REGULATION

FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PhD) PROGRAMME



NATIONAL INSTITUTE OF TECHNOLOGY MIZORAM AIZAWL - 796012 INDIA

REGULATIONS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PhD)

The Institute provides facilities for research leading to the award of Degree of Doctor of Philosophy (PhD)in the areas related to all branches of Engineering, Science and Humanities & Social Sciences.
(i) PhD Programme to be carried out at NIT Mizoram under supervision of faculty of the Institute. In special cases joint supervisors/ Co-supervisor from outside the Institute may be allowed. (ii) For the internal faculty members who have joined the Institute after their M Tech degree may be allowed to register for PhDprogramme with Supervisors / Co-supervisors from Central Universities/ Central Institutes/ Universities or Institutes of Repute such as IISc, IITs, IIMs, NITs, IIITs, NITIE, etc.
o H () tl () d s

2 CATEGORIES OF PhD STUDENTS

The Institute admits PhD students under the following categories: [SNT 10.15]

2.1 Full-Time

(i) REGULAR

He/she receives assistantship from the Institute or fellowship from any recognised funding agency as per institute norms and other qualifications. [SNT 10.15 and SNT 20.14]

(ii) SPONSORED:

He/she is sponsored by a recognised R&D organization/ Institute/ Industry etc. for doing research but gets no fellowship from the Institute. [SNT 10.15]

(iii) <u>SELF-FINANCED</u>

He/ She in this category works for the Degree but gets no fellowship from the Institute. [SNT 10.15]

(iv) PROJECT-STAFF

He/ She gets fellowship from the Sponsored Project, works full-time for the Degree and on completion of the Project before the award of the Degree, the category will be changed to Self-financed Mode. [SNT 10.15]

2.2 PART-TIME

He/She in this category works without fellowship from the Institute and should be employed. If permanent Employee, he/she should provide NOC from the employer. [SNT 10.15]

3 CHANGE OF CATEGORY

3.1 The Chairman, Senate on recommendation of the Doctoral Committee (DC) approves change from one category to another after completing 3 semesters.

ADMISSION TO PhD PROGRAMME

4.1 | Eligibility Criteria:

The details of the eligibility criteria for admission to various PhD programmes are given below. These criteria are revised by the Senate from time to time. Relaxation in academic qualification for reserved categories of students is as per Government of

India guidelines.

4.2 | **PhD** in Engineering:

Masters Degree in the area of Engineering/Technology from a recognized University/Institute with a minimum CGPA of 6.5 in 10 point scale or 60 % of marks in the qualifying examinations.

OR

Bachelor's degree in Engineering/Technology in a relevant area with a minimum CGPA of 7.5 or 70% of marks and with a valid GATE score. The requirement of valid GATE score shall apply to only those who seek admission under Full-time REGULAR Category.

OR

3rd Year BTech students from NIT Mizoram on completion of their 3rd year (6th semester) with CGPA 8.0 and above are eligible for admission for PhD program in Regular Category. The candidates will be waived from the requirement of GATE/NET and will be provided Institute Fellowship as Regular Category students for 5 years for completion of PhD. [SNT 20.13]

4.3 | **PhD in Science**:

Masters Degree in the area of Science from a recognized University/ Institute with a minimum CGPA of 6.5 in 10 point scale or 60 % of marks in the qualifying examinations. [SNT 20.14]

4.4 | PhD in Humanities & Social Sciences:

Masters Degree in the area of Arts/Commerce/Social Sciences from a recognized University/ Institute with a minimum CGPA of 6.0 in 10 point scale or 55% marks in the qualifying examinations. [SNT 20.14]

5 ADMISSION PROCEDURE

- 5.1 Admission to the PhD Programme of the Institute normally takes place in January/July every year.
- 5.2 Admission to all categories of students is granted on the basis of written test and/or interview held usually during the month of December/June every year. [SNT 7.21]
- 5.3 The following documents are to be furnished along with the application by candidates falling under Sponsored, Project Fellow, Part-time and External categories:
 - **Form I:** Sponsorship letter for Sponsored category.
 - **Form II:** No objection certificate from the Institute.
 - $\textbf{Form III:} \ \ \text{No objection certificate from the employer.}$
 - Form IV: Sponsorship certificate for External category.
 - **Form V:** No objection certificate for NIT Mizoram Employee.

