# 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)**

1	GENERAL
1.1	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.
1.2.	(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 outsidethe
	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 PhD programme with Supervisors /
	Co- supervisors from Central Universities/ Central Institutes/ Universities or
	Institutes of Repute such as IISc, IITs, IIMs, NITs, IIITs, NITIE, etc.

2	CATEGORIES OF PhD STUDENTS
	The Institute admits PhD students under the following categories:
2.1	REGULAR
	A student in this category works full-time for his/her PhD degree. He/she receives
	assistantship from the Institute or fellowship from any recognized funding agency
	depending on GATE/NET (UGC/CSIR)/other qualification
2.2	<u>SPONSORED</u>
	A student in this category is sponsored by a recognized R&D organization, academic institution, government organization or industry for doing research in
	the Institute on a fulltime basis. The Institute does not provide any assistantship
	/fellowship to such a student.
2.3	SELF-FINANCED
	A student in this category works full-time or part-time towards the PhD
	Programme. The Institute does not provide any assistantship/fellowship to such a student.
2.4	
2.4	PROJECT-STAFF
	This category refers to a student who is working on a sponsored project in the Institute and is admitted to the PhD Programme to work on a full-time basis. The
	remaining duration of the project at the time of admission should be at least one
	year. If the project gets completed before the student completes his/her PhD
	Programme, his/her category will be converted to that of REGULAR category
2.5	PART-TIME
	A student in this category is a professionally employed person, who pursues the
	PhD Programme while continuing the duties of his/her service in NIT Mizoram or
	elsewhere. The Institute does not provide any assistantship/fellowship to such a
	student.
2.6	EXTERNAL
	This category refers to a student employed in an R&D organization/academic
	institution/industry having adequate research facilities. The research work leading to the PhD degree may be carried out largely in the parent organization of
	reading to the range degree may be carried out largery in the parent of gamzation of

The candidate under a Local Supervisor from the organization but with the
overall guidance provided by a faculty member (Institute Supervisor) of the
Department/Centreinwhichhe/sheis registered. The Institute does not provide
any assistantship/fellowship to such a student.

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

4	ADMISSION TO PhD PROGRAMME
4.1	<b>Eligibility Criteria:</b> Details of 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:
	Master's 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 are a with a minimum CGPA of 7.5 or 70% of marks and with a valid GATE score.
4.3	PhD in Science:
	Master's 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 and qualify the NET examination conducted by CSIR or with a valid GATE score
4.4	PhD in Humanities & Social Sciences:
	Master's degree in arts/Commerce/Social Sciences/other relevant areas from a Recognized University/Institute with a minimum CGPA of 6.0 in 10 point scale or 55% marks in the qualifying examinations and qualify the NET examination conducted by UGC.

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 interview held usually during the month of January / July every year.
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:
	<b>Form I:</b> Sponsorship letter for Sponsored category. <b>Form II:</b> No objection certificate from the Institute.

<b>Form III:</b> 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.
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	Any faculty member of the Institute holding doctorate degree can act as Supervisor.
7.4	<ul> <li>The following categories of persons can act only as a Co- Supervisor:</li> <li>(i) A faculty nearing superannuation with less than 3 years of service left at the Institute.</li> <li>(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.</li> <li>(iii) Senior level professionals from industry for students other than external category. On recommendation of the DC, the Chairman Senate approves appointment of such a Co-Supervisor.</li> </ul>

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 latest by six
	months from the date of admission.
8.3	The internal faculty/staff members (part-time category) who have joined the
	Institute after their M Tech 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 curriculum vitae which will be further approved by Chairman, Senate.
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 the Supervisor goes on leave / retire / resign, the co supervisor from the Institute acts as the supervisor and the supervisor will act as co-supervisor. In case of single supervisor, a supervisor from the Institute will be approved by Chairman, Senate on the recommendation of the DC if required. Else the Head of the Department/ Centre looks after the routine administrative issues till another supervisor is approved by Chairman, Senate on the recommendation of the DC if required.
9.2	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 wil	l be a Doctoral
	Committee with the following composition:	
	Professor / Associate Professor of the Department nominated by the Head of the department/ Professor or Associate Professor from other Central Universities/ Central Institutes or Universities/ Institutesof Repute - Chairman	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 by the concerned department/centre in consultation with the Supervisor(s)	Members
10.2	The DC is constituted in consultation with the Supervisor( From the date of appointment of the Supervisor(s). The lis Senate for approval.	-
10.3	A faculty member without doctorate degree will not be ap	pointed as DC member.
10.4	External DC member may attend the meeting/seminar thr Provided they physically attend meetings at least once in t synopsis seminar.	0
10.5	In case, the Chairman DC or any member goes on long leav	e, resigns or retires

