

5th AAC

Ph.D ORDINANCES AND REGULATIONS

ORDINANCES

- 0.1 A candidate who has qualified for the award of Master's degree in Engineering / Technology and Science of a recognized Institute or University in the discipline as prescribed in the regulations of the Academic Advisory Committee (hereafter, AAC) /Senate is eligible to apply for the PhD programme in Engineering / Technology and Science respectively of this Institute.
- 0.2 A candidate who has qualified for the award of Bachelor's Degree in Engineering\Technology with exceptionally good academic background in the discipline as prescribed in the regulations of the Institute is also eligible to apply for PhD programme in Engineering\Technology of this Institute.
- 0.3 The award of the PhD degree shall be in accordance with the regulations of the Senate of this Institute.

REGULATIONS

R.1 Categories of Admission

Candidates will be admitted to the PhD programme of the Institute under one of the following categories:

- (a) Regular full-time scholars with or without Institute fellowship or with project support.
- (b) Research scholars who are staff members of the Institute.

R.2 Eligibility

R.2.1 Minimum Educational Qualifications

Qualification for Regular Full-Time Research

The minimum educational qualification for admission to the PhD programme of the Institute are as follows:

R.2.1.1 PhD in Engineering

- (a) Candidates with a Master's degree in Engineering/Technology with a good academic record or a Master's degree by Research in Engineering/Technology disciplines, with a good academic record.
- (b) Candidates with Master's degree in Sciences with a good academic record and of exceptional merit where eligible for the relevant Engineering discipline and with a valid GATE score or UGC/CSIR-NET/NBHM or equivalent qualification in the relevant area tenable for the year of registration. In the case of candidates with more than 5

years of relevant experience after the Master's degree, the requirement of a test score may be waived by the Selection Committee.

(c) Candidates who have qualified for the award of Bachelor's degree in Engineering/Technology with exceptionally good academic record in an eligible discipline will be considered for direct admission to Ph D. Programme as a regular full time scholar subject to the following conditions:

- a B Tech degree holder of an IIT with a minimum CGPA of 8.0 on a 10.0 point scale or with a valid GATE score.
- a Bachelor's degree holder in Engineering/Technology from any other University should be among the top 10 rank holders in the University and having a valid GATE score.
- a Bachelor's degree holder in Engineering/Technology from a reputed R & D organization and having a proven research record.

2.1.2 PhD in Sciences

Master's degree in Sciences with a good academic record and having a valid GATE score or UGC/CSIR-NET/NBHM or equivalent qualification tenable for the current year in the relevant area / Master's degree in Engineering/Technology are eligible with a good academic record / B Tech degree holder of an IIT are eligible with a minimum of CGPA of 8.0 on a 10.0 point scale or with a valid GATE Score.

2.1.3 For Research Scholars in the above categories, the minimum educational qualifications are the same as prescribed for full time research Scholars in 2.1.1 and 2.1.2 for admission to the PhD programme in the respective categories. However, valid GATE score or CSIR/RGC JRF or Lectureship / NBHM / JMET /CAT / AIMA or equivalent qualification as applicable for regular full time research scholars may not be required in these cases.

(The list of eligible disciplines in which the minimum educational qualifications have to be obtained will be provided by each department in the Admissions Brochure, which will be updated from time to time).

The Selection Committee may find fit to consider meritorious candidates from disciplines other than listed in the Admission Brochure if there is a good match between the educational/research background of the candidate and the proposed area of research.

The admission brochure will also include details about inter-disciplinary research areas, which may be pursued by the research scholars for the PhD degree and the corresponding eligible disciplines given by the Institute.

Additional and stiffer criteria than the minimum educational qualifications given in R.2.1 may be set by the Selection Committee from time to time for short listing candidates to be called for interview and / or test.

R.2.2 Upgradation of registration from MS / MTech to PhD programme

Meritorious candidates who have registered for MS / MTech programmes are eligible to upgrade their registration to the PhD programme in the same department if they satisfy the following criteria:

- (a) The candidate should have been registered for a minimum of 2 semesters in the MS/M Tech programme.
- (b) Minimum CGPA of 8.0 in the prescribed courses.

In the case of a MS Scholar, the General Test Committee of the MS scholar will consider the application for upgradation to PhD under the supervision of the same guide(s) and make its recommendation to the Senate. If approved, a Doctoral Committee as per R.9 will be constituted to replace the General Test Committee.

In the case of a M Tech Student, a Committee duly constituted by the Director / Deputy Director will consider the application for upgradation to Ph.D and make its recommendation to the Senate. If approved, a Doctoral Committee as per R.9 will be constituted and guide(s) as per R.6 will be allotted.

The candidate should pass the comprehensive examination (R. 12a) within a semester after upgradation to the PhD programme and within two attempts.

