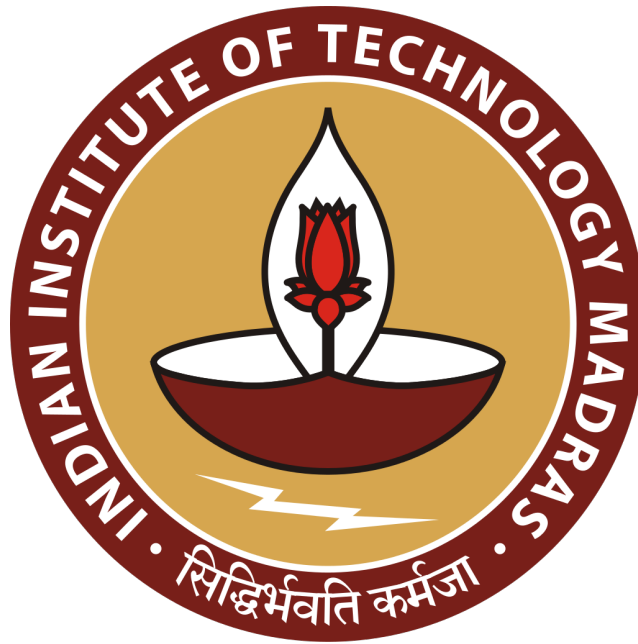


PHD ORDINANCES AND REGULATIONS

Revised upto the 296th Meeting of the Senate



Indian Institute of Technology Madras

Chennai – 600036

Updated

July 1, 2022

CONTENTS

PAGE

9	PhD-R.1	Categories of Admission	1
10	PhD-R.2	Eligibility for Regular Ph.D, Direct Admission to the M.S+Ph.D Programme, Upgraded Ph.D	3
12	PhD-R.2.1	Minimum Qualifications for Admission to the Regular Ph.D programme	3
13			
14	PhD-R.2.2	Minimum Qualifications for Direct admission to M.S+Ph.D	6
15	PhD-R.2.3	Minimum Qualifications for Upgrading to the Ph.D Programme	7
16	PhD-R.2.4	Option of Getting Two Degrees for Direct M.S+Ph.D and Upgraded Ph.D	7
17			
18	PhD-R.2.5	M.Tech+Ph.D Dual-Degree program in Engineering Design Department	7
19			
20	PhD-R.3	Foreign Nationals	7
21	PhD-R.4	Selection Procedure	8
22	PhD-R.5	Admission	8
23	PhD-R.6	Registration	8
24	PhD-R.7	Guides and Co-Guides	8
25	PhD-R.8	Doctoral Committee	9
26	PhD-R.9	Enrollment	10
27	PhD-R.10	Ph.D Requirements	11
28	PhD-R.11	Course Work	12
29	PhD-R.11.1	General Guidelines	12
30	PhD-R.11.2	Coursework Requirements for Research Scholars	12
31	PhD-R.11.3	Grades and CGPA	14
32	PhD-R.12	Comprehensive Examination	14
33	PhD-R.13	Thesis and Panel of Examiners	15
34	PhD-R.14	Thesis Reports	16
35	PhD-R.15	Viva Voce Examination	16
36	PhD-R.16	Minimum and Maximum Duration	17
37	PhD-R.17	Relief from the Ph.D Programme to take up Employment	18
38	PhD-R.18	Temporary Withdrawal from the Programme	18
39	PhD-R.19	Cancellation of Registration	18
40	PhD-R.20	Reversion of Upgraded Ph.D to Master's Programmes	18
41	PhD-R.20.1	Reversion of scholars upgraded from M.S to Ph.D	18
42	PhD-R.20.2	Reversion of scholars upgraded from M.Tech to Ph.D	18

43	PhD-R.20.3	Reversion of scholars upgraded from M.Sc to Ph.D	19
44	PhD-R.21	Conversion of Regular/Direct M.S + Ph.D Registration to the M.S Programme	19
45	PhD-R.22	Award of the Ph.D Degree	19
46	PhD-R.23	Discipline	20
47	PhD-R.24	Power to Modify	20

NOMENCLATURE

AICTE	All India Council of Technical Education
CFTI	Centrally Funded Technical Institute (as declared by MoE) HTRA
CGPA	Cumulative Grade Point Average
CSIR	Council of Scientific and Industrial Research
DC	Doctoral Committee for PhD scholars
DST	Department of Science and Technology in India
GTC	General Test Committee for MS scholars
HTRA	Half-time Research Assistantship awarded by IITM
HoD	Head of the Department
IC&SR	Center for Industrial Consultancy & Sponsored Research at IITM
IIM	An Indian Institute of Management under MoE, India
IISc	Indian Institute of Science, Bengaluru
IIT	An Indian Institute of Technology under MoE, India
IITM	Indian Institute of Technology Madras
JRF	Junior Research Fellowship
MoU	Memorandum of Understanding
PG	Postgraduate degree
QIP	Quality Improvement Program of AICTE
R&D	Research and Development
RKA	Registration Kept Alive
UG	Undergraduate degree
UGC	University Grants Commission

DEGREES

Ph.D	Doctor of Philosophy <ul style="list-style-type: none"> • Regular Ph.D for those joining after a Master's degree • Direct admission to M.S+Ph.D in Engineering/ Management for those joining after B.E/B.Tech • Upgraded Ph.D in Engineering/ Management for those upgrading from M.S or M.Tech
M.S	'Master of Science' or 'Master of Science by Research' in Engineering/Technology/Management
51 M.S(E)	Master of Science by Research (Entrepreneurship)
M.S(AR)	Master of Science (Applied Research)
M.E	Master of Engineering (2 year programme)
M.Tech.	Master of Technology (2 year programme)
M.Sc	Master of Science (2 year programme in sciences)
M.A	Master of Arts (2 year programme)
M.B.A	Master of Business Administration (2 year programme)
B.E	Bachelor of Engineering (4 year programme)
B.Tech	Bachelor of Technology (4 year programme)

EXAMINATIONS

GATE	Graduate Aptitude Test in Engineering administered by IISc/ IITs
CSIR-NET	National Eligibility Test administered by CSIR for award of JRF in Physical, Chemical, Mathematical, Earth Atmospheric Ocean & Planetary and Life Sciences
52 UGC-NET	National Eligibility Test administered by UGC for JRF award in Humanities, Social Sciences, Environmental Sciences, Forensic Science, Computer Science & Applications, Electronic Science.
CAT	Common Admission Test administered by IIMs Graduate Management Admission Council (GMAC)
TOEFL	Test Of English as Foreign Language administered by ETS

ORDINANCES AND REGULATIONS

PHD ORDINANCES

- 53 PhD-O.1 A candidate who has qualified for the award of the Master's degree from a recognized
54 institute or university in a discipline as prescribed in the regulations of the Senate is
55 eligible to apply for the PhD programme of this Institute.
- 56 PhD-O.2 A candidate who has qualified for the award of Bachelor's degree, and with a good
57 academic record in the discipline as prescribed in the regulations of the Senate, is
58 eligible to apply for the direct MS + PhD program in engineering/management of this
59 Institute.
- 60 PhD-O.3 The award of the PhD degree shall be in accordance with the regulations of the Senate
61 of this Institute.