6 ASSISTANTSHIP

- 6.1 Institute assistantships will be available to eligible students as per Institute norms. Suitable candidates having Masters Degree without GATE/NET score will also be eligible for institute fellowship. [SNT 20.14]
- 6.2 Assistantships from external funding organizations will be available as per terms and conditions of the concerned funding organizations.
- 6.3 Students receiving assistantships from the Institute or fellowships from any other

- funding agencies are required to perform academic duties as per Institute norms.
- 6.4 The continuation of the assistantship/fellowship is subject to satisfactory performance of the assigned duties and satisfactory progress of the student in the PhD Programme.

7 SUPERVISOR(S)

- 7.1 Every student admitted to the PhD Programme undertakes research under the supervision of a faculty member of the Department/Centre in which he is admitted. The faculty member is called his/her Supervisor. In the case of an external category there is also a Supervisor in the parent organization (Local Supervisor).
- 7.2 A student (other than external category) may have a second Supervisor from the same or another Department/Centre. Second supervisors will act as a Co- Supervisor.
- 7.3 All faculty members of the Institute holding doctorate degree can act as Supervisor
- 7.4 The following categories of persons can act only as a Co-Supervisor:
 - (i) A faculty nearing superannuation with less than 3 years of service left at the Institute.
 - (ii) A faculty on contract (including a Visiting Faculty) with less than 3 years of service left at the time of appointment as a Co-Supervisor.
 - (iii) Professionals from industry for students other than external category. On recommendation of the DC, the Chairman Senate approves appointment of such a Co-Supervisor.

8 APPOINTMENT OF SUPERVISOR(S)

- 8.1 The Chairman, Senate, appoints Supervisor(s) to a student after obtaining mutual consent of both the student and the Supervisor(s).
- 8.2 The Supervisor(s) is identified and appointed at the earliest and within six months from the date of admission.
- 8.3 The internal faculty/staff members (part-time category) who have joined the Institute after their MTech degree may choose the supervisor from Central Universities/ Central Institutes or Universities/ Institutes of Repute. The candidate has to suggest the name of supervisor along with his/her bio-data which will be further approved by Chairman, Senate. However, this provision is allowed only for the Academic session 2014-15.
- 8.4 A student under external category has one Supervisor from the Department/Centre in which he/she is admitted and another from the parent organization (Local Supervisor). On recommendation of the DC, the Chairman, Senate, approves the appointment of the Local Supervisor.

9 CHANGE/ADDITION OF SUPERVISOR(S)

- 9.1 If a student has only one Supervisor and the Supervisor goes on leave for more than 15(fifteen) months, another Supervisor is appointed by the DC. Mutual consent of both the student and Supervisor(s) is taken for such cases.
- 9.2 If the Supervisor of a student under external category proceeds on a leave for more than 15(fifteen) months, the Head of the Department/Centre looks after the routine administrative issues. Otherwise, on recommendation of DC, the Chairman, Senate,

	may appoint a new Supervisor. Mutual consent of both the student and Supervisor(s) is taken for such cases.
9.3	The Chairman, Senate may permit a student to change his/her Supervisor(s) for valid
	reasons. Mutual consent of the student and supervisor(s) and recommendations of the
	DC are required. Such cases are reported to the Senate.

10	DOCTORAL COMMITTEE (DC)	
10.1	To monitor the progress of research of a student, there will be a Doc with the following composition:	toral Committee
	(i) Professor of the Department nominated by the Head of the department/ Professor from other Central Universities/ Central Institutes or Universities/ Institutes of Repute	Chairman
	(ii) Supervisor(s)	Member(s)
		and Convener
	(iii) Two members of the Faculty from the Institute or from other Central Universities/ Central Institutes or Universities/ Institutes of Repute, to be nominated in consultation with the Supervisor(s)	Members
10.2	The DC is constituted in consultation with the Supervisor(s) within the date of appointment of the Supervisor(s). The list is sent to the Confor approval.	
10.3	A faculty member without doctorate degree will not be appointed as	DC member.
10.4	External DC member can attend the meeting/seminar through video	conferencing.
10.5	In case, the Chairman DC or any member goes on long leave, resign the Institute, the Chairman, Senate will appoint another member of of Supervisor	

