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# MS ORDINANCES AND REGULATIONS



INDIAN INSTITUTE OF TECHNOLOGY MADRAS  
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## NOMENCLATURE USED

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

## DEGREES

PhD	Doctor of Philosophy <ul style="list-style-type: none"><li>• Regular PhD for those joining after a Master's degree</li><li>• Direct admission to MS+PhD in Engineering/ Management for those joining after BE/ BTech</li><li>• Upgraded PhD in Engineering/ Management for those upgrading from MS or M.Tech</li></ul>
MS	'Master of Science' or 'Master of Science by Research' in Engineering/Technology/ Management
MS(E)	Master of Science by Research (Entrepreneurship)

MS(AR)	Master of Science (Applied Research)
ME	Master of Engineering (2 year programme)
MTech	Master of Technology (2 year programme)
MSc	Master of Science (2 year programme in sciences)
MA	Master of Arts (2 year programme)
MBA	Master of Business Administration (2 year programme)
BE	Bachelor of Engineering (4 year programme)
BTech	Bachelor of Technology (4 year programme)

### **ABBREVIATION OF 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
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
GRE	Graduate Record Examination administered by ETS
GMAT	Graduate Management Aptitude Test administered by Graduate Management Admission Council (GMAC)
TOEFL	Test Of English as Foreign Language administered by ETS

# ORDINANCES AND REGULATIONS

## MS ORDINANCES

- MS-O.1 A candidate who has qualified for the award of the Bachelor's degree in Engineering/ Technology of this Institute or a recognized Institute or University in the discipline as prescribed in the regulations of the Senate is eligible to apply for the Master of Science by Research (MS) Programme in Engineering/ Entrepreneurship/ Management of this Institute.
- MS-O.2 A candidate who has qualified for the award of the MSc. Degree in basic Sciences of this Institute or a recognized Institute or University (OR) Master's degree in certain areas approved by the Senate is also eligible to apply for the MS Programme in Engineering/ Entrepreneurship/ Management of this Institute.
- MS-O.3 The award of the MS degree shall be in accordance with the regulations of the Senate of this Institute.

## REGULATIONS

### MS-R.1 CATEGORIES OF ADMISSION

Candidates will be admitted to the Master of Science by Research (MS) programme of IITM in Engineering/ Entrepreneurship/ Management under one of the following categories with following requirements.

Category	Remarks
Regular-HTRA	with Half-Time Research Assistantship from IIT Madras
Regular-Fellowship	with funding from outside agencies such as UGC, CSIR and industries
Regular-Project	with funding through a project administered by IC&SR at IITM
Regular-Project-NHTRA	with funding through a project administered by IC&SR at IITM; without eligibility for funding under HTRA
Regular- NHTRA	Without funding
External	Should be sponsored by and employed in a industry/ organization/ institution having R&D facilities and recognized by DST (DSIR) or IITM, with at least 2 years of experience.
Part-time	Should be employed in a reputed Institution/ University / Organization within commutable distance, with at least 2 years of experience.
Staff	Should be employed as a permanent staff member of IITM with atleast 2 years of experience.
QIP	Should be sponsored by AICTE under Quality Improvement Program (QIP) through Centre for Continuing Education (CCE) at IITM.

1. Scholars registered for any of the Regular categories are considered as full time scholars.
2. For admission under **Regular-HTRA** as well as the **Regular-Project** category, the Departments will adopt common shortlisting criteria and have a common merit list.
3. Candidates currently employed on a project at IITM with a minimum project experience of 6 months do not need valid GATE score for application under **Regular-Project NHTRA** category. They can convert to HTRA, if eligible.
4. A research scholar under the **External** category will normally carry out part or all of his/ her research work in the industry/ organization/ national laboratory (or university in case of management studies) employing the scholar under the supervision of a co-guide also employed in the same organization and a guide at IITM. External scholars employed in IITM Research Park need not have a co-guide from their organization.
5. In general, **External** and **Part-time** scholars have a minimum residential requirement of one semester. **Part-time** scholars residing within the commutable distance from IIT Madras will be permitted to do course work without the residential requirement, with the permission of their employer. Leave not required for attending the course.

6. Senate in its 281<sup>st</sup> meeting approved to waive the residential requirements for the scholars registered under external / part-time for MS program, who complete / plan to complete their course work requirements through IIT Madras web based on-line courses with the approval of GTC. And also approved that the scholar can spend one semester period over a period of program instead of one time.
7. Regular-HTRA scholars can move to Regular-NHTRA or Regular-Project and revert back to Regular-HTRA later.
8. Regular-NHTRA scholars can move to Regular-HTRA Category only after acquiring appropriate additional qualifications required for such conversion.