PHD REGULATIONS

62 PhD-R.1 CATEGORIES OF ADMISSION

- 63 Candidates will be admitted to the Ph.D programme of the Indian Institute of Technology Madras
64 (IITM) under one of the following categories, with requirements as given below.

Category	Remarks
Regular-HTRA	Half-Time Research Assistantship (HTRA) from IITM.
Regular-Fellowship	Funding from outside agencies such as UGC, CSIR, industry etc.
Regular-Project-HTRA	Funding through a project administered by IC&SR at IITM.
Regular-Project-NHTRA	Funding through a project administered by IC&SR at IITM without eligibility for conversion to HTRA.
65 External	Sponsored by and employed in an industry, organization, or institution having R&D facilities and recognized by DST(DSIR) or IITM. Candidates should have at least 2 years of relevant work experience.
Part-time	Should be employed in a reputed industry, organization, or institution located within commutable distance of IITM. Candidates should have at least 2 years of relevant work experience.
Staff	Should be employed as a permanent staff member of IITM with at least 2 years of experience.
QIP	Should be sponsored by AICTE under the Quality Improvement Program (QIP) through the Centre for Continuing Education (CCE) at IITM.

- 66 (a) Scholars registered for any of the Regular categories are considered full-time scholars.
- 67 (b) For admission under **Regular-HTRA**, **Regular-Fellowship** and the **Regular-Project-HTRA**
68 category, departments will adopt common shortlisting criteria and have a common merit list.
- 69 (c) **Project-NHTRA** admissions can happen in two ways:
- 70 (i) Project staff of IC&SR, who have successfully completed two approved courses at IITM
71 (total credits ≥ 18) with CGPA ≥ 7.5 , and have obtained at least a 'C' grade in each
72 course, can be selected through an interview, without having to take a written test. They
73 can join the programme after gaining at least 12 months experience in a project.
- 74 (ii) Project staff of IC&SR, who have gained at least 12 months experience in a project, can be
75 selected through a written test and interview. This selection will be for project-NHTRA
76 applicants who do not meet the course requirement criteria.
- 77 The provisions above are also applicable to project staff working in the IITM research park.
78 **286th Senate Res. No 96/2019** **291st Senate Res. No 5/2021**
- 79 (d) A research scholar under the **External** category will carry out his/her research work in his/her
80 organization under the supervision of a guide at IITM, and a co-guide employed in the orga-
81 nization. An external scholar employed in the IITM Research Park need not have a co-guide
82 from his/her organization.
- 83 (e) **External and part-time** scholars have a minimum residential requirement of one semester.
84 Part-time scholars will be permitted to undergo course work without the residential requirement,
85 with the permission of their employer.
- 86 (f) Scholars admitted under the Regular-HTRA category can move to the Regular-Project-HTRA
87 category and revert to the Regular-HTRA category, if necessary.
- 88 (g) Scholars admitted under the Regular-Project-HTRA category can move to the Regular-HTRA
89 category, provided they have been funded by a project for a duration of at least one year.
- 90 (h) Scholars admitted under the Project-NHTRA/Part-time/External categories cannot move to the
91 Regular-HTRA category at any time. **286th Senate Res. No 96/2019**
- 92 (i) Interdisciplinary (ID) Ph.D programme: Admission of scholars to the ID programme will
93 be based on an interdisciplinary research proposal, needed as part of the selection procedure
94 formulated by the IDRPs committee. (Please refer to the admission brochure for details of the
95 areas of research.)
- 96 (j) The medium of instruction and communication for academic research shall be English (eg.
97 DC Reports, synopsis, title of the thesis in the degree certificate, seminar presentation etc.)
98 Research publications arising out of the Ph.D work can be in any appropriate language. For
99 Ph.D theses, the language to be used will be English. However, if the subject matter so requires,
100 the thesis can be written in any language with the approval of the doctoral committee. The
101 thesis and its English-translated version, certified by the guide(s), must be submitted together
102 for evaluation. **278th Senate Res. No 88/2017**

103 **PhD-R.2 ELIGIBILITY FOR REGULAR PH.D, DIRECT ADMISSION TO THE M.S+PH.D**
 104 **PROGRAMME, UPGRADED PH.D**

105 **All the applicants should have a good academic record.**

106 There are three modes of admission in which a candidate can be admitted to the Ph.D programme –
 107 regular Ph.D, direct M.S + Ph.D and upgraded Ph.D.

108 The minimum qualifications for each of the various modes are as follows –

109 **These qualifications should be in relevant areas/disciplines as provided by the respective de-**
 110 **partments in the brochure released with the admission notice.** The brochure will also include
 111 details about inter-disciplinary research areas. Short-listed candidates will be called for a “**test and**
 112 **interview**” or “**interview**” by a selection committee in the respective departments.

113 **PhD-R.2.1 Minimum Qualifications for Admission to the Regular Ph.D programme**

114 Candidates applying for the Ph.D programme in one of the following areas need to have **any one of**
 115 the minimum qualifications mentioned in the table below.

