

*K. K. K.*

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# ANNUAL REPORT

1960-1961



**INDIAN INSTITUTE OF TECHNOLOGY  
MADRAS**

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The Indian Institute of Technology, Madras entered upon the second year of its existence on the 11th of July, 1960. The Board of Governors of the Institute comprised :

## *Chairman*

1. Dr. A. Lakshmanaswamy Mudaliar,  
Vice-Chancellor, Madras University,  
"Kensington",  
Kilpauk,  
Madras-10.

## *Members*

2. Dr. C. D. Deshmukh, (Upto 13-1-61)  
Chairman, University Grants Commission,  
Old Mill Road,  
New Delhi.
3. Dr. V. S. Krishna, (from 13-1-61 to 2-3-61)  
Chairman,  
University Grants Commission,  
Old Mill Road,  
New Delhi.
4. Dr. D. S. Kothari, (From 2-3-61)  
Chairman,  
University Grants Commission,  
Old Mill Road,  
New Delhi.
5. Prof. M. S. Thacker,  
Director-General,  
Council of Scientific & Industrial Research,  
Old Mill Road,  
New Delhi.
6. Shri G. K. Chandiramani,  
Joint Educational Adviser (T),  
Ministry of Scientific Research & Cultural Affairs,  
Government of India,  
New Delhi.

7. Dr. A. Nagaraja Rao,  
Chairman, Heavy Engineering Corporation,  
Nepal Kothi, Doranda,  
Ranchi, Bihar.
8. Shri A. V. Venkateswaran,  
Financial Adviser to the Ministry of  
Scientific Research & Cultural Affairs,  
Government of India,  
New Delhi.
9. Shri P. M. Reddy,  
General Manager,  
Hindusthan Aircraft (Private) Ltd.,  
Bangalore.
10. Shri Nawab Zain Yar Jung Bahadur, (Upto 15-5-61),  
Member of the Legislative Council,  
Andhra Pradesh,  
Barkatpura,  
Hyderabad - Deccan.
11. Prof. B. Sengupto,  
Director,  
Indian Institute of Technology,  
Madras.

*Secretary*

Shri R. Natarajan, I. A. S.,  
Registrar,  
Indian Institute of Technology,  
Madras.

The Board of Governors met four times during the period under report.

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## ACADEMIC COUNCIL

*Chairman*

1. Prof. B. Sengupto,  
Director

*Members*

2. Prof. C. G. Swaminathan,  
Department of Civil Engineering.
3. Prof. R. G. Narayanamurthy,  
Department of Mechanical Engineering.
4. Dr. P. Venkata Rao,  
Department of Electrical Engineering.
5. Dr. D. Venkateswarlu,  
Department of Chemical Engineering.
6. Dr. C. Rama Sastry,  
Department of Physics.
7. Dr. S. K. Srinivasan,  
Department of Mathematics.
8. Dr. V. Srinivasan,  
Department of Chemistry.
9. Dr. W. Hahn,  
Department of Mathematics.
10. Dr. W. Koch,  
Department of Physics.
11. Dr. D. Koettgen,  
Department of Mechanical Engineering
12. Mr. J. M. Lechner,  
Department of Mechanical Engineering.
13. Dr. Scheer,  
Department of Mechanical Engineering
14. Prof. A. L. Krishnan,  
Department of Humanities

*Member-Secretary*

Shri R. Natarajan, I. A. S.,  
Registrar

The Academic Council met on eleven occasions during the period under report.

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## ADMISSIONS

Admission to the first year of the B. Tech. Course was made on the basis of the results of the Intermediate/Pre-University/Higher Secondary and Senior Cambridge Examinations. In addition limited admission direct to the II year of the Five Year Integrated Course was offered to B. Sc. graduates with I or II Class with Physics or Mathematics as principal subjects as also to the Pre-Engineering students with a first class.

The interviews for admission to the I & II years were spread over from the 7th to the 9th, 26th to the 28th of July and the 17th of August, 1960.

A total of 1,993 and 384 applications were received for admission to the I year and II year respectively. Interview cards were sent to 373 candidates for the I year 79 candidates for the II year, out of whom admission was offered to 120 and 19 candidates respectively.

## ACADEMIC SESSION

The Academic session for the year 1960-61 commenced on the 11th of July, 1960 and ended on the 23th of May, 1961.

The classes and workshop practice continued to be held in the A. C. College of Technology and the Highways Workshops by the kind courtesy of the University of Madras and the Government of Madras respectively, till the middle of the Academic year, when instructional work, except in the Workshops and the Chemistry laboratory, was shifted to the new buildings in the Institute Campus.

A D M I S S I O N S    1960-61

Sl. No.	States	No. of candi- dates applied for admission.		No. of candi- dates called for interview.		No. of candi- dates who attended interview.		No. of candi- dates selected for admission.		SC/S.T./B.C. included in the total admitted.			
		I	II	I	II	I	II	I	II	I	II		
1.	Assam	38	2	14	—	14	—	4	—	1	1	—	—
2.	Andhra	257	65	40	10	39	10	20	5	1	—	3	—
3.	Bihar	45	7	10	2	10	2	4	1	—	—	1	—
4.	Bombay (Maharashtra and Gujarat)	129	9	28	11	27	11	9	—	—	—	2	—
5.	Delhi	115	33	18	7	17	7	7	1	—	—	—	—
6.	Kerala	138	19	15	5	15	4	7	1	—	—	3	—
7.	Madhya Pradesh	22	—	7	—	7	—	2	—	—	—	—	—
8.	Mysore	104	41	17	6	17	6	7	1	—	—	2	—
9.	Madras	573	81	134	17	132	16	26	6	3	—	2	—
10.	Orissa	81	12	8	3	7	3	4	2	—	—	1	—
11.	Punjab	78	26	19	4	18	4	5	—	—	—	—	—
12.	Rajasthan	36	4	8	1	8	1	4	—	—	—	—	—
13.	Uttar Pradesh	129	50	15	4	15	4	10	2	—	—	3	—
14.	West Bengal	104	25	16	6	16	5	6	—	1	—	—	1
15.	Jammu and Kashmir	20	10	4	3	3	3	—	—	—	—	—	—
16.	Senior Cambridge	123	—	20	—	19	—	5	—	—	—	3	—

S.C. S.T. B.C.    S.C. S.T. B.C.