#### 9. MS (Applied Research)

- a. The degree for MS (Applied Research) will be Master of Science by Research as awarded for regular MS programme.
- b. The GTC can recommend appropriate method of review for keeping thesis confidential for MS (Applied Research) programme.

10. The medium of instruction & communication for Academic Research shall be English (eg. DC Reports, Synopsis, Title of thesis in the Degree Certificate, Seminar Presentation etc.) . (278<sup>th</sup> Senate)

### MS-R.2 ELIGIBILITY FOR MS

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

The minimum qualifications for each of these modes are as follows:-

***These qualifications should be in relevant areas/ disciplines provided by the respective Departments in the admission brochure released with the admission notice.*** The Admission Brochure will also include details about inter-disciplinary research areas and the corresponding eligible disciplines given by the Departments. Short-listed candidates will be called for a “**test and Interview**” or “**interview**” by a Selection Committee in the respective Departments (Refer to the Procedures in Appendix).

#### MS-R.2.1 Minimum Qualifications for MS:

Candidates applying for MS in one of the following areas need to have **any one** of the minimum qualifications mentioned in the table below.

Area	Minimum Qualifications	
	Educational qualification	Additional qualifications

Engineering	<p>BE/ BTech or Master's degree in a relevant discipline or equivalent.</p> <p style="text-align: center;"><b>OR</b></p> <p>Associate Membership of the following professional bodies of the discipline, provided they have passed parts A and B of the membership examinations:  <i>The Institution of Engineers (India) (Civil, Mechanical, Electrical and Electronics, Electronics and Communications)</i>, The Aeronautical Society of India, The Indian Institute of Metals, The Indian Institute of Chemical Engineers, The Institute of Electronics &amp; Tele-communication Engineering and other professional bodies approved by the Senate from time to time.</p> <p style="text-align: center;"><b>OR</b></p> <p>IIT B.Tech candidates with minimum CGPA of 8.0</p>	<ul style="list-style-type: none"> <li>Valid GATE score is required for Regular- HTRA.</li> <li>Valid GATE score is not required for IIT B.Tech with minimum CGPA of 8.0 for HTRA.</li> </ul>
	<ul style="list-style-type: none"> <li>BE/ BTech or Master's degree in a relevant discipline or equivalent.</li> <li>B.Tech/BE or any postgraduate degree (eg., M.A. or M.Com)</li> </ul>	<ul style="list-style-type: none"> <li><b>Valid GATE Score is eligible for fellowship (280<sup>th</sup> senate).</b></li> <li>GRE/GMAT are eligible only for admission and not eligible for fellowship.</li> <li>Candidates with atleast 3 years of managerial experience (only for NHTRA)</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>B.Tech /BE or any Postgraduate degree (eg. MA or M.Com)</li> </ul>	

#### **NOTES:**

- The Selection Committees may set more stringent criteria than the minimum educational qualifications listed above.
- For External / part-time and Institute staff categories, the requirement of valid GATE score or CSIR/ UGC - JRF or Lectureship/ NBHM/ CAT or equivalent qualification may be waived.
- The Selection Committees may consider meritorious candidates from disciplines other than those listed in the Admission Brochure, if there is good match between the educational/ research background of the candidate and the proposed area of research.
- For MS (Entrepreneurship), under the N-HTRA category, candidates with B.Tech or Postgraduate degree are eligible.
- All candidates applying for MS (Entrepreneurship) must submit a proposal for a startup company. The Screening Committee will evaluate the proposals and short-list applications to be forwarded to the Selection Committee for one to one interview.

#### **MS-R.2.2 Conversion of BTech & Dual Degree Students of IITM at the end of 6th semester to BTech + MS (Entrepreneurship):**

- B.Tech students at the end of their 6th semester can convert to BTech + MS (Entrepreneurship) if they have a CGPA of at least 8.0 or a valid GATE (or any other national level qualifying examination as indicated in table in R2.1) score.
- Dual degree students at the end of 6th semester can convert to B.Tech + MS (Entrepreneurship), if they have a CGPA of at least 7.0. For HTRA, the students should have a CGPA of at least 8.0 or a valid GATE score. The students have to complete the B.Tech requirements, including the project, in the parent department.

