23F010)
- 3 Prof. Anil Meena
 - Yazan Sinjab (BE (Hons), Mechanical)
 - Diya Patel (BE (Hons), Mechanical)



AUT student orientation, industrial visit, presentation, cultural visit to Mahabalipuram, and other activities like yoga at IITM



Visit from the University of Ruhana



20 students from Ruhana University, Sri Lanka visited IIT Madras for a study tour, accompanied by six faculty members

Students' visit to Pichavaram



Visit from Curtin University



14 students from Curtin University visited IIT Madras for a study tour, accompanied by two faculty members.

Numerous students from around the world visited IIT Madras under various programs:

- Three students from Hokkaido University participated in the STSI programme.
- Four students from Nagaoka University of Technology completed internships.
- Four students from Tel Aviv University visited for research projects.
- Seven students from the US, representing universities such as the University of Maryland, the University of Missouri, the University of Illinois, and others, came for internships.
- A total of 53 students visited IIT Madras under various programs, including the Indo-German Centre for Sustainability (IGCS).
- Seventeen students from Africa received assistance from OGE and staff to visit the Pichavaram mangrove forest.

5. Student Community Engagement

The Student Community Engagement initiative has been structured to enhance communication and support among students across various programs at IIT Madras.

Individual groups have been created for each program, including M.Tech., I2MP, M.Sc., M.S., M.A., Ph.D., JMP, and JDP, to facilitate this. These groups serve as platforms for various activities:

- 1) General academic activities, including weekly motivational messages.
- 2) Sharing important circulars related to academic

activities such as exams, course registration, seminars, and workshops.

- 3) Providing individual chat support for addressing academic and non-academic concerns.

Additionally, interactive sessions are held at different intervals throughout the semester:

- 1) At the beginning of each semester, interactive sessions focus on the academic calendar, coursework, and CGPA review.
- 2) Mid-semester WhatsApp sessions address academic concerns and wellness.
- 3) End-of-semester sessions focus on semester assessment activities.
- 4) During academic breaks, telephonic sessions prepare students for the upcoming semester and emphasize wellness.

Furthermore, coordination with concerned professors and other administrative entities ensures the timely resolution of student queries and issues:

- 1) Liaising with department faculty advisors and I2MP course coordinators.
- 2) Sharing student concerns with department heads and relevant faculty members.
- 3) Collaborating with the CCW to address accommodation, fees, insurance, and medical emergency concerns.
- 4) Engaging with hostel managers to ensure students' overall wellness.
- 5) Resolution of insurance-related concerns.

The CollPoll Portal (Digiicampus) is a centralised platform for managing student-related activities, including interactive session summaries, course details, and student feedback.



Various forms and summaries, including Student Feedback Forms, One-on-One Student Interactive Session Summaries, and Students' Achievements, contribute to continuous improvement and support for students' academic journey and overall experience at IIT Madras.

Farewell meeting for 2022-2024 batch graduates

The Office of Global Engagement conducted a heartfelt farewell meeting to bid adieu to the 2024 graduating batch. The event aimed to commemorate the achievements and contributions of the graduating students, celebrate their journeys, and wish them success in their future endeavours.



Graduating students of the I2MP and the M.Tech. programme 2022-2024 with Prof. Raghunathan, Dean of Global Engagement, IITM.

International Conference Secretariat

Under the Institute of Eminence (IoE) scheme, the Office of Global Engagement financially supports high-quality international events hosted at IIT Madras through the International Conference Secretariat, which also handles logistics, liaising with ministries for clearances, ensuring streamlined planning, and on-ground execution.

The International Conference Secretariat aims to establish IIT Madras as a prominent global location for cutting-edge research and innovation by bringing together pioneering researchers, innovators, and practitioners to foster interdisciplinary collaboration and knowledge exchange.

In the past 12 months, we have facilitated over 40 international events in different capacities and provided financial support of over INR 237 lakh. Some of the events we handled include:

1. International Conference on Advanced Ceramic Technologies for Futuristic Mobility (CTFM 2023), March 8-10, 2023
2. Advanced Transmission Electron Microscopy Techniques: Theory and Practice, April 25-29, 2023
3. International Conference on Thin Films and Nanotechnology: Knowledge, Leadership and Commercialization (ICTN-KLC) 2023, July 6-8, 2023
4. Soft Matter Young Investigators Meet 2023, June 14-17, 2023
5. Sustainable and Applied Nanotechnology for Agriculture and Health (SANTAH), July 19-21, 2023
6. 24th Biennial International Conference 2023, Association of Indian Economic and Financial Studies (AIEFS), July 24-25, 2023
7. Perspectives in Nonlinear Dynamics 2023, August 1-4, 2023
8. Workshop on Advanced Optical Communication, July 22-23, 2023
9. 40th International Symposium on Automation and Robotics in Construction (ISARC), July 5-7, 2023
10. International Workshop on Geometric Function Theory (IWGFT 2023), August 18-20, 2023
11. SPARC Workshop: Investigations on Utilizing Gasoline-like High Volatile and Low Reactivity Fuels in Advanced Diesel Combustion Modes, September 21, 2023
12. International Conference on Cancer Biology (ICCB 2023), September 14-16, 2023
13. The 1st Indian Conference on Micro Nano Fluidics: From Soft Matter to Bioengineering (ICOM), September 29 - October 1, 2023
14. Water Security and Climate Adaptation (WSCA 2023), October 4-7, 2023
15. Experimental and Computational Aerothermodynamics of Internal Flows (ISAIF 15), October 24-27, 2023
16. International Workshop on Ocean Energy: Recent Trends, October 30-31, 2023
17. Asian Thermal Spray Conference (ATSC), November 2-4, 2023
18. Contemporary Economic & Financial Challenges and Opportunities, July 24-25, 2023
19. International Conference on Management Research 2023, November 16-18, 2023
20. Religion and Technology in an era of Rapid Digital and Climate Change (RaTiRDACC 2023), November 21-23, 2023
21. IICAQM 2023 (8th Indian International Conference on Air Quality Management: Measurement,

- Modelling, Health Risk and Public Policy), December 4-8, 2023
22. Energy Summit 2023, December 5-8, 2023
 23. Theoretical Chemistry Symposium (TCS 2023), December 7-10, 2023
 24. CoE Winter School 2023, December 11-15, 2023
 25. Workshop on Spherical Varieties and Related Topics, December 11-22, 2023
 26. The Confluence Conference on Start-Ups and Venture Capital, December 13-15, 2023
 27. XXII International Workshop on Physics of Semiconductor Devices, December 13-17, 2023
 28. International Conference on Material Processing with Ultra-fast Lasers for Micro/nano Surface Engineering (IMPULSE 2023), December 14-15, 2023
 29. International Conference on Molecular Matter-Emerging Directions of Sustainability (ICMM), December 16-18, 2023
 30. International workshop 'Compflu 2023' (complex fluids), December 18-20, 2023
 31. Advanced Bioimaging Workshop 2023, December 18-21, 2023
 32. Ethical Tech Summit, January 3-7, 2024
 33. The 25th International Conference on Distributed

- Computing and Networking (ICDCN 2024), January 4-7, 2024
34. International workshop conducted by the Geophysical Flows Lab Centre of Excellence, January 5-9, 2024
 35. Encryptcon: International Research Conference on Cybersecurity, January 6-7, 2024
 36. International Conference on Highly Frustrated Magnetism (HFM), January 8-13, 2024
 37. International Conference on Sustainable Materials for Engineering Applications (ICSMEA), February 1-3, 2024
 38. Circuits of Exchange and Indian Ocean Hinterlands, c. 1400-1800, February 16-18, 2024
 39. Workshop on Advanced Diffraction and Spectroscopic Techniques in TEM and their Application in Materials Science, February 19-March 1, 2024
 40. FAAPEE 2024 (Indo-Japan Joint Workshop on Frontiers in Analytical and Applied Pyrolysis for Energy and Environment), February 26-27, 2024
 41. 30th National Conference on Communications 2024, February 28-March 2, 2024
 42. NCRAC 2024 (National Conference on Refrigeration and Air Conditioning), March 13, 2024

Major Events

The International Conference on Highly Frustrated Magnetism (HFM 2024)

HFM 2024 brought together experts from the global magnetic community and emphasised and discussed theoretical and experimental studies concerning magnetic frustration. HFM 2024 saw over 250 participants, with over 110 international participants from all across the world.

Advances in Optical Communications

The Advances in Optical Communications workshop was held at IIT Madras from July 22-23, 2023, under the aegis of the Department of Telecommunications. The workshop explored emerging and future technologies in optical communications. Participants had the opportunity to learn about the latest advancements in the field and the Advanced Optical Communications (AOC) Testbed at IIT Madras.

RWTH alumni event

The RWTH-Aachen University alumni organisation and IIT Madras co-hosted a one-day symposium spotlighting their strategic partnership. The highlight was a panel discussion on 'Regenerating Cities: Issues of Resilience,' organised by the Indo-German Centre for Sustainability (IGCS). Attendees connected with RWTH alumni, IGCS members, academics, and Indo-German businesses, exploring collaborative solutions for urban challenges.

Towards Research Excellence

IIT Madras launched 15 Centres of Excellence (CoE) as part of the 'Institute of Eminence' (IoE) Scheme. The grand launch event was graced by Prof. Bhaskar Ramamurthi, Institute Professor and former Director of IIT Madras.

IGCS Winter School

The IGCS Winter School was centred around the theme 'Regenerative Urban Futures'. Participants explored the challenges posed by urbanisation, such as resource depletion, climate change, and job security. The program aimed to foster collective awareness and understanding of these issues, exploring socio-technical solutions and theorising strategies for sustainability. Key topics covered included climate and disaster risk management, the interface between the built environment and ecosystems, spatial planning tools, governance approaches, and the roles of nature-based, technological, and social solutions in addressing urban challenges.

Glocal Teen Hero

The Glocal Teen Hero award ceremony was held in September 2023, and among the distinguished jury members were H. E. Shankar Sharma, Ambassador of Nepal to India, and Prof. Raghunathan Rengaswamy, Dean of Global Engagement. The event celebrated the Glocal Teen Hero platform, honouring teenagers who positively impact society beyond academics.

Pictures from the International Conferences



Institute of Eminence (IoE)

In line with our mission to promote world-class research, IIT Madras has initiated Institute of Eminence (IoE) research initiatives under 2 phases, using funding under the IoE scheme established by the University Grants Commission, Ministry of Education.

Phase I saw the establishment of 68 research initiatives across 21 different research clusters. At the end of Phase I, 51 interdisciplinary project proposals were subjected to a rigorous and comprehensive review process, at the end of which 15 IoE Centres of Excellence have been established, apart from 23 Research Centres and 10 Research Projects.

The Centres of Excellence, identified as potential world leaders in their respective fields within five years, were publicly launched during the 'Towards Research Excellence' event in May 2023. This event, attended by representatives from industry and academia, garnered significant press and media coverage, elevating the visibility of IIT Madras's research endeavors.

IITM Research Initiatives Spotlight (IRIS) 2.0 Webinar Series:

To amplify awareness of the Centres of Excellence, IIT Madras launched the IRIS 2.0 Webinar series.

Each webinar, drawing an audience of approximately 500 participants, spotlighted a Centre, showcased its work, and featured moderated discussions led by international collaborators and renowned experts in their fields. The webinar is targeted at a non-technical audience, students, industry and other potential collaborators, or general enthusiasts of science.

The IoE funding has played a pivotal role in shaping the research landscape at IIT Madras, not only catalysing a surge in research output, but also elevating the institution's global reputation. By positioning IIT Madras as a leading hub for transformative research and innovation, the funding has attracted collaborations with esteemed researchers and institutions worldwide, further enhancing the institution's research capabilities and knowledge base.

In parallel with research initiatives, IIT Madras has prioritised fostering international collaborations and promoting academic mobility on a global scale. Robust partnerships with renowned universities and research institutions have facilitated collaborative projects, joint publications, and knowledge exchange

programs, enriching the research ecosystem with diverse perspectives and expanding networks.

Moreover, the IoE funding has enabled the development of comprehensive mobility programs for both students and faculty. Through initiatives such as international exchange programs, study abroad opportunities, and faculty mobility programs, individuals have gained exposure to cutting-edge research and practices globally, fostering cross-cultural learning and knowledge transfer.

The allocation of IoE funds has been strategic, primarily directed towards acquiring capital equipment and supporting research-related expenses, including salaries. These investments have provided researchers with access to state-of-the-art facilities, empowering them to conduct cutting-edge experiments and analyses, thus pushing the boundaries of knowledge.

Beyond infrastructure and personnel costs, IoE funds have also supported collaborative research activities, conferences, workshops, and interdisciplinary initiatives. These initiatives have enhanced the research ecosystem at IIT Madras, fostering innovation, collaboration, and knowledge-sharing, ultimately contributing to scientific advancements with far-reaching societal impact.

The IoE funding at IIT Madras has brought about significant benefits in advancing research and driving positive impact.

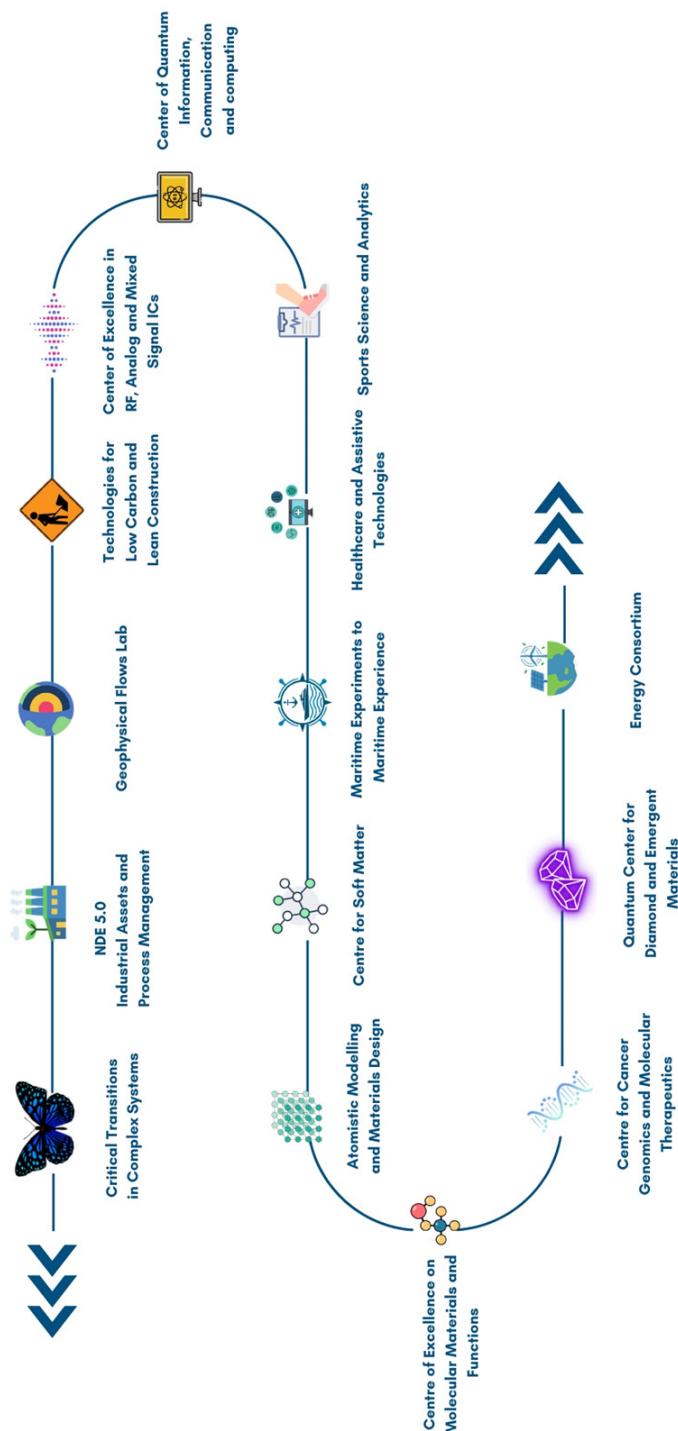
- 1. Enhanced Research Capabilities:** The IoE funding has empowered researchers at IIT Madras to pursue ambitious and impactful research projects. The availability of state-of-the-art infrastructure, high-tech equipment, and advanced research facilities has bolstered our research capabilities. This has facilitated breakthrough discoveries, innovations, and technological advancements across various disciplines.
- 2. Interdisciplinary Collaborations:** The IoE funding has fostered interdisciplinary collaborations among researchers from different fields. This interaction of ideas and expertise has led to novel approaches, synergistic research outcomes, and transformative solutions to complex problems. The funding has facilitated collaborative projects that bring together researchers from diverse backgrounds, contributing to holistic and integrated research approaches.
- 3. Knowledge Creation and Dissemination:** The IoE funding has enabled the creation of new knowledge and the dissemination of research findings. Our faculty members and researchers have made significant contributions to scientific

literature through high-impact publications, patents, and conference presentations. The funding has also supported academic conferences, workshops, and symposia, providing platforms for researchers to share their insights, exchange ideas, and foster intellectual discourse.

4. Societal Impact and Industry Collaboration: The IoE funding has facilitated research that addresses critical societal challenges and fosters industry collaboration. Our researchers have developed solutions and technologies that have the potential to positively impact society and contribute to economic growth. The funding has facilitated partnerships

with industry stakeholders, enabling the translation of research outcomes into real-world applications, products, and services.

5. Talent Development and Training: The IoE funding has supported the development of research talent by providing opportunities for students and early-career researchers to engage in groundbreaking research projects. This exposure to advanced research methodologies, interdisciplinary collaboration, and state-of-the-art facilities has nurtured a new generation of researchers and innovators who are equipped to tackle complex challenges and drive future advancements.

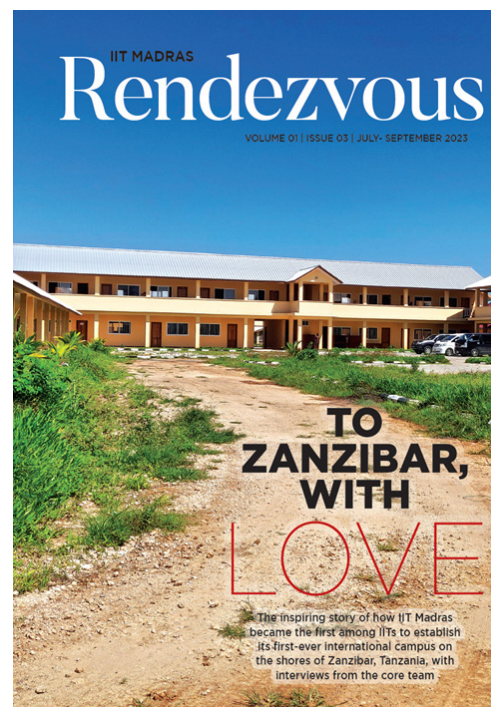


IoE Centres of Excellence		
#	Principal Investigator	Research Area
1	RI Sujith	Critical Transitions in Complex Systems
2	Krishnan Balasubramanian	NDE 5.0 - Industrial Assets and Process Management
3	Pradeep T	Molecular Materials and Functions
4	Manu Santhanam	Technologies for Low Carbon and Lean Construction
5	Mohanasankar Sivaprakasam	Healthcare and Assistive Technologies
6	Sriram V	Maritime Experiments to Maritime Experience
7	Anil Prabhakar	Centre for Quantum Information, Communication and Computing
8	Mahesh Panchagnula	Sports Science and Analytics
9	Basavaraja Madivala	Centre for Soft Matter
10	Shanthi Pavan	Center of Excellence in RF, Analog, and Mixed Signal ICs
11	Ranjit Kumar Nanda	Atomistic Modelling and Materials Design
12	Mani Mathur	Geophysical Flows Lab
13	Mahalingam S.	Centre for Cancer Genomics and Molecular Therapeutics
14	MSR Rao	Quantum Center for Diamond and Emergent Materials
15	Satyanarayanan S	Energy Consortium

Rendezvous magazine

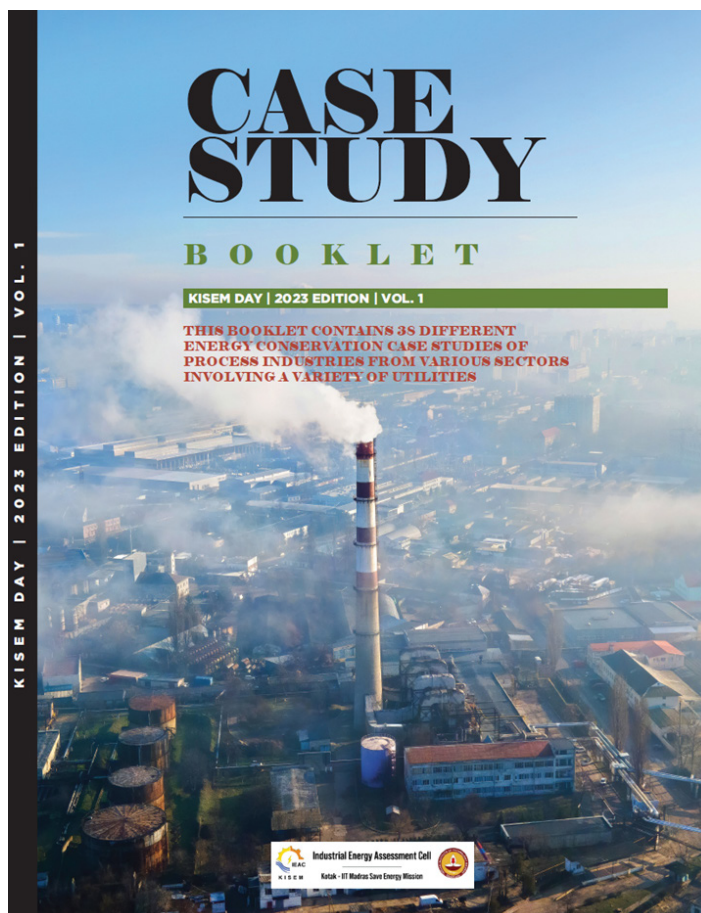
The Office of Global Engagement launched Rendezvous, a quarterly magazine, in March 2023 to overwhelmingly positive views and feedback. Following its launch, Rendezvous chronicled the journey of Team Raftar, the Formula Student Team of IIT Madras, that was gearing up to present its first electric car – RFR23 – at the Formula Student Germany in 2023.

In October, Rendezvous came up with an exclusive issue on Zanzibar featuring interviews with Prof. V Kamakoti (Director, IITM), Prof. Raghunathan Rengaswamy (Dean, Global Engagement), Prof. Preeti Aghalayam (Director-in-Charge, IITM Zanzibar), and the team behind the Zanzibar project, ahead of the campus's official launch. The Zanzibar issue, as it came to be known, opened to a unanimous reception from all quarters for chronicling the events that led to the making of the historic campus.