The candidate will be treated on par with one admitted directly after a Bachelor's degree, but with the residency period and course work completed under the MS/MTech registration as decided by the Doctoral Committee credited to the PhD programme.
(see page 9 for explanation of CGPA)

R.3 International Students

Foreign nationals can only register as regular full-time scholars. Foreign nationals with degree from Indian Universities will be treated on par with Indian nationals for admission purposes. Foreign nationals with foreign degrees must meet the minimum educational requirements as given in R.2.1 equivalent to a Indian Master's degree in the relevant disciplines. In addition, they should have a valid GRE/GMAT/GATE/NET/CAT/JMET/TOEFL or an equivalent examination score in the relevant discipline. International students are expected to have a working knowledge of English. Once

admitted, the Institute will apply for necessary clearance from the Government of India for study in India.

R.4 Selection Procedure

Eligible candidates possessing the minimum educational qualifications and satisfying additional criteria set by the Director / Deputy Director from time to time, will be called for an interview and/or Test by the Selection Committees.

For candidates who have obtained PG degree 10 years earlier as on the last date prescribed for receipt of the completed application, a specialisation test may 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 Selection Committee will recommend to the Chairman, AAC the names of Candidates found suitable for admission to the PhD Programme.

R.5 Admission

- (a) Candidates whose selection is approved by the Chairman, AAC will be admitted to the Ph. D. programme after payment of prescribed fees.
- (b) Ordinarily, a candidate is not eligible for re-registration for Ph. D. after cancellation of his / her earlier registration for any reason. Based on the merits of the individual case and taking into consideration any special circumstances, a candidate may be considered for re-registration.

R.6 Choice of guide(s)

- (a) Allotment of research scholars to guide(s) will be made by the Director / Dy Director taking into consideration the preferences given by the research scholars and guides.
- (b) There shall be not more than two guides from the Institute for a research scholar.

R.7 Eligibility for being guides

The following members shall become guide(s) for a PhD scholar:

- > All faculty members of the Institute.
- > Scientific/Design staff of the Institute with a doctoral degree.

Continuance of retired faculty members / emeritus faculty as guides

- (a) When a faculty members, who has guided a candidate for at least 3 years, retires, he will continue to be a guide. However, a co-guide who is in service will be appointed in addition. The guide who has retired will be invited for the Doctoral Committee meetings, synopsis meeting and the viva voce examination.
- (b) A faculty member who is to retire within 3 years may be permitted to become a guide to a new scholar with another faculty member, who is not likely to retire within 5 years as co-guide, at the time of registration itself. On retirement, the faculty member will continue to be a guide and will be invited to the Doctoral committee meeting and viva voce examination.
- (c) CSIR and other Emeritus Fellows / Scientists / Emeritus Professors, who hold office at this Institute for a period of 2 years or more, can become co-guides for scholars along with a guide from IIITD&M, with at least 5 years service still left at the time to of registration of the scholar.
- (d) In case a faculty member who is a guide goes on leave exceeding one year duration, another faculty member will be identified to become a co-guide of the research scholar.
- (e) The induction of new guides after 3 years of registration of a research scholar, will be considered by the Doctoral committee.

R.8 Change/Addition of guide

The Doctoral Committee of a research scholar may recommend change of guide or appointment of a co-guide for valid reasons.

R.9 Doctoral Committee

The guide will intimate to the Head of the Institute or his nominee for the scholar, the area of research, the name(s) of the guide(s) and an panel of names, indicating the area of specialization of faculty members for constitution of a Doctoral Committee, within 8 weeks of the date of joining of the research scholar.

The following is the composition of the Doctoral Committee:

- | | |
|---|-------------|
| 1. Head of the Institute or his nominee | - Chairman |
| 2. Research Guide(s) | - Member(s) |
| 3. A minimum of two faculty members from IIITD&M | - Member |
| 4. One faculty member from other reputed academic Institute | - Member |

In case any member goes on leave exceeding one year duration, or resigns from the Institute, the Chairman, AAC or his nominee will nominate another member on the suggestion of the Chairman, Doctoral committee.

Scientific/Design staff and others who are eligible to guide PhD scholars may be nominated as members of the Doctoral Committee.

R.10 Registration

- (a) The Doctoral Committee will meet normally within a month of being constituted, where the research scholar will make a presentation. The Doctoral Committee will fix/approve the date of registration for the Ph. D. programme, consider the proposed research topic and prescribe/approve the courses of study in this meeting.
- (b) The registration may be backdated for research scholars employed in projects supported by an external agency by up to 6 months from the date of admission to the programme, on the recommendation of Doctoral Committee with justification. Based on the recommendation of the Doctoral Committee, the AAC may, additionally permit backdating by a further period of 6 months.