- c) Application (including the Proposal) has to be routed through the Faculty Advisor and HoD. It will be treated as a new admission to MS(E).
- d) Upgraded MS (Entrepreneurship) cannot be further upgraded to PhD. They can revert back to B.Tech. after a minimum period of two years from the date of upgrade, provided they fulfill all B.Tech. requirements. They can appear in placements only once.

### MS-R.3 INTERNATIONAL STUDENTS

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

- Foreign nationals can only register as full-time scholars. They are not eligible to receive HTRA support. They should have valid score in CAT/ GATE/ UGC- NET/ CSIR-NET/ GMAT/ GRE or equivalent examination in the relevant discipline.
- Foreign national who are PIO / OCI card holders are eligible for admission with the prescribed fee for Indian nationals.
- Foreign nationals with eligible degree from Indian Universities will be treated on par with Indian nationals for admission but with the prescribed fee for foreign national. (MS - R.2).
- Foreign nationals with foreign degrees must meet the minimum educational requirements (MS - R.2) equivalent to an Indian Master's degree in the relevant disciplines.
- Foreign students are expected to have a working knowledge of English and should have cleared TOEFL.

### MS - R.4 Selection Procedure

Eligible candidates possessing the minimum educational qualifications (as per MS.R.2), and satisfying additional and stiffer criteria set by the departments from time to time, will be called for a "test and Interview" or "interview" by Selection Committees of the respective departments.

For candidates who have obtained UG/PG degree 10 years earlier as on the last date prescribed for receipt of completed application, a departmental test will be conducted.

The applications of foreign nationals may be considered without a personal interview/ test.

Based on the academic record and the performance of the candidates in the interview and/or test, the Departmental Selection Committee will recommend to the Chairman, Senate the names of candidates found suitable for admission to the M.S. in Engineering/Management programmes.

Candidates for M.S. programme in Entrepreneurship will be called by Dean IC & SR to appear for an interview and/or test. Dean IC&SR will recommend the names of the candidates suitable for admission, to the Chairman, Senate. (Guidelines for admission to M.S. Entrepreneurship is given in R. 9). The Head, Department of Management Studies shall coordinate the programme with the assistance of the IC & SR.

### MS-R.5 ADMISSION

- (a) Candidates whose selection is approved by the Chair, Senate will be admitted to the MS programme after payment of prescribed fees. Selection procedure can be found in Procedures.
- (b) Candidates admitted to MS in Entrepreneurship are required to undergo a three-month course-work on 'Entrepreneurial Development' to be organised by IC & SR. At the end of the course-work, the candidates have to submit a pre-feasibility report on the products proposed to be developed by them at IITM. The Dean, IC&SR will forward to the Chair, Senate for approval of registration of the eligible candidates. The admission of the candidates to MS in Entrepreneurship shall then be regularised.

### MS-R.6 REGISTRATION

- a) A scholar's date of joining is normally the date of registration.
- b) The registration of an IC&SR project staff under NHTRA may be made effective from a date 6 months prior to joining, based on the recommendation of the GTC.

### MS-R.7 Guides and Co-Guides



- For each scholar, a faculty member of IITM shall be nominated as a guide by the Dean (Academic Research) to supervise the progress.
- In addition to the guide, at most **only Adjunct** faculty member from IITM may be nominated as a co-guide (**281<sup>st</sup> senate**).
- A co-guide from outside IITM may be allowed with the approval of Chairman, Senate.

In addition to the above,

- If the guide from IITM proceeds on leave for more than a year, another faculty member may be appointed as a co-guide.
- A faculty member, who has guided a candidate for at least 2 years, will continue to be a guide post-retirement. However, another faculty member with at least 3 years of remaining service at IITM will be nominated as a co-guide at the time of the guide's retirement.
- A faculty member retiring within 2 years may be permitted to be a guide for a new scholar. However, another faculty member with at least 3 years of remaining service at IITM will be appointed as a co-guide when the scholar joins IITM. On retirement, the faculty member will continue to be a guide.
- CSIR/ other Emeritus Fellows / Scientists / Emeritus Professors, currently holding office at IITM with an appointment period of at least one year, can be a co-guide along with a guide who has at least 3 years of remaining service at IITM.
- Faculty from other CFTIs/ Universities or experts from Industries with a Master's degree in Engineering / Management and with adequate professional experience in the relevant field may be appointed as a co-guide, based on the recommendation of the GTC after duly considering the co-guide's credentials. If the co-guide's organization does not have an MoU with IITM, he/she shall sign an Intellectual Property Rights (IPR) and Non-Disclosure Agreement (NDA). IITM will have no financial obligation to the co-guide.
- The General Test Committee (GTC) may recommend change of guide/co-guides or appointment of a co-guide for valid reasons.
- Appointment of co-guide, based on the recommendation of the GTC, should be made within one year from the date of joining. Beyond this limit, Dean (Academic Research) will consider such requests on case-to-case basis, based on the recommendation of the GTC.

