



INDIAN INSTITUTE OF
INFORMATION
TECHNOLOGY
NAGPUR

**ACADEMIC RULES AND REGULATIONS
(Effective from July 2018 onwards)**

**Governing
Ph.D. Programme**

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INTRODUCTION

ABOUT THE INSTITUTE:

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY NAGPUR (IIITN), is an institute of national importance set up under the THE INDIAN INSTITUTES OF INFORMATION TECHNOLOGY (PUBLIC-PRIVATE PARTNERSHIP) ACT, 2017. IIITN is set up with the objective of making available facilities for higher education, research and training in various fields of Information Technology, to address the challenges faced by the Indian IT industry and growth of the domestic IT market. The Ministry of Human Resource Development (MHRD), Government of India has established Indian Institutes of Information Technology (IIIT), on a not-for-profit Public Private Partnership (PPP) basis. The partners in setting up the IIITs are the Ministry of Human Resource Development (MHRD), Governments of the respective States where each IIIT has been established, and the industry partners. On the same line INDIAN INSTITUTE OF INFORMATION TECHNOLOGY NAGPUR (IIITN) is newly established Educational Institute by the Ministry of Human Resources Development, Government of India, Government of Maharashtra, and following industry partner.

1. Tata Consultancy Services, Mumbai.

1. PREAMBLE

These rules and regulations shall govern all Ph.D. programs in IIIT, Nagpur. As a result of the sound research base and extensive infrastructural facilities available, the Institute offers Ph.D. programme in a wide range of areas in Engineering. The broad objective of the Ph.D. programme is not only to keep pace with the expanding frontiers of knowledge but also to provide research training relevant to the present social and economic objectives of the country. The Institute also encourages research in interdisciplinary areas through a system of joint supervision and interdepartmental group activities. The presence of a strong research oriented faculty provides excellent opportunities for such program.

2. PH.D. PROGRAM AND RESEARCH AREAS:

IIIT Nagpur offers Ph.D. program in the following disciplines:

- a. Electronics and Communication Engineering (ECE),
- b. Computer Science and Engineering (CSE)



IIT Nagpur encourages research in interdisciplinary areas. The areas include but not limited to: Avionics, Civionics, Automotive Electronics, Internet of Things, Signal Processing, Communication, Big Data, Machine Learning, Biomedical Signal Processing, Data Mining, etc.

3. ABOUT THE PH.D. SCHEME:

IITN offers Ph.D. program in various categories given in **Section IV**. IITN is supported under “Visvesvaraya PhD Scheme” also (https://phd.medialabasia.in/student_data.php). **As per the scheme, a student will be eligible to receive a one-time incentive of Rs. 2.5 lakh on successful completion of the Ph.D. program.** The objectives and other salient features of the scheme are available on the following link: <https://phd.medialabasia.in>. The total number of seats available under Visvesvaraya scheme is limited to 20 seats. A candidate who would like to opt for the Visvesvaraya PhD scheme is required to mark the appropriate option in the application form.

4. PH.D. ADMISSION-CATEGORIES

The Institute admits Ph.D. candidates under following categories:



Category	Minimum Duration for Thesis Submission	Eligibility	Financial Assistance	Visvesvaraya PhD scheme availability
External candidates from Industry (EX-I)	Three (3) years for candidates with Master's degree and Four (4) years for candidates with Bachelor's degree, from the date of joining the programme till the date of Submission of Thesis	<p>Essential:</p> <ol style="list-style-type: none"> 1. Master's Degree in Engineering/ Technology with Bachelor's in Engineering/ Technology, with First class or 60% marks (55% marks for SC/ST/PwD) / C.P.I. or C.G.P.A. greater than 6.75 (6 for SC/ST/PwD) on a 10 point scale. OR Bachelor's Degree in Engineering/ Technology, with First class or 60% marks (55% marks for SC/ST/PwD) / C.P.I. or C.G.P.A. greater than 6.75 (6 for SC/ST/PwD) on a 10 point scale. <p>AND</p> <ol style="list-style-type: none"> 2. Minimum 5 years of relevant experience in CSE/ECE/IT and allied fields. <p>Note:In-house research facilities to be made available by the respective organization.</p> <p>Desirable: A valid GATE score is desired.</p>	NOT eligible for any financial support from the Institute.	YES