Path to Decarbonization

The Office of Global Engagement helped facilitate the launch of The Energy Consortium's Path to Decarbonization, a special issue with invited contributions from affiliated faculty, industry founding members, and knowledge partners. It showcased how researchers are pushing the envelope on state-of-the-art approaches and devising strategies that will lead towards significant mitigation of greenhouse gas emissions. The eleven articles in the issue were compiled by 35 authors based in five countries and representing over 15 organisations. Path to Decarbonization was launched in December 2023 as part of The Energy Consortium's annual Energy Summit 2023.



KISEM Case Study Booklet

The Office of Global Engagement helped in putting together a Case Study booklet for the Kotak-IIT Madras Save Energy Mission (KISEM) as part of KISEM Day in December 2023. The booklet had different energy conservation case studies of process industries from various sectors involving a variety of utilities.

International Visits

Quarterly Visitors' Data: April-June 2023 (Q1)

S. No.	University Name	Country
April 2023		
1	Drexel University	United States of America
2	The University of Auckland	New Zealand
3	University of Otago	New Zealand
4	University of Waikato	New Zealand
5	University of Canterbury	New Zealand
6	Auckland University of Technology	New Zealand
7	Lincoln University	New Zealand
8	Victoria University of Wellington	New Zealand
9	Massey University	New Zealand
10	Queensland University of Technology	Australia
11	Australian National University	Australia
12	Cornell University	United States of America
13	Thailand Consulate (Chennai)	Thailand
May 2023		
14	University of Exeter	United Kingdom
June 2023		
15	Northeastern University	United States of America
16	University of Jaffna	Sri Lanka
17	University of Victoria	Canada
18	The Nelson Mandela African Institution of Science and Technology (NM-AIST)	Tanzania
19	Federation Gay Lussac	France
20	Official / Business Delegation from Gia Lai Province	Vietnam

Quarterly Visitors' Data: July-September 2023 (Q2)

S. No.	University Name	Country
July 2023		
1	University of Technology Sydney	Australia
2	Visit of H. E. Mr. Dilshod Akhatov, Ambassador of Uzbekistan to India	Uzbekistan
3	University of Wollongong	Australia
4	Leibniz University Hannover	Germany
5	Hon. Steven Guilbeault, Minister of Environment and Climate Change	Canada

6	Norwegian University of Science and Technology	Norway
7	University of Edinburgh	United Kingdom
8	National Tsing Hua University -Taiwan Education Center in India (TEC-NTHUPO)	Taiwan
August 2023		
9	University of Toronto	Canada
10	Deakin University	Australia
11	LICAMM, School of Medicine, University of Leeds	United Kingdom
12	Macquarie University	Australia
13	University of Luxembourg	Luxembourg
September 2023		
14	Stanford University	United States of America
15	Technical University of Hamburg	Germany
16	Thai-German Graduate School of Engineering	Thailand
17	University of Tsukuba	Japan
18	York International, York University	Canada
19	Deakin University	Australia
20	Vanderbilt University	United States of America
21	University of Southampton	United Kingdom
22	University of Northumbria	United Kingdom
23	University of London	United Kingdom
24	Ulster University	United Kingdom
25	Durham University	United Kingdom
26	Staffordshire University	United Kingdom
27	Birmingham City University	United Kingdom
28	Department of Education, Government of UK	United Kingdom
29	University of West of England	United Kingdom
30	Newcastle University	United Kingdom
31	Robert Gordon University	United Kingdom
32	International Education, Department for Business and Trade (DBT), Government of UK	United Kingdom
33	University of Exeter	United Kingdom
34	Universities Wales	United Kingdom
35	University of East London	United Kingdom
36	Cardiff University	United Kingdom
37	Leeds Beckett University	United Kingdom
38	The University of Melbourne	Australia
39	Australian Consulate-Centre for Australia-India Relations (CAIR) board delegation	Australia

Quarterly Visitors' Data: October–December 2023 (Q3)

S. No.	University Name	Country
October 2023		
1	University College Dublin	Ireland
2	RWTH Aachen University	Germany
3	IAE Aix-Marseille Graduate School of Management	France
4	Central Mediterranean, Marseille -Centrale Méditerranée	France
5	California State University, San Bernardino	United States of America
6	Asian Institute of Technology	Thailand
7	Taipei Economic and Cultural Center	Taiwan
8	Aalto University	Finland
9	National Taiwan University of Science and Technology	Taiwan
10	University of Tromsø - The Arctic University of Norway	Norway
11	Deakin University	Australia
12	Consulate-General of Japan (Chennai)	Japan
November 2023		
13	University of Illinois Urbana - Champaign	United States of America
14	Loughborough University	United Kingdom
15	TU Dresden	Germany
16	University of Technology Sydney	Australia
17	University of Birmingham	United Kingdom
18	Adelaide Business School	Australia
19	University of Copenhagen	Denmark
20	Aarhus University	Denmark
21	University of Eastern Finland	Finland
22	Vilnius University	Lithuania
23	Tampere University	Finland
24	Karlstad University	Sweden
25	Linköping University	Sweden
26	Lund University	Sweden
27	KTH Royal Institute of Technology	Sweden
28	Jönköping University	Sweden
29	Södertörn University	Sweden
30	Stockholm University	Sweden
31	Mid Sweden University	Sweden
32	Luleå University of Technology	Sweden
33	University of Borås	Sweden
34	Uppsala University	Sweden
35	Swedish University of Agricultural Sciences	Sweden
36	Linnaeus University	Sweden

37	Chalmers University of Technology	Sweden
38	Mälardalens University	Sweden
39	Norwegian University of Science and Technology	Norway
40	University of Glasgow	United Kingdom
41	Norwegian Ministry of Foreign Affairs	Norway
42	Saxon State Ministry officials	Germany
43	Minister of Sciences, Saxony	Germany
44	German Consulate (Chennai)	Germany
December 2023		
45	TU Dresden	Germany
46	University of Sydney	Australia
47	University of Leeds	United Kingdom
48	University of Tsukuba	Japan
49	University of Agder	Norway
50	Aarhus University	Denmark
51	University of Strathclyde	United Kingdom
52	Edgar Pang, Consulate General of the Republic of Singapore in Chennai	Singapore
53	Sri Lankan Education Minister's visit	Sri Lanka

Quarterly Visitors' Data: January-March 2024 (Q4)

S. No.	University Name	Country
January 2024		
1	University of Vermont	United States of America
2	Kyoto University	Japan
3	University at Albany	United States of America
4	Linköping University	Sweden
5	University of Exeter	United Kingdom
6	Sciences Po	France
February 2024		
7	University of New Brunswick	Canada
8	University of Hull	United Kingdom
9	The University of Auckland	New Zealand
10	National Institute of Informatics	Japan
11	Queen's University	Canada
12	Durham University	United Kingdom
13	Drexel University	United States of America
14	University of Utah	United States of America
15	Korea University	South Korea
16	École Centrale Paris	France
17	The University of Manchester	United Kingdom
18	Sri Lankan Minister of Technology	Sri Lanka

March 2024		
19	Stony Brook University	United States of America
20	Deakin University	Australia
21	King Abdullah University of Science and Technology	Saudi Arabia
22	Tel Aviv University	Israel
23	TU Darmstadt	Germany
24	University of Birmingham	United Kingdom
25	Taiwan International Graduate Program (TIGP)	Taiwan

International Collaborations

1. Young International Faculty (YIF)

The Young International Faculty (YIF) initiative, pioneered by IITM, is a novel programme designed to onboard full-time foreign faculty members akin to Assistant Professors. Its core objective is to engage with passionate doctoral graduates or post-doctorates who are deeply committed to academic research and eager to collaborate with researchers at IIT Madras.

Dr. Nabil Omri from the Private Higher Polytechnic Institute of Tunis, Tunisia, participated in this programme, visiting from May 25, 2023, to May 7, 2024. During his tenure, he was hosted by Prof. T Pradeep from the Department of Chemistry.

2. Joint Master's Programs (JMP)

Joint Master's Programs enable IIT Madras (IITM) to collaborate with esteemed international partners, ensuring comparability in faculty size, research scope, master's programs, infrastructure, and research quality. The objective is to offer structured educational opportunities leveraging the expertise and resources of multiple institutions, enriching students' learning experiences and providing globally recognised qualifications. The outcomes include exploring mutual strengths in interdisciplinary areas, fostering deep faculty-to-faculty connections, and delivering attractive, job-ready degrees to students worldwide.

2.1 Joint Masters with the University of Birmingham, UK

IIT Madras and the University of Birmingham proudly present their Joint Masters Programs, offering unparalleled academic excellence and international exposure opportunities.

Firstly, the MSc in Data Science & Artificial Intelligence (MSc DS&AI) brings together the expertise of both institutions to provide a world-class curriculum led

by industry leaders. With the flexibility to choose your study location for a portion of the programme, students can immerse themselves in cutting-edge learning experiences. The programme also offers industrial placements and a year-long research project co-guided by expert faculty from both IIT Madras and the University of Birmingham. In the July 2023 intake, the DS&AI program welcomed 21 students, beginning an extraordinary educational journey.

Similarly, the Joint Master's Program in Sustainable Energy Systems (MSc SES) invites students to embark on an exhilarating academic voyage starting at IIT Madras in Chennai. Through a robust curriculum designed by industry leaders, students gain the flexibility to choose their study location for part of the program. As with the DS&AI program, MSc SES offers industrial placements and a year-long research project co-guided by expert faculty from both institutions. The first round of admissions is in progress for the MSc in Energy Systems, promising an exciting future for aspiring students.

2.2 Joint Master's Program in Water Security & Global Change: ABCD Center

The Water Security and Global Change Joint Master's Program, with the first round of admissions currently in process, offers exposure to both global south and north perspectives on water security, integrating expertise from partner institutions to serve regional, national, and international stakeholders. It features a modular structure with study abroad options and specialisations, coordinating student mobility, facilitating internships, and collaborating on Master's theses with industry, government, and NGO partners. Upon completion, a joint degree is awarded by three universities (RWTH Aachen, IIT Madras, and TU Dresden) with associated partners (UNU Flores and AIT Bangkok), enabling a seamless cohort experience across locations. The programme is scheduled to commence in July 2024.



IIT Madras signed the cooperation agreement in the presence of our associate partners Technische Universität Dresden and RWTH Aachen University.

2.3 Joint Master's Program in Energy Systems: Kathmandu University, Nepal

The proposed 2-year joint Master's degree programme in Energy Systems aims to utilise the engineering strengths of KU, leverage the academic and research excellence of IITM, and meet the demand for skilled human resources in Nepal and the South Asia region. It equips students with fundamental skills across diverse energy domains, providing elective specialisations and hands-on experience through interdisciplinary projects, preparing them for industry roles, and nurturing leadership in research and entrepreneurship.

3. Jointly Funded Bilateral Mobility Program

The Jointly Funded Bilateral Mobility Program (JFBMP) is an exclusive program with IIT Madras's valued strategic partners. This flagship program aims to nurture international relationships by promoting Joint Research Programs through attractive mobility

funding for students and faculty.

4. International Visiting Faculty

SPARC (Scheme for Promotion of Academic and Research Collaboration)

SPARC, the Scheme for Promotion of Academic and Research Collaboration, aims to enhance India's higher education research ecosystem by fostering collaborations between Indian institutions and top institutions from 28 selected nations. It facilitates joint efforts to address national and international challenges through academic and research cooperation. SPARC supports initiatives such as visits by international faculty, student exchanges, joint course development, and bilateral workshops, aiming for impactful research outcomes, enhanced educational resources, and improved global recognition for Indian institutions. IITM hosted eight professors from the following institutions:

No.	Name (Prof.)	University	Country
1	Ngo Huu Hao	University of Technology, Sydney	Australia
2	Bischel Magnan Heather Nicole	University of California	USA
3	Thorsten Stoesser	University College London	United Kingdom
4	David Trejo	Oregon State University	USA
5	Philippe Odier	Ecole Normale Supérieure de Lyon	France
6	Muthukumaran Packirisamy	Concordia University, Montréal	Canada
7	Ramin Sedaghati	Concordia University, Montréal	Canada
8	Farshad Rajabipour	Pennsylvania State University	USA

Visiting Advanced Joint Research (VAJRA)

The VAJRA (Visiting Advanced Joint Research Faculty) scheme is a dedicated programme exclusively for overseas scientists and academicians, with an emphasis on Non-resident Indians (NRI) and Persons of Indian Origin (PIO) / Overseas Citizens of India (OCI) to work as adjunct/visiting faculty for a specific period of time in public-funded Indian academic and

research institutions. The scheme recognises the value of collaborative research as a crucial element for information sharing among researchers to update and acquire knowledge and skills and to draw different perspectives to solve a shared problem. The Science and Engineering Research Board (SERB) welcomes accomplished overseas scientists to tackle challenging research problems in the Indian context.

Visiting faculty under the VAJRA Programme

S. No.	Name	University	Country
1	Song Chongmin	University of New South Wales	Australia

MoUs signed with International Universities during 2023-2024

- Asia Institute of Technology, Thailand
- Ben-Gurion University of the Negev, Israel
- University of KwaZulu Natal, South Africa
- Bangabandhu Sheikh Mujibur Rahman Aviation and Aerospace University (BSMRAAU), Bangladesh
- King Mongkut's University of Technology North Bangkok (KMUTNB)
- John Hopkins University, USA
- Institut Polytechnique de Paris, France
- China Medical University, Taiwan
- Emory Global Diabetes Research Center, USA
- California State University San Bernardino, USA
- Lund University, Sweden
- University of SUNY Albany, USA
- Ecole Normale Supérieure de Lyon, France
- University of Jaffna, Sri Lanka
- Jimma University, Ethiopia
- IÉSEG School of Management Lille and Paris, France

International MoU Signed in 2023-2024

IITM Zanzibar

About IIT Madras Zanzibar:

The IITM Zanzibar campus was proposed as a world-class institution serving the educational and research needs of the African region and Tanzania in particular. As a unique partnership between the Government of Zanzibar and IIT Madras, the Zanzibar campus of IIT Madras took off in October 2023, offering two programmes: a 4-year Bachelor of Science (BS) in Data Science and Artificial Intelligence (DSAI) and

a 2-year Master of Technology (M.Tech.) in Data Science and Artificial Intelligence (DSAI). It promises to bring the same rigour that has defined IIT Madras's academic culture to its Zanzibar campus, contributing to the human resources development of the region substantively.

IITM Zanzibar has 44 students enrolled in undergraduate and postgraduate programs. The IITM Zanzibar campus has started admissions for the second cohort for the academic year 2024-2025.

Pictures from the IITM Zanzibar Campus:





Central Library

The Central Library is equipped with all modern facilities. It has a rich collection of information resources in CD-ROMs, online databases, e-journals, e-books, e-standards, e-patents, research support tools, video journals and printed material related to applied science, engineering, technology, humanities, management, social science, and emerging subjects. The Central Library holds 423088 items, including 2755 current journals, catering to the information needs of 14443 members; it also provides various value-added services with the help of modern information-handling tools and techniques. The primary activities of the Central Library between April 2023 and March 2024 are described here.

8.1. Library Information Services: Statistics

Item	2022-2023	2023-2024
Collections		
Books (General)	263388	264905
Books (Gratis)	16738	17147
Books (Hindi)	1215	1292
Books (Project)	1666	00
Theses	8998	
Book Bank books	15378	15532
wCurrent periodicals by subscription	2750	2755
Back volumes of periodicals	101093	10193
CD-ROMs	1510	1510
Audio/video cassettes	448	448
e-books	17995	18406
Total	431179	423088
*Some documents were withdrawn		
Membership		
Staff	590	668
Faculty, Senior Scientific Officers, Scientific Officers, emeritus professors, visiting faculty, and adjunct professors	653	719
Students	11852	12097
Retired faculty and officers	35	36

Alumni members	452	457
Corporate members	48	48
Special members	00	00
IAS members	320	364
Project coordinators	56	54
Total	14006	14443

Services: Circulation	2022-2023	2023-2024
Number of books/bound journals issued	34698	34143
Number of books issued from the Book Bank (General Section)	534	505
Number of books issued from the Book Bank (Weaker Section)	301	178
Overdue and other charges collected (₹)	556899	538850

Item	2022-2023	2023-2024
Project loans to faculty/departments/centers		
Books issued	00	00
Inter-library loan transactions		
Borrowed from other libraries	00	02
Loaned to other libraries	00	05
DDS/Reprint service		
Reprints received from other institutions (pages)	474	268
Reprints supplied to other institutions (pages)	2370	784
Smart Cards		
Cards generated/issued	7107	Shifted from Library
Expenditure (in INR)		
1. Purchase of books/e-books (₹)	239.13 lakh	171.81 lakh
2. Subscriptions to journals and databases (₹)	2360.04 lakh	2401.04 lakh
Journals/databases deleted	00	22
New journals/databases added	52	05

8.2. ISO 9001:2015 Activities

The Central Library actively participated in ISO 9001:2015 activities and maintained quality-based library system services and procedures. The significant activities related to ISO 9001:2015 are listed here:

1. Recertification audit was conducted during May 15-16, 2023
2. An ISO Management review meeting (QSM-IITM) was held during on August 16-18, 2023
3. An ISO Management review meeting (QSM-IITM) was held during February 15-16, 2024

8.3. Major Initiatives

The Central Library has implemented various initiatives to improve the existing infrastructure, facilities and services, and procures bookshelves to increase our collections, with the aim of providing robust and dynamic support to the institute's academic, research, development, continuing education, and industrial interaction programs and policies. Some of these initiatives are described in the following sections.

8.3.1. Online Book Recommendation System

The online book recommendation system, <https://books.iitm.ac.in>, has been implemented with the help of alumni. The server has been integrated with ADS/LDAP authentication. Faculty members can log in with their ADS credentials and fill a form which requires only the book's ISBN. The system will search for the book's details using the Google Books API and fetch its bibliographic information. The faculty member can then recommend the book for purchase. After that, the system will send an auto-generated email to the department's Library Advisory Committee (LAC) member. The LAC member will approve or reject the request; the library will initiate book procurement after approval.

Books/eBooks Purchased statement (2023-24)																						
Dept.	AER	APM	BIO	CHE	CHY	CIE	CSE	ELE	END	HSS	MAT	MEE	MGS	MME	MST	OED	PHY	eSub.	BBK	CHB	HINDI	Total
PO	18	22	15	26	15	42	2	49	3	30	17	52	8	22	5	10	25	7	5	2	2	377
Books/ Database	32	71	59	40	56	228	25	104	17	134	141	152	105	43	141	66	372	7	5	130	70	1998

8.3.2. Online resources (e-journals, e-databases, e-books, patents, and standards)

- IIT Madras has access to online journals and databases from 15 publishers: the Association for Computing Machinery (ACM), the American Institute of Physics (AIP), the American Society of Civil Engineers (ASCE), the American Physical Society (APS), Annual Reviews, the American Society of Mechanical Engineers (ASME), JSTOR, MathSciNet, Nature, the Oxford University Press (OUP), Project MUSE, Springer Link, and Web of Science through the e-ShodhSindhu Consortium supported by the Ministry of Education.
- Access to the e-databases of various publishers, including the following, were renewed:
ABI/INFORM Complete, ACI MCI+, the British Medical Journal (BMJ), Bloomberg, Capitaline, Commodities from the Centre for Monitoring Indian Economy (CMIE), CMIE ProwessIQ, Crisil Research,, DynaMed Plus, EBSCO Business Source Ultimate, Economic Outlook, the Institute of Electrical and Electronics Engineers (IEEE) Electronic Library (IEL), EMIS Database, Indian Economic, ISI Emerging, Journal Citation Reports (JCR), MathSciNet, OnePetro, Pearson's Crystal Data, PsycArticle, States of India, SciFinder, Scopus, Springer Materials, YNOS Venture Engine and Press Reader.
- Access to the e-journals of various publishers, including the following, were renewed:
American Chemical Society, AGU, the American Institute of Aeronautics and Astronautics (AIAA), American Institute of Physics (AIP), the American Mathematical Society, ASME Conference Proceedings, Blackwell, De Gruyter, Elsevier, the Institute of Civil Engineers (ICE), the Institute of Physics (IOP), Oxford University Press, Theses The Royal School of Chemistry (RSC) Gold, Sage, the Society for Industrial and Applied Mathematics (SIAM), Taylor & Francis (T&F), Thomas Telford, and Wiley.
- Access to the following databases of patents were renewed:
Orbit Express, Thomson Core Patents, and XLPAT Novelty Checker.
- Access to Research Support tools was provided, and the following tools and software were renewed:
- Grammarly, Mendeley Institution Edition, ProQuest Theses and Dissertations (PQDT), LANQUILL, Sage Research Methods Online (SRMO), and Turnitin Feedback Studio.
- Purchased IOP (2021 collection) of e-books as a copyright year package with perpetual access rights. The books were chosen from across all publishers based on recommendations from faculty.
- E-book subscription packages include: Academic Complete (ProQuest), Access Engineering from McGraw-Hill, EBSCO Engineering e-book collection, Heat Exchanger design handbook, Knovel-Engineering Technical Reference Information, Multimedia Fluid Mechanics online, the Routledge Encyclopedia of Philosophy, and O'Reilly for higher education.
- The Library Advisory Committee recommended a new subscription to JOVE Journals from 2024 onward.

8.3.3. e-ShodhSindhu Consortium

The Ministry of Education (MoE),, formerly the Ministry of Human Resource Development (MHRD), has formed the e-ShodhSindhu Consortium for Higher Education Electronic Resources, merging three consortia initiatives, namely UGC-INFONET Digital Library Consortium, the National Library and Information Services Infrastructure for Scholarly Content (NLIST), and the Indian National Digital Library in Engineering Sciences and Technology - All India Council for Technical Education (INDEST-AICTE) Consortium. The main objective of e-ShodhSindhu is to provide access to qualitative electronic resources, including full-text, bibliographic and factual databases, at lower rates of subscription to universities, colleges, and centrally funded technical institutions in India. IIT Madras has access to 15 e-resources from e-ShodhSindhu for 2023-24.

E-Resources Usage Statistics (April 2023 to March 2024)													
Resource Name	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
ACM	198	1162	1161	1250	1780	1652	1542	1416	1417	1449	1568	1679	16274
AIP	6076	1897	4581	3849	5724	4986	3984	2562	2698	2561	1890	897	41705
ASCE	1479	2023	1806	1567	1625	1897	1954	983	1898	1666	899	932	18729
Annual Reviews	470	442	437	397	491	410	530	444	375	564	575	768	5903
APS	2926	2321	3125	2951	3528	3471	3389	2842	3529	2852	2926	2542	36402
ASME	1627	1618	1724	1342	1483	1374	1286	1503	1627	1974	1248	1262	18068
JSTOR	5836	4436	3233	5538	4247	4599	7828	5543	3767	5969	6485	8672	66153
MathSciNet	8805	11819	8587	4322	8078	3907	8055	8944	6569	4287	5145	3036	81554
Nature	7959	7689	7682	7377	8744	7777	8445	7015	8130	18410	19343	23643	219399
OUP	1189	1498	1401	1411	1624	1565	1464	2859	1298	1652	1786	1899	19646
Project MUSE	186	180	130	147	210	106	269	209	124	169	179	234	2143
Springer Link	27458	27663	27363	27322	30110	27208	28279	22132	23296	22929	22751	28996	315507
Web of Science	8724	13248	19063	22395	15725	11708	24636	15966	37604	8625	22915	8164	208773

8.3.4. Extended Working Hours on Saturdays and Sundays

The Library has extended its working hours on Saturdays, Sundays, and holidays up to midnight on all days except the library closed holidays.