## EXAMINATION RESULTS

The I. B. Tech. Classes commenced with 131 students (including detained students) on rolls.

At the end of the Academic year, 129 students in the I B. Tech. class and 121 students in the II B. Tech. class took the annual examination, and out of this number 112 students were promoted from the I year to the II year and 108 from the II year to the III year. There were 5 first-classes and 107 second-classes in the I B. Tech., and 7 first classes and 101 second classes in the II B. Tech. A total of 17 students in the I B. Tech., and 13 students in the II B. Tech. were detained and out of these, 7 in the I year and 2 in the II year discontinued their studies.

## ANNUAL EXAMINATION FOR SESSION 1960-61

Class.	No. on the roll	No. appeared for the Exam.	No. Promoted.	No. securing I Class.	No. securing II Class	No. detained	No. who discontinued and left the Institute.
I B. Tech	131	129	112	5	107	17	9
II B. Tech	125	121	108	7	101	13	6

Messrs. C. R. Muthukrishnan and S. Gopalakrishnan secured the first ranks in the I and II year classes respectively.

## INSTITUTE SCHOLARSHIPS

		Value	Total Amount
Merit	17	Rs. 900 per annum	Rs. 15,300
Merit-cum-Means	46	Rs. 900 per annum	Rs 41,400



## EXTERNAL SCHOLARSHIPS

Sl. No.	Name of the Sanctioning Authority	Nature of Scholarships	No. of Students	Value per annum	Total Amount
				Rs.	Rs.
1.	Government of India, Ministry of Education.	Post-Matriculation	9	1,200	10,800
2.	Government of India, S.C./S.T./ Other B.C. (Andhra)		3	1,072	3,216
3.	Director of Social Welfare, Andhra Pradesh.	Residential Scholarship for S. C/S.T/O.B.C.	1	932	932
4.	Prime Minister's Relief Fund		1	1,500	1,500
5.	Director of Public Instruction, Assam.	Engineering Scholarship	2	720	1,440
			1	883.71	883.71
6.	Director of Harijan Welfare, Madras.	G. O. I. Decentralised	1	922	922
			1	1,082	1,082
7.	Director of Social Welfare, Maharashtra.	do	2	1,222	2,444
			1	942	942
			1	932	932
8.	State Scholarship Board, Assam.	do	1	632	632
			1	772	772
9.	Director of Harijan Welfare, Uttar Pradesh, Lucknow.	do	3	857	2,571
10.	Education Department Himachal Pradesh.	do	1	1,147	1,147
11.	Tribal Welfare Department West Bengal, Calcutta.		1	1,082	1,082
			1	1,192	1,192
12.	Director of Technical Education, Assam.	Engineering Scholarship	2	720	1,440
13.	Director of Harijan Welfare, Trivandrum.		1	1,117	1,117
			1	1,087	1,087
14.	Government of Orissa.	Loan Stipend Fund	2	1,375	2,750

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 1961.

EXPENDITURE	Rs.	INCOME	Rs.
<b>PAY AND ALLOWANCES :</b>		<b>BY GENERAL INCOME</b>	
<i>Officers :</i>		Tuition Fees	78,000.00
Academic and Administrative	24,748.39	Seat Rent in Hostels	26,000.00
Director	1,4042.34	Admission Fees	1,440.00
Academic	22,710.65	Gymkhana & Medical Fees	5,720.00
Administrative		Application Fees	20,659.00
<i>Establishment :</i>			1,31,819.50
Technical	1,10,556.55		
Other Supporting staff	1,49,915.80	Fees for registration of appli- cation for appointment to Teaching staff	3,107.64
	4,71,973.73	Fees for other appointments	1,499.00
<b>OTHER ALLOWANCES</b>			4,606.64
Travelling Allowances	6,214.13		
<b>DEPARTMENTAL EXPENSES :</b>		<b>MISCELLANEOUS RECEIPTS</b>	
<i>Education :</i>		Sale of application forms	2,740.25
General Workshop	27,955.12	Library overdue collections	235.95
Mathematics	44.14	Sale of cut and fallen trees	1,927.75
Physics	21,750.54	Sale of usufructs of trees	1,788.00
Chemistry	45,431.12	Other Miscellaneous	2,760.95
Chemical Engineering	57,034.94		9,453.90
Civil Engineering	57.94		
Mechanical Engineering	1,294.87	Grants from the Government of India	58,00,000.00
Mechanical Engineering Hostels	20,361.19		59,45,880.04
	1,73,969.85		
<b>OTHER EDUCATIONAL EXPENSES :</b>			
Scholarships	46,275.00		

contd.....

## EXPENDITURE

## INCOME

Rs nP. Rs. nP.

## OTHER EDUCATIONAL EXPENSES (Contd.)

Rs. nP.  
59,45,880.04

B/F

2

T. A. and Examination fees to

External Examiners

4,185.97

Library: Cost of Journals

1,067.96

(of general interest)

122.85

Operating cost (Library)

11,441.90

Athletic &amp; Gymkhana

31,768.17

Lodging allowances to German Experts

782.64

Delegates to Science Congress and Seminars

49,369.49

5,143.78

Workshop stores and small tools

## GENERAL EXPENSES : CONTINGENCIES

Postage

5,412.47

Entertainment

888.34

Telephones

15,564.41

Stationery

15,172.64

Printing

2,628.60

Advertisement

26,699.33

Electricity charges

2,262.73

Sundries

5,454.36

74,052.88

## TO OTHER EXPENDITURE

Petrol oil etc,

4,457.06

Transportation charges

75.35

Duty, Insurance &amp; Road taxes etc.