Other External Candidates (EX-O)	Three (3) years , from the date of joining the programme till the date of Submission of Thesis	Essential: Master's Degree in Engineering/ Technology with Bachelor's in Engineering/ Technology in ECE/CSE and allied disciplines , with First class or 60% marks (55% marks for SC/ST/PwD) / C.P.I. or C.G.P.A. greater that 6.75 (6 for SC/ST/PwD) on a 10 point scale. Desirable: A valid GATE score is desired.	NOT eligible for any financial support from the Institute.	YES
Externally Funded Project Staff (EX-P)	Three (3) years , from the date of joining the programme till the date of Submission of Thesis.	Essential: Master's Degree in Engineering/ Technology with Bachelor's in Engineering/ Technology in ECE/CSE and allied disciplines , with First class or 60% marks (55% marks for SC/ST/PwD) / C.P.I. or C.G.P.A. greater that 6.75 (6 for SC/ST/PwD) on a 10 point scale. Desirable: A valid GATE score is desired.	NOT eligible for any financial support from the Institute.	NO

5. SELECTION PROCESS (ALL CATEGORIES)

Admission will be on the basis of written test and interview. The procedure will be as follows.

Stage 1: Written test

Eligible candidates are required to appear for the written test.



6. Qualifying score in written test:

The minimum qualifying score will be a normalized score decided taking into account the number of candidates to be called for interview, but in no case it will be less than 40%. The normalization will be done by considering the top most score to be 100% and scaling the scores of other candidates accordingly.

Stage 2: Interview

Candidates qualifying the written test are required to appear for the **Personal Interview**.

Stage 3:

A combined score will be calculated on the basis of score in written test, score in interview, and GATE qualification with following weightages.

PhD Category	Total Marks	Distribution		
		Written Test	Interview	GATE Qualification*
EX-I	100	40	50	10
EX-O and EX-P	100	50	40	10

* Candidates with GATE qualification would be obtaining the allotted marks.

7. **CREDIT REQUIREMENT:**

All the registered Ph.D students need to complete the requirement of coursework of **6 credits** by M.Tech degree holders and **12 credits** by B.Tech degree holders in either of the following modes.

- Courses offered by the institute.
- Credits can be earned through successful completion of the online courses available on MOOC platforms like NPTEL/ MIT-OCW/Coursera/edX, etc. (**The total minimum course hours for an online course should be 40.**)



8. Assessment Mechanics for online/MOOC course:

a. Course accomplishment (25% weightage)

The candidate must successfully complete the registered online course as per the respective course evaluation criteria.

b. Institute-level assessment (75% weightage)

An additional 100 Marks institute level assessment will be conducted and evaluated by the supervisor/course instructor for each such online course registered by the candidate.

c. Final Score

The final score of the online courses is evaluated on the basis of a combined weighted score secured in both online Assessment and Institute-level assessment as follows.

Final Score= 0.25 (Score obtained through online assessment)

+

0.75 (Score obtained through Institute-level assessment)

d. Gradation

Following table can be used for the award of grades for all the online course.

Range of marks obtained in the evaluation	Grade
81-100	AA
71-80	AB
61-70	BB
56-60	BC
51-55	CC
46-50	CD
40-45	DD



9. VALIDITY OF REGISTRATION

1. The registration will be valid for a period of **6 years for M.Tech. degree holders and 7 years for B.Tech. degree holders** from the date of registration and no further extension will be granted under normal circumstances.
2. After 6/7 years, if a candidate wishes to continue research, he / she will be required to register again. A candidate should apply for re-registration before completion of 6/7 years of registration period. Failure to do so a candidate will be required to register again following the procedure for fresh candidates.

