

# **Guidelines, Rules and Regulations Governing**

## **Ph.D. (Full time) Programs**

**January-2019**



**Visvesvaraya National Institute of Technology,  
Nagpur- 440 010**

## Preamble

These rules and regulations shall govern all Ph.D. programs in VNIT, Nagpur. These rules and regulations supersede all previous relevant rules and regulations.

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, Science, Humanities and Social Sciences. 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.

### 1. Ph.D. (Full Time) program offered by the Institute

Cat. No.	For	Departments
1.	Non-sponsored candidates with Teaching Assistantship	<b>Engineering</b> : Civil, Mechanical, Electrical, Electronics, Computer Science, Chemical, Metallurgical & Materials, Mining , Applied Mechanics,
2.	VNIT's M.Tech. Students with Teaching Assistantship	
3.	SRF / JRF / research staff of R&D projects sponsored to VNIT	
4.	Sponsored candidates (place of research work VNIT only)	<b>Architecture and Planning</b>
5.	Sponsored Candidate from 100% centrally funded research laboratories including public sector and private industries	<b>Applied Sciences:</b> Physics, Chemistry, Mathematics and Humanities

Note- Number of seats per department may change depending on availability of Ph.D. vacancies under the Supervisors & suitability of the candidates.

### 2. Eligibility criteria

#### 2.1 Essential qualification requirement

Sr.No.	Departments	Qualifying Degree	Additional Qualification
1	Engineering	Post Graduate degree in engineering/ technology (M.E./M.Tech./M.Arch. or equivalent)	GATE / NET qualified
2	Applied Sciences	Post Graduate (M. Sc./M.A. or equivalent) Degree in Basic Science or Graduate Degree in Professional Course	NET / GATE qualified

## **2.2 Cat. No. 2:** Guidelines for Admission of VNIT's M.Tech. Students for Ph.D. Program-

1. Student should have a minimum First Class at B.E./B.Tech./M.Sc. degree.
2. At the time of M.Tech admission, it will be notified that maximum five students of M.Tech. will get opportunity for Ph.D. registration. This selection will be based on performance in the first two semesters (CGPA 8.5 and above) and student will have to give a presentation before a Departmental Committee. The selected candidate for this programme has to complete all the requirements according to the rules and regulations of the Institute's M.Tech. Programme.
3. Candidate recommended by Departmental Committee will be directly registered for Ph.D. after completing M.Tech. programme.
4. The time lines and key milestones of this programme are aligned with the M.Tech and Ph.D. programmes currently offered.
5. The interested candidates should apply by filling up the direct Ph.D admission form at the end of 2nd Semester indicating their interest to be considered for this programme.
6. One audit course, Research Methodology and two additional courses (6 credits in addition to Research Methodology) as per the recommendation of RPC shall be completed by the candidate as a part of Ph.D. course work.
7. Other rules and regulations will be applicable as per Ph.D. norms of Institute.

## **2.3 Cat. No. 3:** Candidates working as JRF/SRF in various funded research projects in VNIT are eligible for admission to Ph.D. program with following conditions.

1. Selection through the admission process
2. Their Ph. D. registration will be under the supervision of same PI/Co-PI.

## **2.4 Cat. No.5:** The candidates desirous of seeking admissions for Ph.D. program under **Cat. No.5** should meet the following requirements:

1. He /She should have minimum Five years experience in Industry.
2. He/she should appear for written test & interview as per Institute's norms.
3. VNIT committee shall examine the research facilities in research laboratory in which the candidate is employed where the candidate wishes to carry out part of his Ph.D. research. In case the committee report is favorable and suitable co-supervision (as certified by the committee) is available in the candidate's parent organization where the candidate proposes to carry out research, VNIT may exempt the stay requirement on campus on case to case basis.
4. In any case minimum stay at VNIT is **Six** months for completion of course work and other related research work. If he/she fails to do so, he/she has to stay another six months at VNIT Nagpur to complete the course work. It is candidate's responsibility to obtain deputation / leave from parent organization.
5. Candidate admitted under this program will be treated as a sponsored candidate at VNIT (degree will be awarded by VNIT).
6. Main Supervisor will be from VNIT and optional qualified Co-supervisor approved by VNIT will be from the candidate's parent organization.
7. All six monthly seminars should be delivered at VNIT only. Attendance record of the candidate will be maintained at VNIT. In this respect, it may be noted that the attendance in parent organization of candidate where he carries research, duly certified stating that the candidate has substantially (deemed to be full time) carried out research