1,947.60

Railway freight

558.22

Repairs and maintenance

417.34

Legal expenses

50.00

C/O

59,45,880.04

contd.....

EXPENDITURE		INCOME	
	Rs. nP.	Rs. nP.	Rs. nP.
<b>TRAVELLING EXPENSES :</b>			
<i>T. A. to member of :</i>			
The Board of Governors	1,330.94		
Committee for selection to teaching staff	1,473.62		
Courses Committee	530.65		
Committee for selection of candidates for B. Tech. Course	400.46		
Candidates called for interview for appointment	5,890.07	9,625.74	
<b>C.C.P.F. Leave Salary and pension contribution (on account of personnel on foreign service)</b>		9,262.53	
—do —on account of employees of the Institute		29,649.00	
Works and maintenance		3,181.67	
Rent of buildings		19,429.19	
		<u>78,658.70</u>	
Audit charges		1,105.00	
Excess of income over expenditure		50,39,122.47	
<b>TOTAL</b>	<b>Rs. 59,45,880.04</b>	<b>Rs. 59,45,880.04</b>	<b>TOTAL Rs. 59,45,880.04</b>

## LIST OF DISTINGUISHED VISITORS TO THE INSTITUTE

1. H. E. B. F. H. B. Tyabji,  
Ambassador of India in Federal Republic  
of Germany (14- 7-'60)
2. Prof. Humayun Kabir,  
Minister for Scientific Research & Cultural  
Affairs  
Government of India, New Delhi. (14- 8-'60)
3. Hon. Mr. C. Subramaniam,  
Finance Minister,  
Government of Madras. (29- 8-'60)
4. Mr. Von Pochhammer,  
Representative of the West German Govt. (11 & 12- 9-'60)
5. Prof. Helmut Koch,  
Expert in Welding Technology,  
Indian Institute of Technology, Bombay (3-10-'60)
6. Dr. H. Miesner,  
German Chemical Engineer. (15 to 18-11'60)
7. Prof. Theodor Heuss,  
Former President of the Federal  
Republic of Germany (17-11-'60)
8. Mr. R. T. Taylor,  
Administrative Officer,  
British Council, Madras. (25-11-'60)
9. Prof. Kampe De Fariet,  
(Guest Professor from France at the Indian  
Institute of Technology, Kharagpur (18- 1'61)
10. Prof. J. Lecomte,  
University of Paris,  
(Department of Physics) (24- 1-'61)
11. Profs. Dahland Smullin and William Behner,  
Massachusetts Institute of Technology,  
U. S. A. (24- 1-'61)
12. Dr. R. R. Mc. Laughlin,  
Prof. H. G. Conn,  
Canadian Experts under the Colombo Plan (30- 1-'61)
13. Mr. Schwenke,  
Director of Research at the University  
of Aachen. (20- 3-'61)
14. Mr. J. S. Mehta,  
Director in the Ministry of External Affairs  
Government of India,  
New Delhi. (12- 5-'61)
15. Dr. S. R. Sengupta,  
Director,  
Indian Institute of Technology,  
Kharagpur. (17- 5-'61)

## LIBRARY

*Number of books added :* 6,315

*Number of Journals arranged Department-wise :*

S. No.	Department	Subscription	Gift	Total
1.	Humanities	18	2	20
2.	Physics	15	1	16
3.	Mathematics	47	-	47
4.	Chemistry	53	-	53
5.	Applied Mechanics	—	-	—
6.	Civil Engineering	113	1	114
7.	Mechanical Engineering	36	-	36
8.	Electrical Engineering	41	1	42
9.	Chemical Engineering and Chemical Technology	22	2	24
10.	Metallurgy	27	-	27
Total		372	7	379

*Total Number of Journals Received :* 378

*Number of periodicals bound and books*

*repaired for damages :* 851 + 527 = 1378

*Names of the organisations which have made Gifts to the Library :*

1. Central Public Health Engineering Research Institute, Nagpur.
2. India Book House, Madras-2.
3. Indian Institute of Science, Bangalore.
4. Indian Institute of Technology, Bombay.
5. Siemens Engineering and Manufacturing Co., Bombay.
6. The Central Research Electric Power Industry, Tokyo.
7. The College Tamil Committee, Government of Madras, Madras.
8. Committee on Plan Projects, Delhi.
9. The Central Water and Power Research Station. Poona.

10. The UNESCO Technical Assistance Mission, Delhi.
11. Consul - General, German Federal Republic, New Delhi.
12. The River Research Institute, West Bengal.
13. The Tata Iron & Steel Co. Ltd., Calcutta.
14. The Central Water and Power Commission, New Delhi.
15. The Ministry of Scientific and Cultural Affairs, Government of India, New Delhi.
16. M/s. Dechema, Frankfurt, Germany.
17. The British Information Services, Madras.
18. The Bureau of Mines, Pittsburg, 13. Pa.
19. The Institution of Chemical Engineers, London.
20. The Brunel College of Technology, Acton, England.
21. The Battelle Memorial Institute, U. S. A.
22. The International General Electric Company, U. S. A.
23. The Bell Telephone Laboratories, New York.
24. The Indian National Commission for Co-operation with UNESCO, New Delhi.

*Library Co-operation : Names of Libraries.*

1. The United States Information Service Library, Madras.
2. The British Council Library, Madras,
3. The Madras University Library.
4. The Central Road Research Institute Library, Delhi.
5. Indian Institute of Technology, Kharagpur.