#### MS-R.8 GENERAL TEST COMMITTEE

A General Test Committee shall be constituted to periodically assess the scholar's progress.

The following is the composition of the General Test Committee (GTC):

1.	HoD or nominee	-	Chair
2.	Guide/ co-guides	-	Member(s)
3.	Minimum of one faculty member of the Department*	-	Members nominated by the Chairman, Senate or his nominee from the suggested panel of names by HoD
4.	A minimum of one faculty member of allied Departments/ Institutions		

*\*for Interdisciplinary MS, it is 1 member from primary department.*

*For MS (Entrepreneurship), the Head, Department of Management Studies will be the Chair. In addition to the above, the Dean (IC & SR), a representative of the Department of Humanities & Social Sciences/ Management Studies and an advisor from industry will be included as members. The advisor from industry should be a graduate in the area of his/her profession and should have been associated with industry for a reasonable period of time. The advisor will be an invitee to the meetings of the General Test Committee.*

#### Additional Guidelines for GTC:

- If the HoD is the guide, the senior most Professor / previous HoD will be nominated by the Chair, Senate or his/her nominee
- The HoD must attend synopsis / thesis report / viva-voce meetings.
- If a GTC member goes on leave for more than a year or resigns/ retires from IITM, the Chair, Senate or his/her nominee will nominate another member on the suggestion of the Chair, GTC.
- The GTC members from outside IITM must meet the same eligibility criteria as co-guides (MS-R.6).
- The GTC shall conduct periodic progress review meetings as outlined in MS-R.9.
- All the GTC members will be invited for all the meetings related to the scholar.

7. All the decisions and recommendations made by the GTC shall be minuted and forwarded to the Dean (Academic Research).

8. Introduction of GTC Meeting can be conducted at the end of 1.1/2 years period.

279<sup>th</sup>  
Senate

#### MS-R.9 ENROLLMENT

- A scholar is required to enroll each semester after paying the requisite fees, until the submission of the thesis.
- Enrollment has to be completed on the stipulated date and should be approved by HoD.
- The enrollment will be cancelled if the progress is not satisfactory.

#### MS-R.10 MS REQUIREMENTS

The requirements in the order of completion for MS are listed below.

Requirements	Expected time frame	Section
Course work	Within two semesters	MS-R.11
Seminar/ research proposal seminar	before 2 years	
Synopsis	Within 2 years and 5 months	MS-R.13
Thesis submission	Within one month after acceptance of Synopsis	MS-R.13
MS viva voce examination, if recommended by the reviewer(s)		MS-R.15

- Registered scholars should submit progress report twice during an academic year to the General Test Committee (GTC). The guide's assessment of the progress and approval of the Chair, GTC is required for enrollment in the subsequent semester.
- Continuance of registration after 2.5 years will depend on the recommendation of the GTC.
- Seminar is considered as a GTC meetings.
- Beyond 2.5 years, progress review meetings by GTC will be held once every 6 months.
- In addition to the above, the HOD / Dean, AR may convene special GTC meeting(s) based on the request from scholar / guide, to address any issue(s) with respect to the research progress of the scholar

#### MS-R.11 COURSE WORK

##### MS-R.11.1 General Guidelines

- Courses that meet the minimum requirements shall be at the post-graduate level at IITM and will be prescribed by the GTC.
- Changes in the prescribed courses shall be made only by the GTC.
- The GTC may prescribe additional UG or PG courses for a scholar, over and above the minimum requirements.
- The GTC may approve courses already undergone by the scholar in other Institutions towards meeting the course work requirements. These courses must be equivalent to those prescribed and the scholar's performance in these courses must meet the minimum requirements. Courses already undergone by a Research Scholar in IITM or other Institutions shall not be considered if they were part of the requirements for the award of any other degree/ diploma.
- Contact courses may be allowed subject to the GTC approval.
- Final classification of courses taken by the scholar for the categories of Core, Elective and Optional (if any) shall be approved by GTC in the meeting conducted at the end of 1.1/2 years.