R.11 Course Work

The Doctoral Committee will normally prescribe two core courses and at least four electives. The prescribed courses shall be post-graduate level courses of the Institute or from an IIT.

- (a) PhD research scholars in the Engineering and Sciences shall complete the core courses and at least two electives. In cases where the scholar is directly admitted to the PhD programme in Engineering with a Bachelor's degree in Engineering/Technology or with a Master's degree in science where eligible or where the research scholar updates from the MS/MTech programme at IITD&M to the PhD programme, the scholar should successfully complete 5 core courses and 3 electives out of a minimum 5 prescribed by the Doctoral Committee. In the case of a scholar upgrading to the PhD programme in Engineering from the MS / MTech programme at IITD&M, the courses already successfully completed by the scholar in the Master's Programme may be considered by the Doctoral Committee for the course work requirements. Changes in prescribed courses shall be made only by the Doctoral Committee. The doctoral Committee may prescribe additional courses for a scholar wherever found necessary.
- (b) The Doctoral Committee may give credit to courses already undergone by a research scholar in this Institute or other Institutions, provided they are the same or equivalent to those prescribed, and the performance level of the scholar in them meets

the minimum requirements. The Doctoral Committee may prescribe additional courses for research scholars wherever found necessary.

(c) Grades

Based on the semester performance, each student 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	Points
S	10
A	9
B	8
C	7
D	6

Research scholars shall obtain a minimum CGPA of 7.5 in the courses taken to a minimum of "C" grade in the prescribed courses. If more than the minimum required electives have been taken, only the electives with the best performance will be considered for computing the CGPA.

A student is considered to have completed a subject successfully and earned the credits if he secures a grade other than D. Once a subject successfully completed, it cannot be repeated.

The GPA will be calculated according to the formula

$$GPA = \frac{\sum (C \times GP)}{\sum C}$$

where C is the credit for the course and GP is the grade point obtained for the successfully completed courses.

R.12 Progress Report

- (a) A registered research scholar shall submit a written report in the required format, annually for the first three years, and every six months thereafter. The report should be routed through the guide to the Director or his nominee for consideration by the Doctoral Committee.
- (b) The progress made by a research scholar shall be reviewed by the Doctoral Committee once a year for the first 3 years and every six months thereafter.

Continuance of registration and award/continuance of scholarship/Research Assistantship will be based on the recommendation of the Doctoral Committee.

Inadequacy of effort/progress can be a reason for cancellation of registration.

R.12a Comprehensive Examination

(a) Every PhD scholar shall take and perform satisfactorily in a Comprehensive Examination.

The comprehensive Examination shall be conducted by a Comprehensive Examination Committee, consisting of the scholar and at least two other faculty members of the Institute nominated by the Chairman of Doctoral Committee.

(b) If the performance of a research scholar in the Comprehensive Examination in the first attempt is not satisfactory, he / she will be given one more opportunity to appear for the comprehensive examination within six months of the first attempt.

The registration of a research scholar who fails to complete successfully the Comprehensive Examination in both attempts, will be given an option to convert his/her registration from PhD to MS programme if he/she so desired, otherwise his /her registration will be cancelled.

(c) The objective of the Comprehensive Examination is to test the general capability of the research scholar and the breadth of his / her field of research.

The Comprehensive Examination will usually consist of a written test and oral examination or a oral examination.

The Comprehensive Examination Committee shall intimate to the research scholar sufficiently in advance the scope of the Comprehensive Examination, so as to enable the scholar to prepare adequately for it.

(d) The PhD research scholars are normally expected to complete successfully the Comprehensive Examination within a year after his/her registration in the PhD programme and in any case not later than three semesters after his registration in the PhD programme.

R.13 Enrolment

All research scholars who are in residence and whose registration is still in force, are required to enroll in person each semester on the stipulated date till their submission of thesis after payment of the requisite fees. Those not in residence may enroll in absentia after payment of the requisite fees along with the performance report from the Guide.

R.14 Minimum Residential Requirement

(a) The minimum period of study and research for regular full time research scholars required at the Institute from the date of registration for the PhD Programme in Engineering to the date of submission of PhD thesis shall be 24 months for research scholars with Master's Degree in Engineering/Technology; 36 months for

(i) research scholars with Masters Degree n Sciences,

(ii) research scholars directly admitted to the PhD Programme with Bachelor's degree in Engineering/Technology

(iii) for research scholars who upgrade from the MS/MTech Programme at IITD&M to the PhD Programme.

(b) The minimum period of study and research for regular full time research scholars from the date of registration for the PhD Programme in Sciences, Humanities and Social Science and Management to the date of submission of the PhD thesis shall be 24 months.

(c) Withdrawal from the programme is permitted for a semester or longer for reasons of ill health or other valid grounds as duly recommended by Doctoral Committee.

