

M.Tech. (By Research) REGULATIONS

(2017)



HINDUSTAN
INSTITUTE OF TECHNOLOGY & SCIENCE

M.Tech. (By Research) REGULATIONS

1.0 Program Objective

The objective of the **M.Tech. (By Research)** program is to train talented and suitably qualified candidates at B.E. / B.Tech. / B.Arch. or equivalent level in carrying out original research and developing problem-solving skills in areas of current industrial importance.

2.0 Categories of Admission

Candidates may be admitted to the **M. Tech. (By Research)** program under one of the following categories:

- a) Full-time scholars.
- b) Part-time (Internal) scholars who are staff members of the Hindustan Institute of Technology and Science (HITS) and who will be devoting part of their time only on the **M.Tech.** program. They may be assigned teaching and other academic responsibilities according to existing norms.
- c) Part-time (External) scholars sponsored by and employed in private and public sector organizations having R&D infrastructure and recognized by Department of Science and Technology, Government of India or HITS.

Part-time (External) scholars can carry out their research work in the organization where they are employed under the guidance of a co-supervisor also employed in the same organization and a supervisor in HITS.

3.0 Eligibility

- 3.1 The candidate should have the minimum educational qualification mentioned below or any other equivalent qualification as approved by the Board of Management:

S.No.	Program	Minimum Qualification
1.	M.Tech. (By Research) Degree in Engineering / Technology	B.E. / B.Tech. / M.Sc. in the relevant or allied branch.

- 3.2 The candidate should have passed the qualifying examination mentioned in (3.1) with first class.

- 3.2.1 In those cases in which class is not awarded in the qualifying examination but Only marks, the candidate should have obtained a minimum of 60 percent marks.

- 3.2.2 In those cases in which class is not awarded in the qualifying examination but only grades, the candidate should have obtained a CGPA of 6.5 on a ten-point scale.
- 3.2.3 For candidates with teaching or industrial experience of more than six years, second class with a minimum of 55 percent marks is permissible.
- 3.2.4 For S.C. /S.T. candidates: Second class with a minimum of 55 percent marks is permissible.

4.0 International Students

Foreign nationals with valid passport and visa may be admitted under any one of the three categories of admission mentioned in 2.0. Such candidates with degrees from Indian Universities should have the same educational qualifications as mentioned in 3.0 for Indian students. Foreign nationals with foreign degrees shall possess the minimum educational requirements equivalent to the qualifications mentioned in 3.1 and 3.2 as recognized by HITS. After admission, they should apply, through HITS, for necessary clearance from the Government of India for study in India.

5.0 Selection Procedure

- 5.1 Eligible candidates possessing the minimum educational qualifications mentioned in 3.0 should apply in the prescribed application form (through proper channel wherever applicable) before the due date mentioned in the relevant notification issued by the University.
- 5.2 The applications by the candidates shall be processed by committees constituted by the Chairman, Board of Research.
- 5.3 Such committees will scrutinize the applications for eligibility norms. They will also conduct test/interview for the eligible candidates. Based on the performance in the test/interview, successful candidates shall be short listed by the committees.
- 5.4 For the short-listed candidates, the committees shall nominate research supervisors, taking into account the area of research of the candidate and the field of expertise of the supervisors. The recommendations of the committees will be forwarded to the Chairman, Board of Research for placing before the Vice-Chancellor.

6.0 Admission

- 6.1 After acceptance of the list by the Vice-Chancellor, the Registrar's Office will inform the candidate about his provisional selection for the **M.Tech. (By Research)** program and ask him to pay the prescribed fees. After the candidate pays the fees, the candidate is provisionally admitted and registered for the program effective from the last date prescribed for the payment of fees. His admission will be informed by the Registrar to the Chairman, Board of Research, concerned HOD, supervisor and the sponsoring institution, if any.

7.0 Supervisor Recognition

- 7.1. Any regular Professor of the HITS with at least five research publications in refereed journals and any regular Associate/Assistant Professor of the HITS with a Ph.D. degree and at least two research publications in refereed journals may be recognized as Research Supervisor.
- 7.2. When a faculty member, who has supervised a candidate, retires, he can continue as a Co-Supervisor. In such a case a faculty who is in service may be appointed as a Supervisor by the Vice Chancellor of HITS.
- 7.3. In case a faculty member supervising a candidate goes on a leave exceeding 6 months, another faculty member will be appointed as co-supervisor of the candidate.

7.4. **Maximum number of candidates under supervision of a supervisor:**

A supervisor can act as supervisor to a maximum of six M.Tech (By Research) scholars at any time. However, he can act as co-supervisor for three more M.Tech. (By Research) scholars.