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##### MS-R.11.2 Course-work Requirement for Research Scholars

Qualifying Degree	Discipline	Minimum Course work	Min. credits
BE/ BTech	Engineering/ Entrepreneurship	3 Core courses and 2 out of at least 4 prescribed electives along with ID6020 and ID6021*	45

MSc, MA, MSc in Computer Science / MCA with BCA or BSc in Math/ Stat/ CS	Management / Computer Science & Engg	3 Core courses and 2 out of at least 4 prescribed electives along with ID6020 and ID6021*	45	278 <sup>th</sup> Senate
	Engineering other than Management / Computer Science & Engg.	3 Core courses and 2 out of at least 4 prescribed electives along with ID6020 and ID6021*	45	

(\* - ID6021 is optional, to be decided by the Department as well as GTC)

- All core courses prescribed by the committee have to be completed, while only the minimum number of electives (from among those prescribed) as indicated in the table is required.
- The scholar may be allowed by the GTC to register for up to 3 optional courses, in addition to the minimum requirements. The grades obtained in these courses will be mentioned in the transcript.
- If more than the minimum required electives have been completed, only the electives with the best performance will be considered for computing the CGPA.
- Research scholars shall obtain a minimum CGPA of 7.50, subject to a minimum of "C" grade in each of the prescribed courses.
- Once a course is successfully completed, it cannot be repeated.
- The GTC may reduce the course requirement for BTech/ dual degree students upgrading to BTech/BS +MS(E) programme.

### MS-R.11.3 Grades and CGPA

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

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

The CGPA will be calculated according to the formula

$$CGPA = [ \sum (C \times GP) ] / \sum C$$

Where C = credits and GP = the grade point obtained for the course. The sum is over all the successfully completed courses.

### MS-R.12 UPGRADATION FROM MS TO PhD

- Candidates registered for MS are eligible for an upgrade to the PhD programme in the same department, if they have a minimum CGPA of 8.0 in the prescribed courses completed (at least three of the prescribed courses should have been completed).
- Upgrade requests should be submitted within 2 years from the date of joining. For MS scholars who have completed 2 years, request for an upgrade may be considered if at least one journal paper has been accepted/ published.
- After upgradation to PhD the M.S. scholar can opt for exit option after one semester.
- MS (Entrepreneurship) cannot be upgraded to PhD.
- MS scholars who upgrade their registration to PhD should successfully complete 5 core courses and at least 3 elective courses prescribed by the DC. DC may give credits to courses already successfully completed by the research scholars during their MS towards the course requirement of the Upgraded PhD. DC may prescribe additional courses for such scholars, if found necessary.

### MS-R.13 THESIS, SYNOPSIS AND PANEL OF EXAMINERS

The MS thesis is a detailed report of all the important original research work and findings of the scholar. The synopsis will summarize the important contributions of the research work presented in the MS thesis.

- a) The scholar shall submit synopsis after satisfactory completion of the prescribed courses, the seminar and the research work, by following relevant procedure laid down by the Academic Section.
- b) MS (Entrepreneurship) scholar shall submit requisite copies of the synopsis in two separate volumes, one volume being the technical part and the other volume being the techno-economic feasibility, following the approved procedure.
- c) The thesis shall be submitted after the GTC approval within one month of the synopsis meeting. The Dean Academic Research may permit extension of thesis submission time based on valid reasons. Depending upon the nature of publication(s) arising out of the thesis work, the GTC will recommend submission of the thesis as per the following guideline:
  - (1) The thesis shall be submitted to the Head of the Department, if the research (or part thereof) presented in the thesis has been published (accepted) as (i) at least one research paper in a refereed journal of quality acceptable to the GTC, or (ii) at least one full proceedings paper of acceptable quality in a conference which is evaluated by two referees (evidence on the rigour of refereeing process must be submitted by the scholar in the form of editor's communication(s) / referee's comments). The thesis will be examined by one examiner from IITM. The process of the thesis examination will be handled by the Head of the Department.
  - (2) The thesis shall be submitted to the Academic Section if there is no research publication from the thesis work or the publication(s) do(es) not meet the criteria as given in (1) above. The GTC will suggest the names and addresses of at least 6 examiners chosen from within India, including IIT Madras. The thesis will be examined by two examiners chosen by the Dean, Academic Research.
- d) For MS (Entrepreneurship), one of the two examiners is for evaluation of the technical part and the other is for evaluation of the commercial part. A brief note explaining the objectives and scope of MS (Entrepreneurship) will be sent to the examiners along with the synopsis.
- e) For MS (Applied Research) programme, the GTC can recommend appropriate method of review so that the information in the thesis is kept confidential.