10. (A) LEAVE REGULATIONS FOR FULL TIME / SPONSORED (FULL TIME) PH.D. SCHOLARS WITH FINANCIAL SUPPORT

1. A full-time/ sponsored (full time) Ph.D. scholar, during his/her stay at the Institute will be entitled 30 days leave during each academic year, including leave on medical ground. These scholars are not entitled to have vacation. Even during mid-semester breaks and summer and winter vacations, he/she will have to explicitly apply for leave. Leave beyond 30 days in an academic year may be granted to a research scholar in exceptional cases subject to the following conditions
i. that the leave beyond 30 days will be without Assistantship/Scholarship, and
ii. such an extension of up to additional 30 days will be granted only once during the entire programme of the scholar including self sponsored scholar.
2. The female Ph.D. Scholars are entitled for Maternity leave of maximum period of 180 days. In such cases, the Ph.D. registration period, that is valid for SIX years as per the norms of the Institute, will further be extended for the period of maternity leave availed (not exceeding 180 days).

Research scholar shall submit the application for leave along with a copy of appropriate medical certificate through Supervisor, HoD and to Dean for approval.

(B) For full time external candidate above leave regulations are not applicable.

11. ABSENCE DURING THE SEMESTER FOR COURSES REGISTERED

1. A scholar must inform the Supervisor or HoD or Dean immediately of an instance of continuous absence from classes.



2. A scholar who is absent due to illness or any other unavoidable circumstances, up to a maximum of two weeks, should approach the course coordinator for make-up quizzes, assignments and laboratory work. Supporting document should be attached to the application.
3. A scholar absent from a sessional examination due to illness should approach the course coordinator for a make-up test immediately on return to class. The request should be supported with a medical certificate from Institute's Medical Officer. A certificate from registered medical practitioner will also be acceptable for a scholar normally residing off-campus, provided detail of registration of the concerned Medical Practitioner appears explicitly on the certificate.
4. In case the period of absence on medical grounds is more than 20 working days during the semester, a scholar may apply for withdrawal from the semester, i.e. withdrawal from all courses registered that semester. Such application must be submitted as early as possible and latest one week before the start of the End Term Examination. No applications for semester withdrawal will be considered thereafter. Depending on merit of the case Dean, will consider such applications. Partial withdrawal from courses registered in a semester is not allowed.
5. If a scholar is continuously absent from the institute for more than four weeks without notifying the Supervisor / HoD / Dean, his/her name will be removed from institute rolls.

12. SEMINARS DURING PH.D WORK

1. A scholar is required to give a progress seminar on his / her project work every six months in concerned department during the Ph.D. seminar weeks indicated in academic calendar.
2. The time-table for six monthly seminars shall be displayed by the HoD at least 15 days prior to the seminar. A brief write-up outlining the work previously done, the current status and the future plans also should be submitted to the RPC members at least 3 days prior to date of seminar.
3. Report of the RPC after each six monthly progress seminar shall be duly forwarded to the office of the Dean by the concerned department, in a format available on website.



4. Six monthly seminars shall be conducted only if annual fees are paid. No further seminar shall be conducted without payment of fees.

5. Report of six monthly seminars is required to be submitted to Dean office **within 15 days period** after the last date of delivering the seminar mentioned in the academic calendar. The consolidated summary sheet along with copies of Page 11 of 14 seminar reports and other documents of all candidates should be sent in a single lot. Individual seminar report of candidate will not be accepted.

6. **Pre Submission Seminar** – In case there is a need to organize pre-submission Seminar of Ph.D. scholar before completion of minimum duration for Ph.D. thesis submission, such pre-submission seminar may be permitted upto the duration of one month before the completion of minimum duration.

7. A candidate is supposed to earn satisfactory remark from the RPC after presenting the progress seminar on getting two consecutive unsatisfactory remarks; the candidate may be liable for registration cancellation if the explanation and undertaking submitted by him/her is not satisfactory.

13. COMPOSITION OF RPC

The Research Progress Committee (RPC) required to be set up for monitoring the progress of research for each registered scholar shall have following composition.

1. **Chairman** - Head of the concerned Department/ One of the senior qualified supervisors nominated by Chairman Senate, when HoD is not a qualified supervisor.
2. **Supervisor/Supervisors.**
3. **One RPC member (Expert)** from the Allied Department/Discipline/Industry/other reputed academic institutes to be nominated by the supervisor.

14. REQUIREMENTS FOR SUBMISSION OF THESIS

- The minimum requirement for submitting the thesis is publication in *1 SCI indexed journal and 1 SCI/Scopus index journal.*
1. A scholar shall be required to deliver a pre submission seminar, and will be allowed to submit his/her thesis only if the RPC recommends.