R.15 Relief from PhD Programme to take up job

PhD Scholars who got a job offer can get relief from the programme, while keeping their registration alive on payment of the requisite fees every semester, on the following condition:

Scholars who take up jobs will be relieved on their request, based on the recommendations of Doctoral Committee, if they have completed their

(a) Minimum residential requirement;

(b) Course work and

(c) Comprehensive examination.

The renewal of their registration for every year/semester however, will be considered only if the Doctoral Committee finds his/her progress to be satisfactory and recommends continuance of registration.

R.16 Maximum Duration of Programme

PhD Research Scholars should submit the thesis within 5 years from the date of registration.

The Doctoral Committee may extend the period of submission of the thesis further 2 years for regular full time research scholars.

R.16a Withdrawal from the programme

A scholar may be permitted by the Head of the Institute to withdraw from the programme for a semester or longer for reasons of ill health or other valid grounds duly recommended by the Doctoral Committee. Normally a scholar will be permitted to discontinue from the programme only for a maximum continuous period of two semesters.

R.17 Cancellation of Registration

- (a) The registration of a research scholars whose progress is not found to be satisfactory by the Doctoral Committee 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 as in R. 16 will be cancelled.

R.18 Reversion of upgraded PhD Registration to Master's Programmes

- (a) i) A research scholar who updates his/her MS registration to Ph D, may apply for reversion to the MS Programme under the supervision of the same guide(s) if he/she so desires and if he/she has completed three years after the date of original MS registration.
- (ii) If a research scholar, who upgrades his/her MS registration to Ph D, fails to pass the comprehensive examination in two attempts, he/she will be reverted to the MS Programme.

The Doctoral Committee will consider the application only if the scholar has completed all the course requirements prescribed originally by the General Test Committee when the scholar registered for the MS programme and if the research work carried out till date is found suitable for submission as an MS thesis. If the application is found acceptable, the Doctoral Committee may recommend reversion of registration. If the reversion is approved by the Institute, the Doctoral Committee will continue to function as the General Test Committee till the completion of the scholar's MS programme.

The scholar must complete the requirements of the MS degree within a maximum period of one year from the date of reversion of the registration from PhD to MS.

R.19 Synopsis

- (a) On satisfactory completion of the prescribed courses, the comprehensive examination and the research work, the scholar shall submit the requisite copies of the synopsis of his/her research work in the required format through the guide(s) and Institute to the Academic Section for consideration of the Doctoral Committee. Prior

to submission of the synopsis, the scholar is required to give at least two seminar talks on the topic of his/her research and have at least one paper either published or accepted for publication preferably in a referred International journal.

- (b) The research scholar shall present the synopsis before the Doctoral Committee. The Doctoral committee will, if it approves the work reported in the synopsis, permit the research scholar to submit the thesis and recommend a panel of at least eight examiners from outside the Institute. (foreign universities)

R.20 Submission of Thesis

The research scholar shall, within one month of acceptance of the Synopsis, submit requisite copies of the thesis and abstract of the thesis as stipulated.

The Doctoral Committee may grant additional time beyond one month on request from the scholar for valid reasons.

R.21 Panel of Examiners

The thesis shall be referred to two examiners chosen by the Chairman, AAC/ Senate or his nominee from among the panel of examiners recommended by the Doctoral Committee at its synopsis meeting.

R.22 Thesis Report

- (a) The examiner is expected to send the report on the thesis within two months from the date of receipt of the thesis.
- (b) In case of undue delay in receiving the thesis report, the Chairman, AAC / Senate or his/her nominee shall appoint another examiner in his/her place for evaluating the thesis.
- (c) If one of the two thesis examiners declares the thesis as not commended, the thesis shall be referred to a third examiner from the panel for his/her evaluation.
- (d) If an examiner suggests resubmission of the thesis, after revision, the research scholar will be allowed to resubmit the theses within the time stipulated by the Doctoral Committee failing which the revised thesis will not be accepted and his/her registration will be cancelled.
- (e) If two examiners, after referral to a third examiner, if necessary, report the thesis as not commended the registration of the scholar shall stand cancelled.
- (f) If reports of two examiners after referral to a third examiner, if necessary, declare the thesis as 'commended' the Doctoral Committee will consider the reports and recommend for conduct of viva voce which will be conducted normally not earlier than two weeks from the date of the constitution of the viva voce board. The Doctoral

Committee will suggest a panel of at least four expert members out of which one member will be nominated for the viva voce board.

- (g) In all other cases, not covered by the above Regulations the matter will be referred to the Doctoral Committee for consideration.