*Expenditure :*

	Rs. np.
Books	1,03,233.84
Journals (including back volumes)	40,087.65
Binding Materials	3,013.80

Back Volumes: A list of back volumes available and on order, arranged subjectwise, is furnished hereinbelow :

Sl. No.	Name of the Department	Name of the Journal	Period of Back volumes ordered	Period of Back volumes available
1.	HUMANITIES	NIL.		
2.	PHYSICS	Nuclear Physics Indian Academy of Sciences	Vol.I Vol.38-42 @ 44.48	Vol.I Vol.38-42 and 44-48
		Journal of Scientific & Industrial Research.	Vol. 4-17, 1946.58 except Vol.16, 1957.	Vol. 4-17, 1946.58 except Vol. 16, 1957.
		Automation and Remote Control	... 1957-58	1957-58
		Instruments & Experimental Techniques.	1958	1958
		Science Abstracts	Sec. A 1946-58 Sec. B 1946-59	Sec. A 1946-58 Sec. B 1946-54 1957-59
		Physical Review	1946-58	—
		Reviews of Modern Physics	1946-58	—
		Journal of Applied Physics	1946-58	—
		Journal of Optical Society of America Review of Scientific Instruments	} 1946-58	—
		Proceedings of the Institute of Radio Engineers.	1946-54 —	1946-54 —
		Bell System Technical Journal ...	1946-58	—
		Physics and Chemistry of Solids	1956-58	—
		Journal of Scientific Instruments	... 1946-58	1946-58
		Zeitschrift fur Kristallographie...	1945-58	1945-58 except (V, III)
		Universities	1956-58	1956-58)
		Canadian Journal of Physics ...	1946-58	1946-58



Sl.	Name of the Department	Name of the Journal	Period of Back volumes ordered	Period of Back volumes available
3.	MATHEMATICS	Journal of Mathematics & Mechanics	1952-59	1952-59
		Mathematical Reviews	... 1940-58	1940-58 Vol. 17 to follow
		Supplement of the Progress of Theoretical Physics	} ...Nos. 1-12	Nos. 1-12
4.	CHEMISTRY	Chemical Abstracts	... 1907-1958	1907-1958
		Transactions of the Faraday Society.	... 1946-59	1946-59
		Discussions of the Faraday Society.	... 1947-49	1947-49
		Journal of Inorganic & Nuclear Chemistry.	... 1955-58	1955-58
		Tetrahedron	... 1957-59	1957-59
		Analytical Chemistry 5th Decennial Index of of Chemical Abstracts.	} ... 1940-59 ... 19 Vols. ... 1947-58	140-59 12 Vols.
5.	APPLIED MECHANICS	NIL.		
6.	CIVIL ENGINEERING	Transactions of the American Society of Civil Engineers.	... 1950-59	1950-59
7.	ELECTRICAL ENGINEERING	NIL.		
8.	MECHANICAL ENGINEERING	Proceedings of the Institution of Mechanical Engineers including Automobile Division.	1920-58 except Nos. 1-7 & Index of Automobile Division for 1958	Vol. 120-149 152-172 lacking Vol. 166 Nos 4 & 6 Vol. 167 No. 1, 4 & 10 others to follow

Sl. No.	Name of the Department	Name of the Journal	Period of Back vol. ordered	Period of Back vol. available
9.	CHEMICAL ENGG. and CHEMICAL TECHNOLOGY	Industrial and Engineering Chemistry.	1908-1958	1908-1958
		Transactions of the Instt. of Chemical Engineers.	1923-1958	1923-1958
		Transactions of Indian Instt. of Chem. Engrs.	1947-1958	1947-58 except Vols. 4 & 8 Pt.1
		Chemical Age of India	4,7,8-10 Vol. 7 No. 1-4 Vol. 8 Nos. 1-4 Vol. 9 1-4	4, 7, 8-10 Vol. 7 1-4 Vol. Nos. 1-4 Vol. 9 1-4
		Transactions of the American Instt. of Chem. Engrs. Contd. as Chemical Engg. Progress	Vol 13-55	Vol 13-55
		Journal of the American Instt. of Chem. Engrs.	1955-57	1955 57
		Chem. Engg. Science.	1951-59	1951-59
		Journal of Chemical & Engg. data.	VI-4	VI-4
		Petroleum Refiner	1953-59	1953-59
		Chemical Engineering.	1950-59	1950-59 Vol. 57 to 66 (lacking Vol. 63 No. 6 to follow)
10.	METALLURGY	Journal of the Institute of Metals	1950-58	
		Transactions of A.I.M.E. U.S.A.	1954-60	
		Acta Metallurgica, U.S.A.	1953-60	
	ALL ENGINEERING DEPARTMENTS ENGINEERING INDEX		1940-58	

## HOSTELS

The Second Year students continued to be accommodated in the Women's Hostel of the Teacher's Training College, Saidapet and the Pachaiappa's Trainees' Hostel at Guindy. The newly admitted students in the 1st year of the B. Tech. courses and II year Direct Entrants were provided accommodation in the new Institute hostel buildings. Dr. D. Venkateswarlu continued to be the Warden of the Saidapet and Guindy Hostels and was assisted by Messrs. M. D. Khadkikar and D. S. Subramaniam, Dr. P. K. Choudhuri was appointed as the Warden of the new Hostel and was assisted by Messrs. P. S. Srinivasan and K. J. Srivastava.

The following is a brief report on the activities of the Hostels for the year :—

- July, 1960                   ...   H. E. Tyabji, Ambassador of India in West Germany visited the Institute and addressed the students.
- August, 1960               ...   Opening of Taramani Hostel and admission of students to the First Year.  
Independence day address by Shri C. Subramanyam, Minister for Education & Finance, Madras.  
  