Area	Minimum Qualifications	
	Educational Qualifications	Additional Qualifications
Engineering	<ul style="list-style-type: none"> • M.E/M.Tech/M.S by Research in Engineering/5-year integrated Masters/Dual Degree in engineering. • 2 year M.Sc from IITs (entry through JAM) with CGPA \geq 8 are exempted from qualifying in a national-level examination. • B.S+M.S (5-year integrated) from CFTI 	None

	<ul style="list-style-type: none"> • For applied mechanics, M.Sc degree holders in physics, mathematics, statistics, electronics, instrumentation, chemistry, nanoscience, nanotechnology, material science, and with a good academic record from any recognized university/institute are also eligible. 295th Senate Res. N^o /2022 • For civil engineering, M.Sc degree holders in the relevant discipline from any recognized university/institute are eligible. 278th Senate Res. N^o 73/2017 • For electrical engineering, M.Sc degree holders with a good academic record from any recognized university/institute are also eligible. 295th Senate Res. N^o /2022 	<p>Valid GATE score/ UGC-NET/CSIR-NET/NBHM/ Inspire or equivalent qualification tenable for the year of registration. In case of candidates with more than 5 years relevant experience after the M.Sc, the requirement of a test score may be waived by the selection committee.</p>
<p>Engineering Design</p>	<p>Master's degree in Aerospace, Automobile, Biomedical, Civil, Computer Science, Electrical, Electronics, Engineering Design, Engineering Physics, Instrumentation, Mechanical, Metallurgical, M.S (Medicine), M.D, M.D.S with minimum first class, Naval Architecture, Production/Manufacturing Engineering, or Master's degree in Design (M.Des) or M.Tech (Industrial Mathematics.) 282nd Senate Res. N^o 101/2018</p>	
<p>Sciences</p>	<ul style="list-style-type: none"> • M.E/M.Tech or M.S by Research in engineering or 2 year M.Sc from IITs (entry through JAM) with CGPA ≥ 8 • B.S+M.S, or 5-year integrated degree from CFTI 	<p>None</p>

	M.Sc from IITs with CGPA < 8, M.Sc from other institutions.	Valid GATE score/UGC-NET fellowship/CSIR-NET fellowship/NBHM Ph.D scholarship or equivalent qualification, tenable for the current year of admission.
Humanities and Social Sciences	Master's degree/dual-degree or equivalent in a relevant discipline and qualifying UGC-NET or JRF/CSIR-JRF/GATE score or equivalent qualification, tenable for the current year in the relevant area or an international-level post graduate admission examination such as GRE.	Candidates with only a GRE (or equivalent international-level post graduate admission examination) score are not eligible for HTRA.
Management	Master's degree/two-year PG diploma in relevant discipline and a Bachelor's degree (minimum 5 years of undergraduate and post graduate education) or five-year integrated Master's degree/dual-degree or equivalent in a relevant discipline.	CAT/GATE/UGC-NET/CSIR-NET/GMAT/GRE or equivalent. Candidates with an MBA/two-year PG diploma from a CFTI with CGPA \geq 8 do not need a national-level examination to avail fellowship. Candidates with only GRE/GMAT scores not eligible for HTRA.

116 **NOTES**

- 117 (a) The departmental selection committees may set more stringent criteria than the minimum
118 educational qualifications listed above.
- 119 (b) For external/part-time/staff categories, the requirement of a valid GATE score or CSIR/UGC
120 JRF or Lectureship/NBHM/CAT or equivalent qualification is waived.
- 121 (c) The departmental selection committees may consider meritorious candidates from disciplines
122 other than those listed in the admission brochure, if there is a good match between the educa-
123 tional/research backgrounds of the candidates and the proposed areas of research.
- 124 (d) Master's degree (M.E/M.Tech/M.S) implies a two-year PG program from an accredited uni-
125 versity.
- 126 (e) Departmental selection committees may consider candidates with a one year PG degree from
127 accredited universities for direct admission to the M.S+Ph.D programme **PhD-R.2.2**. Courses
128 completed in the one-year PG program may be considered by the doctoral committee **PhD-R.7**
129 towards the course requirements. Such scholars will be eligible for HTRA only if they qualify
130 in GATE or an equivalent national-level examination.

131 (f) Ph.D candidates employed in govt. R&D organizations, public-sector undertakings, or
 132 DST(DSIR) approved organizations with at least 2 years of relevant experience, can be consid-
 133 ered for selection under the regular-HTRA category for 3 years. This is subject to furnishing a
 134 “No Objection Certificate” and a commitment letter from the parent organization that they will
 135 be given study leave without salary for a minimum period of 3 years. At the time of admission,
 136 such candidates need to submit the relieving order as well as a “leave without pay” sanction
 137 letter from the parent organization. **281st Senate Res. № 72/2018**

138 **PhD-R.2.2 Minimum Qualifications for Direct admission to M.S+Ph.D**

139 Candidates with BE/B.Tech are eligible for direct admission to the M.S+Ph.D programme as a regular
 140 full-time scholar in engineering/management, subject to any one of these requirements:

Educational Qualifications	Additional Qualifications
B.S/B.E/B.Tech from a Centrally Funded Techni- cal Institute (CFTI) with CGPA ≥ 8 .	None
B.S/B.E/B.Tech from a CFTI with CGPA < 8	Valid GATE score
BE/BTech from any other university, with CGPA ≥ 8 (or equivalent).	Valid GATE score
141 For Computer Science and Engineering , in addition to the above, M.Sc.(Mathematics) or M.Sc.(ComputerScience) from a CFTI, or a highly-recognized institute such as the Indian Sta- tistical Institute or the Chennai Mathematical In- stitute, and CGPA ≥ 8 .	Valid GATE(MA) or GATE(CS) score. 284th Senate Res. № 37/2019
142 For Engineering Design , MBBS/BDS degree with at least first class, in addition to the above. 282nd Senate Res. № 101/2018	Valid NEET PG qualifying score.

- 142 • Regular full-time candidates in their final year prior to graduation may also apply for direct
 143 admission to the M.S + Ph.D programme. Admission of such scholars will be subject to their
 144 qualifying GATE prior to joining, failing which their admission offer will be canceled.
- 145 • External candidates with a proven research record do not need a GATE score.

146 In addition, top 10% of the students in their 3rd year of their Bachelor’s degree in other institutions
 147 (which enter into a specific MoU with IITM in this regard) can apply for direct admission to the
 148 M.S+Ph.D programme.

- 149 (a) Selected students will move to IITM in their 4th year.
- 150 (b) Credits earned during the first year of direct admission to the M.S+Ph.D programme at IITM
 151 shall have equivalence to credits needed for the 4th year of the BTech in their parent institution.
- 152 (c) These credits will be transferred to that institution for the award of the BTech degree.

