

# **RULES AND REGULATIONS**

## **Doctor of Philosophy (Ph.D.) Programme**



**Academic Affairs  
(2014-2015)**

**NATIONAL INSTITUTE OF TECHNOLOGY GOA**

**Ph.D. ORDINANCES AND REGULATIONS  
(Effective from 2014-15 admissions)**

## **ORDINANCES**

1. A candidate who has qualified the Degree of Master of Technology or Master of Science [M.Tech/M.S/M.Sc.] or Master of Arts from a recognized Institute or University in the discipline as prescribed in the rules and regulations is eligible to apply for Ph.D. programme of National Institute of Technology Goa. Exceptional candidates (with CGPA $\geq$ 9.0) with B.Tech/B.E from a reputed Institute are also eligible to apply for the Ph.D. programme. *(Amended in 6<sup>th</sup> Senate Meeting)*
2. The award of the Ph.D. Degree shall be in accordance with the regulations set by the Senate of the Institute.
3. The award of the Ph.D. Degree shall be made by the Institute on the recommendation of the Senate and with the approval of the Board of Governors (BOG) of the Institute.
4. The Senate/BOG of the Institute has the power to modify any regulations stated from time to time.

# RULES AND REGULATIONS

## P1. Admission procedure, requirements and categories

P1.1 The award of the Ph.D. degree is in recognition of high achievements, independent research and application of knowledge to the solution of engineering and scientific problems. The details of research programmes and faculty research interests may be found on the department websites. NIT Goa currently offers Ph.D. degree in:

- i) Humanities and Sciences (HS),
- ii) Computer Science and Engineering (CSE),
- iii) Electronics and Communication Engineering (ECE) and
- iv) Electrical and Electronics Engineering (EEE).

P1.2 The Assistantship/Fellowship will be payable for a duration fixed by the Ministry of Human Resources and Development (MHRD) (or the granting agency) or until the date of submission of thesis, whichever is earlier. The Institute admits Ph.D. candidates under the following categories:

- a) Full time research scholar on Institute fellowship (FT)
- b) Teaching Assistant (TA)
- c) Teaching Assistant through Project (TAP)
- d) Industry Fellowships (IF)
- e) Govt./Semi Govt. Fellowship Awardees (FA) (CSIR, UGC, DOE, DST, DBT, NBHM, ISEAP etc.)
- f) Sponsored candidates (SP)
- g) Self-Financed (Indian/Foreign) / Study Leave (SF)
- h) Indian Council for Cultural Relations Award (ICCR) (Foreign Nationals)

The candidate should have qualified GATE/NET examination for scholarship. (*Amended in 6<sup>th</sup> Senate Meeting*)

## P2. Admission schedule

P2.1 Normally, advertisement for Ph.D. programmes is issued in the month of March (for July session) and October (for December/January session) each year in the Institute website as well as in leading newspapers (*Amended in 6<sup>th</sup> Senate Meeting*). Admissions are carried out in the months of July and December/ January. Candidates seeking admission under this clause must fulfill the required academic qualification/experience at the time of interview. They must join within two weeks after the issue of admission offer unless specifically permitted to do so. Admission is subject to vacancy being available in the relevant specialization.

## P3. Eligibility criterion for admission to Full-time Ph.D. Programmes

P3.1 Table1 defines the minimum qualification(s) required for admission and provisional registration to full-time Ph.D. programmes at NIT Goa for General/OBC (Non-creamy Layer)/SC/ST/PH category students.

P3.2 Table1 defines the minimum requirements of the Institute and Departments operating through their Department Research Committee (DRC). A higher short listing criteria (possibly different for each department) may be set during scrutiny of applications, depending on the departmental requirements, number and merit of applicants.

P3.3 Qualifying degree performance is computed by aggregating performance over all the semesters/years of the qualifying degree.