Welcome to new students of the Institute.  
  
Debate on 'Ragging should be introduced in Technical Institutions'.
- Sepr., 1960                   ...   Address by Dr. Cherian on 'My experiences in Germany' Quiz Programme with Prof. Thangaraj of the Madras Christian College as 'Quiz Master'.
- Octr., 1960                 ...   Deepavali Celebrations with illumination and fire works.  
  
Debate on: 'It is the world and not the U. N. that faces a crisis to-day; the U. N. has never been a stronger organisation than it is to-day' with Mr. A. S. P. Ayyar, Director of Legal Studies presiding.

- Novr., 1960 ... Professor Theodor Heuss of West Germany visited the Institute Campus.  
Dr. Ing. H. Meissner, Director of Research Development, Bayer Works, Leverkusen addressed the students.
- Decr., 1960 ... Terminal Dinner with Mr. K. Srinivasan, Education Secretary of the Government of Madras as Chief Guest.
- Jan., 1961 ... Flag hoisting by Prof. B. Sengupto, Director on 'Republic Day'.  
Republic Day Dinner.  
Reception to the Delegates to the Symposium on Instrumentation.
- Febr., 1961 ... Annual debate on: 'The House regrets the fact that this is the age of the average man' with Dr. G. S. Ladda, Director, A. G. College of Technology, presiding and Dr. S. Krishnamoorthy, Professor of Textile Technology and Mr. Dharmarajan, Director, University Students' Information Bureau as Judges.  
Annual Essay Competition on: 'Patriotism is not enough'.
- March, 1961 ... Annual Athletic Meet.  
Address on 'The Ideal way of Life' by Swami Chinnayananda. Address by Dr. Merzyl, Director, Institute of Social and Economic Studies, Hamburg, West Germany on 'Indian Trainees in Germany'.  
Annual Quiz Competition - with Prof. T. I. Johnson of Pachaiappa's College as 'Quiz Master'.

Annual Recitation Competition with Prof. B. Sengupto, and Prof. Janardhanam and Prof. Johnson as Judges.

Mr. Schwenke, Director of Research at the University of Aachen visited the Institute Campus.

April, 1961 ... Second Institute Day - with Dr. A. L. Mudaliar, Chairman, Board of Governors, as President & Shri C. Subramaniam, Minister for Finance and Education, Madras as the Chief Guest.

#### GYMKHANA ACTIVITIES FOR THE YEAR

In view of the fact that the Institute Campus was being cleared, no adequate playground facilities could be made available to the students. However, facilities were provided to the students for playing the following games:—

Volley ball, Hockey, Foot ball, Tennis.

Among the indoor games, facilities were provided for playing Table-tennis, Tennikoit and Badminton (Shuttlecock), Chess & Carroms.

The Annual Sports Day was held on the 5th March, 1961 at the Teachers' Training College grounds. The students participated in the following events:—

100 Metres,	400 Metres
High Jump	Long Jump
Javelin Throw,	Shot Put
Cricket Ball Throw	4 x 100 Meters Relay
Slow cycling,	
Tug of War.	

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## STAFF APPOINTMENTS

Sl. No.	Name	Designation
1.	2.	3.
<i>ACADEMIC :</i>		
1.	Dr. Th. Ramachandran	Assistant Professor
2.	„ V. Anantaraman	do
3.	„ S. K. Srinivasan	do
4.	Shri M. D. Khadkikar	Lecturer in Physics
5.	„ G. V. N. Rayudu	Lecturer in Mechanical Engineering
6.	„ D. Johnson Victor	Lecturer in Civil Engineering
7.	Dr. M. Satyanarayana	Lecturer in Chemical Engineering
8.	Dr. K. J. Srivatsava	Lecturer in Mathematics
9.	Dr. S. Rajappa	Lecturer in Chemistry
10.	„ G. Arvamudhan	do
11.	Shri P. Radhakrishnan	Lecturer in Mechanical Engineering
12.	„ M. A. Parameswaran	do
13.	„ O. S. Narayanaswami	Associate Lecturer in Mechanical Engineering
14.	„ S. Balakrishnan	Lecturer in Civil Engineering
15.	„ Saradindu Sur	Lecturer in Mechanical Engineering
16.	„ M. A. Veluswami	Lecturer in Applied Mechanics
17.	„ S. Ramani	Lecturer in Mechanical Engineering
18.	„ B. Ramaswami	Lecturer in Electrical Engineering
19.	„ R. Srinivasan	Lecturer in Mechanical Engineering
20.	„ R. Radhakrishnan	Lecturer in Civil Engineering
<i>Technical :</i>		
21.	Shri D. R. Hart	Foreman
22.	„ Y. V. G. Satyanarayan- murthi	Senior Technical Assistant

(1)	(2)	(3)
23.	Shri K. Siva Subramanya Iyer ...	Senior Technical Assistant
24.	„ S. Bhimasankara Sastry ...	do
25.	„ R. Nagarajan ...	do
26.	„ C. Sivaprasada Rao ...	do
27.	„ C. Pakkiam ...	do
28.	„ S. Srinivasan ...	do
29.	„ R. Subramaniam ...	Junior Technical Assistant
30.	„ G. Viswanathan ...	do
31.	„ V. S. Kumar ...	do
32.	„ S. A. Dass ...	Draughtsman
33.	„ T. V. Srinivasamurthi ...	Mechanic 'A'
34.	„ G. Srinivasan ...	Mechanic 'B'
35.	„ P. Krishnan ...	do
36.	„ M. Gopalaswami ...	do
37.	„ A. Natarajan ...	do
38.	„ A. Toner ...	do
39.	„ T. K. Bose ...	do
40.	„ T. V. Cherian ...	do
41.	„ P. Sukumaran Nair ...	Mechanic 'C'
42.	„ K. M. Thomas ...	do
43.	„ V. Mukuntan ...	do
44.	„ G. Balu ...	do
45.	„ N. Elumalai ...	do
46.	„ C. Kuppaswamy ...	Laboratory Attendant
47.	„ S. S. Sukumaran ...	do
48.	„ S. Selvarajan ...	do
49.	„ V. C. Srinivasa Rao ...	do
50.	„ K. Ramanujam ...	do
51.	„ D. Annamalai ...	do