11	COURSE WORK
11.1	The DC of a student prescribes the courses a student has to register for his/her
	course work. However, the Supervisor prescribes courses if the DC is not yet
	constituted.
11.2	A student of Engineering/Technology/Science/Humanities & Social Sciences
	Department with an entry level qualification of two-year Master's degree registers
	for a minimum of 4 courses in addition to Research Methodology with at least 24
	credits and has to obtain a CGPA of at least 6.5 on a 10 point scale. Research
	Methodology will be a compulsory audit course on purely pass/fail basis with no
	credit points. [SNT 20.7]
11.3	A student with entry-level qualification other than those under Clause 11.2 above
	registers for a minimum of 6 courses in addition to Research Methodology with at
	least 36 credits and has to obtain a CGPA of at least 6.5 on a 10 point scale. Research
	Methodology will be a compulsory audit course on purely pass/fail basis with no
	credit points. [SNT 20.7]
11.4	Under normal circumstances, a student is required to complete all course work
	within two semesters, and registering for at least two courses in the first semester.
	In each semester, the CGPA should not be less than 6.0 on a 10 point scale.

If at the end of any semester, a student maintains a SGPA of 6.0 on a 10 point scale, but fails in a course, he/she is allowed to repeat/substitute it in the following semester(s). The student attendance for each course will be considered as below a. Very Good > 75 % and above b. Good > 40 % to 75 % c. Poor < 40 % [SNT 20.17 (II)]
 The internal faculty/staff members (part-time category) may undertake the required course work under self study mode. However, this provision is allowed only for the Academic session 2014-15.
 A student can opt to do NPTEL courses in consultation with the Supervisor for the credit towards the required courses. [SNT 7.20]

12	COMPREHENSIVE EXAMINATION
12.1	To test the overall competence and academic preparation of a student in the PhD
	Programme, a Comprehensive Examination is held within 18 months for students
	with masters' degrees and within 24 months for the students only with Bachelor
	degrees from the date of admission.
12.2	Comprehensive Examination is held only after successful completion of course work.
12.3	The mode of Comprehensive Examination (oral or written or both) is decided by the
	DC and is intimated to the students.
12.4	The date of the Comprehensive Examination is informed to the student at least one
	month prior to the date of examination.
12.5	A student failing in the Comprehensive Examination in the first attempt is given a
	chance for second attempt not before one month and within six months from the
	date of the first attempt. If the student fails in the second attempt, he/she is not
	allowed to continue in the PhD programme.
12.6	All cases of failure in the Comprehensive Examination are reported to the Senate.

13	STATE-OF-THE-ART SEMINAR
13.1	A student needs to present a State-of –the-Art Seminar (SOAS) within 24 months of joining for students with Masters' Degree and within 30 months of joining for the students with only Bachelor Degree. The presentation is open to all. In this, he/she presents literature survey and broad plan of research work to be under taken. [SNT 20.8 and SNT 20.8]
13.2	A student submits a write-up to the DC members at least one week before the date of the SOAS.
13.3	A report on the successful completion of the SOAS, is submitted by the DC to the Chairman, Senate.
13.4	Within three months, a student delivers another SOAS if the first SOAS is not satisfactory. [SNT 18.5]

14	PROGRESS REPORT
14.1	After the State-of-the-Art Seminar (clause 13), a student presents his/her progress
	report in each semester to DC. Such presentations are open to all.