- 153 (d) The scholars are eligible for HTRA for 5 years, after completing their first year of stay
154 successfully at IITM and qualifying in GATE. **Students from CFTIs with a CGPA ≥ 8 on a**
155 **10.0 point scale will be eligible for HTRA (without GATE).**
- 156 (e) If the student does not perform well in courses at IITM, (s)he will be transferred back to the
157 parent institute along with the credits earned.
- 158 (f) The candidate should complete the comprehensive viva within 5 semesters after joining IITM.
- 159 (g) A student who is deemed incompetent *or is otherwise unable to continue* in the direct M.S +
160 Ph.D program will be allowed to drop out at any time after the 5th year of joining the BTech
161 programme. The student's BTech credits completed at IITM will be transferred to the parent
162 institute.

163 **PhD-R.2.3 Minimum Qualifications for Upgrading to the Ph.D Programme**

164 Candidates registered for M.S/MTech/MSc at IITM are eligible for upgradation to the Ph.D program
165 in the same department, if they satisfy the following criteria:

- 166 (a) For M.Tech – completed four courses during the first semester and obtained a CGPA ≥ 8 .
167 **290th Senate Res. No 65/2020**
- 168 (b) For M.Sc. – completed all the courses prescribed for the first 3 semesters, and with CGPA ≥ 8 .
- 169 (c) For M.S. – CGPA ≥ 8 in the prescribed courses, with a minimum of three courses completed.

170 Upgrade requests should be submitted within 2 years from the date of joining. For M.S scholars who
171 have completed 2 years, the request for an upgrade may be considered if at least one journal paper
172 has been accepted/published.

173 **PhD-R.2.4 Option of Getting Two Degrees for Direct M.S+Ph.D and Upgraded Ph.D**

174 Direct M.S + Ph.D as well as upgraded Ph.D scholars are eligible to receive two degrees (MS/MTech/MSc
175 & Ph.D) if they have met the course requirements of the respective Master's programme and all the
176 requirements of the Ph.D programme, as given in **PhD-R.10** and **PhD-R.11**. The provisional certifi-
177 cate for the master's degree will be issued to the scholars on approval of the Ph.D synopsis by the
178 DC.

179 **PhD-R.2.5 M.Tech+Ph.D Dual-Degree program in Engineering Design Department**

180 The selection of candidates will be through the direct-Ph.D admission process.

181 **295th Senate Res. No 9/2022**

182 **PhD-R.3 FOREIGN NATIONALS**

183 Foreign nationals are those with foreign passports, including those who are PIO/OCI card holders.

- 184 (a) Foreign nationals can only register as full-time scholars. They are not eligible to receive HTRA
185 support.
- 186 (b) Foreign nationals who are PIO/OCI card holders are eligible for admission with the fee pre-
187 scribed for Indian nationals.

- 188 (c) Foreign nationals with eligible degrees from Indian universities (PhD-R.2) will be treated on
189 par with Indian nationals for admission, but with the prescribed fee for foreign nationals.
- 190 (d) Foreign nationals with foreign degrees must meet the minimum educational requirements
191 equivalent to an Indian degree (PhD-R.2) in the relevant disciplines. They should have a valid
192 score in the GMAT/GRE (or equivalent) examination in the relevant discipline.
- 193 (e) Foreign nationals whose medium of instruction in their UG and PG programmes was not
194 English should satisfy one of the following:
- 195 (a) IELTS with a minimum score of 6.5 (overall)
- 196 (b) TOEFL (internet based) : 80 (overall)

197 **PhD-R.4 SELECTION PROCEDURE**

198 Eligible candidates possessing the minimum educational qualifications (as per PhD-R.2), and sat-
199 isfying additional and possibly stiffer criteria set by the departments, will be called for a “test and
200 interview” or “interview” by departmental selection committees.

201 For candidates who have obtained their UG/PG degrees more than 10 years earlier (as on the last
202 date for the receipt of completed applications), a written test will be conducted.

203 Applications of foreign nationals may be considered without a test/interview.

204 Based on the academic record and the performance of the candidates in the test/interview, the
205 departmental selection committees will recommend suitable candidates to the Chairperson, Senate.

206 **PhD-R.5 ADMISSION**

- 207 (a) Candidates whose selection is approved by the Chairperson, Senate will be admitted to the
208 Ph.D program after payment of prescribed fees.
- 209 (b) After cancellation of registration, the Institute reserves the right to allow re-registration on a
210 case-by-case basis.

211 **PhD-R.6 REGISTRATION**

212 A scholar’s date of joining is the date of registration.

213 **PhD-R.7 GUIDES AND CO-GUIDES**

- 214 • To supervise the progress of the scholar, an IITM faculty member shall be nominated as a
215 guide by the Dean(AR).
- 216 • In addition to the guide, at most one faculty member from IITM may be nominated as a
217 co-guide.
- 218 • A co-guide from outside IITM may be allowed with the approval of the Chairperson, Senate.

219 In addition to the above,

- 220 (a) If the guide from IITM proceeds on leave for more than a year, another faculty member may
221 be appointed as a co-guide.
- 222 (b) A faculty member, who has guided a candidate for at least 3 years, will continue to be a guide
223 post-retirement. However, another member, with at least 5 years of service remaining, will be
224 nominated as a co-guide at the time of the guide's retirement.
- 225 (c) A faculty member retiring within 3 years may be permitted to be a guide for a new scholar.
226 However, another faculty member with at least 5 years of service remaining will be appointed
227 as a co-guide when the scholar joins IITM. On retirement, the faculty member will continue
228 to be a guide.
- 229 (d) The appointment of co-guide, based on the recommendation of the Doctoral Committee (DC),
230 should be made within one year from the date of joining. Requests received after this will be
231 considered by the Dean(AR) on a case-by-case basis.
- 232 (e) The DC may recommend change of guide/co-guides or appointment of a co-guide for valid
233 reasons.
- 234 (f) CSIR/ other Emeritus Fellows / Scientists / Emeritus Professors, currently holding office at
235 IITM with an appointment period of at least one year, can be a co-guide along with a guide
236 (who has at least 3 years of service remaining).
- 237 (g) Faculty from other CFTIs/universities or experts from industries with a Master's degree, and
238 with adequate professional experience in the relevant field may be appointed as a co-guide,
239 based on the recommendation of the DC. If the co-guide's organization does not have an
240 MoU with IITM, he/she shall sign an Intellectual Property Rights (IPR) and Memorandum
241 of Agreement (MoA). IITM will have no financial obligation to the co-guide. The co-guide
242 approval by the Dean(AR) will be provisional, subject to his/her appointment as an adjunct
243 faculty by the (Board of Governors) BoG within 6 months of the provisional approval. The
244 term for such adjunct faculty will be for 5 years from the date of appointment.
- 245 The request to appoint a co-guide as adjunct faculty should be sent to the Dean(Admin) along
246 with the recommendation of the department consultative committee (DCC). *Only adjunct*
247 *faculty of IIT Madras are eligible to serve as co-guide.* 281st Senate Res. No 72/2018
- 248 (h) Co-guides of external category scholars from industries need not be adjunct faculty.
249 281st Senate Res. No 72/2018