R.23 Viva Voce Examination

- (a) The following is the composition of the viva voce Board:

- i) Head of the Institute or his nominee - Chairman
 - ii) The examiner of the thesis from within the country, or a specialist in the subject nominated by the Chairman, AAC / Senate or his nominee from the panel of examiners approved by the Doctoral Committee.
 - iii) Research Guide(s)
 - iv) A Specialist either from the Institute or outside from the panel approved by the Doctoral Committee and nominated by the Chairman, AAC / Senate or his nominee
- (b) The Doctoral Committee members of the Research Scholar concerned will be invitees to the viva voce.
- (c) The viva voce board will examine the scholar on his/her thesis work and evaluate his/her performance as satisfactory or otherwise.

The viva voce board will ensure that the scholar answers satisfactorily the questions raised by the thesis examiner(s).

- (d) If the report of the viva voce board declares the performance of the research scholar not satisfactory, he/she may be asked to reappear for viva voce at a later date (not earlier than a month and not later than six months from the date of the first viva voce).
On the second occasion, the viva voce board will also include the members of the Doctoral Committee.
- (e) If the viva voce board on the second occasion also evaluates the performance of the research scholar not satisfactory, the matter will be referred to AAC / Senate for a decision.
- (f) The viva voce board may also recommend revision to be made in the final version of the thesis after taking into consideration suggestions of the examiners who evaluated the thesis and the discussion at the viva voce.

The Chairman of the viva voce board shall forward the thesis to the academic section certifying that the revisions recommended by the viva voce board, if any, have been incorporated in the copy of the thesis along with the report of the viva voce board.

- (g) All the research scholars shall submit two copies of the final form of thesis in A5 size and an electronic version in PDF format after the viva voce board recommends the award of the PhD degree.

R.24 Award of PhD Degree

If the performance of the research scholar in the viva voce is satisfactory, he/she will be awarded PhD degree on the recommendation of the AAC / Senate and with the approval of the Board of Governors of the Institute.

R.25 Discipline

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

Any act of indiscipline of a scholar reported to the Head of the Institute will be referred to a Discipline and Welfare Committee nominated by the AAC / Senate from time to time.

The committee will investigate the charges and will recommend suitable punishment if it finds the charges substantiated.

The recommendation of the Committee will be considered by the Head of the Institute to take appropriate action.

Head of the Institute will report the action taken at the next meeting of the Senate.

R.26 Power to Modify

Notwithstanding all that has been stated above, the AAC / Senate has the right to modify any of the above regulations from time to time.

MS ORDINANCES AND REGULATIONS

ORDINANCES

- 0.1 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.
- 0.2 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 of this Institute.
- 0.3 The award of the MS degree shall be accordance with the regulations of the AAC / Senate of this Institute.

REGULATIONS

R.1 Categories of Admission

Candidates will be admitted to the MS by research Programme in Engineering of the Institute under one of the following categories:

- (a) Regular full-time scholars with or without Institute fellowship or with project support.
- (b) Research scholars who are staff members of the Institute.

The feasibility of doing this with sufficient intensity will be an important consideration in admitting the scholar in this category.

R.2 Eligibility

R.2.1 Minimum educational qualifications

The minimum educational qualifications for admission to the MS by research programme in Engineering are as follows:

2.1.1 MS. in Engineering

- a) Candidate with a Bachelor's degree in Engineering/ Technology with valid GATE score or a Master's degree in appropriate Sciences Management/ Humanities and Social Sciences where eligible with a good academic record and a valid GATE score or CSIR/UGC NET /NBHM/JMET/CAT/AIMA or equivalent qualification tenable for the current year in the relevant areas.

b) Candidates having Associate Membership of the following professional bodies will also be eligible for admission to the MS programme of their parent discipline provided they have a valid GATE score and have passed both part A and part B of the Membership examinations with a good academic record. (The Institution of Engineers (India) (Civil, Mechanical, Electrical and Electronics, Electronics and Communications), The Aeronautical society of India, The Indian Institute of Metals, The Indian Institute of Chemical Engineers, The Institute of Electronics and Tele-communication Engineering and other professional bodies approved by the AAC / Senate from time to time.

2.1.2 Institute staff members/Research Scholars under External Registration/Research scholars working on part time basis.

Bachelor's degree in Engineering/ Technology or a / Master's degree in appropriate Sciences/ Management/ Humanities and Social Sciences where eligible with a good academic record. However, Valid GATE score or CSIR/ UGC NET/ NBHM/ JMET/ CAT/ AIMA or equivalent qualification may not be required in these cases.

(The list of eligible disciplines in which the minimum educational qualifications have to be obtained will be provided by in the Admissions Brochure, which will be updated from time to time.

The Selection Committee may find fit to consider meritorious candidates from disciplines other than listed at in the Admission Brochure if there is a good match between the educational/ research background of the candidate and the proposed area of research.