- The DC reviews the progress and submits a report based on terms of Satisfactory (S) or Un-satisfactory (X) to the Academic section. This report also contains are commendation for continuation of studentship and/or scholarship.
 Based on needs, the DC may fix a minimum number of working days (up to fifteen) twice a year for a student in part-time and external category to be present in NIT Mizoram for his/her research work.
- **15 ENROLMENT** Students of all categories will have to enrol in person every semester on the 15.1 stipulated date till the submission of their theses. They are required to pay the prescribed fees till the submission of their theses 15.2 within stipulated dates. However, internal faculty/staff members (part-time category) shall be exempted from payment of any tuition fee and other fee except the (i) Admission fee (Enrolment cum Registration fee) (ii) Thesis evaluation fee A student may be exempted from the prescribed fees for the last semester if he/she 15.3 submits thesis within 30 days from beginning of the semester. 15.4 Semester drop: Up to two semesters may be dropped in the entire duration of the PhD Programme, on bonafide grounds. Except on medical grounds, semester drop is not permissible before successful completion of Comprehensive Examination by a student. On recommendation of the Supervisor, the Chairman, Senate approves a semester drop. Cases of semester drop are reported to the Senate. No assistantship is provided during the period of a semester drop. The period of semester drop is not counted in the prescribed time limit for completion of the PhD Programme.
- 16.1 Regulations for Conduct and Discipline are common for all students of NIT Mizoram, and these are the same as that prescribed in the BTech Rules and Regulations.
 16.2 In addition, unauthorized absence for more than one month leads to disciplinary action, in the form of reduction of assistantship or even termination of studentship.

17.1 Ordinary Leave A full-time PhD student is eligible for 30 days leave for every completed year (calculated in terms of two consecutive semesters, from the time of his/her joining the programme). Saturdays, Sundays or holidays during the leave period are counted towards leave, except for prefixed or suffixed holidays. Of the 30 days leave, a maximum of 15 days of leave is permitted in a semester. However, a student can accumulate leave, and avail a maximum of 30 days' leave at a time in a year. The maximum number of carried-over leave, from one completed year to another, is 15 days. Head of the Department/Centre sanctions leave on recommendation of the Supervisor. 17.2 Maternity/Paternity Leave

	A student is eligible for 4 months maternity leave or 15 days of paternity leave as applicable only once during the PhD Programme. The Head of the Department/Centre sanctions maternity/paternity leave on recommendation of the Supervisor and submission of a certificate from Medical Officer.
17.3	Academic leave Academic leave is permitted on the following grounds:
17.3.1	To attend conferences/seminars/workshops/trainings/short-term courses. A maximum of 20 days of leave is permissible in a calendar year. A maximum of 30 days of leave in a semester is permissible for field trips such as data collection, survey work, etc. The Head of the Department/Centre sanctions academic leave on recommendation of the Supervisor. Academic leave exceeding 30 days but up to a maximum of 60 days in a semester is approved by the Chairman, Senate on recommendation of Supervisor.
17.3.2	Academic leave of more than 60 days but up to a maximum of 12 months is also permissible to carry out part of the research in another institute/R&D Lab/industry in India or abroad. For sanction of such a leave, a letter of consent from the host institute is required. This leave is permissible only after the student has passed the comprehensive examination and has done part of the research work at NIT Mizoram. On recommendations of the Supervisor, the DC and the Chairman, Senate approves such an academic leave. Such cases are also to be reported to the Senate. A student granted academic leave for one or more semesters, pays prescribed fees in every semester. If a registration date falls during the period of academic leave, a student completes the registration procedures at the expiry of his/her academic leave.

18	CANCELLATION OF STUDENTSHIP
18.1	The PhD studentship is liable to be cancelled for any of the following reasons:
	(i) Giving false information at the time of application/admission.
	(ii) Not conforming to the regulations of the programme.
	(iii) Failure in coursework requirement.
	(iv) Failure in Comprehensive Examination.
	(v) Consistent lack of progress in research.
	(vi) Violation of discipline and conduct rules of the Institute.
	(vii) Not submitting a thesis within the stipulated period.
	(viii) Not enrolling for a semester within stipulated dates.

19	DURATION OF THE PHD PROGRAMME
19.1	The duration of the PhD programme is as follows:
	(i)The minimum duration of the PhD Programme(excluding dropped
	semester(s)/maternity leave) is four semesters for REGULAR candidates and six
	semesters for PART-TIME candidates from the date of admission.
	(ii) The maximum duration of the PhD programme is 5 years for a REGULAR student
	and 6 years for a part-time student from the date of admission.