#### **MS-R.14 THESIS REPORTS and VIVA**

- (a) When the thesis evaluation process is handled by the HoD (as per MS-R.13- c)(1))
  - (i) If the examiner declare the thesis as 'commended', the need for a viva-voce examination will be decided after looking at the comments of the examiner(s) and the response of the scholar to them. The GTC will conduct the viva-voce.
    - If the performance is satisfactory, the GTC will recommend the award of MS degree after inclusion of modifications if any.
    - If the performance is not satisfactory, the scholar shall reappear for viva-voce exam, not earlier than two weeks and not later than six months from the first viva voce exam.
    - If the performance of the research scholar is not satisfactory in the second viva voce exam, the matter will be referred to Senate for a decision.
  - (ii) If the examiner recommends that the thesis should be resubmitted after revision, the scholar will be allowed to do so within the time stipulated by the GTC, failing which the revised thesis will not be accepted and his/her registration will be cancelled.
  - (iii) If the examiner evaluates the thesis as 'not acceptable', the thesis shall be referred to another examiner for evaluation.
- (b) When the thesis evaluation process is handled by the DAR (as per MS-R.13- c)(2))
  - (i) If the two examiners declare the thesis as 'commended', the need for a viva-voce examination will be decided after looking at the comments of the examiner(s) and the response of the scholar to them. The GTC will conduct the viva-voce.
    - If the performance is satisfactory, the GTC will recommend the award of MS degree after inclusion of modifications if any.
    - If the performance is not satisfactory, the scholar shall reappear for viva-voce exam, not earlier than two weeks and not later than six months from the first viva voce exam.
    - If the performance of the research scholar is not satisfactory in the second viva voce exam, the matter will be referred to DAR for a decision.

- (ii) If one or both of the examiners recommend(s) that the thesis should be resubmitted after revision, the scholar will be allowed to do so within the time stipulated by the GTC, failing which the revised thesis will not be accepted and his/her registration will be cancelled.
  - (iii) If one of the examiners evaluates the thesis as 'not acceptable', the thesis shall be referred to a third examiner for evaluation.
  - (iv) If two examiners evaluate the thesis as 'not acceptable', the thesis will be rejected and the registration will be cancelled.
- (c) *In all other cases not covered by the above Regulations, the matter will be referred to the GTC for consideration and recommendation to DAR.*

#### **MS-R.15 MINIMUM AND MAXIMUM DURATION**

The minimum period of study and research for regular scholars from the date of registration to the date of submission of thesis shall be 18 months. The minimum residential requirement for the scholars under external or part-time (not employed in the Institute) registrations is one semester. This requirement is waived for external scholars who are employed in the IITM Research Park.

MS scholars shall submit the thesis within 2 ½ years from the date of registration. GTC may extend this period up to 1 year for full time research scholars with an additional year for research scholars who are external, part-time or staff members of the institute.

#### **MS-R.16 RELIEF FROM MS PROGRAMME TO TAKE UP JOB**

Regular full time scholars who have a job offer can obtain relief from the programme upon recommendation by the GTC, if they have completed the minimum residential requirement of 18 months, the course work, and the seminar/ research proposal seminar.

The scholar should keep the registration alive by payment of the requisite fees every semester. Renewal of the registration for every semester will be considered only if the GTC finds scholar's progress to be satisfactory and recommends continuance of registration.

#### **MS-R.17 WITHDRAWAL FROM THE PROGRAMME**

A scholar may be permitted by the Dean, Academic Research to withdraw from the programme for a semester or longer for health reasons or any other valid grounds, if duly recommended by the GTC. Normally, a scholar will be permitted to discontinue from the programme only for a maximum continuous period of two semesters.

#### **MS-R.18 CANCELLATION OF REGISTRATION**

- a) The registration of a research scholar whose progress is not found to be satisfactory by the GTC or who has not enrolled, is liable to be cancelled.
- b) The registration of a research scholar who has not submitted his/ her thesis before the end of the maximum permissible period (MS-R.14) will be cancelled.

#### **MS-R.19 REVERSION OF SCHOLARS UPGRADED FROM MS TO PhD**

- a) The scholar may apply for reversion to the MS Programme under the supervision of the same guide(s) after one semester from the date of upgradation.
- b) If the scholar does not pass the comprehensive examination in two attempts, he/ she will be reverted to the MS Programme. The DC will continue to function as the GTC till the completion of the MS requirements. The scholar must complete the MS degree requirements (MS.R.9) within one year from the date of reversion.