*Administrative:*

52. Shri G. T. Sundararajan ... Accountant Officer

*Other Supporting Staff:*

53. Shri T. S. Rajagopalan ... Superintendent (Admn. *Ans DA*)  
 54. „ D. V. Raman ... Superintendent (Acad.) *Ans*  
 55. „ T. N. Venkataraman ... Security Officer  
 56. „ V. Srinivasan ... Physical Training Instructor ?  
 57. „ R. V. V. Subramaniam ... Chief Cashier

(1)	(2)	(3)
58.	Shri B. Krishna Iyer	Assistant
✓ 59.	J. Rajasekharan	Steno-typist <i>VDC</i>
60.	" T. Israel	do
61.	" P. S. Seetharaman	do
62.	" T. S. Sethuraman	do
63.	" M. Sankaran Kutty	do
← 64.	" T. S. Sampath	Upper Division Clerk <i>Library</i>
← 65.	" P. Subramaniam	do <i>Books</i>
← 66.	" R. Narayanan <i>22/5/6</i>	do
← 67.	" J. Rajasekharan <i>6</i>	do
← 68.	" B. Raman <i>7</i>	do
69.	" T. S. Sethuraman	Lower Division Clerk
✓ 70.	" C. Krishnamurthi	do <i>VDC</i>
✓ 71.	" R. Narayanan	do <i>(VDC)</i>
✓ 72.	" S. Hariharasubramaniam	do <i>VDC</i>
✓ 73.	" N. Krishnamurthi	do <i>VDC</i>
← 74.	" M. Muthukrishnan	do
✓ 75.	" S. M. Rajasekharan	do <i>VDC</i>
✓ 76.	" G. N. Vittal	do <i>VDC</i>
✓ 77.	" S. Subramaniam	do <i>(Maha...)</i>
78.	" K. G. Sankaran Nair	Store-keeper <i>(Maha...)</i> <i>VDC</i>
79.	" K. S. Karthikeyan	do
80.	" K. Ramamurthi	do
81.	" N. Gopalakrishnan	do
82.	" N. P. Narayanan	do
83.	" M. S. Nayudu	do
84.	" K. J. Mathews	do
85.	" Victor Emmanuel	do
86.	" P. P. Ramanathan	do
87.	" M. Murugesan	Driver
88.	" A. Arumugham	do
89.	" D. W. Mason Kelly	do
90.	" V. Selvaraj	do
91.	" Abdul Hakim	Library Attendant
92.	" Shaik Mohammed	Peon
93.	" V. Selvaraj	do
94.	" T. S. Krishnamani	Peon
95.	" R. Dorai Raj	do
96.	" T. P. Thangavelu	do
97.	" Yakub Hussain	Chowkidar
98.	" Abdul Sattar	do
99.	" R. Santhanam	do



(1)	(2)	(3)
100.	Shri G. L. Bhaktavatsalu	Chowkidar
101.	„ V. Sampath	do
102.	„ E. Arumugham	Cycle Messenger
103.	„ K. Sadagopan	do
104.	„ P. K. Lakshmipathi	do
105.	„ Arumugham	Sweeper
106.	„ Pavadai Mudaliar	do
107.	„ R. Arjunan	do
108.	„ Malakondiah	do
109.	„ Arumugham	do

*Works :*

110.	Shri Y. S. Ramaswami	Superintending Engineer
111.	„ N. Lakshminarayanan	Executive Engineer
112.	„ C. Ganapathy	Clerk of Works
113.	„ N. Venkatachalam	do
114.	„ G. Sadasivam	do
115.	„ A. Ram Mohan	do
116.	„ Srinivasamurthi	Assistant Engineer
117.	„ D. Jayabalan	Junior Engineer
118.	„ B. N. Gopinath Rao	do
119.	„ B. Bhaskara Rao	do
120.	„ R. Krishnamachari	do
121.	„ K. Srikantiah	do
122.	„ T. Iyyappan Nair	do
123.	„ D. Krishnamurthi	do
124.	„ G. K. Chandran	do
125.	„ T. Madhava Rao	do
126.	„ M. Doorvasalu Reddy	do
127.	„ P. Ramani	do
128.	„ S. Ganapathi	do
129.	„ S. Krishnamani	do
130.	„ K. E. Raghavan	do
131.	„ A. Angamuthu	do
132.	„ Malayalam	do
133.	„ S. Pitchuraman	Draughtsman
134.	„ S. Varadarajan	Tracer

(1)	(2)	(3)
135.	Shri C. Kunju Kunju	Maistry
136.	.. S. Venkatakrishnan	do
137.	.. R. Seelamuthu	do
138.	.. V. Srinivasan	do
139.	.. K. S. Krishnaswami	do
140.	.. R. Ramanujam	do
141.	.. A. Ganesan	do
142.	.. P. Elumalai	do
143.	.. K. Kodandaraman	do
144.	.. Kuppuswamy	do
145.	.. Dharani Singh	Wireman
146.	.. Govindaraj	Helper
147.	.. Perumal	do
148.	.. Krishnan	do
149.	.. S. R. Chakravarthi	do