7.5. Change/Addition of supervisor:

The Monitoring Committee of a **M.Tech. (By Research)** scholar may recommend change of supervisor or appointment of a co-supervisor for valid reasons.

8.0 Monitoring Committee

- 8.1 There shall be a monitoring committee for each **M.Tech. (By Research)** scholar to monitor the progress of the scholar. The Head of the Department will inform the Chairman, Board of Research, for each scholar the area of research, the name(s) of the guide(s) and a panel of names, indicating the area of specialization, of faculty members for constitution of monitoring committee within two weeks of the registration of the candidate.

8.2 The following will be the composition of the monitoring committee :

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|--|------|----------|
| (1) Head of the Department | | Chairman |
| (2) Supervisor | | Convener |
| (3) Co- supervisor if any | | Member |
| (4) One faculty member nominated by
Chairman, Board of Research from within the Department ...
(from a panel of three names provided by the HOD) | ... | Member |
| (5) One faculty member nominated by
Chairman, Board of Research from allied Departments (from
a panel of three names provided by the HOD) | ... | Member |

In case any member goes on leave exceeding 6 months or resigns or retires from the University, Chairman, Board of Research will nominate another member.

9.0 Program Structure

9.1 Course Work

- 9.1.1 The Monitoring Committee of the scholar shall meet within two weeks from the date of its constitution to prescribe course work for the scholar.
- 9.1.2 A minimum of six courses relevant to the area of research and offered under any approved P.G. Program of HITS shall be prescribed by the Monitoring Committee. At least one of the six courses will be a P.G. level Mathematics course.
- 9.1.3 The prescribed course work shall be completed by the scholar within one year from the date of registration in the case of full-time scholars and two years in the case of part-time scholars.
- 9.1.4 The **M.Tech. (By Research)** scholars shall obtain a minimum CGPA of 6.5 in the courses prescribed for him subject to a minimum Grade of “C” in individual subject.

9.2 Comprehensive Examination

- 9.2.1 On the successful completion of the course work, the Comprehensive Examination Committee constituted by the Chairman, Board of Research will conduct for the scholar a comprehensive examination. This will be in the form of a written-cum-oral examination to test the knowledge of the scholar in the fundamentals of the broad area of specialization and the course work undergone by him.
- 9.2.2 The Comprehensive Examination Committee will consist of four members of the monitoring committee nominated by the Chairman, Board of Research. The Chairman of the Committee will be a senior faculty from the Department. The committee will include the candidate’s supervisor as a member. The result of the examination will be conveyed by the Chairman of the comprehensive examination committee to the Chairman, Board of Research either as satisfactory or not satisfactory.
- 9.2.3 If the performance of the scholar in the comprehensive examination in the first attempt is not satisfactory, he will be given one more opportunity to appear for the comprehensive examination within six months of the first attempt. The registration of the candidate who fails in both the attempts will be cancelled.

9.3 Progress Report

- 9.3.1 Every six months commencing from the date of registration, the scholar shall submit progress report in the prescribed format to the Chairman, Board of Research through the supervisor and the Head of the Department.

- 9.3.2 The supervisor shall arrange to make a presentation by the scholar on his work every six months before the faculty of the department and once in a year before the monitoring committee.

10.0 Duration of Program

- 10.1 The duration of the program and the time limit for submission of thesis are counted from the date of registration. The minimum and maximum durations shall be two years and four years respectively.

11.0 Extension of Maximum Duration

- 11.1. In exceptional circumstances, on the recommendation of the monitoring committee and Board of Research, a maximum grace period of 2 years beyond the maximum stipulated in 10.1 may be granted by the Vice-Chancellor, six months at a time, to enable the research scholar to submit the thesis.
- 11.2. If the research scholar fails to submit the thesis within the extended period of two years, the registration of the candidate shall be cancelled.

12.0 Cancellation of Registration

The registration is liable for cancellation with one-week prior notice to the M.Tech. (By Research) students for the following reasons:

- (a) the scholar has not paid the prescribed annual fees within the stipulated time.
- (b) two consecutive six monthly progress reports are not submitted or found to be not satisfactory by the monitoring committee.
- (c) the scholar submits an application for withdrawal from the program.
- (d) For reasons as given in 9.2.3

In all the above cases, the fees paid by the scholar shall not be refunded.

13.0 Synopsis of Thesis

- 13.1 On satisfactory completion of the course work, Comprehensive Examination and the Research work, the scholar shall submit ten copies of the synopsis of his research work in the required format through the supervisor and the Head of the Department to the Chairman, monitoring committee for consideration of the monitoring committee.
- 13.2 The synopsis shall be accepted only when the research scholar has at least one paper in the subject of research either published or accepted for publication in a refereed national/international journal or Conference.
- 13.3 If the monitoring committee approves the research work reported in the synopsis, it shall forward six copies of the approved synopsis to the Registrar along with a panel of six examiners all from within India. The Chairman, Board of Research will also be informed.