20 PUBLICATION

Publication- The candidates are expected to publish at least two papers in reputed journals out of which at least one publication in the SCI/SSCI (Thomson Reuter)/Scopus Indexed Journal in his/her field of research and present their research findings at national/international level conferences during their tenure. Standard Operating Procedure: The concerned PhD student preferably be the first author of any publication to be accepted for the PhD. [SNT 7.39]

21	SYNOPSIS OF THESIS
21.1	Prior to the submission of the thesis, a student submits the synopsis of thesis and a
	draft copy of the thesis to the DC. The synopsis contains outline of the research
	contained in the thesis.
21.2	The student makes a presentation of his/her thesis work before the DC in an open
	seminar (named as Synopsis Seminar). The synopsis is submitted one week before
	the Synopsis Seminar date.
21.3	If the DC approves the synopsis and draft copy of the thesis, the student is allowed to
	submit the synopsis of the thesis. The DC sends report of the Synopsis Seminar and
	Synopsis to the Chairman, Senate.
21.4	If a student fails to submit the thesis within 3 months from the date of the Synopsis
	Seminar, he /she shall present another Synopsis seminar. His/Her synopsis has to be
	approved by the DC and sent to the Chairman, Senate.

22	PANEL OF EXAMINERS	
22.1	At least fifteen days prior to the submission of the thesis, the DC submits to the	
	Chairman, Senate a panel of six examiners. The Chairman, Senate appoints two	
	examiners as external experts to examine a thesis.	
22.2	The list of examiners remains confidential with the Academic Section. The Academic	
	Section makes all correspondence with the examiners. The name of the examiners is	
	made available to the thesis Supervisor(s) after both the reports have been received.	

23	SUBMISSION OF THESIS
23.1	After successful completion of Synopsis Seminar, the DC will recommend the
	submission of thesis.
23.2	Only those theses having aggregate similarity index less than or equal to 10% and less than or equal to 5% from single source (excluding publications of the research scholar and corresponding supervisor(s) and excluding Preface, Acknowledgment, References) shall be considered for evaluation and award of degree. [SNT 8.11 and SNT 15.12]

24	THESIS REPORTS
24.1	Examiners are expected to send reports on the thesis within three months from the
	date of receipt of the thesis.
24.2	If an examiner does not send his/her report within three months, reminders are
	sent. If the report is not received within six months (in spite of reminders), the
	Chairman, Senate replaces the examiner.

24.3	If both the thesis examiners recommend the thesis for award of the PhD degree, the Chairman, Senate approves the conduct of Oral examination. Corrections in the thesis, responses to comments of examiners are ratified by the DC.
24.4	If an examiner suggests re-submission of the thesis, the student is allowed to resubmit the thesis after due revision within the time stipulated by the DC.
24.5	If one examiner recommends the thesis, and the other rejects, then the student is asked to modify the thesis as suggested within six months. The modified thesis is sent again to the same examiner for final report.
24.6	If both the examiners do not recommend the thesis for the award, the reports are sent to the DC which can decide on one of the following based on their assessment.
24.6.1	If the DC is satisfied with the work already done and the contents of the thesis already submitted, it may request the Chairman, Senate that the thesis may be sent to another set of examiners.
24.6.2	The DC may advise the student to augment the research and submit the synopsis again. If both the examiners do not recommend the thesis for the award for second time, the student is not awarded the degree and the registration is cancelled.

25	ORAL EXAMINATION	
25.1	In an oral examination, a student makes an oral presentation on his/her thesis. The	
	presentation is open to all.	
25.2	The following is the composition of the Oral Examination Board (OEB).	
	Chairman of the DC	Chairman
	Supervisor(s)	Member(s)
	One External Examiner of the Thesis	Member
	The other members of the DC of the student will be inv	itees to the Oral Examination.
25.3	The OEB conducts the defence of the thesis by the candidate ensuring that he/she answers all the queries of the thesis examiners satisfactorily.	
25.4	If the OEB finds the performance of the student unsatisfactory, the student will be asked to reappear for another oral examination at a later date (not earlier than a month and not later than six months from the date of the first oral examination).	
25.5	If the OEB finds the performance of the student occasion also, then the matter will be referred to the Cl	-