8.3.5. User Awareness Programme

The Central Library organised the following user programmes for the students, scholars, and faculty of IIT Madras through online Webinars of the different publishers conducted offline and online.

Programme	Organiser	Date
Research Ethics in the Age of AI	Turnitin India, Delhi	November 23, 2023
Knovel Interactive eBook Platform: 'Engineering Data and Technical References to Solve Engineering Problems'	Elsevier	October 10, 2023
Ministry of Education, India and Springer Nature conducted a half-day 'Research Conclave: Her Research Our Feature', empowering women in research	Springer Nature	October 11, 2023
Turnitin Feedback Studio to explore the role of Turnitin in safeguarding academic integrity.	Turnitin India, Delhi	December 12, 2023
Bloomberg database	Bloomberg India	July 6, 2023
SciVal-Scopus Database	Elsevier	July 13, 2023

8.3.6. Smart Card Facility

The smart card issue facility has been shifted to the Academic section in the Administration building.

8.3.7. Weeding Out Documents

The Central Library staff have identified mutilated documents, multilingual donated books, and highly damaged old-bound volumes and backfiles of journals. After obtaining the condemnation approvals from the Director and audit clearance, the Stores and Purchases section may sell the documents through e-auction.

8.3.8. Tracing of Publications

The library staff regularly stack and shelves books. Since the library has an open-access stack arrangement system, users can pick up any book and read it wherever they want. Book stacks are placed on all the floors, so there are chances of a book being misplaced from its allotted location. For this purpose, the library keeps an untraceable register; if a user cannot locate a book, they can write its details in the register. The library staff regularly check the register and trace the books, and a Circulation staff member sends an email to the respective users.

Number of Untraceable Books Entries: April 2023 to March 2024												
Month	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
No. of Requests	21	23	10	12	74	42	65	53	40	41	43	38
No. of Traced Books	9	5	4	8	34	21	34	35	21	17	18	16

The number of books traced is less than the number of requests because some requested books were under issue, sent for repair, are e-books, etc.

8.3.9. Issue of Online NDC

The Academic Courses have implemented online No Dues Certificate (NDC) at <https://ssp.iitm.ac.in> for passed-out and discontinued students. The library circulation staff generate the NDC. The user's data is fetched from the library server through API integration and displayed on the online portal (<https://ssp.iitm.ac.in>). The students can check their NDC status online.

NDCs Issued (April 2023 to March 2024)													
Month-wise	Apr '23	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan '24	Feb	Mar	Total
Students	828	867	283	441	65	1067	227	140	54	58	50	72	4152
Faculty	05	00	01	02	02	00	00	01	00	02	02	04	19
Staff	00	10	05	01	03	02	03	03	00	03	01	03	34

8.3.10. Scholar/Faculty Profiles

The Central Library has set up Scholar Profiles for the faculty of IIT Madras at <http://iitm.irins.org>. The Indian Research Information System Management (IRINS) is a web-based service developed by the Information and Library Network (INFLIBNET). The library regularly updates the scholars' profiles, and 60+ faculty profiles have been added this year.

8.3.11. Remote Access off-Campus Access Facility for e-resources

The Central Library has enabled remote access from off-campus with a single sign-on Shibboleth authentication in collaboration with INFLIBNET and individual publishers. The Shibboleth open-source software server with INFED (INFLIBNET Access Management Federation) is set up at IITM. More than 45 e-journals, e-books, databases, and standards resources have enabled off-campus access through LDAP login for IITM users (faculty, scholars, students and staff).

Remote Access Usage Report (April 2023 to March 2024)

Description	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Unique Users	320	127	207	238	367	405	403	388	213	312	190	229
Unique Publisher	37	22	40	30	40	35	33	40	25	38	28	40
Total Logins	495	412	516	245	390	821	541	572	269	324	295	443

8.4. Usage Statistics of e-Journals, Databases and e-Books

Usage statistics reports for e-journals and e-books are downloaded from their publishers' websites with an admin login.

E-Resources Usage Statistics (APR 2023 - MAR 2024)

S. No.	Resource Name	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	American Chemical Society (ACS) Package	32949	34862	32379	36900	40835	36419	35262	28848	35198	39036	36563	39059	428310
2	AIAA (5)	410	652	652	744	608	50	56	812	769	36	37	42	4868
3	American Mathematical Society(AMS)	137	187	108	163	165	5	00	12	129	0	0	0	906
4	Cambridge University Press (CUP) (Journal of Fluid Mechanics, Science & Technology package, and Humanities & Social Sciences package)	2490	2570	1725	1924	1963	1802	1989	1848	1869	1978	2074	2063	24295
5	Elsevier	139236	144891	139186	150569	157305	139328	146870	132180	138521	132223	135745		1556054
6	Emerald	1671	1849	1561	1689	3310	3137	00	1550	1892	1550	2164	1631	22004
7	ICE (10)	355	272	310	337	289	329	341	380	349	346	195	210	3713
8	IEEE/IEL	13206	15385	16071	13004	16712	15000	14595	12625	12998	16303	15834	13235	174968
9	IOP Package	4587	4795	5036	5163	6249	5456	4924	5202	5471	5463	6164	5942	64452
10	Nature Pub (16+1)	20048	20386	20974	20728	24026	21247	23193	3742	3659	18410	19343	23643	219399
11	Optica Publishing Group	678	1027	636	505	761	1240	986	993	1024	6257	1077	1899	17083
12	RSC Package	9310	10046	11415	12798	13246	10733	11380	11429	12120	10251	9636	8472	130836
13	Sage (13) & IMechE (18)	9988	11073	12051	13303	14007	11973	12366	18051	12428	501	1837	1689	119267
14	SIAM	42	253	283	315	290	320	312	209	302	366	204	186	3082
15	T&F	7032	7582	1230	8461	9469	8487	9411	8531	8214	8255	9455	9512	95639
16	Wiley (91)	14665	16387	21564	13004	14668	14844	14595	21204	21291	16303	15891	13953	198369
17	Scopus	91663	98903	95674	284383	281646	197619	256350	414589	128724	279756	208976	143571	2481854

e-Book Usage Statistics (April 2023 to March 2024)

SN	Publisher	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Total
1	AIAA	52	326	441	126	40	13	53	43	38	61	22	52	1267
2	CUP	271	220	403	316	597	284	321	180	192	501	445	307	4037
3	Elsevier	1298	1120	1441	1185	2331	1580	1385	1013	1231	1535	1857	1383	17359
4	Emerald	27	15	43	28	198	167	38	26	32	29	25	25	653
5	ICE	22	16	61	48	57	64	49	112	39	39	41	32	580

6	IEEE Wiley	180	123	129	114	227	139	99	102	121	1034	889	827	3984
7	IOP	135	55	161	53	93	54	61	102	96	60	101	112	1083
8	RSC	14	8	72	14	31	5	13	19	21	80	114	125	516
9	Springer	12421	13226	11615	13984	18252	14259	17279	14789	18254	14875	14953	15054	178961
10	Wiley	194	205	686	114	227	253	351	289	296	261	237	269	3382

8.5. Retirement/Lien of Staff Members

Dr. K Saravanan, Assistant Librarian, went on lien to join Anna University as a Deputy Librarian on July 1, 2023.

8.6. Automation

1. The e-books have been catalogued in the library's Web Online Public Access Catalogue (WebOPAC) (<http://webopac.iitm.ac.in:8080/>).
2. The new library website has been designed and updated.
3. New programme features have been added to the online book recommendation portal <https://books.iitm.ac.in>
4. Remote access has been set up at <https://idp.iitm.ac.in> to enable off-campus access to e-resources.
5. The Institutional repository has been upgraded to the latest DSpace -cris version (7.3) (<https://irepose.iitm.ac.in>).
6. Records of 2376 patrons (students, faculty and staff members, alumni, and IAS members) were added to the Virtua-VTLS database.
7. The six RFID PCs were also replaced for self-check-out and self-check-in, as well as a multipurpose station at the circulation counter.

8.7. Short-Term Courses, Workshops, Seminars, Symposia, Conferences, Meetings, or Training Programmes Attended by Officers and Staff Members at Academic Institutions

S. No.	Faculty/Staff Member	Title	Institution	Dates
1.	Dr. Mahendra N. Jadhav	Librarian Selection Committee meeting	IISC Bangalore	March 6, 2024
2.		Library Selection Committee meeting	IIT Gandhinagar	February 19, 2024
3.		Evidence-Based Library Transformations: Quality Services for NextGen Users (EBLT - 2024)	IIFE Visakhapatnam	January 22 & 24, 2024
4.		Library Selection Committee meeting	IIT Gandhinagar	January 15, 2024
5.		Subject Expert Selection Committee for Library Professionals	Central University Rajasthan	December 27, 2023
6.		9th meeting of all IIT Librarians	IIT Kharagpur	November 23, 2023
7.		Digital Libraries: Sustainable Development in Education (DLSDE)"	IIT Kharagpur	November 20 & 22, 2023
8.		CAS Committee meeting -Library Professional	IIT BHU Varanasi	November 17, 2023
9.		Subject Expert Selection Committee for Library Professionals	IIT Ropar	September 30, 2023

8.8. Special Lectures Delivered by Officers at Other Institutions

S. No.	Official	Topic of Lecture	Venue and Date
1.	Dr. Mahendra N. Jadhav	Evidence-based Recent Trends on Open-Access Publishing	Chief Guest and Keynote speaker in 'Evidence-Based Library Transformations: Quality Services for NextGen Users- (EBLT - 2024)' during January 24-25, 2024
2.		I. Emerging Trends on Journals: Read and Published II. Metrics to Altmetrics	UGC-HRD Centre and Department of Library and Information, Savitribai Phule Pune University, Pune, November 16, 2023
3.		I. Emerging Trends on Journals: Read and Published II. Metrics to Altmetrics	UGC-HRD Centre and Department of Library and Information, DR BAM University, Aurangabad, September 22, 2023

8.9. Distinguished Visitors/Groups to the Library

- 50+ schoolchildren and teachers from M/s. Agasthiya Vidyalaya, Vandavasi visited on July 31, 2023
- 80+ students and faculty from the M.O.P. Vaishnav College for Women (Autonomous) visited on January 14, 2024.

8.10. Children's Corner Library

The Children's Corner Library is well maintained and heavily used by the campus children. We have purchased 130 books for the Children's Corner Library.

8.11. LAC Recommendations

- The 157th Library Advisory Committee was held on December 18, 2023. It recommended continuing the renewal subscription of existing collections of journals and databases for 2024. Twenty-two individual journals have been recommended for deletion.
- The 158th Library Advisory Committee Meeting was held on February 28, 2024. It recommended the following new journals /software subscriptions for 2024: 1. Journal Communications in Computational Physics (CiCP) Global Science Press, 2. Journal of Visualized Experiments (JOVE) video Journals, 3. Engineering Material Science (EMS) package.

8.12. Future Plans

1. To initiate the creation of a database of bound volumes
2. To shift the Media Resource Centre (MRC) hall to the first floor behind the Digital Knowledge Centre (DKC)
3. To organise professional development lectures and other professional events
4. To weed out and write off mutilated, old, unused books and German books
5. To condemn old, outdated computer hardware and furniture etc.
6. Proposal to facilitate a 24-hour Reading Hall in the Central Library
7. Proposal for an extension of the library entrance



Students' Amenities and Activities

9.1. Hostels

Most of the students reside in hostels on campus. Currently, there are 16 men's and 6 women's hostels for undergraduate and postgraduate students and research scholars. A total of 10,000 rooms are available to accommodate 10,800+ students (2600+ female and 8200+ male students). There are 11 dining halls that cater to hostel residents and a few day scholars. Ten of these dining halls are located in three mess complexes—five in Himalaya, three in Nilgiri, two in Vindhya—and one is in Cauvery hostel. All the dining halls are run by private caterers. Students decide the mess menu with the help of a nutritionist and culinary specialists. The caterer and rate are selected through a tender process. A couple of mess menus are of à la carte type served in the food court. Dining facility registrations and mess allocation to students are done online. The mess monitoring and control committee (MMCC) ensures the hygiene and quality of the food served and also supervises the tendering process. The housekeeping

services in the hostels are outsourced.

Each hostel is administered by a Warden (a faculty member), Assistant Warden(s) (a research fellow or project staff), and a Hostel Council consisting of student secretaries. Each hostel office is supported by the Office of Hostel Management (OHM) staff, which is a centrally administered body and looks after the overall functioning of the hostels. The OHM takes care of online mess registration, mess accounts, biometric entry to hostels/dining facilities, temporary guest accommodation, online processes associated with vacating student rooms, students' (including day scholars' and married research scholars' families) and staff members' medical insurance, online bulk accommodation facilities for conferences, short-term courses and other events, and student festivals' ticketing and merchandise. There are 100+ employees (permanent + contract) on the roll at OHM. Details on the Council of Wardens, Chairperson, Vice Chairperson and Hostel Management are available on the website: ccw.iitm.ac.in.

9.2 Institute Gymkhana

The Institute Gymkhana takes care of the general welfare, sports, co-curricular, and cultural activities of the students. Sports activities form an integral part

of overall personality development, which prepares students to overcome challenges in their lives after their graduation. Hence, students are encouraged to organise and participate in a number of sports activities.

9.2.1. Tournaments

The following tournaments were conducted during the year 2023-24 under the guidance of the Institute Gymkhana of IIT Madras:

- Sportsfest 2023 (formerly known as Agrata)
- Inter-hostel Championship (Schroeter Cup)
- Dean's Trophy Tournament
- All-India Inter-Collegiate Volleyball Tournament: Jimmy George Cup
- All-India Inter-Collegiate Basketball Tournament: Gerhard Fischer & Kokila Rajaiah trophies
- NSO selections for 1st year B.Tech./Dual Degree students
- Other inter-collegiate tournaments

Sports Fest 2023

Sports fest 2023 was held at IIT Madras from September 21 to 25, 2023. More than 30 colleges participated in various sports events for men & women—athletics, badminton, basketball, chess, cricket, football, hockey, squash, tennis, table tennis, volleyball and weightlifting—in a league-cum-knockout tournament. The winners, runners-up, and third-place holders in all events are

awarded medals and certificates, and the fourth-place winners are awarded certificates. Prize distribution ceremony was attended by the Dean (Students), Advisor (Sports), Co-advisor (Sports), Sports Officers, physical training instructor, sports instructors, and Gymkhana staff, who honoured the players. The tournament helped to prepare the Institute team for the Inter IIT Games and helped in the selection of Institute teams.

Dean's Trophy Tournament

The Dean's Trophy Tournament was conducted from February to April 2024 and covered eight non-Inter IIT events, aimed at increasing participation at the hostel level. Six-a-side football for women was introduced in the first time in the year 2023-2024.

- Six-a-side football
- Bridge
- Cycling
- Powerlifting
- Road race
- Triathlon
- Frisbee
- Kho Kho (only Women)

Jimmy George Volleyball Tournament 2024

Introduction: The Jimmy George Tournament is a south India-level intercollegiate tournament for both men and women conducted annually by IIT Madras in the even semester.

Participants: This year the tournament was conducted from March 7-11, 2024, where a total of thirteen teams from different parts of Tamil Nadu participated. The following colleges participated in the Men's championship: IIT Madras, Loyola College, Sree Saraswathi Thyagaraja College (STC) Pollachi, Panimalar College of Engineering, Satyabhama University (SDAT), Jamal Mohammed College Trichy,

Guru Nanak College and Nazareth College.

The Women's tournament had five participants: IIT Madras, SRM University, Jeppiar University, Nazareth College and Ethiraj College.

Results: In the Men's section, STC Pollachi were the winners and Jamal Mohammed College were the arunners-up. In the Women's section, SRM were the champions while Ethiraj came in second position.

Esteemed Guests: The success of the tournament wouldn't have been possible without the support and guidance of its esteemed guests, including the Director of IIT Madras, Prof. V Kamakoti; Dean (Students), Prof. Sathyanarayana N Gummadi; Sports Advisor Prof. K Arul Prakash; and Sports Co-Advisor Prof. Shruti Dubey, among others.

GF & KR Basketball Tournament

The South India Inter Collegiate Invitation basketball tournament was conducted by IIT Madras from March 4-7, 2024, and had two trophies, the Gerhard Fischer (GF) cup for men and the Kokila Rajaiah (KR) cup for women.

Women

IIT Madras hosted the South India tournament, which saw a total of 6 women's teams, including MOP Vaishnav, Ethiraj College, Vels University, JIT, Hindustan University and IIT Madras.

Indu Pulukunta, a first-year team member from IITM, was awarded the title of 'Most Promising Player'.

Men

For the men's category, 8 teams participated in the tournament, which was conducted successfully in a league-cum-knockout format. The latest BFI rules were followed in this tournament. All teams put up a wonderful show for this tournament.

The prize distribution ceremony was graced by the IITM Director, Dean (Students), Advisor (Sports), Co-Advisor (Sports), sports officers, and gymkhana staff, who honoured the players (men's and women's).

Results

Place	Men's Group	Women's Group	Cash Prize
1st	Madras Christian College	Hindustan University	Rs. 10000
2nd	SRM University	MOP Vaishnav College	Rs. 7500
3rd	Jeppiar Institute of Tech.	Vels University	Rs. 5000
4th	Jamal Mohamed college	Jeppiar Institute of Tech	Rs. 2500

Other Inter-Collegiate Tournaments

The Institute teams competed in various other local and national tournaments throughout the year across different sports. These tournaments went a long way in preparing the teams and honing their skills by giving them unparalleled exposure.

9.2.2. National Sports Organisation Programme (NSO)

- The NSO functions as per the Government of India's decision to improve sporting within institutes, with special reference to maintaining the fitness of students.
- Nearly 650 students from the 2023 batch were enrolled in the NSO programme which started in January 2024.
- 635 students from the 2022 batch completed their NSO programme in November 2023.
- New NSO programmes were introduced for girls—football, hockey, and cricket—which saw great participation, which will help in the future as and when these sports are included in the Inter IIT Sports Meet.
- The NSO programmes helped scout talent for the Inter IIT Sports Meet, which required an entirely new contingent to be formed after a gap of two years

9.2.3. Sports Organising Committee (SOC)**Vision & Mission**

- To ensure that the activities carried out by the SOC reach all the members of the General Student Body (GSB).
- To establish strong inter-team communications and more transparency in the functioning of SOC teams.
- To improve public awareness about the SOC.

Overview

The SOC teams and clubs have functioned well and have contributed a lot towards fulfilling our vision and mission.

9.3 Advisor, Inclusive Education

IIT Madras' Inclusive Education initiative seeks to nurture students with disabilities (SwD) such that they become professionally competent and personally independent, by enabling reasonable participation in curricular, co-curricular and extra-curricular activities in the IITM campus. IE activities start with the enrolment of new batches of students every semester. Students with disabilities are given a separate orientation and are called for accommodation interviews.

Type of Disability	Year						
	2018	2019	2020	2021	2022	2023	Total
Autism spectrum disorder					1	1	2
Cerebral palsy			1	1		1	3
Haemophilia					1		1
Hearing impairment		1	2	4	8	2	17
Leprosy cured					1		1
Locomotor	1		9	21	26	11	68
Low vision	1	1	6	5	9	16	38
Multiple disabilities				1			1
Muscular dystrophy				1			1
Neural problem				1		1	2
Sickle cell disease					1	1	2
Specific learning disabilities					1	1	2
Speech and language disability, specific learning disabilities					1	1	2
Grand Total	2	2	18	34	49	35	140

Training Programmes

A Faculty Sensitisation programme was conducted on January 9, 2024 in collaboration with the Teaching Learning Centre (TLC), IIT Madras. The target group was new faculty of IITM. The resource person was Ms. Neha Trivedi (Spandan, Mumbai).

Other Activities

- Website of IE launched in August 2023
- Digital boards on Institute buses have been installed
- E-cart for SwDs has begun operation
- Purchased Kibo (an assistive technology device for visually impaired)
- Unlocking New Possibilities for Accessibility and Learning, a training session on AI-based assistive technologies, was organised in the TLC on May 6, 2023.

9.4 National Cadet Corps (NCC)

Cadet Strength

(i). Cadet strength as on April 30, 2024:

Enrolment Year	Cadet Strength		Total
	Senior Division (SD) (Boys)	Senior Wing (SW) (Girls)	
2021	22	08	30
2022	83	17	100
2023	61	09	70
Grand Total	166	34	200

(ii) Training was conducted as per the NCC syllabus for all cadets of 2023, 2022 & 2021 batches. Cadets attended practical & theory classes on Physical Training, Arms Drill, Foot Drill, Tent Pitching and Range Firing Practice.

Independence Day & Republic Day Parades

One flight of SD/SW cadets participated in the Independence Day Parade (2023) held at IITM. One flight of SD/SW won the overall 1st place in the march past, and one cadet won the Best Turnout prize. Three flights of SD/SW cadets participated in the Republic Day Parade (2024) held at IITM. One flight of SD/SW won the overall 2nd place in the march past and one cadet won the Best Turnout prize.

Social Service Activities

All cadets participated in social service activities like Cleanliness Drive, Environment Awareness Rally, Yoga, Unity Run, World Awareness Day on Food Waste, Garbage Free India, G-20, Khadi Mahotsav and Cycle Rally conducted by the NCC Unit inside the IITM campus.

Range Firing/Skeet Shooting

- (i). A total of 33 and 45 cadets participated in range firing practice on March 12, 2023 and May 14, 2023 respectively held at Air Force Station Tambaram. All cadets achieved an above average grading. The cadets were also familiarised with the Virus SW 80 microlight aircraft and Air Force establishments.
- (ii). A total of 23 and 59 cadets participated in skeet shooting practice on May 28, 2023 and February 10, 2024, respectively held at Air Force Station Tambaram..