#### TERMINATION OF SERVICES/RESIGNATION RELEASE

Sl. No.	Name.	Designation.
1.	Shri O. S. Narayanaswami	Associate Lecturer
2.	.. Heera Singh	Superintendent (Academic)
3.	.. C. Pakkiam	Senior Technical Assistant
4.	.. D. Jayabalan	Junior Engineer
5.	.. R. Narayanan	Upper Division Clerk
6.	.. M. S. Nayudu	Storekeeper
7.	.. S. Varadarajan	Tracer
8.	.. R. Seelamuthu	Maistry
9.	.. V. Selvaraj	Peon
10.	.. R. Santhanam	Chowkidar
11.	.. G. L. Bhaktavatsalu	do
12.	.. Arumugham	Sweeper

**INSTITUTE DELEGATES TO DEPUTED SEMINARS/  
CONGRESSES/CONFERENCES**

Sl. No.	Name of the Member of Staff	Name of the Technical/ Scientific Congress	Place and date
		Seminar	
1.	Dr. W. Koch and Dr. C. Rama Sastry	"Symposium on Electrical Machine Design"	Coimbatore October, 1960.
2.	Dr. D. Venkateswarlu, Assistant Professor, Chemical Engineering and Chemical Technology.	"Chemical Plant Design Symposium"	Kharagpur, December, 1960.
3.	Dr. Sisir Chandra Das. Department of Mathematics.	"Indian Science Congress"	Roorkee January, 1961.
4.	Dr. W. Koch and Dr. C. Rama Sastry Department of Physics.	do	do
5.	Shri C. G. Swaminathan Professor of Civil Engineering.	"Technical Sessions of the Indian Roads Congress"	Bhopal, January, 1961.
6.	Dr. Wolfgang Scheer, Department of Mechanical  Engineering.	"Conference on Hydraulic Research in Univer- sity. Laboratories."	Coimbatore, February, 1961.
7.	Dr. C. Rama Sastry, Assistant Professor of Physics.	"Low Energy Nuclear Physics"	Bombay, March, 1961.

**PLACEMENT FOR TRAINING IN WEST GERMANY  
UNDER INDO - GERMAN AGREEMENT**

Sl. No.	Subject	Name of trainee	Country where the training course is undertaken	Date of deputa- tion from India	Expected date of arrival in India.
1.	Electronics	Shri D.K. Banerjee	West Germany	1961	April 1963
2.	Electrical Engineering	Shri K.K. Mukhopadaya	West Germany	1961	April 1964

## ADVISORY COMMITTEES

## CIVIL ENGINEERING

1. Prof. J. A. Tarapurwala,  
Superintending Surveyor of  
Works, Life Insurance  
Corporation, of India,  
Bombay.
2. Prof. S. Rajaraman,  
Principal,  
College of Engineering,  
Trichur.

## CHEMISTRY

1. Rev. Fr. Lourdu Yedanapally,  
Head of the Department of  
Chemistry, Loyola College,  
Madras.
2. Dr. T. R. Govindachari,  
Chief Professor of Chemistry,  
Presidency College,  
Madras.

## INORGANIC CHEMISTRY

Prof. T. Mariappan,  
Department of Chemistry,  
Presidency College,  
Madras.

## HUMANITIES

1. Dr. R. Balakrishna,  
Department of Economics,  
University of Madras,
2. Shri G. V. Krishna Rao,  
Head of Department of  
Business Management,  
University of Madras,
3. Rev. Fr. L. D. Murphy,  
Loyola College, Madras.
4. Prof. R. Bhaskaran,  
Department of Politics,  
University of Madras,

## REPORTS FROM THE TEACHING DEPARTMENTS

### DEPARTMENT OF MECHANICAL ENGINEERING

(a) *Staff Structure :*

Professor :	One
Lecturers :	Four
German Experts :	
Teaching	Three
Workshop :	One

(b) and (c) *Teaching and Laboratories :*

Instruction was given to the first students in the following subjects :

Engineering Drawing & Descriptive Geometry  
Fitting and Carpentry.

The second year students were taught the following subjects :

Engineering Drawing and Descriptive Geometry  
Machine Drawing  
Engineering Materials  
Applied Mechanics  
Welding.

(d) *Educational Tours :* Nil.

(e) *Seminars/Colloquia*  
*Special lectures :* Nil

(f) *Major equipment*  
*Procured :* Nil

### DEPARTMENT OF CIVIL ENGINEERING

(a) *Staff Structure :*

Professor :	One
Assistant	
Professors :	Two
Lecturer :	One

(b) *Teaching :*

The following courses were taken by this Department during the year :

II YEAR B. TECH.  
Strength of Materials  
Civil Engineering Drawing.  
Engineering Materials - Non-metals.

(c) *Laboratories :*

Planning of the various laboratories was taken up. The list of equipment required in the ultimate set-up for each laboratory was drawn up.

(d) *Educational Tours :* Nil.(e) *Seminars :*

Professor C. G. Swaminathan attended the Annual Session of the Indian Roads Congress at Bhopal.

(f) *Major equipment procured :*

Items of equipment which are essential for undergraduate and limited post-graduate courses in Civil Engineering have been procured. Some of the major items of equipment already purchased are as below :

- |   |  |
|---|--|
| (i) Theodolites   | (ii) Levels  |
| (iii) 100 tons compression Testing Machine for Concrete cubes and cylinders | (iv) Vee Bee Consistometer   |
| (v) Marshalls stability Test apparatus                                      | (vi) Triaxial Compression apparatus.                                       |
| (vii) Ductility Testing Apparatus for Bitumen                               | (viii) California Bearing Ratio Apparatus (both field and laboratory type) |
| (ix) Universal Automatic Compaction Apparatus                               | (x) Plate Bearing Test equipment.  |

## DEPARTMENT OF ELECTRICAL ENGINEERING

(a) *Staff Structure :*

Professor : One

(b) *Teaching :* Nil(c) *Laboratories :*

Comprehensive lists of equipment for the various laboratories of the Department were prepared and sent to the planners in Germany.