250 **PhD-R.8 DOCTORAL COMMITTEE**

251 A Doctoral Committee shall be constituted to periodically assess the scholar's progress.

252 The following is the composition of the Doctoral Committee (DC):

HoD (or his/her nominee)	Chairperson of the DC
Guide/Co-Guide*	Member(s)
Minimum of 1 departmental faculty member ⁺	Members nominated by the Chairperson, Senate (or his/her nominee) from the panel names suggested by the HoD.
Minimum of 1 faculty member from allied departments/institutions	

* co-guide is optional.

⁺ for the interdisciplinary PhD scholars, there will be one member from each of the respective departments of the guides.

- 254 (a) If the HoD is the guide, the senior-most professor/previous HoD will be nominated as the
255 Chairperson GTC by the Chairperson, Senate (or his/her nominee).
- 256 (b) The Chairperson, DC must attend synopsis/thesis report/viva-voce meetings.
- 257 (c) If a DC member goes on leave for more than a year or resigns/retires from IITM, the Chair-
258 person, Senate (or his/her nominee) will nominate another member on the suggestion of the
259 Chairperson, DC.
- 260 (d) The DC members from outside IITM must meet the same eligibility criteria as co-guides
261 **PhD-R.7**.
- 262 (e) The DC shall conduct periodic progress review meetings as outlined in **PhD-R.10**.
- 263 (f) All the DC members will be invited for all the meetings related to the scholar.
- 264 (g) All the decisions and recommendations made by the DC shall be minuted and forwarded to the
265 Dean(AR).

266 **PhD-R.9 ENROLLMENT**

- 267 (a) A scholar is required to enrol every semester after paying the requisite fees, until the submission
268 of the thesis.
- 269 (b) Enrolment has to be completed by the stipulated date, and should be approved by the HoD.
- 270 (c) Enrolment will be cancelled if progress is not satisfactory.
- 271 (d) Scholars belonging to the external category/part-time/RKA, and those who have temporarily-
272 withdrawn, or are on maternity leave, and those on academic duty with prior permission from
273 the Institute, are eligible to enroll in absentia during the stipulated period after payment of the
274 requisite fee.

275 **PhD-R.10 PH.D REQUIREMENTS**

276 The requirements in the order of completion for Ph.D are listed below.

Requirements	Expected time frame	Section
Course work	Within two semesters *	PhD-R.11
Comprehensive examination	Within three semesters *	PhD-R.12
Research Proposal Seminar (Seminar 1)	Within one year of passing the comprehensive examination #	
Mid-term Review	Within 3.5 years of joining	
277 Research Colloquium (Seminar 2)	At least 6 months after the research proposal seminar and before the thesis approval meeting 295 th Senate Res. N ^o 09/2022 @	
Thesis-Approval Meeting	This meeting should be scheduled within 6 months of the research colloquium. 295 th Senate Res. N ^o 09/2022	PhD-R.13, PhD-R.14
Ph.D viva-voce examination		PhD-R.14, PhD-R.15

* Time frames are shown for Regular Ph.D scholars, only for indicative purposes. The exact time frame for different categories can be found in the respective sections indicated in the third column

The scholarship (HTRA) will continue beyond 30 months upon successful completion of Course work, Comprehensive Exam and Research Proposal Seminar.

@ Research colloquium within 24 months of Research Proposal Seminar

- 278 (a) For Interdisciplinary (ID) scholars, a 0th DC meeting has to be conducted, in which the courses
279 and the syllabus for the comprehensive examination will be decided.
- 280 (b) Registered scholars should submit progress reports twice a year (15th June and 15th Dec.)
281 to the DC. The guides' assessment of progress and the approval of the Chairperson, DC are
282 required to enroll in the subsequent semester.
- 283 (c) The progress report of Ph.D scholars should consist of two parts: a short 2-page summary of
284 the work done, research output, and future plans; and a detailed description of the research
285 work and results, along with any publications resulting from the thesis work. The scholar
286 must also include a self-assessment of the research progress made in the reporting period, with
287 suitable justification. 295th Senate Res. N^o 09/2022
- 288 (d) Based on the report, DC members should categorize the scholar's progress as excellent, very
289 good, good, satisfactory, or not satisfactory. 295th Senate Res. N^o 09/2022
- 290 (e) In case the six-monthly progress report is considered 'unsatisfactory' by the guide and/or
291 Chairperson DC, a special DC is to be convened to review research progress.
- 292 (f) The oral part of the comprehensive examination and the two seminars are considered to be DC
293 meetings.

294 (g) Beyond 5 years for regular Ph.D and 6 years for direct/upgraded Ph.D, progress meetings will
295 be held once every six months in the presence of the Dean(AR), or his/her nominee.

296 (h) In addition to the above, the HoD/Dean(AR) may decide to convene a special DC meeting(s)
297 based on the request from the scholar/guide, to address any issue(s) with respect to the research
298 progress of the scholar.

299 **PhD-R.11 COURSE WORK**

300 **PhD-R.11.1 General Guidelines**

301 (a) Courses that meet the minimum requirements shall be at the post-graduate level and will be
302 prescribed by the DC.

303 (b) The DC should prescribe a course basket with twice the number of required courses.

304 295th Senate Res. No 09/2022

305 (c) The DC may approve courses already undergone by the scholar in other Institutions towards
306 meeting the course work requirements at IITM. These courses must be equivalent to those pre-
307 scribed, and the scholar's performance in these courses must meet the minimum requirements.
308 *Courses already undergone by a scholar in IITM or other institutions shall not be considered*
309 *if they were part of the requirements for the award of any other degree/ diploma.*

310 (d) Contact courses may be allowed subject to the recommendation of the DC and approval by
311 Dean(AR).