14.0 Submission of Thesis

14.1 The research scholar shall, within three months of acceptance of the synopsis, submit five copies of the thesis prepared in accordance with the format and specification prescribed. Along with the thesis copies, three copies of the abstract of the thesis in about 400 words will also be submitted. Under no circumstances, the thesis submission can be delayed beyond 3 months after acceptance of synopsis. In extraordinary circumstances, an extension of three months may be permissible with the recommendation of the monitoring committee.

15.0 Thesis Evaluation

15.1. The thesis shall be referred to two examiners from within India nominated by the Vice-Chancellor from the panel of examiners recommended by the monitoring committee

15.2. Chairman, Board of Research is to take such steps as necessary to receive the reports from the examiners as quickly as possible.

15.3. The examiners will be requested to send in the prescribed form their reports within two months from the date of receipt of the thesis.

15.4. The examiner shall include in his report an overall assessment of the thesis and state his recommendation in one of the following categories:

(a) Recommended for the award of the degree of M.Tech. (By Research) : Highly Commended / Commended.

(b) Recommended for the award of the degree of M.Tech. (By Research) subject to revision being incorporated in the thesis as mentioned in the report which may be verified by the Viva-voce committee.

(c) Revision required as mentioned in the report and the revised thesis to be sent to him for final recommendation.

(d) Rejected

15.4.1. The examiner in his report of 200 to 300 words shall indicate the standard attained in case of category (a), the nature of revision required in case of categories (b) and (c) and the reasons for rejection in case of category (d).

15.4.2. If both the examiners recommend the award of the degree, the thesis shall be provisionally accepted.

15.4.3. If both the examiners recommend rejection, the thesis shall be rejected and the registration of the scholar will stand cancelled.

15.4.4. If one examiner recommends the award of the degree while the other recommends rejection, then the thesis shall be referred to a third examiner to be

nominated by the Vice-Chancellor. If two of the three examiners recommend the award, the thesis shall be provisionally accepted. If two of the examiners recommend rejection, the thesis shall be rejected and the registration of the scholar will stand cancelled.

15.4.5. If the recommendation from any examiner is of the category (c), then the scholar will be asked to revise the thesis as required and resubmit the thesis within 6 months. The revised thesis will be referred to the same examiner for his final recommendation.

15.4.6. Individual cases not covered by any of the above clauses shall be referred to the Vice-Chancellor for his final decision.

16.0 Viva-Voce Examination

16.1. The Monitoring Committee shall recommend a panel of three examiners within India and with expertise in the area of research for constituting the Viva-Voce Examination Board.

16.2. Vice-Chancellor shall constitute the Viva-Voce Examination Board as follows :

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|--|-------|----------|
| (a) Supervisor of the Candidate | | Convener |
| (b) One Examiner of the thesis | | Member |
| (c) An examiner from the panel in (17.1) | | Member |

The monitoring committee members of the Research Scholar will be invitees to Viva-Voce.

16.3. The Viva-Voce Board will ensure that the candidate has carried out the revisions, if any, pointed out by the thesis examiners. They will examine the scholar on his / her thesis work, in particular, on the questions if any raised in the thesis evaluation reports. The Viva-Voce Board will evaluate the candidate's performance either Commended / Highly Commended or Not Commended status.

16.4. If the Viva-Voce Board declares the performance of the scholar not satisfactory, he / her may be asked to reappear for Viva-Voce examination at a later date (not later than 3 months from the date of the first Viva-Voce examination).

16.5. If the performance of the candidate on the second Viva-Voce examination also is not satisfactory, the Vice-chancellor, if he deems it necessary, shall refer the report of the Viva-Voce Examination Board, along with the thesis and the Thesis Examiner's Reports to a committee constituted for the purpose. The decision of the Vice-chancellor shall be final.

16.6. On satisfactory completion of Viva-Voce examination, the candidate shall submit a copy of the thesis in the following formats with a certificate by the supervisor that all the revisions, if any as suggested by the examiners have been carried out:

- a) hard copy in A5 size and soft bound
- b) CD ROM or any other electronic format as prescribed.

17.0 Award of M. Tech. (By Research) Degree

If the report of the Viva-Voce Examination Board falls on Commended / Highly Commended status, the candidate will be awarded the M.Tech. (By Research) Degree with the approval of the Academic Council and the Board of Management)

18.0 Items not covered under the Regulations

Items not covered under the above-said regulations will be dealt with by the Vice-chancellor or a committee duly appointed by the Vice-chancellor.

19.0 Power to Modify

The Board of Management has the right to modify any of the above regulations from time to time.