- in the parent organization by Co-supervisor / immediate superior of the candidate, shall be submitted to VNIT before conducting six monthly seminar.
8. As far as possible, co-guide shall also attend the six monthly progress seminar. However, co-guide shall be present for progress seminar and thesis defense viva-voce. No financial assistance will be permissible from VNIT for travel of co-guide.
  9. Institute will not provide any stipend or any other financial support (for conferences etc.) to these candidates.
  10. Fees to be paid at VNIT as per the norms & policy of the institute as applicable to full time sponsored candidate(s).
  11. Candidates should satisfy all degree requirements (including publications) as specified by VNIT for the award of Ph.D. degree.
  12. It is clarified that candidate from academic institute is not considered under this scheme, since such candidates have the opportunity for doing full time Ph.D. program through schemes like Quality Improvement Program (QIP) and Full Time Ph.D. with teaching assistantship and Ph.D. full time sponsored (place of research will be VNIT only)
  13. In case candidate fails to complete the course work within one year from the date of registration, his/her admission stands canceled automatically and no further extension will be granted.

### 3. Emoluments/Stipend/fellowship for full-time Ph.D. scholars

#### 3.1. Cat. 1 & Cat 2 Candidates with Teaching Assistantship.

##### 1. Fellowship amount

Sr. No.	Qualifying Degree	Fellowship per month
i)	Post Graduate (M. Sc. or equivalent) Degree in Basic Science with NET/GATE Qualification or Graduate Degree in Professional Course with NET/ GATE Qualification	Rs. 25,000/- (for all years)
ii)	Post Graduate degree in engineering/ technology (M.E./M.Tech./M.Arch. or equivalent) with NET/GATE qualification	Rs. 25,000/- (1 <sup>st</sup> & 2 <sup>nd</sup> Year) Rs. 28,000/- (3 <sup>rd</sup> year onwards)

2. Enhancement in fellowship after 2<sup>nd</sup> year and extension after 4<sup>th</sup> year, both, will be subject to the satisfactory progress assessment by a review committee.
3. Fellowship shall be extended for maximum five years only subject to conditions.

**3.2.** Cat.3 SRF/ JRF admitted for PhD shall get fellowship from the corresponding project fund till the completion of project. Such candidates are eligible for financial support at minimum rate from institute fund for maximum one year after completion of their corresponding project or maximum up-to four years from the Ph. D. registration whichever is earlier.

**3.3.** Institute will not provide any stipend or any other financial support to Cat. 4 and Cat. 5 sponsored candidates.

## 4. Course work and Seminars

### 4.1. Requirement

1. Minimum requirement of course work recommended by Research Progress Committee (RPC)

Qualification	Courses to be completed
M. Sc. / M.A.	12 credits (4 theory subjects)
M. Sc. / M.A. with M. Phil.	6 credits (2 theory subjects)
M.E. / M. Tech. / M. Arch.	6 credits (2 theory subjects)

2. RPC may recommend more course work, if feel necessary.
3. In addition to above, every registered scholar shall be required to register for a course in **Research Methodology** as **Compulsory** audit course.

### 4.2 Conditions

1. Candidates will be required to complete the course work within **one year** of joining the program.
2. Ph.D. scholars can register / enroll for only 400 or 500 or higher level courses. Ph.D. scholars are exempted from pre-requisite requirements for all courses.
3. RPC may recommend for undergoing instruction in communication skills course if needed. In that case a research scholar shall be required to register for communication skills course as an audit course.
4. **Minimum CGPA requirement for the course work is 6.0.** In case of scholar with teaching assistantship, the amount paid towards teaching assistantship shall be reduced if CGPA at the end of any semester fall below 6.0, to be restored after makeup.
5. The course work must be completed within the first year of joining the program.
6. Full time Ph.D. scholar is not allowed to work (part time / full time) outside the Institute.