312 (e) Scholars are expected to complete the course work requirements within 2 semesters. Scholars
313 joining the Ph.D programme directly after BE/BTech/BS are expected to complete coursework
314 within 3 semesters.

315 **PhD-R.11.2 Coursework Requirements for Research Scholars**

Discipline	Mode	Minimum Course Work	Minimum Credits
Engineering	Regular	4 courses from the basket prescribed by the DC, ID6020 and ID6021*	36
	Upgraded from M.S	8 courses from the basket prescribed by the DC, XX6999, XX7999, ID6020 and ID6021*	84 (72 + 12)
	Upgraded from M.Tech	All the M.Tech coursework requirements (other than the M.Tech project), XX6999 and XX7999.	
	Direct M.S+Ph.D	8 courses from the basket prescribed by DC, XX6999, XX7999, ID6020 and ID6021*	84 (72 + 12)

MTech-Ph.D of Engineering Design (Dual Degree)	Regular	Course work: 12 courses prescribed by the DC, ED6999, ED7999. 72 credits need to be completed before appearing for the comprehensive viva. Mini-project not required. Exit option (failed twice in the comprehensive examination): M.Tech (108 Credits of course work + project work of 85 credits). 291 st Senate Res. N ^o 05/2021	120 (108 + 12)
	Regular	4 courses from a basket of 8 courses prescribed by the DC , ID6020, ID6021*	36
Physics/ Chemistry/ Humanities/ Management	Upgraded	4 courses from a basket of 8 courses prescribed by the DC , XX6999, XX7999, ID6020, ID6021*	48 (36+12)
	Direct (For B.Tech. in relevant discipline in Physics)	8 courses from a basket of 16 courses prescribed by the DC, XX6999, XX7999, ID6020, ID6021*	84 (72+12)
Mathematics		6 courses from a basket of 12 courses prescribed by the DC, totaling at least 60 credits. In addition, ID6020 and ID6021* must be taken.	60
		For upgraded scholars, 6 courses from a basket of 12 courses prescribed by the DC, totaling at least 60 credits + XX6999 only, along with ID6020, ID6021*.	66 (60+6)

316

317 * ID6021 is optional, to be decided by the DC

318 (a) Only the minimum required courses with the best performance will be considered for computing
319 the CGPA.320 (b) Research scholars shall obtain CGPA ≥ 7.5 , subject to a minimum of a 'C' grade in each of
321 the prescribed courses.

322 (c) Once a course is successfully completed (meaning a grade of C or higher), it cannot be repeated.

323 (d) For scholars upgrading from M.S to Ph.D in engineering/management, the courses successfully
324 completed during the M.S programme may be considered by the DC towards meeting the
325 coursework requirements.326 (e) Those scholars that upgrade from M.S to Ph.D or join the direct M.S+Ph.D programme, and
327 choose to get both the M.S and Ph.D degrees, should complete the following two additional
328 courses (6 credits each) by the 4th semester. Completion of these two courses will be towards
329 the partial fulfillment of the award of the M.S degree. These courses are included in the CGPA,

330 and a minimum grade of ‘C’ is required. For each of the two courses, scholars have to submit
331 a project report and give a seminar presentation.

332 (1) XX6999 – Critical review of Literature (where XX is the Department Code).

333 (2) XX7999 – Simulation, or preliminary experimental/analytical verification of prior art as
334 appropriate to the discipline.

335 **PhD-R.11.3 Grades and CGPA**

336 Based on performance, each scholar is awarded a final grade at the end of the semester in each
337 subject. The grades and the corresponding grade points are as follows:

338	Grade	S	A	B	C	D	E	U
	Points	10	9	8	7	6	4	0

339 The CGPA will be calculated according to the formula

$$\text{CGPA} = \frac{\sum C \times \text{GP}}{\sum C}$$

340 where C = credits and GP = the grade point obtained for the course. The sum is over the best,
341 minimum number of courses required for the programme.

342 **PhD-R.12 COMPREHENSIVE EXAMINATION**

343 The objective of the comprehensive examination is to test the breadth of the scholar’s knowledge in
344 his/her discipline and field of research.

345 A Ph.D scholar must pass the comprehensive examination of his/her department within the time
346 frame provided in the following table.

	Regular Ph.D	Within 3 semesters (expected: within one year of registration)
347	Direct M.S+Ph.D	Within 5 semesters (expected: within two years of registration)
	Upgraded Ph.D	For M.Tech/M.S students – within 2 semesters of upgradation For M.Sc students – within 3 semesters of upgradation

348 (a) The comprehensive examination committee will consist of the DC members and at least two
349 other faculty members of the Institute nominated by the Chairperson, DC.

350 (b) If the research scholar does not pass the comprehensive examination in the first attempt, he/she
351 will be allowed one more attempt within 6 months of the first attempt.

352 (c) For a research scholar from engineering/management who does not pass the comprehensive
353 examination after two attempts, his/her enrollment will be suspended from the date of dec-
354 laration of the result. If (s)he chooses to change the registration from the Ph.D to the MS
355 programme, the request may be approved based on recommendation of the DC. If the DC does
356 not recommend the conversion, the registration will be canceled from the date of declaration
357 of the results of the comprehensive examination.

- 358 (d) The comprehensive examination will consist of a written test and oral examination. The
359 department will decide on the exact scope of the written and oral components and will intimate
360 the same to the Dean(AR). The HoD will intimate the scope of the examination to the research
361 scholar sufficiently in advance to enable the scholar to prepare adequately.
- 362 (e) The DC will decide the method of comprehensive examination for scholars in the interdis-
363 ciplinary Ph.D program and inform the Dean(AR).