(d) *Educational tours :* Nil.(e) *Seminars :* Nil.(f) *Major equipment procured :* Nil.

## DEPARTMENT OF CHEMICAL ENGINEERING

(a) *Staff Structure :*

Assistant Professor : One  
Lecturer : Two

(b) *Teaching :*

"Chemistry of Engineering Materials" for first year students.

(c) *Laboratories :*

Laboratory tables and other furniture, glass-ware, chemicals and hardware required for 1961-1962 for the new laboratories to be set up in the Institute Campus were ordered for and procured.

(d) *Educational tours :* Nil.(e) *Seminars/Colloquia/Special lectures :*

(a) Dr. Ing. H. Miessner, Director of Research Development, Bayer Works, Leverkusen, delivered a lecture on "Chemical Engineering Education" and advised the Institute about the organization of the Department of Chemical Engineering.

(b) Dr. D. Venkateswarlu was deputed to attend the symposium on "Chemical Plant Design" organized by the Indian Institute of Technology, Kharagpur in Decemer, 1959.

(f) *Major equipment procured :*

Items for fuels and materials, testing like Bomb Calorimeter, muffle furnaces, turbidimeter have been procured. In addition, analytical balances, air compressor and other items required for normal work have also been obtained.

## DEPARTMENT OF PHYSICS

(a) *Staff Structure :*

Assistant Professor : One  
Lecturers : Three  
German staff member : One.

(b) *Teaching :*

Teaching is confined to the teaching of Physics to the first and second year students. A special feature is the demonstration of experiments.

(c) *Laboratories :*

Only for undergraduate work.

(d) *Educational tours :* Nil.(e) *Seminars/Colloquia/Special Lectures :*

Five seminars were conducted.

(f) *Major equipment procured :*

- (a) X-ray diffraction apparatus
- (b) Ultra-violet spectro-photometer
- (c) Semi micro balance.
- (d) Four channel Hartmann & Braun recorder
- (e) Ultra thermostat range - 100°C to 200°C.

## DEPARTMENT OF CHEMISTRY

(a) *Staff Structure :*

Lecturers: Three

(b) *Teaching :*

Classes were conducted in Physical, Inorganic and Organic Chemistry for first year students as also Tutorial classes for first year students.

(c) *Laboratories :*

Practical classes in Elementary Chemistry were conducted for first year students. The Laboratories were provided by the A. C. College.

(d) *Educational Tours :* Nil.(e) *Seminars :* Nil.(f) *Major equipment procured :*

An additional Gas Plant was set up in the Institute building. A number of analytical balances, centrifuges, distilled water plants and general laboratory ware was obtained. A 100 lb. capacity ice plant was also installed in the department.

## DEPARTMENT OF MATHEMATICS

(a) *Staff structure :*

Lecturers: Three  
German Staff Member: One.

(b) *Teaching :*

The Department undertook teaching in Mathematics for the first two years in the B. Tech. course leading to the various disciplines in Engineering.

(c) *Laboratories :* Nil.(d) *Educational Tours :* Nil.



(e) *Seminars/colloquia/special lectures :*

Seminars have been arranged on various topics of pure and applied mathematics at regular intervals. The Department has carried research work in the following branches :

- (1) Stability theory of differential equations.
- (2) Probability and Stochastic processes.
- (3) Elasticity.
- (4) Theory of Cosmic Rays and
- (5) Theory of fundamental particles and their inter-actions.

A list of papers published in standard journals in India and abroad is given below :

STABILITY THEORY OF DIFFERENTIAL EQUATIONS AND  
DIFFERENCE DIFFERENTIAL EQUATIONS

Dr. H. Hahn	On the stability theory of differential difference equations.	Journal of Mathematics, Analysis and Applications, U. S. A. (1961) (in prep.)
Dr. K. J. Srivastava	Stability Theory and adjoint operators. Stability Theory and adjoint operators - neutral type Asymptotic behaviour of the solutions of non-linear differential difference equation. Limit of equations of non-linear differential difference equations-II	Under publication. Under publication. Under publications. Science and Engg. Annual No. (I. I. T. Madras (1961)

STOCHASTIC PROCESSES

Dr. S. K. Srinivasan	Fluctuation problem in electro - magnetic cascades. A note on Electro-Photon Showers. A simple Stochastic model with ionisation loss.	Zeit Physik 161 (1961) 346. Nuclear Physics 25 (1961) 152 Science and Engineering (1961) 20.
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Multiple stochastic point processes. Zastosawamia Mathematyks 6(1961)(in press)

Stochastic differential equations. To be read at the International Congress of Mathematics, 1962.

## ELASTICITY

Dr. S. C. Das Bars elastically reinforced by hyperboloidal type notches under tension. Indian Science, 1951.

Dr. S. C. Das and R. Subramaniam Bars reinforced by hyperboloidal type notches under pure bending. To be read in Indian Science Congress, 1961.

Dr. S. C. Das Bars reinforced by hyperboloidal type notches under pure shear. To be published

## THEORY OF FUNDAMENTAL PARTICLES AND THEIR INTER-ACTIONS

Dr. S. K. Srinivasan Multiple productions of pions in sub. Gov. region (with K. Venkatesan) Nuclear Physics, 27, (1961)

Photo-production in the strip approximations) with K. Venkatesan) To be read at the High Energy Conference, Madras. 1961.

Dr. S. C. Das Composite Gravitating earth model. Science and Engineering I. I. T. Madras (1961) 16.

Dr. S. K. Srinivasan Programming for digital computers. Presented at the Symposium on Instrumentation Madras.

(f) Major equipment procured : Nil