#### **MS-R.20 CONVERSION OF REGULAR / DIRECT MS+PhD REGISTRATION TO MS**

A scholar directly admitted to MS+PhD programme can apply for conversion to MS under the same guide, if he/she fulfills all MS admission criteria for the corresponding year of selection. This option is not available for Regular PhD scholars.

A Regular / Direct MS+PhD PhD scholar in Engineering/ Management who does not pass the Comprehensive Examination in two attempts, may request the DC to convert his/her registration from PhD to MS under the same guide. If this option is not exercised, his/her registration will be cancelled. The DC may recommend conversion of registration for approval by the Senate.

- a) The DC will continue to function as the GTC till the completion of the MS requirements.
- b) The duration of the scholar's MS programme shall not be more than three and a half years from the date of first registration in the MS programme.
- c) In its first meeting following the conversion of registration, the GTC may recommend additional courses necessary to satisfy the requirements of the MS programme.
- d) The award of HTRA to the scholar will be as per the MS Programme.

#### **MS-R.21 AWARD OF MS DEGREE**

Upon satisfactory completion of all requirements and the submission of final thesis, the scholar will be awarded Master of Science by Research degree on the recommendation of the Senate and with the approval of the Board of Governors of IITM.

The date of effective of Degree shall be BoGs date. (279<sup>th</sup> Senate)

For the IITM students upgrading from BTech/ dual degree to B.Tech + MS (Entrepreneurship), the two degrees will be awarded after successful completion of the requirements of both the programmes. The degree for MS (Applied Research) will be Master of Science by Research as awarded for regular MS programme.

The award of MS degrees to the scholars who have completed all the requirements will be considered before convocation on request.

#### **MS-R.22 DISCIPLINE**

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

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

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

#### **MS-R.23 POWER TO MODIFY**

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

### **MS APPENDIX: PROCEDURES**

#### **ADMISSION PROCESS**

There is a standing advertisement for MS admissions throughout the year valid from April 1<sup>st</sup> to March 31<sup>st</sup> of the next year. Accompanying admissions brochure has the details of different disciplines eligible for each department, including the interdisciplinary MS programme.

Good academic record is expected from all the applicants. Applicants are short-listed by the department selection committee based on their academic performance and addition qualifying exams as applicable (MS-R.2). The short-listed candidates are called for a "test and interview" or Interview. Typically, the Departments will conduct the "test and interview" or Interview twice a year in November/ December and April/ May. Some of the Departments might conduct the "test and interview" or Interview more frequently.

Based on the academic record and the performance of the candidates in the interview and/ or test, Departmental Selection Committee will recommend the names of the candidates found suitable for admission to the Chair, Senate. Applications of foreign nationals may be considered without an in-person "test and interview" or Interview.

Candidates for **MS programme in Entrepreneurship** must submit a proposal for a start-up that will be evaluated by a Screening Committee, which will recommend select applications to the Selection Committee for interview and/or test. The Department of Management Studies may select twice the number of candidates under Regular-HTRA category.



The selected candidates have to undergo an orientation programme, after which, the candidates have to submit a report containing conceptual ideas and techno-commercial details about the proposed enterprise. Based on their evaluation, Dean IC&SR will recommend the names of the candidates suitable for admission, to the Chairman, Senate. The Head, Department of Management Studies will coordinate the programme with the assistance of the IC & SR.

Candidates selected / recommended for HTRA under the waiting list then they were considered for project category without operating the waiting list, such cases cannot convert to Project HTRA to HTRA later.

Candidates employed on a project at IITM can apply for admission to MS programme with a minimum project experience of six months without valid GATE score. Only those Regular-Project scholars who qualify in GATE with the minimum cutoff prescribed for the selection of Scholars admitted in his/her batches and meet all the criteria prescribed for the selection of Regular-HTRA scholars (GATE score, interview marks, overall marks etc.) admitted in their batches can move to Regular HTRA.

IITM will notify the selected candidates through post and email. The selected candidates are required to pay the requisite fees and report to campus for registration within a stipulated time frame. Based on research profile, preferences of the scholars and the prospective guides, and the Department's guide assignment policy, which will be made known to the scholar, the scholar will be assigned a guide.

The Dean (Academic Research) will then constitute a General Test Committee (MS-R.7), based on recommendations of guide and the Department HoD, to assess the progress of the scholar periodically. The scholar has to complete coursework and other requirements as outlined in MS-R.10. The scholar has to enroll every semester by payment of requisite fees, until the completion of the degree requirements.

### **PROCESS FOR UPGRADING FROM MS TO PHD**

Eligibility criteria for upgrading can be found in PhD regulation, PhD-R.2.3.