### 4.3 Seminars/ pre-submission seminar 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 (R&C) 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(R&C) 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 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.*

## 5. Duration of program / Validity of registration

1. Minimum duration of Ph. D. program is **Three (03) years** from the date of registration. Candidate can submit the thesis after completion of 3 years (excluding the semester drop period).
2. Maximum duration is (i.e. registration will be valid for) **6 years** from the date of registration (excluding the semester drop period). No further extension will be granted and the Ph.D. registration and Ph.D. studentship stands cancelled automatically at the completion of six years under normal circumstances.
3. In case the candidate have already published at least one SCI journal paper, and a few months (not more than 6 months) of extension is needed to ensure that requirement of two SCI journal papers is satisfied, the candidate must, at least two months before the expiry of six years period, apply for retention of registration along with the documentary evidence of two SCI journal papers (one accepted & one in revision process) and the progress report including activity chart stating how he/she plan to complete the submission of thesis in extended period of six months.
4. The candidates, who are unable to satisfy the above requirement, should note that their Ph.D. candidature stands automatically cancelled. In case they wish to pursue their research work further, they need to apply for fresh registration, and they need to go through all the selection process afresh as applicable at that time.

## 6. Conditions for cancellation of admission / registration

1. If a full time / sponsored (full time) Ph.D. scholar is absent from the Institute for more than four weeks without notifying the Supervisor or Head of Department or Dean (R&C), his/her registration will be terminated and name will be removed from the Institute roll.
2. The delay in payment of annual fees may invite cancellation of registration/ termination of admission.
4. Failure of admission before the last date of registration.
5. Non completion of course work within 1 year from date of Ph.D. Registration for full time Research Scholar.
6. If reports of two consecutive seminars are unsatisfactory, RPC may recommend discontinuation of registration.
7. If three consecutive seminar reports are unsatisfactory OR if total four seminar reports are un-satisfactory, the registration shall be automatically cancelled. If seminar is not given, it shall be considered as not satisfactory.
8. Candidate alone or supervisor with RPC or candidate and supervisor(s) can apply for cancellation. HoD, Dean(R&C) shall recommend the cancellation to the Director. The cancellation requested will be permitted if approved by the Director.

## 7. Recognition as a supervisor/Co- Supervisor/Change of Supervisor

1. Staff members of VNIT possessing Ph.D. degree will be recognized as a supervisor/co-supervisors for Ph.D. programs at VNIT in the relevant discipline.
2. Supervisor may request to the Director for inclusion of co-supervisor within one year of registration of corresponding scholar.
3. For Ph.D. guidance outside VNIT, prior permission of Director is must.
4. A supervisor can have **maximum 10 candidates** registered under him/her for Ph.D. / M. Tech. (by Research) / M.Arch. (by Research) programs taken together at any given time. This includes both registrations at VNIT and registrations at other universities/Institutes.
5. Outside researchers shall be recognized as external Supervisor (**Co-Supervisor**) on case-to-case basis. The criteria for recognition as external supervisor shall be as under.
  - i. Ph.D. in concerned subject.
  - ii. Ten years Teaching / Research / Industrial experience.
  - iii. He / she should belong to IIT / NIT / National Laboratories / University Departments / Government Colleges.
  - iv. Some scholar should have applied to work with him / her (as external supervisor).
  - v. Concerned HoD should have recommended the case.
  - vi. Should have guided at least one PhD. (desirable)
  - vii. Minimum five publications in National / International SCI refereed journals.
6. 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 candidate is unable to submit the thesis within calendar year.
7. 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.

## 8. 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 Department/Discipline to be nominated by the supervisor.
4. One RPC member (Expert) from the Allied Department/Allied Discipline to be nominated by the supervisor.

## 9. Attendance/leave/Absences rules and regulations

1. All scholars must attend every lecture, tutorial and practical class. However, to account for late registration, sickness or other such contingencies, attendance requirement will be a **minimum of 75 %** of the classes actually held.