NCC Camp

- (i). A total of 05 NCC Cadets of this NCC Air Wing Unit successfully completed Annual Training Camp I, held at Air Force Station Tambaram from April 26, 2023 to May 5, 2023.
- (ii). A total of 13 NCC Cadets of this NCC Air Wing Unit successfully completed Annual Training Camp II held at Air Force Station Tambaram from June 21-30, 2023.
- (iii). A total of 13 NCC Cadets of this NCC Air Wing Unit successfully completed the Combined Annual Training Camp held at Air Force Station Tambaram from August 12-21, 2023.
- (iv). A total of 20 NCC Cadets of this NCC Air Wing Unit successfully completed the ATC-V/VSC Launch camp held at Air Force Station Tambaram from September 13-22, 2023.
- (v). During the camps, all the cadets were familiarised with the Virus SW 80 microlight aircraft and Air Traffic Control duties, and underwent Ground Defence Training, Range Firing Practice, Foot Drill, Arms Drill, Weapon Training, and Aeromodelling.
- (vi). One NCC Cadet of this NCC Air Wing Unit (Cadet Under Officer Piyush Sharma) successfully completed

the Air Force Attachment Camp at Air Force Station Hakimpet from December 18-31, 2023.

Group Commander's Commendation, Group HQ Chennai 'B'

- (i). Two NCC Cadets of this Air Wing Unit (Cadet Under Officer Banothu Sainath & Cadet Senior Under Officer Subhinay) of IIT M were awarded the Group Commander's Commendation on NCC Day, January 6, 2024.
- (ii). One Permanent Instructional Staff & one Civilian Clerk (Jagadeesh) of this Air Wing NCC Unit received a Certificate of Appreciation from Group Commander's Commendation on NCC Day, January 6, 2024.

Felicitations of ANO, PI Staff And Cadets by DDG TN, P & AN NCC Dte:-

- (i). Two NCC Cadets of this Air Wing NCC (Flight Cadet Badavath Shyamala & Cadet Sergeant Norboos Tsering) of IIT M are awarded a Commendation from the Deputy Director General, NCC Directorate (Tamil Nadu, Puducherry & Andaman Nicobar) on March 21, 2024.
- (ii). Care Taker Officer R Deepan & two Permanent Instructional Staff of this Air Wing NCC Unit were awarded a commendation from the Deputy Director General, NCC Directorate (TN, P & AN) on March 21, 2024.

NCC 'B' & 'C' Certificate Exams

Year 2023:

- (i) A total of 30 cadets (22 from the SD and 8 from the SW) appeared for the 'B' Certificate exam at Air Force Station Tambaram, all of whom successfully cleared it.
- (ii) A total of 09 Cadets (7 from the SD and 2 from the SW) appeared for the 'C' Certificate exam at Air Force Station Tambaram, all of whom successfully cleared it.

Year 2024:

- (i) A total of 37 Cadets (30 from the SD and 7 from the SW) appeared for the 'B' Certificate Exam 2024 at Air Force Station Tambaram.
- (ii) A total of 09 Cadets (6 from the SD and 3 from the SW) appeared for the 'C' Certificate Exam 2024 at Air Force Station Tambaram and Anna University.

Visit of Commodore Atul Kumar Rastogi, Deputy Director General (TN, P & AN)

Commodore Atul Kumar Rastogi, Deputy Director General (TN, P & AN) of NCC and Group Captain PG Prabhu, Group Commander, HQ Chennai 'B' visited this unit on April 20, 24 and had interactive sessions with NCC cadets.

9.5 National Service Scheme (NSS)

NSS Projects Overview

1. Shiksha Prayas

Shiksha Prayas IITM endeavours to bridge educational disparities by enlisting approximately 30 dedicated student mentors to guide and support around 60 underprivileged students from Haryana. Volunteering Commitment: 3-4 hours per week

2. Eco Champs

Eco Champs is an immersive, multi-month program designed to cultivate environmental stewardship among students. Through interactive workshops, field trips, and hands-on projects, participants are empowered to embrace sustainable practices and become advocates for positive environmental change in their communities. Volunteering Commitment: 2 days per month (alternate weeks between Monday-Saturday for 5 months, including 3 hours per day with travel time)

3. Young Scientist

The Young Scientist program is dedicated to nurturing curiosity and scientific inquiry among students while raising awareness about the urgent need to address climate change. Volunteering Commitment: 1 day per month (between Monday-Saturday, 2 hours)

4. NMMS Program

The NMMS Program is committed to providing educational opportunities for underprivileged 8th standard students through the National Means-Cum-Merit Scholarship scheme. Volunteering Commitment: 2 hours per week for 3 months

5. Science Popularization

Science Popularization aims to make science accessible and engaging for all by producing informative and entertaining videos that demystify complex scientific concepts. Volunteering Commitment: 1-2 hours per week

6. Sampark

Sampark is a community outreach initiative that seeks to empower rural students through educational workshops and skill-building sessions. Volunteering Commitment: Once in a month

7. Scribing for Blind

Scribing for Blind is a compassionate endeavour to provide writing assistance to individuals with visual impairments. Volunteering Commitment: 2-3 hours per month

8. Audiobook Development

Audiobook Development is dedicated to creating accessible and engaging audio content for individuals with visual or learning impairments. Volunteering Commitment: As needed

9. NSS Website Content

NSS Website Content aims to amplify the voices and experiences of volunteers through engaging and informative online content. Volunteers contribute articles, blogs, and posters. Volunteering Commitment: As needed

10. Content Translation

Content Translation strives to make educational materials and information accessible to diverse audiences by providing translation services. Volunteering Commitment: As needed

Events Conducted:

1. Dengue Awareness and Cleaning Drive Campaign:

- Date: August 18-20, 2023
- Location: IIT Madras Campus
- Number of NSS volunteers who participated in the event: 160

2. Beach Cleaning Drive:

- Date: September 16, 2023
- Location: Edward Elliot's Beach.
- Number of NSS volunteers who participated in the event: 66.

3. Protection of Children from Sexual Offences Act (POCSO) Awareness Seminar:

- Date: October 14, 2023
- Location: 3rd Floor (Media Research Centre or MRC), Central Library
- Number of NSS volunteers who participated in the event: 190.

4. Sports 4 All:

- Date: October 28-29, 2023
- Location: IIT Madras Campus
- Event Credits: 4 credits for each day
- Number of NSS volunteers who participated in the event: 50

5. Collection Drive in Collaboration with DMC (Disaster Management Committee):

- Date: October 29, 2023.
- Location: IIT Madras Campus
- Number of NSS volunteers who participated in the event: 60

6. ERDC Closing Ceremony:

- Date: January 19, 2024
- Location: Student Activities Centre (SAC), IIT Madras Campus
- Number of NSS volunteers who participated in the event: 149

7. Campus Cleaning Drive in Collaboration with DMC:

- Date: January 20, 2024
- Location: IIT Madras Campus
- Number of NSS volunteers who participated in the event: 138

8. CRY Walkathon:

- Date: January 21, 2024.
- Location: Edward Elliot's Beach.
- Number of NSS volunteers who participated in the event: 80

9. Collection Drive:

- Date: February 25, 2024
- Location: IIT Madras Campus
- Number of NSS volunteers who participated in the event: 57

10. Vana Vani School Tech Exhibition evaluation (for 2020 batch students):

- Date: March 2, 2024
- Location: Vana Vani School, IIT Madras Campus
- Event Credits: 5 Credits
- Number of NSS volunteers who participated in the event: 18
- The credits for all the NSS volunteers who participated in the event have been updated in the NSS attendance sheet on March 15, 2024.

11. Institute Open House:

- Date: March 2-3, 2024
- Location: IIT Madras Campus
- Number of NSS volunteers who participated in the event: 140

12. Earth Hour Observation in collaboration with World Wildlife Fund (WWF) India:

- Date: March 23, 2024
- Location: IIT Madras Campus

13. 41st Endowment Lecture of IITM and The Employers' Federation of Southern India:

- Date: March 28, 2024.
- Location: Central Lecture Theatre (CLT), IIT Madras Campus.
- Number of NSS volunteers who participated in the event: 156

9.6 Wellness & General Activities**MiTR****Introduction:**

MiTR is an organisation affiliated with the Indian Institute of Technology Madras (IITM) which is committed to promoting a culture of mental wellness and providing essential support to students. MiTR has a range of student and faculty members from all the departments. Through collaborative efforts with the stakeholders, MiTR organises a wide range of events and initiatives to enhance mental health awareness and promote psychosocial well-being on campus.

Highlights of Special Events

- World Suicide Prevention Day Celebration: On September 10, 2023, MiTR partnered with the Wellness Centre to organise a commemorative event at the Student Activities Centre (SAC). The event was themed 'Creating Hope through Action'.
- Mental Wellness Awareness Month: In October, MiTR launched its flagship program, Mental Wellness Awareness Month, coinciding with World Mental Health Day.

Key Initiatives

- A brochure detailing the IITM Student Wellness

Community was created and distributed among freshers.

- Training and Support programmes: MiTR conducted a six-day barefoot training program for the team to equip them with essential skills for providing psychosocial support. Support groups such as Inclusive Education Connect and ESN (Extension Students Network) were established to assist students with specific needs.
- Outreach and Engagement: MiTR engaged in outreach efforts, collaborating on Pride Month Instagram posts and organising events such as drama performances and movie screenings.
- Research Scholar Support: Sessions with mental health professionals addressed the specific needs of research scholars.
- Feedback on Wellness Structure: A Google form gathered feedback on existing wellness facilities and to address the concerns of the students.

Events and Workshops

- **Drama:** 'Every Brilliant Thing': Explored the impact of parental mental illness and genetics on mental health, followed by an informal discussion with a psychiatrist.

- PG Freshers' Immersion Programme: Introduced MiTR and Wellness Centre resources to new postgraduate students.
- Script Writing Competition: 'Decrypt a Script': Encouraged the creation of mental health awareness videos in multiple languages.
- Movie Screening: 'Are You There God? It's Me, Margaret': Addressed the complexities of adolescence and self-identity.
- Emotional First-Aid Workshop on Suicide Prevention: Provided gatekeeper training to MiTR coordinators.
- Department Wellness Circles: Facilitated open dialogues about mental health concerns within specific departments.
- Mindfulness Games: Promoted mental well-being during freshie orientation programs.
- A workshop on understanding and identifying signs of worrying, stress and anxiety, physical and emotional techniques for managing cognitive, physical and emotional symptoms of anxiety relaxation techniques: Breath watching and grounding technique.
- Self-love fiesta workshop: Discover your worth, embrace authenticity, create positive affirmations, and foster a growth mindset.

Saathi

Under Saathi the online and offline programs conducted were:

- PG Insti Immersion Program
- UG Insti Immersion Program
- Stress Management Workshop
- Student Mentorship Cell
- Acad Buddy
- Sanskriti: The Ethnic Day

9.7. Co-Curricular Sphere 2023-24

Shaastra

Shaastra, our beacon of innovation, dazzled from January 3-7, 2024, with luminaries gracing our stages like the Hon'ble Former President of India, Shri Ram Nath Kovind, alongside Dr. Kiran Bedi, Dr. Deepak Dhar, and the Hon'ble Minister of IT & Digital Services of Tamil Nadu, Thiru. Palanivel Thiaga Rajan. It was a spectacle of knowledge and vision. Our events, from the poignant 'Forget Me Not' campaign addressing dementia to the cutting-edge 'Encryptcon' cybersecurity conference, showcased our commitment to societal progress. 'Emulate', India's pioneering student-run initiative for biomimetic solutions, and the Ethical Tech Summit illuminated pathways for ethical innovation. With a generous giveaway of INR 22 lakh in prize money and significant donations for social causes, Shaastra exemplified excellence and empathy.

Pragati

Pragati is a new initiative that guides and supports the Institute's students in their preparations for academic and competitive examinations such as the Union Public Service Commission-Civil Services Examination (UPSC-CSE), Indian Engineering Services (IES) exam, etc.

Extra Mural Lectures (EML)

In their 2023-24 tenure, the Extra Mural Lectures team saw enormous growth and emerged as one of the most prominent and prestigious teams in the Institute.

During this tenure, the Extra Mural Lectures (EML) team orchestrated a remarkable total of 14 events, comprising a diverse range of engaging formats including Fireside Chats, Prominent Personality Lectures, Vernacular Lectures, and a Panel Discussion. It attracted esteemed guests from both national and international echelons, including prominent figures such as the Chairman of ISRO, the Chief of Defence Staff of India, the Managing Director of the World Bank, a former Governor of the RBI, as well as distinguished historians and diplomats. Some of the prominent speakers include Dr. C. Rangarajan, former RBI Governor; Dr. Prakash Baba Amte and Dr. Mandakini Amte, Social welfare and wildlife and tribal life conservation workers; Mrs. Atishi Marleena, Education minister of Delhi; Dr. Manu S Pillai, Historian; Dr. S. Somnath, Chairman of Indian Space Research Organisation (ISRO); and Gen. Anil Chauhan, Chief of Defence Staff, Indian Army, to mention some.

Institute Open House

The Institute Open House, orchestrated by Shaastra, was a triumph of intellect and engagement. Drawing 30K enthusiasts from diverse backgrounds, it showcased IIT Madras's transformative work through 90 laboratories and 44 stalls, brimming with innovation and discovery. The 76 student-made projects at the Centre for Innovation were noteworthy, a testament to our creative prowess.

CFI

The Centre for Innovation (CFI), the epicentre of innovation, has achieved unparalleled success in AI, robotics, and technology. CFI's impact reverberates across disciplines, from winning Convolv 2023 to securing patents and accolades globally. Like Anveshak and iGEM, their initiatives demonstrate their dedication to pushing boundaries and creating solutions that redefine the technological landscape.

E-Cell

Through meticulously curated events like Entrepreneurship in College and the transformative Startup Series, the Entrepreneurship Cell (E-Cell) connected over 300 participants with industry stalwarts, nurturing 14 startups in its cohort. The inclusive spirit of E-Cell, exemplified by programs like E-Buddy and Chai with TITANS, has created a dynamic platform where diverse voices thrive and innovative ideas flourish.

Inter IIT Tech Meet 12.0

The 12th edition of the Inter IIT Tech Meet was held at the IIT Madras campus between December 19-22, 2023. The event witnessed participation from 20 IITs and nearly 1700 students contributed to their IITs' performances in the event, sustaining efforts into solving real world technological problem statements over a period of 2 months. During the final 4 days, over 1100 students were hosted at the IIT Madras campus. The competitions covered a range of domains like artificial intelligence, cybersecurity and quantum computing, with problem statements offered up by industry leaders such as WorldQuant,

DevRev and Adobe.

The Tech Meet was won comprehensively by IIT Kharagpur, who claimed a gold medal in 6 out of the 13 competitive events, while Roorkee and Bombay completed the podium. IIT Madras' own team placed 9th overall, securing 1 silver and 2 bronze medals.

TechSoc

TechSoc, the bastion of tech culture, orchestrated a symphony of innovation and collaboration. From hackathons to workshops, their events team forged partnerships with industry giants, nurturing a culture of hands-on learning and product development.

Nirmaan

Nirmaan, the crucible of groundbreaking startups, has rewritten the playbook of success. Notable achievements include Clueso's selection for Y Combinator's prestigious cohort, Tan 90's substantial funding, and Modulus Housing's impactful projects across Bihar. With programs like Pratham and Akshar nurturing over 100 teams, including a significant percentage of women-led startups, Nirmaan has become a beacon of entrepreneurial excellence.

9.8. Institute Sports**Inter IIT Sports Meet 2023**

The 56th Inter IIT Sports Meet was held in IIT Gandhinagar and IIT Bombay in 2023. The Aquatics Meet was held in Gandhinagar from October 4-8, 2023 and the main meets were held in Bombay from December 9-14 and in Gandhinagar from December 15-22, 2023. The IIT Madras Aquatics Contingent performed exceptionally well, securing the gold medal in Water Polo for the second consecutive time. Arnav Goel was adjudged the best striker of the tournament. In swimming, we finished fourth in the men's championship with 1 gold, 3 silver and 3 bronze medals and fifth in the women's championship with 1 bronze medal.

- Gold in men's volleyball. Alphen Kriston was adjudged the best player overall.
- Gold in table tennis (men's and women's). Nishant Vasan and Marie Lofontaine were adjudged the best players in the men's and women's categories respectively.
- Gold in women's basketball. Saga Biju was adjudged the best player overall.
- Bronze in hockey.
- Bronze in women's badminton.
- Bronze in women's volleyball.
- Fourth overall in weightlifting. Aryan Kumar won the silver in U-62, Eugene won gold in the 77+ category, and Prithviraj placed fourth in the U-56

category.

- Third in the march past.

In Gandhinagar, we continued our excellent performance and won the following:

- Silver in women's tennis.
- Bronze in men's tennis.
- Bronze in football. Pulin was the highest goal-scorer.
- Bronze in chess.
- Fourth place in cricket. Aditya Vikram was the highest run-getter.
- Fourth place in men's athletics.

At the end of the sports meet, a total of 5 gold medals, 1 silver medal, 6 bronze medals and 4 fourth-place wins gave the IIT Madras team a total of 98.5 points, ending up making them the first in the overall standings.

We won the Overall General Championship for the first time after 2011, breaking a trophy drought of 12 years. We also won the Women's General Championship and came 2nd in the Men's General Championship.

The athletes were given a heroes' welcome back to Chennai when the Director, Dean (Students), Dean (Planning), Advisor (Sports) and Co-Advisor (Sports) received them at the Chennai Central railway station platform.

9.9. Research Affairs

The Research Affairs Secretary (RAS) and the Research Affairs Secretary Council (RAS Council) serve as integral components of the academic framework at IIT Madras, representing the voices and interests of M.S. and Ph.D. scholars.

The roles and responsibilities of the RAS include: Representing Student Views, Coordinating Between

Departments, Overseeing Centralised Facilities, Membership in Committees, Promoting Research Collaborations, and Familiarity with Institute Rules.

Additionally, the RAS Council comprises 7 teams, each catering to various aspects and requirements of scholars' life on campus.

9.10. Hostel Affairs

Committee for Monitoring General Facilities for Students (CMGFS):

- Tendering for Himalaya Food Court: A formal tender process awarded to M/s Isthara Pvt. Ltd., leading to the operation of 8 shops, enhancing dining options from 8 am to midnight.
- Food Trucks: Introduced 2 food trucks behind TGH operating from 9 pm to 5 am, providing convenient late-night dining options.
- Extension of Scheduled Contracts: Extended contracts for popular vendors like Zaitoon and Prime Mart based on performance reviews and student feedback, ensuring consistent quality.
- Food Safety Audits: Conducted regular food safety audits and health monitoring to maintain high standards of hygiene and safety in all food services.
- Vendor Meetings: Held bi-monthly meetings with vendors to address operational difficulties and infrastructure issues, fostering collaboration for continuous improvement.

Mess Monitoring and Controlling Committee (MMCC)

- Introduction of Non-Veg Menu in Mess Halls: Expanded meal options to include non-vegetarian dishes, catering to diverse dietary preferences and improving student satisfaction.
- Expansion of Veg Mess Halls: Increased the number of vegetarian mess halls, accommodating dietary preferences of a significant portion of the student population.
- Online Sick Food Delivery: Implemented a convenient online delivery system and special menu to ensure sick students' nutritional needs are met.
- Inspection Checklist and Workshops: Ensured high standards of food safety and hygiene with rigorous inspection checklists and detailed training workshops for volunteers.

- Extended Mess Timings: Accommodated varied student schedules by extending breakfast hours, enhancing overall satisfaction.
- Increased Dining Options: Introduced 5 new caterers through a tender process giving students more dining options.

Sustainability Committee:

- EcoSpark (September 9, 2023): Fostered a culture of sustainability through interactive activities, promoting eco-friendly practices and environmental awareness.
- Beach Cleaning Drive (September 16, 2023): Mobilised over 120 students to clean Elliot's Beach, demonstrating commitment to environmental stewardship and community engagement.
- World Sustainability Day (October 26, 2023): Inspired students with insights from notable figures, highlighting ongoing sustainability initiatives and encouraging active participation.
- Tech Hackathon (October 30, 2023): Empowered students to develop sustainable engineering solutions through insights on the evolution of engineering tools and their environmental impact.
- World Food Day (October 16, 2023): Educated students on sustainable food choices and waste reduction through diverse food stalls, promoting environmental responsibility.
- Organic Farm Visit: Enriched students' understanding of sustainable agriculture with hands-on learning experiences at Akshayakalpa Organic Farm, focusing on organic farming, biogas production, and eco-friendly practices.
- World Wildlife Day: Raised awareness about wildlife conservation through an insightful talk and creative competitions, emphasizing the importance of preserving flora and fauna.

9.11. Institute Cultural Events

In the vibrant tapestry of our academic journey, the past year unfurled as a masterpiece of cultural enrichment, resonating with the harmonious hues of creativity and camaraderie.

Saarang

This landmark year also marked the golden jubilee celebration of our beloved cultural festival, Saarang, tracing its roots back to its humble beginnings as Mardi Gras in 1974. Saarang was held successfully from January 10-14, 2024. The festival, which was organized by a student team, witnessed 9000 students participating in 100+ events. The Professional Shows had performances by Taraana, Sikkil Gurucharan, RJD, Thaikkudam Bridge, Holy C, Matisse & Sadko, and Farhan Akhtar, along with five World Fest acts by international artists. The Classical Night also featured for the first time ever a showcase of Tamil Nadu's folk and tribal art performances from our state's rich culture and heritage. Saarang's grandeur captivated hearts and minds alike, culminating in record-breaking footfalls of 70000+ and revenue of INR 1.5 crore, reaffirming its stature as India's premier student-run festival. RJ Balaji, Manoj Bajpayee, Usha Uthup and Sidharth were some of the major attractions in the Spotlight lecture series lineup. Three Nova fests—Incredible India, Fandom Fest, and Time Trek—were conducted, gathering huge participation and interest.

Contingent and Inter IIT Cultural Meet

The Cultural Contingent participated as a whole in fests including Spandan, Festember, Mood Indigo, Inter IIT Cultural Meet, and Saarang and have won at the highest number of offline and online tournaments

so far, with our quizzers finishing second at Nihilanth, the annual Inter IIT-IIM Quiz Tournament and our Stage play winning at both Festember and Riviera, just to name a few. Additionally, the Choreo contingent won the Group Dance event at Choreo Nite, Saarang and the Fashion contingent bagged the first place in the Fashion Shows at Saarang and Festember.

Sangam and LitSoc

This year witnessed an unprecedented scale of events, notably the inaugural Parliamentary Debate which marked a significant milestone in our cultural calendar. Sangam events also included LitSoc, the inter-hostel cultural showdown; prom; Nova artist performances; and many more. Moreover, Sangam also celebrated inclusivity and empowering underprivileged and differently abled youth and artists by hosting 'Aavaa Dingi', an International Inclusive Music & Dance Festival, fostering a spirit of unity and diversity.

NCA

The National Cultural Academy (NCA) provides an interesting and exciting opportunity to first-year students to pursue their passions in a variety of cultural courses offered under its umbrella. Currently, the following courses offered are: Guitar, Keyboard, Western Vocals, Carnatic Vocals, Film-Making, Bharatnatyam, Western Dance, Contemporary Dance, Fine Arts, Dramatics, and Design.