from the Institute, the Chairman, Senate will appoint another member on the
suggestion of the Supervisor

11	COURSE WORK
11.1	The DC of the student prescribes the courses of study. Supervisor may prescribe
	courses if the DC is not yet constituted which need to be ratified by the DC.
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 (four) courses amounting to at least 24 credits and has to
	obtain a CGPA of at least 6.5 on a 10 point scale.
11.3	A student with entry-level qualification other than those under Clause11.2 above
	registers for a minimum of 6 (six) courses amounting to at least 36 credits and
	has to obtain a CGPA of at least 6.5 on a 10 point scale.
11.4	A student is expected to complete all course work requirements within two
	semesters by 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.
11.5	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 by the concerned department to repeat/substitute it in the following semester(s) with the recommendation of DC.
11.6	In exceptional cases, a student may be permitted by the chairman. Senate to undertake one course per semester under self-study/virtual class room mode with proper evaluation mechanism.

12	COMPREHENSIVE EXAMINATION
12.1	To test the overall competence and academic preparation of a student in the PhD programme, a Comprehensive Examination is to be conducted within 18 months of joining for students with masters' degree and within 24 months of joining for the students with only Bachelor degree.
12.2	Comprehensive Examination is held only after successful completion of course work requirements.
12.3	The mode of Comprehensive Examination (oral or written or both) is decided by the concerned department and is intimated to the students.
12.4	The date of the Comprehensive Examination is informed to the student at least three weeks prior to the date of examination.
12.5	A student failing in the Comprehensive Examination in the first attempt is given a second attempt scheduled not before one month and not later than 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	AllcasesoffailureintheComprehensiveExaminationarereportedtotheSenate.

13	STATE-OF-THE-ART SEMINAR
13.1	Within 6months of the successful completion of the Comprehensive Examination,
	A student needs to present a State-of-the-Art Seminar (SOAS). The presentation is

	open to all. In this, he/she presents literature survey and broad plan of research work to be under taken.
13.2	A student should submit a SOAS report to the DC members atleast one week
	before the date of theSOAS.
13.3	A report on the successful completion of the SOAS, is to be submitted by the DC to the Chairman, Senate in the proper format.
13.4	Within a month, a student delivers another SOAS if the first SOAS is not satisfactory.

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.
14.2	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 a recommendation for continuation of studentship and/or scholarship.
14.3	Based on requirement, the DC may fix a minimum number (up to fifteen) of contact days at NIT Mizoram per semester for part-time/external category students for his/her research work.

15	ENROLMENT
15.1	Students of all categories will have to enrol in person every semester on the
	stipulated date till the submission of their theses.
15.2	They are required to pay the prescribed fees till the submission of their theses 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 following: (i) Admission fee (Enrolment cum Registration fee) (ii) Thesis evaluation fee
15.3	A student may be exempted from the prescribed fees for the last semester if he/she submits thesis within 30 days from beginning of the semester.
15.4	Semester drop: Up to two semesters drop may be permitted 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 DC and the concerned department, the Senate approves a semester drop. 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	CONDUCT AND DISCIPLINE
16.1	Regulations for Conduct and Discipline are common for all students of NIT
	Mizoram, and these are the same as those prescribed in the B Tech 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 ofstudentship.

17	LEAVE RULES
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 30days' 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	<u>Maternity/Paternity Leave</u> 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 30days 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, Senateapproves 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 feesin every semester. If a registration date falls during the period of academic leave, astudent completes the registration procedures at the expiry of his/her academicleave.