The Admission Brochure will also include details about inter-disciplinary research areas, which may be pursued by the research scholars for the MS. degree and the corresponding eligible disciplines).

Additional and stiffer criteria than the minimum educational qualifications given in R.2.1 may be set by the Selection Committee from time to time for short listing candidates to be called for interview or test.

R.2.2 Upgradation of registration from MS to PhD Programme

Meritorious candidates who have registered for the MS programme are eligible to upgrade their registration to the PhD programme in the same department under the supervision of the same guide(s) if they satisfy the following criteria:

- a) The candidates should have been registered for a minimum of 2 semesters in the MS Programme.
- b) Minimum CGPA of 8.0 in the prescribed courses in the MS Programme.

The General Test Committee of the MS scholar will consider the application for upgradation of PhD under the supervision of the same guide(s) and make its recommendation to the AAC / Senate. If approved a Doctoral Committee will be constituted.

The candidate should pass the comprehensive examination within a semester after upgradation to the PhD programme and within two attempts.

The candidate will be treated on par with one admitted directly after a Bachelor's degree, but with the residency period and course work completed under the MS registration as decided by the Doctoral Committee credited to the PhD programme.
(See the PhD ordinances and regulations).

R.3 International Students

Foreign nationals can only register as regular full-time scholars. Foreign nationals with degrees from Indian universities will be treated on par with Indian nationals for admission purposes. Foreign nationals on par with Indian nationals for admission purposes. Foreign national with foreign degrees must meet the minimum educational requirements as given in R.2.1 equivalent to Indian Bachelor's Degree in Engineering or Master's Degree in appropriate Sciences/Management/Humanities and Social Sciences where eligible with a good academic record. In addition, they should have a valid GRE/ GMAT/ GATE/ NET/CAT/JMET/AIMAQ or an equivalent examination score in the relevant discipline. International students are expected to have a working knowledge of English. Once admitted, IITD&M will apply for necessary clearance from the Government of India for study in India.

R.4 Selection Procedure

Eligible candidates possessing the minimum educational qualifications, and satisfying additional/stiffer criteria set by the departments from time to time, will be called for an Interview and /or Test by Selection Committees.

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

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

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

R.5 Admission

a) Candidates whose selection is approved by Chairman, AAC / Senate will be admitted to MS in Engineering programmes after payment of prescribed fees.

b) Ordinarily, a candidate is not eligible for re-registration for MS. after cancellation of his/her earlier registration for any reason. Based on the merits of the individual case, and taking into consideration for re-registration.

R.6 Choice of Guide

a) Allotment of research scholars to guides will be made by the Head of the Institution or his nominee taking into consideration the research profile of the department and the preferences of the research scholars and guides.

b) There shall be not more than two guides from the Institute for a research scholar.

R.7 Eligibility for being Guides

The following may be a guide for a MS Scholar:

- > All faculty members of the Institute.
- > Scientific / Design staff of the Institute with a doctoral degree.
- > Continuance of retired faculty members / emeritus faculty as guides.

a) When a faculty member, who has guided a candidate for at least 2 years, retires, he will continue to be a guide. However, a co-guide who is in service will be appointed in addition. The guide who has retired will be invited for the General Test Committee meetings, synopsis meeting and the viva voce examination.

b) A faculty member who is to retire within 2 years may be permitted to become a guide to a new scholar with another faculty member who is not likely to retire within 3 years as co-guide at the time of registration itself. On retirement, the faculty member will continue to be a guide

and will be invited to the General Test Committee meetings, synopsis meeting and the viva-voice examination.

c) CSIR and other Emeritus Fellows / Scientists/ Emeritus Professors, who hold office at this Institute for a period of 1 year or more, can become co-guides for scholars, along with a guide from IITDM Madras, with at least 3 years service still left at the time of registration of the scholar.

d) In case a faculty member who is a guide goes on leave exceeding one year duration another faculty member will be identified to become a co-guide of the research scholar.

e) The induction of new guides after 2 years of registration of a research scholar will be considered by the General Test Committee.

R.8 Change / Addition of Guide

The General Test Committee of a research scholar may recommend change of guide or appointment of a co-guide for valid reasons.

R.9 General Test Committee

The Guide will intimate the Head of Institute or his nominee for scholar, the area of research, name(s) of the Guide(s) and a panel of names indicating the area of specialization of each faculty member for constitution of General Test Committee within 8 weeks of the date of joining of the research scholar.