2. Thesis should be shown to RPC members. Preferably thesis should be ready before delivering the pre-submission seminar, so RPC members will go through the facts & figures of thesis.
3. Thesis will be required to be submitted within six months from the date of delivery of pre submission seminar.
4. A candidate is required to submit 4 copies of synopsis and soft bound Ph.D. thesis along with the soft copies of synopsis and thesis in PDF format to the Academic Section.

15. PH.D. THESIS EVALUATION

1. Thesis shall be evaluated by two examiners nominated by the Chairman Senate from the panel of examiners suggested by RPC and forwarded through the HoD. One external examiner from outside India (from developed country) is desirable.
2. Candidate shall be provided a copy of detailed reports of both examiners.
3. If both the examiners give favorable reports, the candidate will be eligible for Ph.D. degree after open defense and recommendation of the Senate.
4. If the examiner(s) recommends acceptance of the thesis subject to major modifications, the thesis can be resubmitted only once after incorporating the modifications, within a period of one year. The thesis so resubmitted shall be examined by the same examiner(s).
5. If the examiner(s) recommend acceptance of the thesis with minor modifications only, the thesis is to be corrected before open defense and viva-voce. External examiner shall confirm whether corrections suggested by both examiners are included.
6. In case the report of one of the examiners is not favorable, the thesis will be sent to the third examiner. If the report of third examiner is favorable then only a candidate will be considered eligible for Ph.D. degree after open defense.
7. A candidate shall be required to defend his / her Ph.D. thesis (open defense and viva-voce) before the Board of Examiners consisting of following members.



- i) One of the Examiners of the Ph.D. thesis
- ii) Chairman, Board of Studies of the concerned Department.
- iii) Supervisor(s) of Ph.D. thesis.
- iv) Director's Nominee (from amongst the Ph.D. Supervisors from other Department)

In case the examiner is unable to attend the viva-voce for any reason, the Director is empowered to nominate one expert in the field from the local area as an examiner.

8. A candidate will have to submit two hardbound copies of thesis incorporating all suggestions of examiners. After successful defense, one for record, and the other for library.

9. Thesis rejected by both the examiners may be resubmitted after revision, not earlier than one year and not later than three years from the date of such intimation to the scholar by the Academic Section. The thesis so resubmitted may be examined by the same referees or by new referees.

10. Rejection of the thesis so resubmitted will disqualify the scholar from further consideration for the award of the Ph.D. degree, in the topic of research chosen by him / her.

11. On the basis of report of Board of Examiners, the Senate decides the scholar's eligibility for award of the degree of Doctor of Philosophy

16. MAXIMUM NUMBER OF CANDIDATES A SUPERVISOR CAN GUIDE

A supervisor can have 8-10 candidates registered under him/her for Ph.D.

17. ADDITIONAL SUPERVISOR

If the Principal Supervisor leaves the Institute for any reason he / she is permitted to work as Principal Supervisor for candidates registered before leaving the Institute. However, additional supervisor from the Institute shall be provided, if the thesis can not be submitted within calendar year.



18. CHANGE OF SUPERVISOR

The practice of change of Supervisor should be discouraged under the normal circumstances. However, any application from a candidate or the Supervisor requesting for a change if recommended by HoD may be considered and the requested change will be permitted with the approval of Director.

19. SEMESTER BREAK

1. Due to any genuine reasons a scholar can opt for semester break. For which he/she have to submit such application with supporting documents forwarded through HOD and Dean to the Director. Such break will be allowed only subject to receiving approval from the Director and only one such break will be allowed during the entire duration of Ph.D. A scholar is not required to pay the fees and present progress seminar during semester break.

2. A research scholar must follow the schedule of course/seminar registration schedule of every semester and also the schedule of progress seminar presentation with fail. Any kind of delay resulting in missing the deadline may make scholar to pay the fine subject to the approval from the Dean and Director.

20. CANCELLATION OF REGISTRATION

Candidate alone or supervisor with RPC or candidate and supervisor(s) can apply for cancellation. HoD, Dean shall recommend the cancellation to the Director. The cancellation requested will be permitted if approved by the Director.