2. A scholar with less than 75% attendance in lectures, tutorials and practical taken together (as applicable), in a course during the semester, will be awarded 'W' attendance in that course irrespective of his/her performance in the tests. The course coordinator will award 'W' grade to a scholar who is deficient in attendance, taking into account the consolidated attendance record for the whole semester for the course concerned. For the purpose of attendance calculation, every scheduled practical class will count as one unit irrespective of the number of contact hours.

### 9.1 Leave regulations

3. 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/ casual leave/ attending conference/ seminar/ workshop/ visiting to other organization for training, research work etc. 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.
4. 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 program of the scholar including self sponsored scholar.
5. The **female Ph.D. Scholars** are entitled for Maternity leave of maximum period of 180 days. In such cases, the Ph.D. registration period, which 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). Assistance-ship shall not be paid to female Ph.D. Scholars for the period of maternity leave availed. However, such research scholars shall be eligible for assistantship of the maximum period of **Five** years as per prevailing institute norms (excluding the actual period of maternity leave availed). Research scholar shall submit the application for leave along with a copy of appropriate medical certificate through Supervisor, HoD and to Dean(R&C) for approval.

### 9.2 Absence during the semester for courses registered

1. A scholar must inform the Supervisor or HoD or Dean (R&C) 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 details 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 (R&C), 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 (R&C), his/her name will be removed from institute rolls.

## **10. Requirements for submission of Thesis.**

### **10.1 With two research publication**

1. Minimum two research publications in Science Citation Index (SCI) journal or Institute of Scientific Information (ISI) recognized journal are required for submission of Ph.D. thesis from the batch admitted from July 2012 onwards **and for others it is desirable**. The 'final accepted for publication' research paper in SCI or ISI journal is also be considered.

The research papers published in Social Sciences Citation Index (SSCI) and Arts & Humanities Citation Index (AHCI) can also be considered for Architecture and Humanities departments.

**NOTE : Any minor correction or major revision of research paper will not be considered for the submission of thesis.**

2. It is clarified that if the paper is co-authored by more than one research scholars apart from supervisors, then only one research scholar whose name appears in the first amongst list of scholars would get credit of paper publication for submission of the Thesis. If the student's name is at **second or third position**, the first author or first two authors should only be Supervisors. *(For the purpose of submission of the thesis, the benefit would not be given when student's name appears at subsequent position in the list of authors of a research paper.)*
3. 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.
4. 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.
5. Thesis must be submitted within six months from the date of delivery of pre-submission seminar.
6. A candidate is required to submit 4 copies of synopsis and 2 soft (Spiral) bound Ph.D. thesis along with the CD of synopsis, thesis and report of similarity index in PDF format to the Academic Section.

## **10.2 With one / no research publications**

1. Thesis submission criterion of two SCI/SCIE/AHCI/SSCI journal publications will continue to remain in practice till first five years of research for all scholars.
2. For candidates, who have completed five years but could not submit thesis under above criterion and supervisor recommending that the thesis is ready for submission, the draft thesis may be sent to an external expert (from IIT/IISc) provided that the candidate has at least two publications in referred journals as approved by concerned BoS.
3. Upon receiving the positive remark and comments or guideline for further work, if any, from the external expert, candidate will be allowed to submit the thesis after incorporation of the comments and suggestions and satisfactory presentation of the same in pre-submission seminar.

## **11. 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.
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 with 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) recommends 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 Committee 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.

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.

**12. Fees (subject to the revision from time to time)**

S. N.	Head	Amount In Rs.
1	At the time of admission (one time)	6400.00
2	Tuition fee and other fees Per Semester	With Teaching assistantship 12700.00
		For Sponsored 23800.00
3	Examination Fee	30000.00
4	Medical Aid Fund Premium	at the time of Admission (One time) for first three Years 3000.00
		for subsequent Per year 1000.00

**13. Notification for Admission**

A notification for admission to Ph.D. shall be published in prominent newspapers & Institute Website. The details of the admission procedure will be available in the Institute brochure on Institute Website.