9.12. Student Ethics and Constitution Commission & Student Election Commission

Being the quasi-judicial body of the Student Government Structure of IIT Madras, the Student Ethics and Constitution Commission (SECC) undertook multiple initiatives to ensure that the organisation changes with the changing times. Simultaneously, there has been an unprecedented increase in the number of cases that students have been filing with the SECC to safeguard their constitutionally guaranteed rights.

Student Election Commission, IIT Madras

The Student Election Commission (SEC) aims to integrate technology into the everyday lifestyle of students, and believes that elections too have a lot of scope to use technology to make voting more simple, smooth and accessible. From remote voting to blockchain-based voting, the SEC has brought in the idea of mobile polling booths in the form of e-karts, which are not only significant in increasing voting turnout but have even encouraged students to come up with more state-of-the-art innovations and help IIT Madras reach 100% voter turnout.



Students' Placement

10.1 Introduction

IIT Madras has established a 'Career Pathway Centre' integrating Placement, Internship, Career Development Cell, and the Entrepreneurship Cell (E-Cell) of the institute into a single newly established body. This is aimed at providing students with a unified platform to explore diverse career pathways. This initiative is a pivotal step towards channelizing the various processes, providing students with comprehensive training, networking opportunities, and exposure to entrepreneurial ventures, leading to overall employability enhancement. Of the 2636 graduands, 1758 have decided to pursue employment opportunities in companies, 44 have

decided to start their own ventures providing employment to others, while 340 have chosen other career paths.

The placement activity for the academic year 2023-24 commenced with Pre-Placement Talks from September 4, 2023. The interview process happened in hybrid mode (both online and offline), beginning on December 1, 2023. A total of 388 companies registered with IITM for recruitment this year. Most of the companies were from core engineering, information technology (IT) and research and development (R&D) sectors. Additionally, companies from the analytics, finance, education, and consulting sectors recruited students.

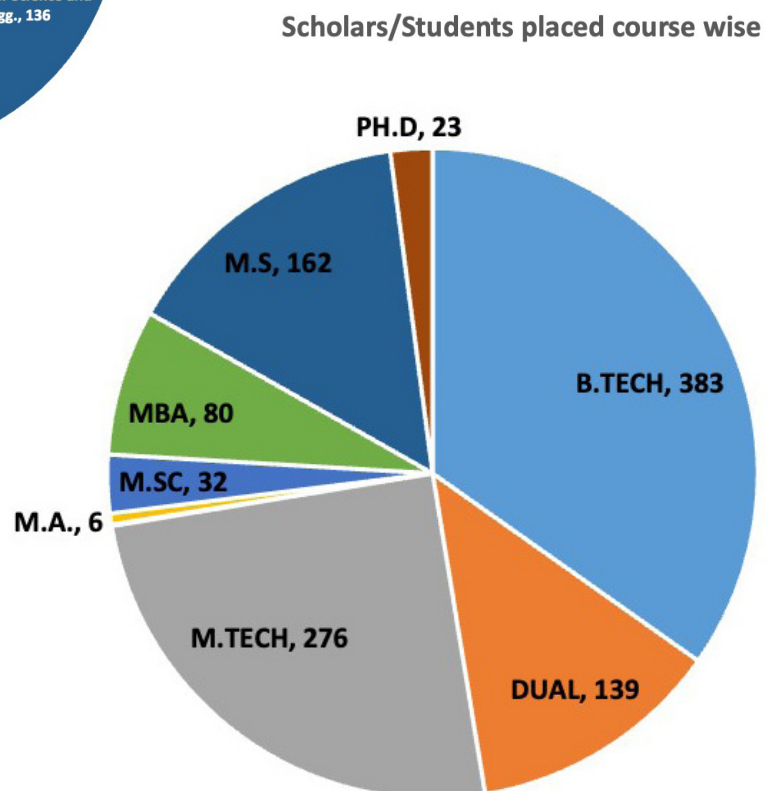
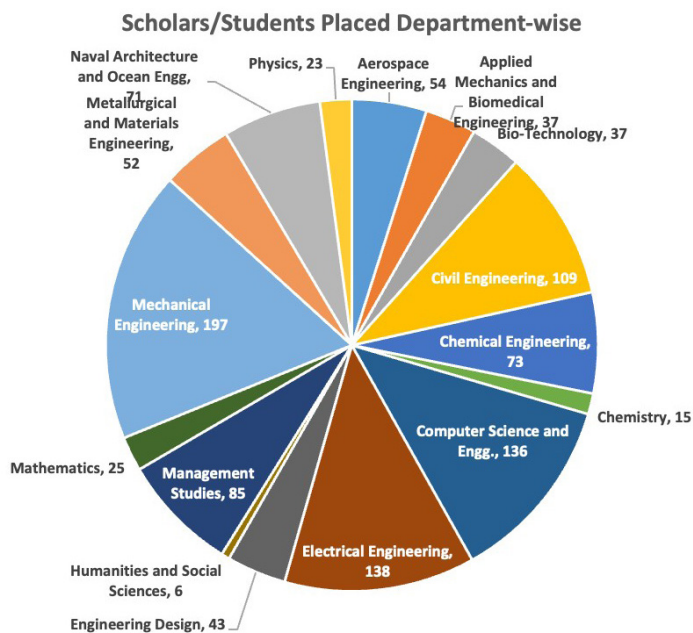
10.2. Details of Placements Across Departments

The number of students placed during 2023-24 is listed department-wise in the following table:

Students/Scholars Placed									
	B.Tech.	Dual Degree	M.Tech.	M.A.	M.Sc.	MBA	M.S.	Ph.D.	Total
Aerospace Engineering	24	8	11				9	2	54
Applied Mechanics and Biomedical Engineering	0		19				15	3	37
Biotechnology	0	33	4						37
Civil Engineering	57	10	33				8	1	109
Chemical Engineering	46	6	15				3	3	73
Chemistry	0				15				15
Computer Science and Engineering	47	1	77				11		136
Electrical Engineering	49	10	33				41	5	138

Engineering Design	0	34					9		43
Humanities and Social Sciences	0			6					6
Management Studies	0					80	4	1	85
Mathematics	0		16		9				25
Mechanical Engineering	92	23	29				46	7	197
Metallurgical and Materials Engineering	25	7	13				6	1	52
Ocean Engineering	34	3	24				10		71
Physics	9	4	2		8				23
	383	139	276	6	32	80	162	23	1101
Pre-placement offers									235
Total									1336

During the year, 1336 students/scholars were placed in various organisations.





Financial Assistance to Students

Financial assistance, in the form of scholarships and fellowships, is given to meritorious students who are pursuing engineering, technology and science education at the Institute. The details of scholarships and fellowships sanctioned to the students of different programmes during 2023-24 are given in this section.

Scheduled Caste (SC), Scheduled Tribe (ST) and Person with Disability (PWD) students admitted in all programs are exempted from paying tuition fees irrespective of their parental income.

11.1. Assistance to B.Tech./Dual Degree students

The details of scholarships awarded through the National Scholarship Portal are given below.

Table 11.1 (a)

S. No.	Scholarship	Number of Students
1.	National Fellowship Scheme for Higher Education of ST Students (Ministry of Tribal Affairs, Government of India)	Renewal: 94 Fresh sanction: 42
2.	Top-class Education Scheme for SC Students (Ministry of Social Justice, Government of India)	Renewal: 36 Fresh sanction: 43

b. MCM and SC/ST scholarships:

- Students with parental incomes less than INR 1 lakh are given tuition fee waiver.
- Students admitted to B.Tech./Dual Degree programmes and whose parental incomes are less than INR 4.5 lakh were sanctioned Merit cum Means (MCM) scholarships (of INR 1000 per month). During the period, 309 students were benefitted under the scheme (Table 11.1 (b)).
- Students whose parental incomes are between INR 1 lakh and INR 4.5 lakh are required to pay only INR 33,333 per semester (i.e., one third of the tuition fee of INR 1 lakh; the remaining amount is waived). These students are reimbursed the remaining tuition fees they paid, i.e., INR 66,666 per year, by the A&CR office through various donors. During 2023-24, 462 students benefitted from such alumni-funded scholarships.
- SC/ST students with parental incomes less than INR 4.5 lakh were given free messing, a pocket allowance of INR 250 per month, and exemptions from the payment of hostel seat rent. As on March 31, 2024, 68 students were benefitted under this (Table 11.1 (b)).

Table 11.1 (b)

Batch	MCM Scholarship	SC/ST Scholarship
2023	76	20
2022	138	22
2021	42	35
2020	100	10
2019	88	35
2018	106	26
Total	474	148

The top 7% of General category students admitted to the B.Tech./DD programme are eligible for a one-time Notional Prize of INR 1,000 and a Certificate of Merit based on their rank in the JEE (Advanced) and if their parents' income exceeds INR 4.5 lakh. In July 2023, 413 General category students were admitted to B.Tech./DD streams, and 29 students were eligible for the Notional Prize.

Alumni-funded scholarships are available to the highest-scoring students based on their academic performances, as proposed by the sponsoring alumni.

11.2. Other Scholarships

Scholarships were sanctioned by the National Council of Educational Research and Training (NCERT), the Government of India, and state governments to meritorious students pursuing a B.Tech. programme in IIT Madras.

Tamil Nadu Scholarship (B.Tech./DD/M.Tech.)

Scholarships awarded in 2023	Total Number of Students
TamilNadu Scholarship by Directorate of Backward class/ Directorate of Most Backward class	37

State Government Scholarships obtained by B.Tech/DD students

Scholarships awarded in 2023	Total Number of Students per Batch								Total
	2023	2022	2021	2020	2019	2018	2017	2016	
NCERT	17	19	19	24	17	8	8	4	99

11.3. Half-Time Teaching Assistantship (HTTA)

Students who joined the M.Tech. programme through the GATE were awarded a Half-Time Teaching Assistantship (HTTA) at INR 12,400 per month. During the period under report, 512 fresh assistantships and 1,324 renewed assistantships were given. The discipline-wise details of HTTAs are given below.

11.3.1 Number of HTTAs Awarded to M.Tech. Students

S. No.	Discipline	Fresh: 2023 Batch	Renewal: 2023 batch	Renewal: 2022 batch	
		I Semester	January-May 2024	July-November 2023	January-May 2024
1	Aerospace Engineering	17	16	17	16
2	Applied Mechanics	21	20	15	15
3	Applied Mechanics: Clinical Engineering	18	18	14	14

	Biotechnology	13	12	13	13
4	Chemical Engineering	41	37	34	23
5	Civil Engineering	64	61	61	46
6	Computer Science and Engineering	67	64	88	88
8	Electrical Engineering	76	72	65	54
9	Mathematics: Industrial Maths and Scientific Computing	24	23	22	22
10	Mechanical Engineering	97	94	59	40
11	Metallurgical and Materials Engineering	24	24	21	21
12	Ocean Engineering + Petroleum Engineering	41	38	34	26
13	Physics: Functional Materials and Nanotechnology	9	8	8	8
Total		512	487	451	386

11.3.2. Number of HTTAs awarded to Dual Degree (5th Year) Students

The 2019 batch students who joined the M.Tech. programme under Dual Degree were awarded HTTAs of INR 12,400 per month from July 25, 2023 onwards based on their obtaining a valid GATE score or securing a CGPA of 8.0 or above. During the period under review, 176 students were awarded fresh assistantships from July to December 2023, and 199 assistantships were renewed at the rate of INR 12,400 p.m. from January 1 to May 15, 2023. The department-wise details are given below.

S. No.	Discipline	2019 Batch	
		Fresh (Ninth Semester), July - November 2023	Renewal (Tenth Semester), Jan-May 2021
1	Aerospace Engineering	14	14
2	Biotechnology	28	35
3	Chemical Engineering	9	10
4	Civil Engineering	9	10
5	Computer Science and Engineering	3	3
6	Electrical Engineering	17	17
7	Engineering Design	35	44
8	Mechanical Engineering	34	36
9	Metallurgical and Materials Engineering	11	11
10	Naval Architecture and Ocean Engineering	6	7
11	Physics	5	5
Total		176	199

11.3.3 Number of HTTAs awarded to M.A. Students

The 2018 Batch students of the five-year Integrated M.A. programme were awarded HTTAs of INR 12,400 per month from July 1, 2023 onwards based on their obtaining a valid Gate score or securing a CGPA of 8.0 or above. 40 students were benefited during the year 2023-2024

Stream	Fresh (July-November 2023)	Renewal (January-May 2024)
Development Studies	24	24
English Studies	10	10
Total	34	34

11.4. M.Sc.

Students admitted to the M.Sc programme were sanctioned INR 1,000 per month under a merit scholarship. The students were also exempted from paying tuition fees. During the period under report, 104 students benefitted. The department-wise details are given below

Number of Merit Scholarships and Freeships Awarded

S. No.	Course	Merit Scholarship		Freeship (Tuition Fee Waiver)		(50% Tuition Fee Waiver)	
		1st Year	2nd Year	1st Year	2nd Year	1st Year	2nd Year
1.	Chemistry	10	17	4	7	-	-
2.	Mathematics	7	12	-	6	-	6
3.	Physics	11	14	4	6	-	-
Total		28	43	8	19	-	6

11.5. M.A.

Institute Merit Scholarship: Twenty-five per cent of the students admitted to the M.A. programme and whose parental incomes were less than INR 4.5 lakh were sanctioned Merit Scholarships (i.e., exempted from paying tuition fees of INR 3,000 per semester or INR 1,000 per month).

The SC/ST students admitted to the M.A. programme with parental incomes less than INR 4.5 lakh were sanctioned the concession of free messing, a pocket allowance of INR 250 per month, and exemptions from tuition fees and hostel seat rent. The batch-wise details of the number of students benefited are given below.

Batch	Merit Scholarship
2023	2
2022	1
2021	8
2020	8
2019	1
2018	2
2017	1
Total	23

Institute free studentship scholarships are available to M.A. students, which comprise an exemption from the payment of tuition fees.

11.6. M.S.

The scholars admitted to the M.S. programme through the GATE are given Half-Time Teaching Research Assistantships (HTRAs) of INR 12,400 per month for two years, extendable to a third year on the recommendation of the Graduate Test Committee (GTC). During the period under report, 240 scholars received these assistantships, of which 21 were fresh scholars. The department-wise details of the assistantships awarded and renewed are given below.

Number of HTRAs awarded

S. No.	Discipline	Fresh	Renewal	Total
1	Aerospace Engineering	3	22	25
2	Applied Mechanics	6	28	34
3	Biotechnology	-	6	6
4	Chemical Engineering	1	16	17
5	Civil Engineering	3	16	19
6	Computer Science and Engineering	1	14	15
7	Chemistry	-	1	1
8	Engineering Design	3	10	13
9	Electrical Engineering	1	29	30
10	Management Studies	-	11	11
11	Mechanical Engineering	1	45	46
12	Metallurgical and Materials Engineering	1	13	14
13	Ocean Engineering	1	8	9
Total		21	219	240

11.7. Ph.D.

The scholars admitted to full-time Ph.D. programmes in engineering are sanctioned Half-Time Teaching/Research Assistantship (HTRAs) of INR 31,000 per month for the first two years and INR 35,000 per month for the next three years. During the period under report, 1171 scholars obtained assistantships, of which 86 were fresh scholars. The department-wise details of the assistantships awarded and renewed are given below.

Number of HTRA awarded

S. No.	Discipline	Fresh	Renewal	Total
1	Aerospace Engineering	1	54	55
2	Applied Mechanics	10	94	104
3	Biotechnology	4	70	74
4	Chemical Engineering	9	62	71
5	Chemistry	4	58	62
6	Civil Engineering	9	125	134
7	Computer Science and Engineering	3	31	34
8	Engineering Design	5	45	50
9	Electrical Engineering	7	100	107
10	Humanities and Social Sciences	11	57	68

11	Management Studies	3	44	47
12	Mathematics	2	29	31
13	Mechanical Engineering	4	113	117
14	Medical Science & Technology	4	-	4
15	Metallurgical and Materials Engineering	6	54	60
16	Ocean Engineering	-	41	41
17	Physics	4	108	112
Total		86	1085	1171

A fellowship deemed to be equivalent to the Institute Pre-Doctoral Fellowship (except contingency) will be awarded for a maximum period of six months from the date of submission of the final synopsis with the thesis for regular Ph.D. scholars who have submitted their thesis within four and a half years and for direct/upgraded regular PhD scholars within five years. They will pursue work as defined for Institute Pre-Doctoral Fellows. During the year under report, 63 Ph.D. scholars were sanctioned Post-Doctoral Fellowships.

11.8 (a) Financial Assistance to Research Scholars for International Conferences

The Institute encourages research scholars to present papers in international conferences, for which they are given financial assistance. The financial assistance provided to M.S. and Ph.D. scholars is up to the limit of INR 1,50,000, including registration fees.

11.8 (b) Visits to National Conferences, Seminars, Symposia, Workshops, Other Laboratories, etc. Within India

Research scholars are given the following financial assistance for presentation of papers in national conferences in India:

Claim	Eligibility
Registration fees	As per actuals, with the recommendation by Doctoral Committee/Graduate Test Committee
Travel	II Tier AC Train fare
Local Travel (at Chennai and at the place of conference)	Four trips for the duration of the conference by auto/taxi/bus at actuals, subject to an upper limit of INR 500 per trip
Lodging	Hostel/guest house/hotel for conference days plus one day each prior to and after the conference days at actuals, subject to a ceiling of INR 1,000 per day
Per diem	INR 500 per day for conference days plus one day each prior to and after the conference days
Poster charges	Maximum amount of INR 1,500 per poster (with bill)



Weaker Section & Foreign National Students

12.1. B.Tech. & Dual Degree Programme

As per Government of India (GOI) orders, 27%, 15% and 7.5% of seats are reserved for Other Backward Class (OBC), Scheduled Caste (SC), and Scheduled Tribe (ST) students respectively in the B.Tech. & Dual Degree programmes. These students are admitted through the Joint Entrance Examination (Advanced)

with a relaxation. These students have to get a minimum of 60% of the marks obtained by the last student of the general category to get qualified for admission. During counselling prior to admission, an advisor will explain to each student the requirements of different branches. This helps the students to choose a suitable branch based upon their capability and interest.

Economically Weaker Section (EWS)

As per GOI orders, the 10% seat reservation for all programmes for EWS General category students has been followed for the academic year 2023-24.

The following are the details of number of SC/ST students admitted to B.Tech. and Dual Degree programmes through the JEE (Advanced) 2023-24.

Total Sanctioned Intake	Sanctioned Intake			No. of Students Joined			
				Programme	JEE		
	SC	ST	EWS		SC	ST	EWS
B.Tech.	144	73	95	B.Tech.	155	76	106
Dual Degree	14	7	9	Dual Degree	15	9	10

SC/ST students admitted against reservation are given the following benefits:

- Tuition fee waiver.
- Free lodging and messing (basic menu only) and a pocket allowance of INR 250 per month, provided their parents' income is INR 4,50,000 per annum or less.
- A Book Bank as part of Central Library is maintained for the benefit of the SC/ST students. The students are issued 12 tickets for taking books from the Book Bank. Books are issued for a semester.
- Help in getting placed: Wherever possible, industries are requested to conduct separate interviews for SC/ST students and the requirements for these students are lower than those for the general category.

12.2. Preparatory Course for Admission to B.Tech./Dual Degree Programme

A preparatory course of one academic year was initiated by the Ministry of Human Resource Development, Government of India, exclusively for SC/ST/PwD students. Selections for this course are made from the Joint Entrance Examination (Advanced) list of SC/ST/PwD students who did not qualify for admission. Students who successfully complete the preparatory course are eligible to join a B.Tech./Dual Degree programme, and are not required to write the JEE (Advanced) again. Following are the details of admission in July 2023 (IIT Madras, IIT Hyderabad, IIT Tirupathi, and IIT Palakkad):

Offers issued for Preparatory Candidates				
SC PD	ST	OBC PD	GE PD	EWS PD
Nil				

12.3 M.Tech, Programme

Seats are reserved for SC, ST and EWS candidates as per GOI orders. They are admitted through the Graduate Aptitude Test in Engineering (GATE) and by a separate merit list. Following are the details of admissions in July 2023:

Offers issued	No. joined (Half-Time Teaching Assistantship, HTTA)				
SC	ST	EWS	SC	ST	EWS
76	38	53	74	37	52

12.4. M.Sc. Programme

Admissions to the M.Sc. programme were granted through the Joint Admission test for Masters (JAM) only. 25 SC and 13 ST students were admitted to the M.Sc. programme. These students were given tuition fee waivers.

M.Tech. and M.Sc. students admitted against reservation are given the following benefits:

- Book Bank facility with 12 library tickets. Books are issued for a semester.
- Both public-sector and private-sector industries were requested to recruit SC and ST students.
- Other special steps were also taken to enhance the recruitment of this category of students.
- Scholarships are given to these students as per GOI norms.

12.5. Admission of Foreign National Students and Indian Nationals Residing Abroad

At the end of March 2023, 63 foreign nationals were on the rolls of the Institute. The programme- and country-wise details are given below:

Country	I Year	II Year	III Year	IV Year	V Year	Total
Foreign National Students						
B.Tech.						
USA			1			1
Dual Degree						
South Korea					1	1
M.Tech.						
Afghanistan		1				78
Angola		1				
Bangladesh	1	2				
Egypt		1				

Ethiopia	13	6				
Mauritius	2					
Mozambique		1				
Nepal	12	21				
Nigeria		1				
Sudan	1	2				
Syria	2					
Tanzania	11					
M.A.						
Bangladesh	1					12
Japanese	1					
Nepal	1					
Tanzania	9					
M.Sc.						
Nepal	1					4
Sri Lanka	1					
Tanzania	2					
Ph.D						
Afghanistan				1	1	13
Australia	1					
Ethopia	1	1			2	
France						
Malaysia		1				
Nepal	1				2	
Sudan						
Vietnam			1			
Tanzania	1					
M.S						
Afghanistan				1		11
Bangladesh		1				
Ethopia		1				
Ghana			1			
Kenya		2	2			
Liberia		1				
Syria		1				
Sudan		1				

In addition to the above, IIT Madras Alumni Association of North America (IITMAANA) provides financial assistance to students under the IITMAANA travel grant programme. This initiative was established to assist IITM students to visit the USA and present their papers at internationally recognised technical conferences. The grant covers airline ticket charges and visa fees but exclude payment of conference registration fees.



Campus Amenities

13.1. Engineering Unit

The Engineering Unit (EU) is entrusted with the responsibility of construction, maintenance of buildings, and operations and maintenance services of the Institute. The works are carried out through contract by calling for tenders and quotations in a transparent manner.

For maintaining quality in the construction of buildings, the advice of faculty members, who are experts in their respective areas, is sought. To complete the projects on time, the EU holds review meetings with the stakeholders periodically. The EU has also introduced new materials and technologies in construction and maintenance activities.