The following is the composition of the General Test Committee for MS. scholars in engineering programmes:

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|---|-----------|
| a. Head of the Institute or his nominee - | Chairman |
| b. Research Guide(s) - | Member(s) |
| c. Two faculty members - | Members |

R.10 Registration

a) The General Test Committee will meet normally within a month of being constituted, where the research scholar will make a presentation. The General Test Committee will fix / approve the date of registration for the MS Programme, consider the proposed research topic and prescribe / approve the courses of study in this meeting.

b) The registration may be supported by the external agency employed in projects by up to 6 months from the date of admission to the programme on the recommendation of the General Test Committee with justification. Based on the recommendation of the General Test Committee, the AAC / Senate may, additionally, permit backdating by a further period of 6 months.

R.11 Course work

The General Test Committee will normally prescribe three core courses and at least four electives. The prescribed courses shall be post-graduate level course of the Institute or an IIT.

MS research scholars should successfully complete 3 core courses and at least 2 elective courses prescribed by the General Test Committee.

The General Test Committee may give credit to courses already undergone by a research scholar in this Institute or other Institutions provided they are the same or equivalent to those prescribed and the performance level of the scholar in them meets the minimum required. The General Test Committee may prescribe additional courses for research scholars wherever found necessary.

MS research scholars who admitted to the programme shall obtain a minimum CGPA of 7.5 in the courses taken by them, subject to a minimum of 'C' grade in the prescribed courses. If more than the Minimum required electives have been taken, only the electives with the best performance will be considered for computing the CGPA.

The General Test Committee may allow the research scholars to choose not more than 3 optional courses, in addition to the courses already prescribed. It shall be open to the General Test Committee to permit or not to permit a research scholar to take optional courses in view of research work. The optional courses will not count towards the requirements of MS Programme. The grades obtained in these courses will be mentioned in the transcript.

MS research scholars who upgraded their registration to the PhD programme should successfully complete 5 core courses and at least 3 elective courses prescribed by the Doctoral Committee. The Doctoral Committee may give credits to courses already successfully completed by the research scholars during their MS. Programme towards the courses requirements of the updated PhD programme. The Doctoral Committee may prescribe additional courses for such scholars if found necessary.

R.12 Progress Report

a) A research scholar shall, after registration, submit annually a written report in the required format. The report should be routed through the guide to the Head of the Institute or his nominee consideration by the General Test Committee.

b) The progress made by a research scholar shall be reviewed by the General Test Committee once a year. Continuance of registration, and award / continuance of scholarship / Research Assistantship will be based on the recommendation of the General Test Committee. Inadequacy of effort / progress can be a reason for cancellation of registration.

R.13 Enrollment

All research scholars who are in residence and whose registration for research degree is still in force are required to enroll in person each semester on the stipulated date till their submission of thesis, on payment of the requisite fees. Those not in residences may enroll in absentia, on payment of the requisite fees.

R.14 Minimum Residential Requirement

The minimum period of study and research required at the institute from the date of registration for MS Programme to the date of submission of MS thesis shall be 18 months for all regular full time MS research scholars.

R.15 Relief from MS programme to take up job

MS research scholars who get a job offer can get relief from the programme, while keeping their registration alive on payment of the requisite fees every semester, on the following conditions:
Scholars who take up jobs will be relieved on their request, based on the recommendations of General Test Committee, if they have completed their (a) minimum residential requirement and (b) course work.
The renewal of their registration for every year / semester will be considered only if the General Test Committee finds his / her progress to be satisfactory and recommends continuance of registration.

R.16 Maximum Duration of Programme

MS Research Scholars shall submit the thesis within three years from the date of registration. The General Test Committee may extend the period of submission of the thesis by up to 1 year for regular full time research scholars with an additional year for research scholars who are staff members of the institute, research scholars under external registration and research scholars under external registration and research scholars working on a part-time basis.

R.16a Withdrawal from the programme

A scholar may be permitted by the Head of the Institute or his nominee withdraw from the programme for a semester or longer for reasons of ill

health or other valid grounds duly recommended by the General Test Committee. Normally a scholar will be permitted to discontinue from the programme only for a maximum continuous period of two semesters.

R.17 Cancellation of Registration

a) The registration of a research scholar whose progress is not found to be satisfactory by the General Test Committee 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 as in R.16 will be cancelled.

R.18 Reversion of upgraded PhD Registration to MS Programme

a) A research scholar, who updates his / her MS registration to PhD, may apply for reversion to the MS programme under the supervision of the same guide(s), if he / she so desires and if he / she has completed three years after the date of original MS registration.

b) If a research scholar who updates his / her MS registration to PhD fails to pass the comprehensive examination in two attempts, he /she will be reverted to the MS Programme.

The Doctoral Committee will consider the application only if the scholar has completed all the course requirements prescribed originally by the General Test Committee when the scholar registered for MS and if the research work carried out till date is found suitable for submission as an MS thesis. If the application is found acceptable, the Doctoral Committee may recommend the reversal of registration. If the reversion is approved by the Institute, the Doctoral Committee will continue to function as the General Test Committee till the completion of the scholar's MS programme.