2	26	AWARD OF PhD DEGREE
2	26.1	If the OEB recommends award of the degree, a student will be awarded the PhD
		degree on the recommendation of the Senate with the approval of the Board of
		Governors of the Institute. One Best Thesis Award will be given every academic year
		based on the decision made by the committee framed by the Director. [SNT 20.5]

27	HONORARIUM AND TA/DA
27.1	The external examiner and external members of DC shall be paid honorarium as well
	as TA/DA as per Institute norms.
27.2	Both the external examiners shall be paid honorarium for thesis evaluation as per
	Institute norms.

28	LEGAL OTHER MATTERS	
28.1	All other cases, not covered by the above, shall be referred to the Senate.	
II I	Any legal matter relating to Rules and Regulation shall be subjected to jurisdictions	
	of Court(s) in Aizawl.	

FORM I

SPONSORSHIP LETTER

(This should by typed on the letter head of the sponsoring organisation)

Reference No

Date:

To,

The Director

National Institute of Technology Mizoram

Sub: Sponsoring an Employee for PhD Programme

Dear Sir,

We hereby sponsor the candidature of Mr/Mswho is an employee in our organisation, for joining PhD Programme inat your Institute as a full time student. It is certified that he/she has completed 1(One) year of service in our organization/institute as a regular employee. We shall relieve him/her of his/her duties in the organisation during the tenure of PhD programme.

Signature and seal of the Sponsoring Authority

FORM II NO-OBJECTION CERTIFICATE FOR NIT MIZORAM PROJECT STAFF

(This should be typed on the letterhead of the of NIT Mizoram)

Reference No

Date:

To.

The Director

National Institute of Technology Mizoram

Sub: No-Objection Certificate for NIT Mizoram Project Staff

Dear Sir,

The Department of has no objection if Mr./Ms./Mrs a
project employee in the projectdepartment, is admitted to the PhD
programme in
Principal Investigator of the concerned project has agreed to allow him/her to attend
classes/research work during the PhD programme.

FORM III NO-OBJECTION CERTIFICATE FOR PART-TIME STUDENTS

(This should be typed on the letter head of the sponsoring organization)

Reference No Date:

Signature and seal of the Head of the Department

To.

The Director

National Institute of Technology Mizoram

Sub: No-Objection Certificate

Dear Sir,

Signature and seal of the Sponsoring Authority

FORM IV SPONSORSHIP CERTIFICATE OF EXTERNAL REGISTRATION

(This should be typed on the letterhead of the sponsoring organization)

Reference No

Date:

To.

The Director

National Institute of Technology Mizoram

Sub: Sponsoring an Employee for PhD Programme for External registration

1. Name of the sponsoring organization:

Address:

- 2. Designation of the applicant:
- 3. Present status of the applicant:
- 4. List of Division/Section where research work is proposed to be done:
- 5. List of available local supervisor(s):

(Bio-data of local supervisor(s) to be enclosed giving details of designation, qualification, research experience with area of research etc. along with their consent for research guidance)

6. Details of relevant facilities which will be made available to the candidate:
It is certified that he/she has completed 1(One) year of service in our organization/institute as a regular employee. If Mr./Ms./Mrsis admitted to the PhD programme, we agree to relieve him/her to enable him/her to be available at NIT Mizoram to attend classes for completion of his/her course works relating to the PhD programme. Mr/Ms./Mrswill be permitted to carry out research leading to the PhD degree a tour organization under the guidance of selected local supervisor. The necessary facilities will be provided for the purpose.
Signature and seal of the Sponsoring Authority
FORM V NO-OBJECTION CERTIFICATE FOR NIT MIZORAMEMPLOYEE (This should be typed on the letterhead of the of NIT Mizoram) Reference No Date:
To, The Director National Institute of Technology Mizoram
Sub: No-Objection Certificate for NIT Mizoram Employee It is certified that we have no objection if Mr./Mrs/Ms
Signature of Head Signature of Director (Department:)