The status of works (completed, in progress and in the planning stage) are as follows:

13.1.1. Major Works Completed

S. No.	Description of Work	Value (in INR lakh)
Executed by Engineering Unit, IITM		
1.	<p>Percentage ceiling rate contract for addition & alteration, day-to-day carpentry and plumbing maintenance works in Academic, Residential and Hostel Zone buildings for the year 2023-24 (Sch - A Academic Zone).</p> <p>a) Face-lifting of Placement Office b) Creation of 24x7 Reading Hall at Library c) Wellness Centre at first floor of Dean (Students) office d) Tenet lab at ESB e) Creation of executive classroom at Department of Management Studies (DoMS) room nos. 401 & 402 f) Physics Hybrid Seminar Hall at room no. 209 g) Renovation and creation of faculty rooms and toilets at Building Sciences Block (BSB) h) Construction of common toilets near SBI and Vana Vani School i) Renovation of Security Office, Admin 1st, 2nd and 4th floor j) Creation of dancing fountain at GC k) Creation of 22 faculty rooms in Aerospace department l) External development works at NAC2 m) Creation of 3D printing Facility at Central Skill Training & Fabrication Facility (CSTF) premises</p>	383.00

2.	Conversion and enhancing the capacity of main panels, conversion into modular switchboards for students' rooms in Brahmaputra, Godavari, Narmada, Saraswati and Tapti Hostels in IIT Madras	231.86
3.	Shifting of 50 kWp (peak kilowatt) solar power plant from Aerospace Building to ESB Building and servicing of solar power plants at IIT Madras	35.44
4.	Providing rising main and bus bar trunking in HSB Building inside IITM premises	190.92
5.	Providing rising main and bus bar trunking / cable trays / CMS for OED, MDS and Aerospace buildings in IIT Madras premises	159.76
6.	Replacement of existing DG set with SITC of new 500kVA DG set at IC&SR substation inside IIT Madras premises	37.69
7.	Supply and installation of 4 × 1.5 TR Split AC for metal 3D printers at CSTF in IIT Madras	2.09
8.	Provision of ventilation system for kitchen at Cauvery hostel	10.66
9.	Provision for MBA classroom at DoMS 401 in IIT Madras	11.54
10.	Percentage ceiling rate contract for addition & alteration, day to day carpentry and plumbing maintenance works in academic, residential and hostel zone buildings for the year 2023-24 (Sch - B Residential Zone). B- to G-type vacant quarters' renovation works. Day-to-day maintenance works (up to March 2024)	603.00
Executed by Engineering Unit Utilising Institute of Eminence (IoE) funds		
1	Construction of new building (G+1 floor) for Cryo Facility at IIT Madras	524.00
2	Construction of building for centralised chilled water air-centralised system with substation G+1 at three locations near Multiscale Mechanics Lab (MML Lab), Computer Centre & Electrical Sciences Block (ESB) by demolishing the existing two substations and cycle stand in IIT Madras	538.95
Executed by Engineering Unit under the Higher Education Financing Agency (HEFA)		
1.	Re-carpeting of minor roads at IIT Madras	689.78

13.1.2. Major Works in Progress

Executed by Engineering Unit, IITM		
1	Construction of an additional floor above the front wing, creation of new staircase, lift shaft and toilets by dismantling the existing toilet and Chief Medical Officer (CMO)'s room, face-lifting of the existing facilities at IITM Institute Hospital building -SH- replacing the existing flooring & wall tiles, construction of new block on the terrace, toilet block, staircase, lift shaft etc.	317.52
2	Waterproofing works and other related civil repair works in Academic Zone buildings at IIT Madras for the year 2023-24	323.00
3	Construction of A-type quarters at IIT Madras	527.00
4	Supply of drinking water including design, building, operation and transfer of water treatment units (RO plants with hot & cold water dispensers) in Academic Zone buildings at IIT Madras campus	49.00
5	Construction of a new compound wall, raising the height of the existing compound wall, and demolition of the existing compound wall along Sardar Patel road near the main gate of IIT Madras campus	40.00

6	Supplying and fixing of fibreglass composite perforated cover over the existing storm water drain at Manohar C Watsa Stadium, Computer Science Block (CSB), Shankar Subramaniam Block (SSB), and Mechanical Sciences Block (MSB) building in IITM campus	64.00
7	Construction of lift shaft at the National Centre for Catalysis Research (NCCR) in IIT Madras campus.	23.13
8	Creation of an Archive Facility at the stilt floor in New Academic Complex (NAC) I (civil, electrical, precision air handling unit (AHU) & fan coil units (FCUs), CCTV, fire alarm etc.)	112.88
9	Replacement of existing ceiling fans with energy-efficient brushless direct current (BLDC) fans & other electrical rectification works in various hostels at IIT Madras	107.50
10	Supply, installation, testing and commissioning of various capacity solar grid tie inverters at IIT Madras	33.90
11	Electrical infrastructure works at various hostels at IIT Madras: Providing electrification of geysers and floodlighting for playing fields of various hostels at IIT Madras	77.75
12	Provision of electrical supply to plant proposed to be installed at 9 hostels at IIT Madras	11.32
13	Electrical works for solar power plants in various buildings at IIT Madras	31.43
14	SITC of 2000kVA 11kV/433V distribution transformer and allied HT/LT works in NAC II substation inside IIT Madras campus	74.29
15	Providing 500kVA DG set for CSD Building (5G Lab) inside IIT Madras premises	51.70
16	Special repair works: Waterproofing and other related civil repair works in Academic Zone, Residential Zone and Hostel Zone buildings at IIT Madras for the year 2022-23 on a percentage rate basis (Subheading B: Acrylic/PVC membrane)	76.18
17	Special repair works: Waterproofing and other related civil repair works in Academic Zone, Residential Zone and Hostel Zone buildings at IIT Madras for the year 2022-23 on a percentage rate basis (Subheading B: PU & hybrid PU System)	112.17
18	Percentage contract for civil and electrical additional and alteration works in Academic Zone, civil and electrical addition & alternation works, day-to-day maintenance works in Residential and Hostel Zone buildings, water supply and sewerage works, maintenance of power mains starters for motor pump sets and routine maintenance of EPABX Telephone lines in IITM campus for the year 2024-25 (Subheading B: Residential Zone civil works)	627.85
19	Percentage contract for additional and alteration works, carpentry and plumbing day-to-day maintenance works in Academic, Hostel & Residential Zones for the year 2023-24 (Subheading B: Residential Zone)	122.00
Executed by Engineering Unit Utilising IoE funds		
1	Construction of a new building (G+1 floor) for Cryo Facility at IIT Madras	524.00
2	Construction of a building for centralised chilled water air-centralised system with substation (G+1 floor) at three locations near MML Lab, Computer Centre & ESB buildings by demolishing the existing two substations & cycle stand in IIT Madras campus	538.95
3.	(i) Providing 2000kVA, 11kV /433V distribution transformers at MSB, ESB and BSB substations for power supply to the district cooling new chillers and associated equipment (ii) Shifting and re-erection of existing distribution transformers and substation equipment to various locations and allied HT/LT works inside IIT Madras premises	463.44
4.	Provision of AC Facility to ground and first floors of Campus Café in IIT Madras	63.66

5.	Provision of centralised chilled water systems to Academic buildings in IIT Madras (Subheading: Provision of low side equipment & air distribution with BMS to 9 Academic buildings)	3950.88
6.	Provision of centralised chilled water systems to Academic Zone buildings in IIT Madras (Subheading: Provision of chillers, pumps, cooling towers and piping works in trenches)	4927.98
Executed by Engineering Unit under the Higher Education Financing Agency (HEFA)		
1.	Re-carpeting of minor roads at IIT Madras.	689.78
2.	Provision of AC facility to Main Hall and Dining Hall of Community Hall in IIT Madras	43.89
Executed by the Central Public Works Department (CPWD) under Higher Education Financing Agency (HEFA)		
1.	Construction of New Academic Complex II at IIT Madras	18770.00
2.	Construction of Academic Research Block (G+2 Floors) with a food court at IIT Madras Discovery Campus at Thaiyur 'B' Village, Chengalpattu District	3733.00
3.	Construction of utility and common services at IIT Madras Discovery Campus at Thaiyur 'B' Village, Chengalpattu District	3447.00
Executed by CPWD Under Funds From 'OH-35 Towards Infrastructure Development Due to Implementation of EWS Reservation'		
1.	Construction of hostel block (G+4 floors) at IIT Madras Discovery Campus at Thaiyur 'B' Village, Chengalpattu District (INR 1877 lakh from OH-35 and INR 128 lakh from IoE funds)	2005.00
2.	Construction of utility and common services at IIT Madras Discovery Campus at Thaiyur 'B' Village, Chengalpattu District	741.00
3.	External & internal painting of Hostel Zone buildings at IIT Madras for the year 2023-25 (Subheading: Krishna, Sharavathi, Saraswathi, Godavari, Narmada, Ganga, Jamuna, Tapti, Alakananda, Narmada, Brahmaputra, Tunga, Bhadra and Sabarmati hostels; Chairman, Council of Wardens (CCW) building; Himalaya and Vindhya messes)	202.84
4.	External & internal painting of Hostel Zone buildings at IIT Madras for the year 2023-25 (Subheading: Krishna, Sharavathi, Saraswathi, Godavari, Narmada, Ganga, Jamuna, Tapti, Alakananda, Narmada, Brahmaputra, Tunga, Bhadra, and Sabarmati hostels; CCW building; Himalaya and Vindhya Mess)	135.22
5.	Special repair works: Water proofing works and other related civil repair works in Academic Zone, Residential Zone & Hostel Zone at IIT Madras 2022-23 on a percentage basis (Subheading: Acrylic & PVC membrane) - w.r.t. HZ (Sch: C)	87.82
6.	Special repair works: Waterproofing works and other related civil repair works in Academic Zone, Residential Zone & Hostel Zone at IIT Madras 2022-23 on a percentage basis (Subheading: PU & hybrid PU System) - w.r.t. HZ (Sch: C)	11.8
Execution by Engineering Unit under Alumni funding through Dean (A&CR)		
1	Providing and fixing powder-coated aluminium grill with aluminium joineries at corridor in Ganga Hostel	114
2	Providing and fixing powder coated aluminium grill with aluminium joineries in the corridors in Godavari, Jamuna, Saraswathi, Alakananda, Tapti, Narmada, Brahmaputra, Cauvery and Krishna hostels	1300
3	Face-lifting works in Jamuna, Godavari, and Saraswathi hostel at IIT Madras (restroom renovation, corridor renovation, and external repairs) including electrical works (civil)	661.94

13.1.3. Major Works to be Executed in 2024-25

S. No.	Description of Work	Value (in INR lakh)
Execution by Engineering Unit, IITM		
1	Construction of an 2000-bed Vaigai hostel at IIT Madras with smart concepts in fast-track mode	19500.00
2	Construction of an 800-bed new girls' hostel (Stilt + 13 floors) by replacing the existing Sarayu hostel (G+3 floors) building	10838.00
3	Construction of 'B' type Quarters	10500.00
4	Construction of 100 numbers of new E / E1-type quarters in G (Stilt) + 10 floors at IIT Madras	7125.00
5	Construction of a new mess building at IIT Madras	5638.00
6	Rendering facility management services at IIT Madras	2817.00
7	Painting of institute buildings at IIT Madras	510.00
8	Automation of Velachery gate, Taramani gate, and Research Park (RP) gate and integrating of the proposed automation system with the existing system at the main gate of IIT Madras campus	161.00
9	Border road development work (road stretch starting from the back side of the Ocean Engineering Building - G8 Quarters - Vana Vani School): Laying of bitumen concrete over WMM in IIT Madras campus	117.00
10	Construction of three underground RCC Sumps of one lakh litres capacity at IIT Madras for chiller plants and underground RCC sumps of fifty thousand litres capacity for sprinklers at Manohar C Wasta Stadium, IIT Madras campus: Balance works	93.00
11	Civil works in connection with the automation of minor gates in IIT Madras campus (tensile roofing structure, security cabins, two wheeler/bicycle/pedestrian pathway, rainwater drains, development of parking facility, curb walls, etc.)	90.00
12	Road marking, creation of speed breakers, road signs etc. in IIT Madras campus	53.00
13	Design, build, own, operate and transfer of biogas plant of 2 tonnes per day capacity at IIT Madras: Approval requested, Recall the tender	DBOT Mode
14	Rendering third-party quality assurance services (TPQAS) for the construction of new buildings (Basement +G+6 floors) by demolishing the existing Thermodynamics and Combustion Engineering Laboratory (TDCE) & Refrigeration and Airconditioning Lab (R&AC) buildings; construction of 100 new E/E1-type staff quarters (stilt + 10 floors); construction of two additional floors above the existing chemistry buildings	
15	Providing a retractable roofing structure and allied services for the Open Air Theatre (OAT) at IIT Madras	2500.00
16	Automation of Velachery gate, Taramani gate and RP gate, and integrating the proposed automation system with the existing system at the main gate of IIT Madras campus	161.00
17	Design, supply, installation, testing & commissioning of 500 kWp cumulative capacity rooftop grid interactive solar power plants in various buildings at IIT Madras	305.30
18	Provision of 1000 kg goods-cum-passenger lift at NCCR (KCL) Building in IIT Madras	20.07

19	Providing 2 × 500 kVA diesel generator (DG) sets for Port Centre Building in IITM Discovery Campus at Thaiyur	129.84
20	Providing high-volume low-speed (HVLS) fans at Central Workshop and MSB main entrance inside IIT Madras	39.53
21	Provision of inline fan for gents' toilet at Biotechnology Block I in IIT Madras	6.28
22	Provision of additional AC facility to the common instrumentation facility at NAC I and 3 rooms at NAC II in IIT Madras	18.96
23	Design, supply, installation, testing & commissioning of 8.8 kWp rooftop grid interactive solar power plants in G8 Building (Stilt + 8 Floors) at IIT Madras	4.78
24	Providing CCTV surveillance to major roads in Hostel and Institute zones in IIT Madras	468.87
25	Providing power connection to the newly constructed Diamond Lab at IIT Madras and providing the lab with a 250kVA DG with automatic mains failure (AMF) panel	66.76
26	Replacement by providing 2 × 13 passenger lifts at Administrative Block in a phased manner in IIT Madras	66.65
27	Augmentation of existing wiring by rerouting PVC pipes in corridors and concealing existing DBs in various Institute buildings inside IITM premises	46.64
28	Provision of additional precision AHUs and allied works at Server Room II in the Data Centre at IIT Madras	34.22
29	Augmentation of existing power wiring for the existing UPS and servers in the Computer Centre inside IITM Premises.	43.52
30	Providing power connection to the electric vehicle (EV) charging facility (3 nos.) at Auto Shop and Adyar Out Gate inside IITM premises	15.92
31	Providing power connection to the newly installed 400kW hydraulic wave flume in the the National Technology Centre for Ports, Waterways and Coasts (NTCPWC) at IITM Thaiyur campus	13.96
32	Providing a separate 11kV power supply feeder to IIT Madras Discovery Campus at Thaiyur	113.50
Execution by CPWD		
1	Proposed construction of a new building (Basement +G+6 floors) by demolishing the TDCE & R&AC building at IIT Madras	11362.00
2	Construction of GD lab including internal electrical installation and drainage at IIT Madras	264.05
Inter IIT Sports		
1.	Swimming pool: Modification of the existing men's changing room into a women's changing room in the ground floor, creation of an additional men's changing room in the first floor of the bath house, making canopy in front of the women's changing room in the ground floor, lifeguard's room, notice board, etc.	75.00
2.	Student Activities Centre (SAC): polyurethane (PU) flooring for the badminton courts	33.25
3.	Converting the existing weightlifting room into an office-cum-lounge, and creating a conference room and chess room including furniture, etc.	105.00
4.	Providing flooring for the existing squash court in the old sports complex	15.00
5.	Providing roofing over the existing roof at the old sports complex	80.00

13.2. Housing Facilities

The campus of IIT Madras has 535 faculty quarters, 435 staff quarters, 262 students and 37 other quarters (Director's Quarters - 1, Wardens' Quarters - 8, MoH

- 24, Schools - 2 & Banks - 2) for accommodation. There are 167 servants' quarters as well, out of which 15 were demolished.

13.3. Horticulture

The horticulture unit functions under the EU. It maintains 56,702 square metres (m²) of lawns (39,358 m² of lawns at various locations and 17,344 m² of turf in stadiums and playing fields). In addition, it also maintains the hedges and gardens in the campus. No chemical pesticide sprays are advocated anywhere within the campus (only Azadirachtin 10,000 parts per million (ppm) sprays are used, when necessary, to control pests beyond the economic threshold level or ETL), and vermicompost is used as the sole nutritional supplement.

The lawn turf in the Manohar C Wasta Stadium is raised organically with local grass species. The green

patch serves as a niche location for both cervid species (blackbuck and spotted deer) that regularly visit the areas for food.

A micro-irrigation system has been installed for the In Gate and the Manohar C Wasta stadium to improve water use efficiency.

The horticulture section also takes care of providing water troughs at 75 locations for the Institute's cervid population (blackbuck and spotted deer). The water containers are cleaned and refilled daily. These containers also feed a whole lot of smaller fauna within the campus such as bonnet macaques, squirrels, and birds.

Horticulture operations (Part I) at Thaiyur Discovery campus

Landscape work has been carried out using Mexican grass lawn for an extent of 1000 m², with features like a stone pergola, benches, and flowering shrubs in front of the Port Centre building.

150 native trees, which are listed below, have been planted on either side of the road from the Maintenance Office to the Hostel and Port Centre building.

Name of Species	Number of Trees
Copperpod (<i>Peltophorum pterocarpum</i>)	15
Rain tree (<i>Samanea saman</i>)	20
Purple Bauhinia (<i>Bauhinia purpurea</i>)	20
Golden shower tree (<i>Cassia fistula</i>)	15
Magizham (<i>Mimusops elengi</i>)	25
Pink trumpet (<i>Tabebuia rosea</i>)	20
Pride of India (<i>Lagerstroemia speciosa</i>)	35
Total	150



Planting of tree saplings

13.4. Public Health

The horticulture section is also responsible for mosquito breeding grounds and controls larval and adult mosquitoes by spraying larvicide and fumigating. It also takes care of termite control in the campus.

Solid waste management is being carried out as per the Tamil Nadu Solid Waste Management Rules 2016.

Waste is source segregated, collected door-to-door, and recycled or disposed after secondary segregation. Biomedical waste and e-waste are disposed of through a TNPCB-authorized agency.

Hazardous waste generated inside the campus is safely disposed of through Re-Sustainability, a TNPCB-approved agency.

13.5. Telephone Facilities

PBX telephone system

The campus telephone facility has been extended to the office and residential quarters of faculty members, laboratories of various departments, and miscellaneous services from a HiPath 4000 ISDN PBX system with 5000-line capacity, interfaced with BSNL through ISDN PRA lines. There are 18 remote telephone systems housed at various buildings in Academic, Hostel and Residential Zones connected to the main PBX system via optical fibre link. By using

a BSNL Point to Point 1GBPS Internet Leased Line, both voice and data have been extended to the IITM Discovery Campus at Thaiyur since a new telephone exchange has been installed at Thaiyur Campus. The complaints of campus telephone lines are attended to within two hours of their receipt/registration. The online campus telephone directory is available on the Institute website under the tab 'Directory' or at <https://www.iitm.ac.in/directory>.

Local Body Approval

The Chennai Metropolitan Development Authority (CMDA) has approved 21 buildings in the campus. Plans for other buildings

constructed and under construction in the campus have been submitted to the CMDA and are under approval.

13.6 Biodiversity of the IITM Campus

The blackbuck (*Antelope cervicapra*), also known as the Indian antelope, is only found in the Indian subcontinent. Ninety-five percent of the blackbuck population is in India, and the rest is in Nepal. It is now extinct as a free-ranging animal in Pakistan. It is the finest representative of fauna in arid and semi-arid grassy plains and sparsely forested areas with perennial water sources.

Un-interrupted and contiguous area for movement of blackbuck: The IITM campus is home to blackbuck, an endangered and flagship species. In order to nurture the habitat for this species and other cervids, a key decision on the removal of barriers (chain link fences measuring a little over 2000 m. in staff quarters and departments) for the free movement of deer was resorted to.

Expansion of grassland habitat for blackbuck: Experts suggested the creation of open grasslands with intermittent tall grass or bushes (for delivery, fawn nursing, and to seek protection against predators as well as the rain and wind). This is unlike the habitat for spotted deer, which can survive in dense forests and bush jungles. Blackbucks are also very territorial and sensitive to environmental pressures. An adult male blackbuck tries to maintain his territory by

marking it and defending it in the rutting season.

Similarly, the female blackbuck requires tall grass or small bushes to deliver fawns (one per year mostly). The fawn will 'lie down' during its first week, hidden in the grass/bush, and the mother will nurse it in intervals of a few hours. Blackbuck fawns are quite weak during the first few weeks and can be easily preyed on by dogs. Therefore, it is very essential to have undisturbed open areas with small bush/tall grass cover for the healthy survival of young blackbucks. The fawn will join the mother and other group members when it is about two weeks old.

Accordingly, an open space of about 4 acres was created by removing juliflora growth and dibbling the area with native grass slips to prepare for a grassland. As similar locations were not available elsewhere within the campus, it was decided to make use of the existing multi-purpose stadium (about 5 acres) and football & hockey grounds (about 5 acres) as grasslands with native grasses. In all, about 14 acres of additional area have been brought under grassland habitat. The barricades around these sports utilities have been removed for the mutual benefit of both students and cervids.

Anticipatory drought management for campus fauna: The horticulture section also takes care of providing water troughs at 70+ strategic locations for its cervid population (blackbuck and spotted deer). The water containers are cleaned and refilled on a daily basis during summer. These containers also feed a whole lot of smaller fauna within the campus, including bonnet macaques, squirrels and birds.

Sustaining food supply for fauna within the campus: The harvesting of palmyra, wood apple, tamarind and Madras thorn fruits is fully banned within the Institute. This ensures that the faunal populations have ample food throughout the year. In addition, specific trees that provide food for the fauna have also been planted in core areas, and their estimated numbers are presented in the table below.

Name of Species	Number of Trees
Tamarind (Tamarindus indica)	350
Indian Bat fig (Ficus amplissima)	40
Indian Banyan (Ficus benghalensis)	60
Wood Apple (Limonia acidissima)	250
Palmayrah Palm (Borassus flabellifer)	7000
Bignonia megapatomica	200
Copper Pod Tree (Peltophorum pterocarpum)	150
Madras thorn (Pithecellobium dulce)	40
Mara malli (Millingtonia hortensis)	200

Preservation of existing trees & translocation: If the felling of trees for construction purposes is unavoidable, certain trees will have to be cut. In such situations, they are burlapped and translocated elsewhere within the campus with

due care. The present survival rates of these translocated trees is as high as 80%. In addition, compensatory afforestation is taken up voluntarily in the ratio of planting 10 trees for every tree felled or dead after translocation.