The scholar must complete the requirements of the MS. degree within a maximum period of one year from the date of reversal of the registration from PhD to MS.

R.19 Synopsis

a) On satisfactory completion of the prescribed courses and research, research scholars under the MS Programme in Engineering shall submit to the Director or Deputy Director through their guide(s), requisite copies of the synopsis of the research work for consideration by the General Test Committee.

- b) Prior to the submission of the synopsis, research scholars are required to give at least one seminar talk on the topic of their research work.
- c) Research scholars are expected to publish the results of their research before submission of their thesis preferably in a refereed journal.
- d) The research scholars shall present the synopsis before the General Test Committee. The General Test Committee will, if it approves the work reported in the synopsis, permit the research scholar to submit the thesis and recommend a panel of at least six thesis examiners from outside the Institute.

R.20 Submission of Thesis

The research scholar shall, within one month of acceptance of the synopsis, submit the requisite copies of the thesis and abstract of the thesis as stipulated.

The General Test Committee may grant additional time beyond one month, on request from the scholar for valid reasons.

R.21 Panel of Examiners

The thesis of the research scholars shall be referred to two examiners chosen by the Chairman, AAC / Senate or his nominee from among the panel of examiners recommended by the General Test Committee at its synopsis meeting.

R.22 Thesis Report

- (a) The examiner is expected to send the report on the thesis within six weeks from the date of receipt of the thesis.
- (b) In case of undue delay in receiving the thesis report, the Chairman, AAC / Senate or his nominee shall appoint another examiner in his / her place for evaluating the thesis.
- (c) If one of the two thesis examiners declare the thesis, as not commended, the thesis shall be referred to a third examiner from the panel for his/her evaluation.
- (d) If an examiner suggests resubmission of the thesis, after revision, the research scholar will be allowed to resubmit the thesis within the time stipulated by the General Test Committee failing which the revised thesis will not be accepted and his/her registration will be cancelled.
- (e) If two examiners, after referral to a third examiner, if necessary, report the thesis as not commended, the registration of the scholar shall stand cancelled.
- (f) If reports of two examiners after referral to a third examiner, if necessary, declare the thesis as 'commended' and if no viva voce is

suggested, the General Test Committee will consider the reports within two weeks of receipt of copies of reports by the Chairman, General Test Committee from the Academic Section, and recommend the award of Degree of MS (by Research) to the scholar, with a certificate that the corrections/revisions suggested by the examiner(s) have been incorporated in the thesis.

In the event of both or one of the examiners having suggested conduct of viva voce, the viva voce Board will conduct the viva voce examination and recommend the award of degree of MS (by Research) to the scholar, with a certificate that the performance of the research scholar in the viva voce was found to be satisfactory and that the corrections/revisions suggested by examiner(s) have been incorporated in the thesis. The viva voce will be conducted normally not earlier than two weeks from the date of receipt of copies of reports by the Chairman, General Test Committee from the Academic Section.

(g) In all other cases, not covered by the above regulations the matter will be referred to the General Test Committee for consideration.

R.23 Viva Voce Board

The viva voce board shall comprise the members of the General Test Committee.

The viva voce board will examine the scholar on his/her thesis work and evaluate his/her performance as satisfactory or otherwise.

If the report of the viva voce board declares the performance of the research scholar as not satisfactory, he/she may be asked to reappear for viva voce at a later date (not earlier than a month and not later than six months from the date of the first viva voce).

If the viva voce board on the second occasion also evaluates the performance of the research scholar as not satisfactory, the matter will be referred to the AAC / Senate for a decision.

The viva voce board may also recommend revision to be made in the final version of the thesis after taking into consideration, suggestions on the examiners who evaluated the thesis and the discussion at the viva voce examination. The Chairman of the viva voce board shall forward the thesis to the Academic Section certifying that the revisions recommended by the viva voce board, if any, have been incorporated in the copy of the thesis along with the report of the viva voce board.

All the research scholars shall submit two copies of the final form of the thesis in A5 size and an electronic version in pdf format after the General Test Committee or the viva voce board recommends the award of the degree.

R.24 Award of MS Degree (by Research)

On the recommendation of the General Test Committee / viva voce board and AAC / Senate and with the approval of the Board of Governors of the Institute the research scholar will be awarded the MS degree (by research).

R.25 Discipline

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

Any act of indiscipline of a scholar reported to the Head of the Institute will be referred to a Discipline and Welfare Committee nominated by the Senate from time to time.

The committee will investigate the charges and will recommend suitable punishment if it finds the charges substantiated.

The recommendation of the Committee will be considered by the Head of the Institute to take appropriate action.

Head of the Institute will report the action taken at the next meeting of the Senate.

R.26 Power to Modify

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