18	CANCELLATION OF STUDENTSHIP
	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
	The duration of the PhD programme is as follows: (i) The minimum duration of the PhD Programme (excluding dropped semester(s)/maternityleave)isfoursemestersforFULLTIMEcandidatesandsix semesters for PART-TIME candidates from the date of admission. (ii) The maximum duration of the PhD programme is 5 years for a FULL TIME 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.

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 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.
21.7	

22	PANEL OF EXAMINERS
22.1	At least fifteen days prior to the submission of the thesis, the DC submits a panel of eight examiners to the Chairman, Senate in the prescribed format. 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	Within three months of the acceptance of the synopsis by the DC, the student submits five (or six, if there are two supervisors) copies of his/her thesis in
	prescribed format to the Academic Section along with a soft copy of the thesis.

24	THESIS REPORTS
24.1	Examiners are expected to send reports on the thesis within two months from the date of receipt of the thesis.
24.2	If an examiner does not send his/her report within two months, reminders are sent. If the report is not received within four months (in spite of reminders), the Chairman, Senate may replace 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 to be 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 chairman senate under DC's recommendation may ask the student to modify the thesis as suggested within six months. The modified thesis is sent again to the same examiner with a request to review it.
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 for augmenting the research done and re-submit the synopsis. 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 the oral examination, the 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 Exami	nation Board (OEB).
	Chairman of the DC	Chairman
	Supervisor(s)	Member(s)
	One External Examiner of the Thesis	Member
	Other members of DC	Members

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 unsatisfactory on the second occasion also, then the matter will be referred to the Senate for a decision.

26	AWARD OF PhD DEGREE
	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. However, immediately after satisfactory completion of the PhD Defense, a provisional certificate may be issued on recommendation of the
	Dean (Acad) and with approval of the Chairman, Senate.

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	OTHER MATTERS
28.1	AllothermattersnotcoveredbytheclausesaboveshallbereferredtotheSenate.
28.2	Any legal matter relating to Rules and Regulation shall be subjected to
	jurisdictions of Court(s) in Aizawl.

#### FORM I SPONSORSHIP LETTER

(This should be typed on the letter head of the sponsoring organization) Reference No.

Date:

To,

The Director

National Institute of Technology Mizoram

#### Sub: Sponsoring an Employee for PhD Programme

Dear Sir,

We hereby sponsor the candidate of Mr/Ms...... Who is an employee in our organization, for joining Ph.D Programme in...... at our 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 organization during the tenure of Ph.Dprogramme.

Signature and seal of the Sponsoring Authority

#### FORM II NO-OBJECTION CERTIFICATE FOR NIT MIZORAM PROJECT STAFF

(This should be typed on the letter head 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,

Signature and seal of the Head of the Department

#### <u>FORM III</u> <u>NO-OBJECTION CERTIFICATE FOR PART-TIME STUDENTS</u>

(This should be typed on the letter of the sponsoring organization) Reference No. Date:

To,

The Director National Institute of Technology Mizoram

#### Sub: NO-Objection Certificate

Dear Sir,

We have no objection if Mr./Ms./Mrs...... an employee of our organization, is admitted to the Ph.D programme in...... at your Institute as a PART-TIME student. It is certified that he/she has completed one year of service in our organization /Institute as a regular employee. We shall grant him/her leave of absence to attend classes/research works at NIT Mizoram during the Ph.D programme.

Signature and seal of the Sponsoring Authority

#### FORM IV SPONSORSHIP CERTIFICATE OF EXTERNAL REGISTRATION

(This should be typed on the letter head 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 and Address of the sponsoring organization:

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(0ne) vear of service in our organization/institute as a regular employee. If Mr./Ms./Mrs. .....is 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./Mrs. .....will be permitted to carry out research leading to the PhD degree at our 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 MIZORAM EMPLOYEE**

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

Reference No

Date: To, The Director National Institute of Technology Mizoram

#### ${\small Sub: No-Objection Certificate for NITMizoram Employee}$

It is certified that we have no objection if Mr./Mrs/Ms. ....., Designation: ...., a (regular/contractual) employee of this Institute, working in the department of. ....., is admitted into the PhD Program in the department of ...... at this Institute as a part-time student. If selected, he/she shall be allowed to attend classes/research work without affecting normal duties assigned to him/her.

Signature of Head (Department :) Signature of Registrar