13.7. Central Supplies Unit

The Central Supplies Unit functions under the administration of a warden. The unit procures milk from the Tamil Nadu Cooperative Milk Producers' Federation (TCMPF) and supplies it to hostels. It procures major items from wholesale suppliers through the Provision Selection Committee and

Provision Purchase Committee, and supplies them to hostels, thus economising the mess expenses. Branded cosmetics and eatables from wholesale dealers are other items procured and made available to students through Students Amenities Centres at reduced prices.

13.8. Hospital

The Institute Hospital is a 25-bedded ISO 9001-2015 certified hospital. It extends primary medical, basic surgical, and preventive health services to the staff and their dependents and students. The hospital is managed by a team of well-trained and dedicated doctors, nurses and paramedical staff. Specialist doctors visit on specific days and times to manage patients who require more than primary-level care.

The hospital's working hours are

Weekdays: 08.15 am-05.45 pm

Saturday: 08.15 am-1.00 pm

Saturday: 1.00 pm onwards: Emergency care

Sunday and Government holidays: Emergency care

Staff

High-quality ethical care is given to all users by a dedicated team of hospital staff, which include

- 1) Regular doctors - 11
- 2) Visiting consultants - 13
- 3) Nurses - 10
- 4) Nursing Assistants (female) - 5
- 5) Nursing Assistants (male) - 4
- 6) Reception/MRD (Medical Records Department) - 2
- 7) X-ray/U/S/ECG Technician - 2
- 8) Hospital Office - 2
- 9) Office attendants - 1
- 10) Consultant (Finance) - 1

Facilities Available

- 1) Pharmacy: Outsourced to Kauvery Pharmacy
- 2) Clinical lab: Outsourced to Lister Metropolis.
- 3) Physiotherapy: Outsourced to M/s. Indus Therapeutic Solutions

In-house Facilities

- 1) ECG
- 2) X-ray Unit
- 3) Well-equipped labour room with a baby warmer
- 4) Operation theatre (since the pandemic began, the theater is not in use)
- 5) In-patient wards

Academic Activities

Doctors, nurses and staff participated in various medical webinars and conferences via Google Meet and also in person. Regular training and updating of knowledge takes place through internal meetings and discussions.

Preventive Activities

- Circulars against prevalent diseases (dengue, typhoid, etc.) and healthy practices for the prevention of diseases was sent to students and staff.
- Regular screenings are performed for chronic diseases like diabetes or hypertension for staff and dependents above 40 years and those in the high-risk category.
- Monthly vaccinations for children are done twice a month.
- Adult vaccinations against preventable diseases (typhoid, chicken pox, pneumococcal, etc.) are regularly advised with informed consent.
- Antenatal care is done through the regular outpatient department (OPD) for the ease and convenience of patients.
- Training is conducted for students, security staff & school staff on basic first aid.
- Medical examinations are carried out for all newly recruited staff & faculty.
- Mammography, and general health camps were conducted.

To accommodate the increasing patient load, a separate Fever OPD & ward were constructed. The pharmacy & lab were shifted to a new area in the front area of the hospital. This will minimise the risk of cross-infections and will be more convenient for users.

A separate area for visiting specialties in the first floor is under construction. Some equipment has been replaced and additional equipment is in the process of being purchased.

OPD Census: Annual Census of Hospital for the Year 2023-2024

Month	Outpatients		Inpatients	
	Regular	Emergency	Retained in Casualty	Ward
April 2023	7261	809	451	34
May 2023	6715	753	528	34
June 2023	5519	617	394	21
July 2023	6262	666	249	26

August 2023	9334	974	388	60
September 2023	8928	891	372	40
October 2023	8973	891	242	57
November 2023	7904	779	393	39
December 2023	7020	666	414	26
January 2024	9458	864	466	31
February 2024	8374	1021	392	67
March 2024				

Procedures Done in the Hospital for the Year 2023-2024

Month	Surgical Procedures	X-ray	ECG	Dental census	Physiotherapy	Vaccinations (Paediatric)	Anti-Rabies Vaccine (ARV)
April 2023	40	325	53	111	686	25	79
May 2023	34	333	51	132	713	93	113
June 2023	43	268	61	86	533	18	81
July 2023	37	248	52	116	697	67	98
August 2023	58	318	61	182	877	50	63
September 2023	49	327	68	153	795	24	149
October 2023	38	330	40	143	770	59	167
November 2023	17	293	38	112	572	67	59
December 2023	28	179	58	112	569	80	93
January 2024	66	359	120	123	633	43	121
February 2024	68	322	51	191	743	40	142
March 2024							

13.9. Guest Houses

The Institute has two guest houses within the campus: the Bose-Einstein Guest House (BEGH) near the Administrative Building, and Taramani Guest House (TGH) in the Hostel Zone. The Bose-Einstein Guest House has 18 air-conditioned suites. It also has a lounge & conference room. Each room has hotel-standard amenities like a telephone, fridge, and TV. VIPs, Institute guests, and invited guests are usually accommodated here. TGH has 119 rooms, of which 18 are suites and 101 are air-conditioned rooms. The guest house provides boarding and lodging facilities for institute guests and visitors, newly-appointed faculty members, staff members, parents of students, delegates, and participants attending conferences, seminars, symposia, and workshops. Both guesthouses have a lift facility.

13.10. Banks

The State Bank of India has a branch and two ATMs on campus. Canara Bank also has a branch and an ATM facility within the institute. In addition, ICICI Bank has installed an ATM in the Hostel Zone.

13.11. Post Office and Telecom Centre

There is a post office on campus to cater to the needs of the campus community. A 24-hour telecom centre caters to the needs of the employees, students and residents.

13.12. Schools

Vana Vani Matriculation Higher Secondary School (VVMHSS), administered by the IIT Madras Educational Trust, and a Kendriya Vidyalaya (KV)

function on campus. The VVMHSS offers courses from LKG to class 12 and the KV offers courses from class 1 to 12.

13.13. Open Air Theatre

The Open Air Theatre (OAT) is used by the Film Club to screen films during weekends. It is also used for other functions of the Institute and schools.

Major works proposed are renovation of the toilets, re-laying the flooring in gallery, providing disabled-friendly ramps to access the bowl and toilets, providing and laying polished concrete in bowl area, re-laying of the access roads at the emergency and VIP gates, among others.

13.14. Student Activities Centre

This building is used by students for indoor games. Important functions such as convocations and orientation programmes for freshers are also conducted here.

13.15. Cafeteria

The IIT Staff Canteen on campus caters to the needs of employees and students.

13.16. Transport Services

The institute has 12 Lynx buses that provide transport facilities to the staff, students and residents of the campus. Transport facilities are also available for official work.

13.17. Crèche

A crèche functions on campus for the benefit of staff and working women. There were about 157 children in the crèche during the period under report.

13.18. Security Section

Introduction

The Security Section of the Indian Institute of Technology Madras is an important constituent of the organisation, because it is vested with the task of ensuring the security of men and materials on the campus. The Security Section is also responsible for maintaining peace and ensuring the harmonious coexistence of campus residents. As a part of support services, it is on call for campus residents in the event of any emergency or contingency which may adversely affect the normal life of the campus.

The security policy of IIT Madras is that the core security functions and core areas will be manned by IITM's own security personnel, and the allied security functions and areas will be outsourced and coordinated by the Institute personnel. Similarly, the Institute also has been progressively introducing greater automation. The current year has been both eventful and very rewarding.

This section mainly focuses on the following areas:

- a) Key responsibility area: The security of institute property and coordination with law enforcement agencies
- b) Regulating men and materials through all the gates
- c) Traffic management
- d) Patrolling
- e) Maintenance (including periodical checks and tests) of fire equipment & fire prevention
- f) Conducting fire safety training for students, staff, faculty, and schoolchildren
- g) Conducting fire & evacuation drills in high-rise buildings.

Regulating Men & Materials

The Security Section is vested with the task of ensuring the security of men and materials on campus. This regulation is done in a streamlined way, by issuing passes for vehicles and ID cards for contractors and their workers. A material gate pass system is in place to allow the passage of materials after verifying specimen signatures. In addition, a token system is also being used at certain gates.

Traffic Management

The Security Section is vested with the task of ensuring proper traffic management, since the campus has two schools and Tech Kids, the creche. Traffic management is of high importance. Accordingly, the Security Section manages traffic by diverting vehicles and ensuring speed limits using scientific gadgets so as to bring down the accidents in the campus. There were no major accidents in the campus.

Gajendra Circle

Round-the-clock monitoring is ensured at the Gajendra Circle roundabout to restrict overspeeding and regulate the flow of traffic from all four sides (viz. from the Residential Zone to the Academic & Hostel Zones).

Patrolling

In order to have an effective patrolling system, the entire campus has been divided into three zones, i.e. the Institute zone, Residential zone & Hostel zone. In addition, the perimeter walls are also patrolled by foot & by vehicles to monitor their physical condition and observe any security breach.

Fire Equipment Maintenance and Fire Prevention

Periodical servicing of the fire equipment installed in buildings is carried out, with the objective of keeping them in constant readiness to control any fire incidents. There are about 2000 fire extinguishers of different types and capacities installed in the campus, in addition to fixed fire protection systems, i.e.

sprinklers, wet risers, and down comers, in addition to yard hydrants and fire detection and alarm systems in multistoried buildings and labs. These systems are checked monthly for effective functioning, and records to this effect are maintained by the Security Section.

Security Cover for Under-care Quarters

The Security Section provides security cover to vacant quarters. During the year under report, there were 32 under-care quarters guarded when their licensees were away from the campus due to various reasons. The quarters were handed over to their licensees without any loss/theft of property.

Conducting Training on Fire Safety and Evacuation Drills

During the period under review, the Security Section

conducted training programmes around the year, particularly for students, departmental staff and faculty, in order to create awareness around correct use of fire safety equipment in case of fire. A total of 1370 students and 375 security staff have been trained during the year. Evacuation drills for students staying in multistoried hostels was carried out with the assistance of local fire brigades and the students' disaster management cell of the Institute.

Fire Training Programmes, 2023-2024

Fire safety training programmes were conducted for outsourced security staff from BSNP, SIS, and CISS.

In addition, weekly training programmes on squad drills, special gate checks, and perimeter wall checks have also been conducted for security personnel during the period under report.

Figure 1. Fire safety mock drill at Mandakini hostel



Figure 2. Fire safety training



Figure 3. Fire safety mock drill at Swarnamukhi hostel



Fire Hydrant Checks, 2023-2024

Fire hydrant checks were carried out in high-rise buildings on a monthly basis with the Engineering Unit's Annual Maintenance Contract (AMC) team. The observations were recorded and communicated to the Engineering Unit for further action.

Fire Detection & Alarm Systems, 2023-2024

The fire detection and alarm (FDA) systems are checked every quarter, making sure that the detectors, panels, and hooters are in working order. The observations were recorded and communicated to the Engineering Unit for further action.

Fire Extinguishers' Servicing & Maintenance

The portable fire extinguishers installed in the campus were serviced and maintained quarterly, ensuring they were ready for use.

The AMC was supervised by the Security Section's fire prevention team and inspection tags were fixed on all the fire extinguishers.

Training Programmes for Security Personnel

During the period under report, the Institute Security Personnel attended the following different types of training programmes.

S. No.	Date	Training Event	No. of Attendees
1	August 9-15, 2023	Independence Day parade practices and marching	150 security personnel
2	January 22-26, 2024	Republic Day marching and parade training	100 security personnel
3	February 28, 2024	Professional Development for IITM Security Staff	32 Institute security personnel
4	March 22, 2024	Tamil language training through Hindi	90 outsourced security personnel

Figure 4. Professional Development Training



Refurbished Security Section

The refurbished Security Section premises have a control room, CCTV monitoring room, pass section, and offices for the Chief Security Officer (CSO) & staff. The premises were inaugurated by Dr. Kandaswamy Paramasivan, IPS (Retd.), Former DGP, Tamil Nadu on May 30, 2023.

Figure 5. 24/7 control room



Figure 6. 24/7 CCTV monitoring room



Surveillance Cameras

The CCTV cameras installed in the Academic, Hostel & Residential zones are monitored 24/7, and their reports are maintained in the CCTV monitoring report book in the control room.

Security Activities

Type of Incident	Apr 2023	May 2023	Jun 2023	Jul 2023	Aug 2023	Sep 2023	Oct 2023	Nov 2023	Dec 2023	Jan 2024	Feb 2024	Mar 2024
Fire	2	4	2	Nil	3	1	1	1	Nil	2	1	Nil
Accident	1	Nil	2	4	Nil	Nil	1	Nil	Nil	2	1	Nil
Animal call	4	6	6	11	5	9	4	18	23	18	18	19
Fire alarm	24	28	26	34	27	34	26	25	17	9	25	31
Lift stuck	2	2	6	4	1	7	6	Nil	2	5	5	2

Cyclone Michaung Relief Efforts (December 4-5, 2023)

- Emergency response personnel were available 24/7 via the control room.
- The Security Section assisted the Engineering Unit with emergency responses.
- Residents from Lake View road & 3rd Loop road were evacuated.

Figure 7. Taramani Gate



Figure 8. Velachery Gate



Campus Visits & Security Arrangements

S. No.	Date	Location(s)	VIP
1	April 5, 2023	IC&SR building	Hon. Chief Minister of Tamil Nadu MK Stalin
2	May 22, 2023	Director's office & IITM Thaiyur campus	Director General of Civil Aviation Shri Vikram Dev Dutt & Deputy Director General of Civil Aviation Shri Indranil Chakraborty
3	June 15, 2023	Director's office, Nanoscience lab and Materials Science Research Centre (MSRC)	Eric Garcetti, US Ambassador to India
4	June 21, 2023	Ocean Engineering & Heritage Centre	Vice Admiral Puneet K Bahl
5	June 27, 2023	IITM campus	Nine delegates from the Mandela African Institution of Science and Technology, Tanzania
6	July 22, 2023	SAC	Dr. Justice Dhananjaya Y Chandrachud, Chief Justice of India
7	July 27, 2023	Director's Office and Research Park	Hon. Steven Guilbeault, Minister of Environment and Climate Change, Canada
8	July 27, 2023	Campus Café terrace hall	Thiru. Vishnu IAS, MD and CEO; Mr. Anil Ahuja; and Dr. Valli Arunachalam (for the Carbon Zero Challenge programme)
9	September 5, 2023	Bose-Einstein Guest House (BEGH) and some departments at IIT Madras	Mr. Suman Berry, Vice-chairman of NITI Aayog
10	September 7, 2023	IC&SR Building	Hon. Minister of Tamil Nadu Dr. TRB Raja; and Additional Chief Secretary Shri S Krishnan IAS
11	September 13, 2023	IC&SR & Machine Design Section (MDS)	Air Marshal R Mohan (Air Force)
12	September 14, 2023	Research Park Gate	Prof. Ohneda & Dr. Fukushige, from the University of Tsukuba, Japan
13	September 15, 2023	SAC	Hon. Union Minister Shri Ashwini Kumar Choubey (for the National Level Water Conclave 2023)
14	September 21, 2023	Director Office & Research Park (RP) gate	US Consul General Mr. Christopher W Hodges
15	October 15, 2023	SAC	Dr. Somnath, Chairman of the Indian Space Research Organisation (ISRO)
16	October 20, 2023	ESB, Class Room Complex (CRC), some departments, and Research Park	Shri S Krishnan, Secretary of Ministry of Electronics and Information Technology
17	October 21, 2023	IC & SR building	Ex-Vice President Shri Venkaiah Naidu
18	October 31, 2023	Refrigeration and Air Conditioning Laboratory (RAC)	The Norwegian Ambassador to India and a team from the Norwegian Embassy, New Delhi
19	November 24, 2023	Ocean Engineering, Director's office & IC&SR building	Norway's Deputy Ministry of Foreign Affairs Mr. Andreas Motzfeldt Kravik

20	November 28, 2023	IC&SR building & Heritage Centre	Minister from the Government of France and delegates
21	December 15, 2023	IITM campus	Delegates from the Sri Lankan Higher Education Department
22	December 13, 2023	Admin Registrar's office	Singapore Consul General Mr. Edgar Pang
23	December 16, 2023	SAC	Thiru. RN Ravi, Governor of Tamil Nadu
24	January 4, 2024	CLT & Brain Centre	Mr. Ram Nath Kovind, former President of India
25	January 4, 2024	CLT	Mr. Palanivel Thiyagarajan, Tamil Nadu Minister of Information Technology and Digital Services
26	January 9, 2024	Heritage Centre, Brain Centre, Campus Café terrace hall 2	Parliamentary Committee for OBC
27	January 20, 2024	IIT campus	Mr. Pashupati Kumar Paras, Minister of Food Processing Industries
28	February 5, 2024	Heritage Centre, Director's office, BEGH & Centre for Innovation (CFI)	Mr. Kanaka Herath, Minister of Technology, Sri Lanka; and Dr. Doraiswamy Venkateshwaran. Deputy High Commissioner, Sri Lanka
29	February 6, 2024	Biotech, Research Park & Brain Centre	Mr. Kanaka Herath, Minister of Technology, Sri Lanka; and Dr. Doraiswamy Venkateshwaran, Deputy High Commissioner, Sri Lanka
30	February 17, 2024	IC&SR building	Mr. Palanivel Thiyagarajan, Tamil Nadu Minister of Information Technology and Digital Services
31	February 17, 2024	IC&SR building	Tokyo Embassy
32	February 22, 2024	IC&SR building and Research Park	Hon. Rear Admiral Vikram Menon (Indian Navy)
33	February 23, 2024	IC&SR building	Embassy Member
34	February 24, 2024	IC&SR building	Mr. Annamalai, President of Tamil Nadu BJP
35	March 5, 2024	Research Park	Thiru. N Rangaswamy, Chief Minister of Pondicherry; and two Ministers
36	March 6, 2024	IC&SR building	Mr. Palanivel Thiyagarajan, Tamil Nadu Minister of Information Technology and Digital Services
37	March 7, 2024	IC&SR building	Thiru. RN Ravi, Governor of Tamil Nadu
38	March 22, 2024	Admin block, IC&SR building, CWS, & Research Park	General Anil Chauhan, Chief of Defense Staff of the Indian Armed Forces
39	March 26, 2024	IC&SR building	Rear Admiral K Venkatraman, Flag Officer Submarines

Security Arrangements

- All ASOs are instructed to clear traffic for the duration of the programme.
- All parking arrangements are effectively maintained by the security personnel.

VVIP Visits

Institute and outsourced security personnel coordinated with the Security Branch of the Tamil Nadu Police for security, traffic, and parking arrangements during the visits.

Firefighting Arrangements

- Portable fire extinguishers were deployed in tent areas and near generator sets.
- Fire hoses have been deployed at the Engineering Design department to drain water from fire hydrants.

Special Gate Checking

Special checking was carried out at all the entry gates. Identity cards (IDs), vehicle passes, contractual workers' passes and visitors' (including pedestrians') entry passes were verified for April 2023 to March 2024. Additional manpower was deployed during peak hours.

Celebrations

Independence Day Celebrations

India's 77th Independence Day was celebrated in

the Institute on August 15, 2023 at the Manohar C Watsa Stadium. Eight contingents participated in the ceremonial parade, including the Vana Vani School band team. The Best Parade Contingent and Best Individual Turnout winners from each contingent were suitably awarded. The ceremonial parade was commanded by Chief Security Officer Shri S Prakash.

Republic Day Celebrations

India's 75th Republic Day was celebrated in the Institute on January 26, 2024 at the Manohar C Watsa Stadium. Ten contingents participated in the ceremonial parade, including the Vana Vani School band team. The Best Parade Contingent and Best Individual Turnout winners from each contingent were suitably awarded. The ceremonial parade was commanded by Chief Security Officer Shri S Prakash.

Figure 9. Republic Day Parade at the Manohar C Watsa Stadium



Perimeter Surveillance

An improvised watchtower has been set up to keep vigil on the perimeter walls. Security guards were deployed around the clock with wireless sets for this purpose. They constantly monitor lakes 1 & 2, the perimeter walls, and forested areas.

Drones with high-definition cameras were used to cover densely forested areas, perimeter walls, and lake areas, and the video footage was stored on our systems.

Protection of Deer Giving Birth

Security guards constantly monitor female blackbucks during their delivery and save the fawns from dogs,

particularly in the blackbuck habitation areas in the Hostel zone (SAC, Sangam ground, Chairman, Council of Wardens (CCW) block, swimming pool, and Himalaya mess). This initiative was established in February 2018.

The Security Section strives to save wildlife in coordination with the Forest department, and rescues injured or lame animals to provide timely treatment. There are also rare occasions where the Security Section encounters separated mother and baby deer in the forest and is able to reunite them with the help of the Forest department.

Security Section Winners for the 28th

Inter IIT Staff Sports Meet 2023

- 1500m: Gold
- 800m & 400m: Silver
- 4x100m Women's Relay: Silver
- High Jump: Bronze

Internal Audit Report, August 2023 Audit Findings

1. Processes for firefighting, accidents, etc., were not included in the Quality Manual.
2. The risk details were not updated for the audit period.
3. The SSD/05 duty log book was verified.
4. The SSD/07 fire incident entry register was verified. The security staff response time was found to be within the targeted time (5 min).
5. The SSF/18 feedback register verified. 85% satisfied customers were reported.

Continual Improvement

1. An online automatic number plate recognition system for vehicles is being implemented at the main gate (the demo has been completed).
2. An online workflow for complaints has been initiated.
3. Dedicated CCTV cameras are being installed in major locations on campus.

Actions Taken

1. The process flowcharts for firefighting, accidents, etc., have been included in the Quality Manual.
2. IITM's Quality policy has been updated in the Quality Manual.
3. The risk register has been updated with the risks identified regarding fire safety equipment.

Non-Conformities and Corrective Actions (if any):

Nil

MR Report, 15 September 2023

- Suggestion: Monitor and prevent vehicle speeding on the KV-Hospital road

Actions Taken

- Deputing points men at junction points
- Informing the campus speed limits to vehicles entering the campus
- Detection of overspeeding (using speed guns)

Internal Audit Report, February 2024 Audit Findings

1. Duty log book for IITM SSD 2: Verified
2. Duty log book for Thaiyur: Verified
3. Complaint register (online/offline) for SSD 7: Verified
4. Feedback analysis and customer satisfaction for

SSF 18: Verified

5. Traffic regulation, speed limit fine challans and amounts collection book: Verified
6. Documentation of the procedures to be followed for the lost and found items register/unclaimed register SSF39: Verified
7. Night patrol register: Verified
8. Fire incident report: Verified
9. Police cases' FIR copies: Verified
10. Durga Peeliamman temple beat book: Verified
11. Animal death register: Verified
12. AMC tender document of Greenix Technologist (document no. SS/2023/033/SPL, dated October 5, 2023 for the period July 1, 2023 to June 30, 2024): Verified
13. Staff members have not attended any external domain training for the last six months (Professional Development course training is conducted annually) (SSF17): Verified
14. The lost & found register has no signatures against some received/handed over items. If the items' owners have reported the items received over email, the same should be updated in the register - Verified
15. Under care quarters register (SSD 10): Verified

Strong Points

1. The coordinated efforts of the QRT (Quick Response team) during accidents, animal death, traffic-related incidents, VIP arrivals, emergencies, large cultural events (such as Saarang/Shaastra), and other incidents is well appreciated.
2. The use of up-to-date technologies like CCTV at various points for prompt action and 24-hour monitoring.
3. Having adequate staff members to manage any exigency when it arises.