**Table 1: Eligibility Criterion for Admission to full-time Ph.D. Programmes**

<b>Qualifying Degree</b>	<b>General/OBC (Non-Creamy Layer)</b>	<b>SC/ST/PH</b>	<b>Qualification through National level examination requirements</b>
M.Tech./M.E./M.Phil./MBA/ or equivalent	60% marks or 6.50 CGPA (on a 10 point scale)	55% marks or 6.00 CGPA (on a 10 point scale)	A GATE Score and/or qualifying score in the relevant discipline*
M.Sc.(Science)/M.A or equivalent	60% marks or 6.50 CGPA (on a 10 point scale)	55% marks or 6.00 CGPA (on a 10 point scale)	CSIR/UGC/NET/ICAR/ICMR /DST INSPIRE fellowship
B.Tech/ M.Sc.(Engg.)	9.0 or above CGPA (on a 10 point scale)	9.0 or above CGPA (on a 10 point scale)	Nil

\*Cut-off criteria for eligibility and shortlisting may vary for each Department.

#### **P4. Selection to the Ph.D. Programmes**

- P4.1 Provisional selection of the candidates will be conducted by a Department Selection Committee (DSC), which is constituted by the Director. DSC will consist of Head of Department (HoD)/a Professor within the Institute as Chairperson (to be decided and nominated by the Director), Department Ph.D. coordinator (Internal Expert), all probable supervisors from the Department, and Academic Affairs Coordinator.
- P4.2 The mode of selection for admission and provisional registration to the Ph.D. program is decided by the DSC. Normally, the selection is made on the basis of written test and/or interview.
- P4.3 Eligible and shortlisted candidates will be called by the department for written test and interview (only for those who clear written test).
- P4.4 Allotment of research scholars to supervisor(s) will be made by the Chairperson, DSC, taking into consideration the preferences of the research scholars and supervisors. Consent of the Supervisor(s) and student is essential for the allotment. Normally, there shall not be more than two supervisors (one is the supervisor and other is the co-supervisor) for a research scholar. In the case of change of supervisor, the research scholar may submit a written request to the Department Research Committee (DRC) citing valid reasons. The DRC may recommend for change of supervisor if satisfied with the request. The change shall be subject to the approval from the Academic Affairs Committee (AAC).

#### **P5. Duration of the programmes**

- P5.1 Minimum duration for doctoral research for a Ph.D student with M.Tech. or an equivalent qualification is 3 years (***Amended in 6<sup>th</sup> Senate Meeting***). All candidates are allowed a maximum of 7 years for submission of their thesis. After completing 5 years of registration (counting from the time of admission to department), a candidate registered for Ph.D. will be examined by the

DRC for re-registration in order to seek extension of his/her programme and should be approved by the DRC recommended by the DSC. Based on the recommendations of his/her DRC the candidate may be allowed to register for not more than 2 years.

## **P6. Academic requirements**

P6.1 In order to overcome any deficiency in the breadth of fundamental training or proper foundation for advanced work; special makeup or pre-doctoral courses are to be pursued by admitted candidates in each department. The candidate should approach the supervisor for the courses that he/she needs to pursue. These courses should be approved by the DRC. The course work may be completed on the basis of lectures/self-study, as suggested by the supervisor and approved by the DRC.

## **P7. Constitution of DRC and progress during Ph.D.**

P7.1 Candidate will enroll for coursework, as self-study/lectures and complete 12 credits achieving a letter grade of at least 7.0 grade points in each course. The choice of coursework is based on decision of the candidate's supervisor and DRC and this is recommended to help the candidate with preparatory work for research.

P7.2 Candidate's DRC will comprise of a Chairperson (Head of Dept. (HoD) or his/her nominee, usually of the rank of Professor) preferably from the same department, Internal Expert - Area expert from the Department, External Expert - Area expert from another department, and the Supervisor(s). The same should be informed to AAC.

Reconstitution of DRC member(s) with internal/external expert is subjected to approval from AAC. In such a case the outgoing internal/external expert is not responsible for the candidates' further progress. (*Amended in 6<sup>th</sup> Senate Meeting*)

P7.3 Candidate will have to appear for a ***Comprehensive Examination***, within two years of registration of Ph.D., based on the courses approved by DRC. He/she will have to demonstrate satisfactory progress/performance in written examination or course viva-voce and must fulfill the departmental norms in force for evaluation of course works from time to time.