364 **PhD-R.13 THESIS AND PANEL OF EXAMINERS**

365 The PhD thesis is a detailed report of the scholar's research.

- 366 (a) On satisfactory completion of the prescribed courses, the comprehensive examination, the
367 research, the two seminars and when the thesis is ready for submission, the scholar requests the
368 thesis-submission approval meeting to the Academic Section, through the guide(s) and HoD,
369 for consideration of the DC. 295th Senate Res. № 09/2022
- 370 (b) Prior to the thesis-submission approval meeting, a PhD scholar is required to have at least
371 one paper published (or accepted for publication) in a refereed journal acceptable to the DC.
372 The content of the publication must be part of the thesis, and the scholar must be the primary
373 contributor of the publication. The DC may recommend exceptional cases that do not meet this
374 requirement, which will then be reported to the IITM Senate. 293rd Senate Res. № 37/2021
375 295th Senate Res. № 09/2022
- 376 (c) At the thesis-submission approval meeting, the DC and sectional observer will approve the
377 thesis and the list of examiners to be used.
- 378 (d) A two-track policy will be followed for thesis evaluation. 295th Senate Res. № 09/2022
- 379 a) Track 1: For scholars who have high-quality published work which is more than the norm
380 for the research area. The scholar must be the primary contributor to the papers, and this
381 should be evident in terms of authorship as first author, or equally credited author. The
382 publications must be in good venues. 70% or more of the thesis must have already been
383 published (or accepted) for publication. Track-1 evaluation is by two examiners approved
384 at the thesis-submission approval meeting. The examiners are given six weeks to evaluate
385 the thesis and submit their reports.
- 386 b) Track A: For scholars who have published work which is considered normal for the
387 research area. Track-A evaluation will be by three examiners composed of two external
388 examiners and one internal (IITM) examiner from a list of four external and two internal
389 examiners provided. Dean(AR) picks examiners from the list approved at the thesis-
390 submission approval meeting. The examiners are given six weeks to evaluate the thesis
391 and submit their reports. There is no compulsion to include foreign examiners in the list
392 of external examiners, but at least one must be an Indian examiner.

393 Scholars should circulate their thesis, which is ready to be sent out for examination, to their
394 DC members and the sectional observer at least a week before the thesis-submission approval
395 meeting. For Track 1, the expectation is that the thesis is such that it should be accepted as is,
396 or with very minor editorial corrections.

397 The guide should identify thesis examiners and get their email concurrence before the thesis-
398 submission approval meeting. The guide can use the thesis abstract, as well as a list of the
399 scholar's published work as inputs to potential examiners to help them decide on accepting to
400 review the thesis.

401 The decision to qualify for Track-1 will be made by the sectional observer at the thesis-
402 submission approval meeting, based on the feedback from the doctoral committee. If there is
403 a disagreement, Dean (AR) will decide.

404 Notwithstanding the above, the choice of track is left to the guide, with movement from Track-1
405 to Track-A being possible, but not vice versa.

406 **PhD-R.14 THESIS REPORTS**

407 (a) For Track 1, the viva-voce examination can be held as soon as the first report is received.
408 For Track A, if two examiners declare the thesis as 'commended', the viva voce exam will be
409 conducted.

410 295th Senate Res. № 09/2022

411 (b) For Track A, if an examiner recommends that the thesis should be resubmitted after revision,
412 the research scholar will be allowed to do so within the time stipulated by the DC, failing which
413 the revised thesis will not be accepted and his/her registration will be canceled.

414 (c) For Track A, if one of the external examiners evaluates the thesis as 'not acceptable', the thesis
415 shall be referred to a third external examiner from the evaluation panel.

416 (d) For Track A, if two examiners, after referral to a third examiner if necessary, evaluate the thesis
417 as 'not acceptable', the thesis will not be accepted and the registration of the scholar will be
418 canceled.

419 (e) In all other cases not covered by the above regulations, the matter will be referred to the DC
420 for consideration.

421 **PhD-R.15 VIVA VOCE EXAMINATION**

422 The viva voce exam board consists of the following members: 295th Senate Res. № 09/2022

Chairperson, DC	Chair
The thesis examiner(s) who have sent in their evaluation reports.	Members(s)
Guide(s)	Member(s)

424 • DC members will be invitees to the viva-voce examination.

425 • The viva-voce should be held online.

- 426 (a) If the thesis is recommended for acceptance at the end of the viva-voce examination, the
 427 Chairperson of the viva-voce board shall forward the thesis to the Academic Section certifying
 428 that the revisions recommended by the board, if any, have been incorporated in the thesis.
- 429 (b) If the viva voce examination board evaluates the performance of the scholar as not satisfactory,
 430 the scholar shall reappear for the examination, not earlier than one month but not later than six
 431 months from the date of the first examination.
- 432 (c) For the second viva-voce examination, the board will also include the members of the DC. If
 433 the performance of the research scholar is still not satisfactory, the matter will be referred to
 434 the Senate for a decision.
- 435 (d) The examiners' names can be appended in the final thesis only with their consent.

436 **PhD-R.16 MINIMUM AND MAXIMUM DURATION**

437 The minimum and maximum duration of the Ph.D programme from the date of registration to the
 438 date of submission of thesis for full-time research scholars are the following:

Mode	Discipline	Qualifying Degree	Minimum	Maximum*
Regular Ph.D	Engineering	M.Tech/ME/M.S	2 years	5 years
		M.Sc	3 years	5 years
Direct M.S + Ph.D	Sciences, Humanities, Management	Master's degree	2 years	5 years
		B.E/B.Tech/B.S	3 years	6 years
Upgraded Ph.D		M.Tech/M.S	3 years	6 years
		M.Sc	3 years	5 years + time taken from M.Sc admission to upgradation ⁺

* The DC may grant an extension of 2 more years to submit the thesis. An additional year may be allowed for scholars in the QIP, external, part-time and staff categories.

+ 279th Senate Res. No 6/2018

441 The minimum residential requirement for the scholars admitted under the external or part-time
 442 categories is one semester. Such scholars will be permitted to complete the residential requirement
 443 in multiple sessions, if they choose to take IITM web-based courses for completing their coursework.
 444 281st Senate Res. No 72/2018 This requirement is waived for external scholars who are employed in
 445 the IITM Research Park.

446 The registration period of the programme will be extended by the duration of the sanctioned maternity
 447 leave (up to a maximum period of 180 days). The period of medical leave, duly certified by the
 448 Institute Hospital, can be considered by Dean(AR) to extend the registration period of the programme,
 449 up to a maximum period of one year. 282nd Senate Res. No 101/2018

450 **PhD-R.17 RELIEF FROM THE PH.D PROGRAMME TO TAKE UP EMPLOYMENT**

451 Scholars who have a job offer can obtain relief from the programme upon recommendation by the
452 DC, if they have completed the minimum residential requirement (as per **PhD-R.16**), coursework,
453 the comprehensive examination and the research proposal seminar.