To Be Treated as Areas of Improvement

1. Local language training is to be given to permanent and contract staff for smooth functioning, as mentioned in the manual.
2. The feedback form for outsourced agencies is to be modified according to the zone/job allocated, and may be considered for the assessment of the External Service Provider's performance.
3. External domain training may be conducted yearly for staff members on a rotation basis.
4. The provision of Security Section documents pertaining to the Thaiyur campus for auditing is recommended, since it is an extension of the IITM Security Section.

Non-Conformities and Corrective Actions (if any):

Nil



Finance and Accounts

The financial year of the Institute corresponds with that of the Government of India (April 1 to March 31 of the following year). The accounts of the Institute are annually audited by the Office of the Principal Director of Audit (Central), Chennai on behalf of the Comptroller & Auditor General of India.

The 99th Finance Committee of the Institute, in its meeting held on November 30, 2023, recommended a revised estimate of INR 853 crore (gross) for the year 2023-24 and a budget estimate of INR 1017 crore (gross) for the year 2024-25 under the Revenue expenditure head. The committee also recommended

a revised estimate of INR 160 crore for the year 2023-24 and a budget estimate of INR 103 crore for the year 2024-25 under the Capital expenditure. The same were approved by the Board of Governors of the Institute in their 260th meeting, held on November 30, 2023.

The following is a summary of the revised estimates for 2023-24 and budget estimates for 2024-25 under Revenue and Capital expenditure, as approved by the Board of Governors of the Institute in their 260th meeting, held on November 30, 2023.

Item	Budget Estimate 2023-24	Revised Estimate 2023-24	Budget Estimate 2024-25
Grant under OH-36 and OH31			
Institute income projected	88.00	88.00	109.00
Grant projected for Salary (OH-36)	366.00	349.00	398.00
Grant projected for Pension and Pensionary Benefits (OH-31)	138.00	142.00	150.00
Grant for projected for Scholarships (OH-31)	120.00	105.00	125.00
Grant for other components (OH-31)	307.00	257.00	344.00
Grant expected under OH-36 and OH-31	931.00	853.00	1017.00
Grant under OH-35			
Grant projected for Asset creation	82.00	160.00	103.00
Grant expected under OH-35	82.00	160.00	103.00

Audit

The annual accounts of the Institute for the year 2022-23 were audited by the Office of the Principal Director of Audit (Central), Chennai during July-August 2023. The Annual accounts were duly adopted by the Board of Governors of this Institute

on November 30, 2023. Following this, a certified copy of the Annual accounts with the audit report was sent to the Ministry of Education (MoE), to enable the Ministry to arrange for placing them before both the Houses of Parliament during the winter session.

Summary of Provisional Revenue and Capital Grant Utilisation for 2023-24

(Figures in INR crore)

Item	Amount
Grant under OH-35	
Opening balance	(-)19.97
Grant received under OH-35	138.41
Total funds available under OH-35	118.44
Expenditure under OH-35	
Building and Electrical installation	34.75
Academic equipment	53.31
Infrastructure (furniture/computers, etc.)	17.49
Periodicals/journals/books for library	26.87
Total Expenditure under OH-35	132.42
Grant under OH-31 and OH-36	
Opening balance	34.62
Grant received under OH-31 and OH-36	808.42
Institute Income (After adjusting HEFA principal repayment of Rs.81.44 crore)	33.48
Total funds available under OH-31 and OH-36	876.52
Expenditure under OH-31 and OH-36	
Salary and related items (OH-36)	323.29
Pension and other terminal benefits (OH-31)	129.84
Scholarship payments (OH-31)	89.17
Non-salary, non-pension items (OH-31) (Other components)	287.53
Total Expenditure under OH-31 and OH-36	829.83

The balance of the Corpus Fund as on March 31, 2024 is INR 563.30 crore, and the balance of the Institute Endowment account as on March 31, 2024 is INR 218.74 crore.



Publications

15.1. Chapters Published in Books

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13. Brahmadathan, V.B., Lakshmana Rao, C. (2023). Experimental Investigation of Dynamic Behaviour of Ceramic Material and the Effectiveness of Pulse Shapers. *Composite Materials: High Strain Rate Studies*, 159-167. doi.org/10.1201/9781003352358-14
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- 2585.Zinage, V., Arul, S.H., Manocha, D. and 1 more (...) (2023). *3D-Online Generalized Sensed Shape Expansion: A Probabilistically Complete Motion Planner in Obstacle-Cluttered Unknown Environments. IEEE Robotics and Automation Letters*, 8(6) 3334-3341. doi.org/10.1109/LRA.2023.3263376
- 2586.Zuleger, T.M., Slutsky-Ganesh, A.B., Anand, M. and 9 more (...) (2023). *The effects of sports-related concussion history on female adolescent brain activity and connectivity for bilateral lower extremity knee motor control. Psychophysiology*, 60(9). doi.org/10.1111/psyp.14314

15.6. Papers Published in Trade Publications

- 1.Mahalingam, A., Picardo, A. (2023). A Comparative Study of Life Cycle Embodied Energy of Precast Vs Cast-In-Place Concreting in The Indian Context. *Indian Concrete Journal*, 97(9) 36-47.
- 2.Manickam, K., Pillai, R.G. (2023). Grouting Materials and Practices for Century-Long Corrosion Protection of Post-Tensioned Concrete Bridges. *Indian Concrete Journal*, 97(1) 6-20.
- 3.Paul, S., Murugan, K., Samanthula, R. and 4 more (...) (2023). Development of Structural Forms Using Textile Reinforced Concrete. *Indian Concrete Journal*, 97(8) 43-54.
- 4.Prajapati, R., Stephen, S.J., Gettu, R. and 1 more (...) (2023). Effect of Thermomechanically Beneficiated Recycled Concrete Aggregates on the Mechanical and Durability Characteristics of Concrete. *Indian Concrete Journal*, 97(10) 9-19.
- 5.Santhanam, M., Jain, S., Bhattacharjee, S. (2023). Versatile Concrete with Limestone Calcined Clay Cement. *Indian Concrete Journal*, 97(9) 7-17.
- 6.Sinha, R., Rao, B.N. (2023). Fragility Assessment of Non-Ductile RC Frames Subjected to Pounding. *Indian Concrete Journal*, 97(6) 27-35.
- 7.Wagh, C.D., Gandhi, I.S.R., Neti, K.V. (2023). Impact of Addition of Fly Ash (As Sand Replacement) and Polypropylene Fibers on Shrinkage and Thermal Characteristics of Foam Concrete. *Indian Concrete Journal*, 97(9) 26-35.
- 8.Zerbino, R., Vivas, J., Felipe, R.C. and 5 more (...) (2023). Strength and Impact Behavior of Paving Concrete Incorporating Discarded Coconut Coir Fibers. *Indian Concrete Journal*, 97(9) 48-57.



16.1. Senate Members

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35.	Prof. Ramesh K	Applied Mechanics and Biomedical Engineering
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37.	Prof. Sayan Gupta	Applied Mechanics and Biomedical Engineering
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223.	Prof. Binitha V Thampi	Humanities & Social Sciences
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235.	Prof. Swarnalatha R	Humanities & Social Sciences
236.	Prof. Umakant Dash	Humanities & Social Sciences
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238.	Prof. Arindama Singh	Mathematics
239.	Prof. Arya Kumar Bedabrata Chand	Mathematics
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243.	Prof. Kalpana Mahalingam	Mathematics
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247.	Prof. Rama R	Mathematics
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259.	Prof. Amitava Ghosh	Mechanical Engineering
260.	Prof. Anand K	Mechanical Engineering
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262.	Prof. Arunn Narasimhan	Mechanical Engineering
263.	Prof. Arvind Pattamatta	Mechanical Engineering
264.	Prof. Ashis Kumar Sen	Mechanical Engineering
265.	Prof. Babu V	Mechanical Engineering
266.	Prof. Balaji C	Mechanical Engineering
267.	Prof. Balaji Srinivasan	Mechanical Engineering
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273.	Prof. Kumar Annabattula VVSDR	Mechanical Engineering
274.	Prof. Mallikarjuna JM	Mechanical Engineering
275.	Prof. Mayank Mittal	Mechanical Engineering

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279.	Prof. Prakash Maiya M	Mechanical Engineering
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296.	Prof. Sundararajan Natarajan	Mechanical Engineering
297.	Prof. Sushanta Kumar Panigrahi	Mechanical Engineering
298.	Prof. Venkataratnam G	Mechanical Engineering

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302.	Prof. Ganesh Sundara Raman S	Metallurgical and Materials Engineering
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305.	Prof. Kottada Ravi Sankar	Metallurgical and Materials Engineering
306.	Prof. Lakshman Neelakantan	Metallurgical and Materials Engineering
307.	Prof. Murty BS	Metallurgical and Materials Engineering
308.	Prof. Parasuraman Swaminathan	Metallurgical and Materials Engineering
309.	Prof. Prathap Haridoss	Metallurgical and Materials Engineering
310.	Prof. Ranjit Bauri	Metallurgical and Materials Engineering
311.	Prof. Ravikumar NV	Metallurgical and Materials Engineering
312.	Prof. Sabita Sarkar	Metallurgical and Materials Engineering
313.	Prof. Sampath V	Metallurgical and Materials Engineering
314.	Prof. Sankaran Shanmugam	Metallurgical and Materials Engineering

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315.	Prof. Somnath Bhattacharyya	Metallurgical and Materials Engineering
316.	Prof. Srinivasa Rao Bakshi	Metallurgical and Materials Engineering
317.	Prof. Subramanya Sarma V	Metallurgical and Materials Engineering
318.	Prof. Tiju Thomas	Metallurgical and Materials Engineering
319.	Prof. Udayachandran C	Metallurgical and Materials Engineering
320.	Prof. Amit RK	Management Studies
321.	Prof. Arshinder Kaur	Management Studies
322.	Prof. Arun Kumar G	Management Studies
323.	Prof. Kamalanabhan TJ	Management Studies
324.	Prof. Krishna Prasanna	Management Studies
325.	Prof. Lata Dyaram	Management Studies
326.	Prof. Madhumathi R	Management Studies
327.	Prof. Nandan Sudarsanam	Management Studies
328.	Prof. Prakash Sai L	Management Studies
329.	Prof. Rahul Ratnakar Marathe	Management Studies
330.	Prof. Rajendran C	Management Studies
331.	Prof. Rupashree Baral	Management Studies
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336.	Prof. Thillai Rajan A	Management Studies
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362.	Prof. James Frederick Libby	Physics
363.	Prof. Jatindra Kumar Rath	Physics
364.	Prof. Kasi Viswanathan S	Physics
365.	Prof. Krishnamurthy CV	Physics
366.	Prof. Manoj Gopalakrishnan	Physics
367.	Prof. Manu Jaiswal	Physics
368.	Prof. Murugavel P	Physics
369.	Prof. Nirmala R	Physics
370.	Prof. Prafulla Kumar Behera	Physics
371.	Prof. Prahallad Padhan	Physics
372.	Prof. Prasanta Kumar Tripathy	Physics
373.	Prof. Prem B Bisht	Physics
374.	Prof. Rajesh Narayanan	Physics
375.	Prof. Ramachandra Rao M S	Physics
376.	Prof. Santhosh PN	Physics
377.	Prof. Sethupathi K	Physics
378.	Prof. Somnath Chanda Roy	Physics
379.	Prof. Srinivas V	Physics
380.	Prof. Sriramkumar L	Physics
381.	Prof. Subramanian V	Physics
382.	Prof. Sudakar Chandran	Physics
383.	Prof. Sunil Kumar PB	Physics
384.	Prof. Suresh Govindarajan	Physics
385.	Prof. Venkata Satyanarayana M	Physics

16.2. Board of Academic Courses

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T Renganathan	Chemical Engineering
Balaji Srinivasan	Electrical Engineering
Lata Dyaram	Management Studies
Shruti Dubey	Mathematics
Srikrishna Sahu	Mechanical Engineering
Deepak Kumar	Ocean Engineering
Ashwin Joy	Physics
Shantanu Shashikant Mulay	Aerospace Engineering
Hamsa Priya	Biotechnology
Edamana Prasad	Chemistry
Bhargava Rama Chilukuri	Civil Engineering
Yadu Vasudev	Computer Science and Engineering
Bijo Sebastian	Engineering Design
Santhosh Abraham	Humanities and Social Sciences
Sreeram K Kalpathy	Metallurgical and Materials Engineering
Srikanth Vedantam	Medical Science and Technology
Sarith P Sathian	TTC Chairperson
Saji Mathew	MS Advisor, SC/ST/PC students Ex officio Member
Usha Mohan	Engineering Design Chief Advisor, Mitr
Mevit Mathew	Academic Affairs Secretary Student Member
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Andrew Thangaraj	B.Sc.
Vignesh Muthuvijayan	B.Sc.

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10	Dr. Sundar Gopal Ghosh	Chemistry
11	Dr. Venu Chandra	Civil Engineering
12	Dr. John Augustine	Computer Science and Engineering
13	Dr. Anbarasu	Electrical Engineering
14	Dr. Srikanthan Sridharan	Engineering Design
15	Dr. N Sreekumar	Humanities and Social Sciences
16	Dr. Usha Mohan	Management Studies
17	Dr. Balaji R	Mathematics
18	Dr. Pallab Sinha Mahapatra	Mechanical Engineering
19	Dr. Anand Krishna Kanjarla	Metallurgical and Materials Engineering
20	Dr. Suresh Rajendran	Ocean Engineering
21	Dr. Suresh Govindarajan	Physics
22	Prof. Usha Mohan	Management Studies & Chief Advisor, Mitr
23	Mr. Chathri Poshadri	Research Affairs Secretary
24	Mr. Aniket Singh Patel	Students' General Secretary
25	Dr. Parasuraman Swaminathan	Metallurgical and Materials Engineering, IDRP (Interdisciplinary Research Program) Invitee
26	Mr. P Sarvaharana	Deputy Registrar (Courses) Invitee
27	Mrs. Vijayalakshmi K	Deputy Registrar (Research), Ex officio Secretary
28	Ms. Sivagami R	Assistant Registrar (Research), Invitee

16.4. Board of Students

S. No.	Name	Designation	Status
1	Nilesh J Vasa Sathyanarayana N Gummati (from September 2024)	Dean (Students)	Chairperson
2	Shanthi Pavan	Dean (Academic Research)	Member
3	Prathap Haridoss	Dean (Academic Courses)	Member
4	Mahesh Panchagnula	Dean (Alumni & Corporate Relations)	Member
5	Raghunathan Rengaswamy	Dean (Global Engagement)	Member
6	Sivakumar MS	Former Dean (Students)	Ex Officio
7	Thyagaraj T	Chairperson, Council of Wardens	Member
8	Mallikarjuna J M	Vice Chairperson, Council of Wardens	Member
9	Arshinder Kaur	Advisor (Cultural)	Member
10	Ratna Kumar Annabattula	Advisor (Co-curricular)	Member
11	Arul Prakash K	Advisor (Sports)	Member
12	Shruti Dubey	Co-Advisor (Sports)	Member

13	Sathyan Subbiah	Advisor (Training & Placement)	Member
14	Murugavel P	Advisor (Internship)	Member
15	Saji K Mathew	Advisor (Inclusive Education)	Member
16	Ethayaraja Mani	Chief Coordinator (National Cadet Corps)	Member
17	Sivakumar K C	Advisor (National Service Scheme)	Member
18	Prabhu Rajagopal	Advisor (Centre for Innovation & Entrepreneurship)	Member
19	Anup Kumar Bhandari	Advisor (Student Ethics and Constitution Commission/Student Legislative Council)	Member

16.5. Board, Industrial Consultancy & Sponsored Research (IC&SR)

1	Dean (IC&SR)	Ex officio Chairman
2	Previous Dean (IC&SR)	Ex officio
3	Dean (Alumni & Corporate Relations)	Ex officio
4	Dean (Academic Research)	Ex officio
5	Faculty In-charge, IITM Research Park & IITM Incubation Cell	Ex officio
6	Registrar	Ex officio
7	Chief Manager (Technical, IC&SR)	Member-Secretary (Ex Officio)
8	Dr. Amit Kumar	Member (Aerospace Engineering)
9	Dr. Arockiarajan A	Member (Applied Mechanics)
10	Dr. Amal Kanti	Member (Biotechnology)
11	Dr. Abhijit Deshpande	Member (Chemical Engineering)
12	Dr. Kothandaraman R	Member (Chemistry)
13	Dr. Subhadeep Banerjee	Member (Civil Engineering)
14	Dr. Ravindran B	Member (Computer Science & Engineering)
15	Dr. Radhakrishna Ganti	Member (Electrical Engineering)
16	Dr. Palaniappan Ramu	Member (Engineering Design)
17	Dr. Sudarsan Padmanabhan	Member (Humanities & Social Sciences)
18	Dr. Richa Agarwal	Member (Management Studies)
19	Dr. Dipramit Majumdar	Member (Mathematics)
20	Dr. Sujatha Srinivasan	Member (Mechanical Engineering)
21	Dr. Srinivasa Rao Bakshi	Member (Metallurgical & Materials Engineering)
22	Dr. Nilanjan Saha	Member (Ocean Engineering)
23	Dr. Jatin Kumar Rath	Member (Physics)
25	Dr. Janakiraman Viraraghavan	Member (Electrical Engineering), Assistant Professor
26	Dr. Pinosh Kumar Hajoary	Member (Management Studies), Assistant Professor
27	Dr. Srikrishna Sahu	Member (Mechanical Engineering), Associate Professor
28	Dr. Yasir Iqbal	Member (Physics), Associate Professor

16.6. Library Advisory Committee Members for 2023-24

Name of the Member	Contact	Email	Department	Position
Prof. C Balaji	4689	balaji@iitm.ac.in	Mech. Engg.	Chairman
Dr. Santanu Ghosh	4031	sgghosh1@iitm.ac.in	Aerospace Engg.	Member
Dr. Vagesh Narasimhamurthy	4079	vagesh@iitm.ac.in	Applied Mech.	Member
Dr. Hamsa Priya Mohana Sundaram	4132	hamsa@iitm.ac.in	Biotech.	Member
Dr. Sumesh P Thampi	4179	sumesh@iitm.ac.in	Chemical Engg.	Member
Prof. Kartik Chandra Mondal	4228	csdkartik@iitm.ac.in	Chemistry	Member
Dr. Arun Menon	4299	arunmenon@iitm.ac.in	Civil Engg.	Member
Dr. Nishad Kothari	4350	nishad@iitm.ac.in	Comp. Sci. Engg.	Member
Dr. Ganapathy Krishnamurthy	4745	gankrish@iitm.ac.in	Engg. Design	Member
Dr. P. Viswanadha Reddy	4486	vishwa@iitm.ac.in	Electrical Engg.	Member
Dr. Sabuj Kumar Mandal	4532	sabuj@iitm.ac.in	Humanities and Social Sciences	Member
Prof. P Krishna Prasanna	4571	pkp@iitm.ac.in	Management Studies	Member
Dr. Ramesh Kasilingam	4647	rameshk@iitm.ac.in	Mathematics	Member
Prof. Abhijit Sarkar	4723	asarkar@iitm.ac.in	Mech. Engg.	Member
Dr. Rohit Batra	4790	rbatra@iitm.ac.in	Metallurgical and Materials Engineering	Member
Prof. Bobby George	4465	boby@iitm.ac.in	Medical Science and Technology	Member
Dr. Suresh Rajendran	4830	sureshr@iitm.ac.in	Ocean Engg.	Member
Dr. Shantanu Mukherjee	4858	shantanu@iitm.ac.in	Physics	Member
Mr. Lakshya Singh	4540	sec_acaf@smail.iitm.ac.in	Academic Affairs Secretary	Member
Ms. Robin Rathi	4548	sec_resaf@smail.iitm.ac.in	Research Affairs Secretary	Member
Dr. Mahendra N Jadhav	4951	librarian@iitm.ac.in	Central Library	Member-Secretary

16.7. Members of the Finance Committee (FY 2023-24)

Dr. Pawan Goenka (Former Managing Director, Mahindra & Mahindra) Chairman, Indian National Space Promotion Authorization Centre (In-SPACe) Independent Director, Sun Pharma & Bosch India	Chairman
Prof. V Kamakoti Director, Indian Institute of Technology Madras	Member

Smt. Saumya Gupta Joint Secretary (TE), Ministry of Education, Government of India, Shastri Bhawan, New Delhi	(Ex-officio) Member
Shri Anil Kumar Director (Finance), Integrated Finance Division, Department of Higher Education, Ministry of Education, Government of India, Shastri Bhawan, New Delhi	(Ex-officio) Member
Thiru. S Krishnan, IAS Additional Chief Secretary to Government, Industries Department, Secretariat, Government of Tamil Nadu, Chennai Thiru. V Arun Roy, IAS (from September 25, 2023) Secretary to Government, Industries Department, Secretariat, Government of Tamil Nadu, Chennai.	Member
Prof. VR Muraleedharan (Up to December 31, 2023) Department of Humanities and Social Sciences, Indian Institute of Technology Madras Prof. Sethupathi K (from March 14, 2024) Department of Physics, Indian Institute of Technology Madras	Member
Prof. Ligy Philip Dean (Planning), Indian Institute of Technology Madras Prof. R Sarathi (from September 29, 2023) Dean (Planning), Indian Institute of Technology Madras	Invitee
Dr. Jane Prasad (IP&TAFS) Registrar, Indian Institute of Technology Madras	Secretary

16.8. Members of the Building and Works Committee (FY 2023-24)

Prof. V Kamakoti Director, IIT Madras	Chairman
Chief Engineer (Distribution), TANGEDCO, Chennai South Region	Member
Shri Manoj Kumar Superintending Engineer cum Project Director, IITM Project Circle, Central Public Works Department, Chennai	Member

Prof. Ligy Philip Dean (Planning), IIT Madras Prof. R Sarathi (from September 29, 2023) Dean (Planning), IIT Madras	Member
Prof. SA Sannasiraj Chairman (Engineering Unit), IIT Madras	Member
Prof. Benny Raphael (Up to May 3, 2023) Co-Chairman (Engineering Unit), IIT Madras Prof. Balaji Narasimhan (From May 15, 2023) Co-Chairman (Engineering Unit), IIT Madras	Member
Dr. Jane Prasad, IP&TAFS Registrar, IIT Madras	Member-Secretary
Shri K Dharmaraj Superintending Engineer, Engineering Unit, IIT Madras	Invitee