P7.4 Candidate will present a research seminar as a part of the comprehensive examination to the DRC. In this presentation, he/she should identify his/her problem statement, thesis title and methodologies in the chosen problem area(s). He/she should have preferably published at least one paper in a reputed conference. The DRC may then approve and recommend him/her for "***Confirmation of Registration***" of Ph.D. along with confirming the area/title of his/her proposed work by a written communication to AAC. A maximum of two chances will be given for completion of comprehensive examination within the stipulated time. In case, the student is not able to clear Comprehensive Examination in the first attempt, one last change will be given for completion, within the stipulated 2 years' time. (*Amended in 6<sup>th</sup> Senate Meeting*)

P7.5 Candidate will give research progress seminar every semester before the DRC. His/her progress will be monitored with recommendations that must be effectively incorporated by him/her. Candidate will be evaluated for his/her research progress through the seminar conducted in each semester, which will further be graded as- "SA" for satisfactory and "US" for unsatisfactory. The DRC sends this report/comments to the AAC at the end of every semester. The DRC has to maintain adequate record of the candidate's progress and communicate the same to AAC at the end of every year.

P7.6 If a candidate gets "US" for the first time, the DRC warns the candidate and allows him/her to proceed with the research work. In case the candidate gets "US" grade second time, his/her case may be recommended by the DRC for termination of Ph.D. registration. The recommendation should be forwarded in the form of report to the AAC.

- P7.7 Based on the candidate's performance in comprehensive exam and his/her research contributions; the DRC in consultation with AAC can recommend a candidate to submit his/her synopsis within three years from the date of registration of Ph.D.
- P7.8 Candidate may be allowed to present a pre-synopsis seminar and submit synopsis based on the recommendations of the DRC. A pre-synopsis seminar can be allowed if he/she has received reviews on at least one paper developed and communicated to a reputed peer reviewed journal (preferably, SCI journal). At least one journal paper should be accepted/published in peer reviewed journal (preferably, SCI journal) prior to synopsis seminar. A candidate may be allowed to repeat a pre-synopsis seminar based on the recommendations of the DRC. In case of approval of the research work presented in the synopsis, he/she must submit the thesis within *three months* of successfully presenting the pre-synopsis seminar. (*Amended in 6<sup>th</sup> Senate Meeting*)
- P7.9 DRC will identify a panel of minimum four examiners for the purpose of thesis evaluation and communicate the same to AAC. This panel will comprise of names of examiners from within and outside the country (four in each category). In each category, it is strongly recommended that the Examiners/Reviewers be chosen from reputed national and international institutions. Assignment of thesis examiners and the communication of reviews will be handled by the AAC.
- P7.10 The thesis defense will be decided based on the review reports received from the examiners. The review recommendations may fall into the following categories:
- i) If both the reports are positive, then the viva-voce examination can be conducted.
  - ii) If one is positive and another suggests minor revision, the candidate may be asked to revise and send to the same reviewer provided the reviewer has asked to send it to him/her. If the reviewer has asked to revise and present in the viva-voce then the revisions should be incorporated and presented during the viva-voce. If one reviewer reports recommendation for strongly acceptance and any other reviewer rejects, then Director's decision is final in recommending for viva-voce.
  - iii) If one of the reviewers gives acceptance and other reviewer suggest major revisions with the suggestion to send back to him/her, the candidate should incorporate the comments and the revised thesis should be communicated. In case, the revised thesis also receives negative comments then the thesis can be sent to the third reviewer. If the revised thesis receives further negative comments, then Director's decision is final in recommending for viva-voce.
  - iv) If all the reviews are negative, the candidate should work and modify the thesis and re-submit the revised thesis.
- P7.11. Thesis defense and viva-voce examination of the Candidate will be open to all. The defense will be headed by Chairperson DRC and at least one external Examiner (preferably, one of the reviewers).

## **P8. Reservation of Seats**

As per Government norms.

## **P9. Fees and Payments (Semester wise)**

As per Institute policy.

## **P10. Financial Assistance and other support**

As per Government of India norms.

## **P11. Power to Modify**

Notwithstanding all that has been stated above, the Chairperson, Senate has the right to modify any of the above regulations from time to time and it will be ratified in the sub-sequent senate meeting.