454 The scholar should keep his/her registration alive by paying the requisite fee every semester. Renewal
455 of the registration each semester is subject to the DC finding the scholar's progress satisfactory.

456 **PhD-R.18 TEMPORARY WITHDRAWAL FROM THE PROGRAMME**

457 A scholar may be permitted by the Dean(AR) to withdraw from the programme for a period not
458 longer than a semester for health reasons or any other valid grounds, if recommended by the DC. The
459 maximum time permitted for temporary withdrawal from the programme is for a period of one year,
460 which may be taken continuously with the reapproval by the DC.

461 **PhD-R.19 CANCELLATION OF REGISTRATION**

462 The registration of a research scholar who has not enrolled, or whose progress is not found to be
463 satisfactory by the DC is liable to be canceled. The registration of a research scholar, who has not
464 submitted his/her thesis before the end of the maximum permissible period (**PhD-R.16**), will be
465 canceled.

466 **PhD-R.20 REVERSION OF UPGRADED PH.D TO MASTER'S PROGRAMMES**

467 **PhD-R.20.1 Reversion of scholars upgraded from M.S to Ph.D**

- 468 (a) A scholar may revert to the M.S programme after one semester from the date of upgradation
469 if (s)he has completed two and half years from the date of registration of the M.S programme.
470 The DC may recommend reversion of registration for approval by the Senate.
- 471 (b) If the scholar does not pass the comprehensive examination in two attempts, (s)he will revert
472 to the M.S programme.
- 473 (c) The DC will consider the application only if the scholar has completed all the course require-
474 ments prescribed originally by the GTC when the scholar registered for the M.S programme
475 and if the research to date is found suitable for submission as an M.S thesis. The DC may
476 recommend reversion of registration for approval by the Senate. The DC will continue to
477 function as the GTC till the completion of the M.S requirements. The scholar must complete
478 the M.S degree requirements (see M.S Ordinances & Regulations) within one year from the
479 date of reversion.

480 **PhD-R.20.2 Reversion of scholars upgraded from M.Tech to Ph.D**

- 481 (a) A scholar may apply for revert to the M.Tech programme after one semester from the date
482 of upgradation if (s)he has completed three years after the date of registration for the M.Tech
483 programme. The DC may recommend reversion of registration for approval by the Senate.

- 484 (b) A scholar who does not pass the comprehensive examination in two attempts will revert to the
485 M.Tech programme. If the Senate approves the reversion upon recommendation by the DC, the
486 scholar must complete the requirements of the M.Tech programme (see M.Tech. Ordinances
487 & Regulations) within one year from the date of reversion.
- 488 (c) An M.Tech + Ph.D dual-degree scholar of Engineering Design may be permitted to exit
489 with an M.Tech degree if (s)he does not pass the comprehensive exam twice, provided (s)he
490 satisfactorily completes the required number of courses, and submits an acceptable M.Tech
491 project report.

492 **PhD-R.20.3 Reversion of scholars upgraded from M.Sc to Ph.D**

- 493 (a) A scholar may revert to the M.Sc programme after the sixth semester. The DC may recommend
494 reversion of registration for approval by the Senate.
- 495 (b) A scholar who does not pass the comprehensive examination in two attempts will be revert to
496 the M.Sc programme. The scholar must complete the M.Sc. degree requirements (See M.Sc.
497 Ordinances & Regulations) within one year from the date of reversion.

498 **PhD-R.21 CONVERSION OF REGULAR/DIRECT M.S + PH.D REGISTRATION TO THE** 499 **M.S PROGRAMME**

500 A direct M.S + Ph.D scholar can apply for conversion to the M.S programme, if (s)he fulfills all M.S
501 admission criteria for the corresponding year of selection, subject to the recommendation of the DC.
502 This option is not available for regular Ph.D scholars.

503 A regular/direct M.S + Ph.D scholar in Engineering/Management who does not pass the comprehen-
504 sive examination in two attempts may request the DC to convert his/her registration from the Ph.D
505 to the M.S programme. If this option is not exercised, his/her registration will be canceled. The DC
506 may recommend conversion of registration for approval by the Senate.

- 507 (a) The DC will continue to function as the GTC till the completion of the M.S requirements.
- 508 (b) The duration of the scholar's M.S program shall not be more than 3 years from the date of
509 registration in the Ph.D programme.
- 510 (c) In its first meeting following the conversion of registration, the GTC may prescribe any
511 additional courses necessary to satisfy the requirements of the M.S programme.
- 512 (d) The award of HTRA to the scholar will be as per the M.S programme.

513 **PhD-R.22 AWARD OF THE PH.D DEGREE**

514 Upon satisfactory performance in the viva-voce examination and the submission of the final thesis,
515 the scholar will be awarded a Ph.D degree on the recommendation of the Senate, and with the
516 approval of the Board of Governors of IITM. The effective date of the degree shall be the date of the
517 meeting of the BoG. 279th Senate

518 The award of Ph.D degrees before the convocation will be considered on request, provided the
519 scholars have completed all the requirements.

520 Direct M.S+Ph.D and Ph.D scholars who have upgraded from the M.S programme will be awarded
521 the M.S and Ph.D degrees after successfully completing all the requirements. The name of the M.S
522 degree under this option will be “Master of Science” in YY (name of the department). Ph.D scholars
523 who have upgraded from M.Tech/M.Sc will be awarded the MTech/M.Sc and Ph.D degrees after
524 successfully completing all the requirements.

525 **PhD-R.23 DISCIPLINE**

526 Every scholar is required to observe disciplined and decorous behavior both inside and outside the
527 campus and should not indulge in any activity, which will bring down the prestige of IITM.

528 Any act of indiscipline of a scholar reported to the Dean(AR) will be referred to a Discipline
529 and Welfare Committee nominated by the Senate. The committee will investigate and recommend
530 suitable punishment if it finds the charges substantiated. The recommendation of the committee
531 will be considered by the Board of Academic Research, which will authorize the Dean(AR) to take
532 appropriate action. The Dean(AR) will report the action taken at the next meeting of the Senate.

533 **Appeal:** The scholar may appeal to the Chairperson, Senate whose decision will be final.

534 **PhD-R.24 POWER TO MODIFY**

535 Notwithstanding all that has been stated above, the Senate reserves the right to modify any of the
536 above regulations.