The General Test Committee or GTC (MS-R.8) of the scholar will consider the application for the upgrade under the supervision of the same guide(s). It will then make its recommendation to the Chairman, Senate for approval of the upgrade as per rule. If approved, a Doctoral Committee will replace the GTC. ***Subsequent to the approval of upgrade from MS and constitution of DC, the scholar should pass comprehensive viva within two attempts within the time frame mentioned in PhD-R.11.***

### **OR**

A Scholar can approach the HoD with the recommendation of a chosen advisor. If permitted, he/she can take comprehensive examination when it is offered by the department. After passing the comprehensive viva within two attempts, he/she shall exercise the option for upgrade within a month. If he/she fails twice in comprehensive examination, he/she can continue to be in the original programme and no more option is available for upgradation.

### **DEPARTMENT PROCEDURES**

Department should have same short-listing criteria for Regular-HTRA and Regular-Project students.

Every department should send the method of guide allocation passed by their Departmental Consultation Committee (DCC) to Dean (Academic Research) for approval. Faculty and Scholars will be informed of this method.

Based on research profile, preferences of the scholars and the prospective guides, and the Department's guide assignment policy, the scholar will be assigned a guide by the HoD.

The guide provides the area of research and suggests a panel of faculty members (at least 2 internal to the department and 2 from allied departments/ institutions) to the HoD, indicating their areas of specialization, for constitution of the scholar's General Test Committee. The Head of the Department (HoD) will intimate the Dean, Academic Research, the area of research, the name(s) of the guide(s) and other members of the General Test Committee. For, MS (E), additional members have to be recommended as per the ordinances. This has to be done within 8 weeks of the date of joining.

The department should maintain an enrollment roster for scholars to enroll in the beginning of each semester and provide the same to the Dean (Academic Research) by the end of the first week of the semester.

Seminars given by the scholars must be announced by the guide/ department to the academic community at IITM by email.

### **THESIS AND SYNOPSIS**

The MS thesis is a detailed report of all the important original research work and findings of the scholar. The synopsis will summarize the important contributions of the research work presented in the MS thesis, including the publications resulting from the thesis. The synopsis should be at most 2 pages long (single space, single column, 10 pt font size and one inch margins on all sides) and need not include references. Thesis shall be based on the IITM template.

Synopsis meeting will be held in the parent department. Scholars should submit required number of hard and soft copies of the synopsis along with thesis and its abstract on the day of synopsis meeting. However, one month's time will be given to improve the thesis. If a modified thesis is not submitted within one month, the thesis submitted earlier will be treated as final version. The Dean AR may grant additional time beyond one month on request from the scholar for valid reasons.

The guidelines for use of standard anti-plagiarism software/ platform for the thesis are as follows:

1. The scholars have to certify that a standard software / platform was used for checking against Plagiarism.
2. The guide has to ensure checking against plagiarism through any standard software before submission of MS thesis and endorse the undertaking of the scholar.
3. The guide may obtain a special relief from this checking from the Dean (Academic Research) on grounds of IPR implications or National Security, if applicable.

In the synopsis meeting, the scholar will make a brief presentation of the main contributions of the thesis. Upon acceptance of the synopsis, the GTC will recommend a panel of examiners, as per MS-R.12.

The examiner is expected to send the report on the thesis within one and a half months from the date of receipt of the thesis. When the two reports from the examiners are received they are circulated to the GTC. In case of undue delay in receiving the thesis report after issuing 2nd reminder to the examiner, the Dean (Academic Research) or his/ her nominee shall appoint another examiner for evaluating the thesis.

#### **VIVA-VOCE EXAMINATION (IF REQUIRED)**

- a) If required, the viva-voce will be conducted normally not earlier than two weeks from the date of receipt of reports by the Chair, GTC from the Academic Section.
- b) The response of the candidate to the reports as well as the modified thesis will be circulated to the GTC prior to the viva voce meeting.
- c) The scholar will present his/ her thesis work and the response to the examiners' comments. The viva voce board will examine the scholar and evaluate the performance as satisfactory or otherwise. Further, it will ensure that the scholar answers the questions raised by the thesis examiners satisfactorily.
- d) The viva voce board may also recommend revisions to be made in the final version of the thesis after taking into consideration suggestions of the examiners and the discussion at the viva-voce.

Scholars shall submit one copy of the final form of thesis in A5 size and an electronic version in PDF format after the GTC/ viva voce board recommends the award of the MS degree.