# भारतीय प्रौद्योगिकी संस्थान पटना Indian Institute of Technology Patna

#### PhD ORDINANCES AND REGULATIONS

#### **ORDINANCES**

- 1. The Indian Institute of Technology Patna awards the degree of Doctor of Philosophy (PhD) in Engineering/ Sciences/ Humanities and Social Sciences to a candidate who has successfully completed the Research Programme.
- 2. The Research Programme with the governing rules and regulations are formulated by the Senate of the Institute. The Senate can modify or change the structure, the governing rules and regulations from time to time.
- 3. A candidate to be awarded the PhD degree has to submit a thesis embodying the findings of her/his research carried out under this programme. The thesis should make an original contribution of high quality to the advancement of knowledge as judged by the experts in the relevant area.
- 4. A candidate becomes eligible for the award of the PhD degree after fulfilling all the academic requirements prescribed by the Senate of the Institute.
- 5. The award shall be made upon the recommendation of the Senate of the Institute after ratification by the Board of Governors of the Institute.
- 6. The PhD degree shall be awarded by the Institute.

#### **REGULATIONS**

#### 1. CATEGORIES OF PhD STUDENTS

The Institute admits PhD students under the following categories:

#### 1.1 REGULAR and FULL-TIME

A student in this category works full-time for her/his PhD degree. They can be classified as

#### 1.1 a) Institute Fellows

She/he receives assistantship from the Institute. The qualifying Degree for Financial Support is:

**1.1.1** BE/ B.Tech/ M.Sc/ MA/ MBA/ MCA /equivalent degree with valid GATE score above the prescribed cut off level/ NET qualification.

B.Tech from IITs with CGPA 8.0 and above are exempted from GATE qualification as per MHRD letter no. 17-2/2014-TS.I dated Feb 18, 2015.

**1.1.2** ME/ M.Tech/ MPhil /equivalent degree with GATE/ NET qualification.

Age Limit: Please refer Appendix-I.

For Institute Fellows admitted as "Direct Admission", refer A.5 under Appendix I.

#### 1.1 b) Research Fellows (JRF/SRF)

She/he receives fellowship from any government recognized funding agencies, such as CSIR, UGC, DBT, NBHM, DST (INSPIRE programme), etc.

#### 1.2 SPONSORED (FULL-TIME)

A student in this category is sponsored by a recognized industrial R&D organization, academic institution (universities/colleges), government organization (defence or other ministries of the Government of India or any other government organizations including PSUs and autonomous bodies) or reputed industries (as may be recognized by this Institute) for doing research in the Institute.

The Institute does not provide any assistantship/fellowship to such a student.

Candidate in Sponsored category must be a regular employee of the sponsoring organization (of repute) with a minimum of two-year job experience in the respective field. A student in this category is therefore a professionally employed person, who pursues PhD while continuing her/his services. The candidate has to work full time in institute to obtain the degree for a period of 3 years.

#### 1.3 SELF-FINANCED

A student in this category may work full-time towards the PhD Programme. The Institute does not provide any assistantship/fellowship to such a student. The applicant should have qualified a national level exam (NET/GATE).

#### 1.4 PROJECT STAFF

This category refers to a student who, as a project staff, is working on a sponsored project (registered in R&D Unit, IIT Patna). The said project staff is eligible to be admitted in the PhD Program (of this Institute) to work on a full-time basis. The minimum remaining duration of the project at the time of admission as well as tenure of the project employee should be at least 2 years from the date of joining the Ph.D. program.She/he must have qualified GATE/NET.

If the project gets completed before the student completes her/his PhD, her/his category will no longer be that of Project Staff and her/his category will be converted to that of **SELF-FINANCED** unless she/he is granted an assistantship/fellowship from the Institute or any other agency.

A project staff intending to join the PhD program of IIT Patna must submit her/his application in prescribed form for admission through Principal Investigator, Head of the Department and Dean/ Associate Dean R&D with suitable endorsement.

#### 1.5 EMPLOYED AND PART-TIME

A student in this category is a regularly employed person (including the staff of IIT Patna), who pursues the PhD Programme, while continuing the duties of her/his service. The Institute does not provide any assistantship/fellowship to such a student. For **Minimum Residential Requirement see point 19.2**.

## 1.6 QUALITY IMPROVEMENT PROGRAMME/ FACULTY DEVELOPMENT PROGRAMME

This category refers to a student selected under the Quality Improvement Programme (QIP) of the AICTE or Faculty Development Programme (FDP) of UGC. The student works full-time in the PhD Programme as per the rules and regulations of QIP/FDP.

#### 2. CHANGE OF CATEGORY

The Chairperson, Senate on recommendation of the Doctoral Committee (DC) of the candidate, approves change from one category to another. Such a request of change of category should be initiated by the respective coordinating supervisor and forwarded to the DC.

To receive fellowship from Institute, one must have GATE/NET qualification.

The PhD students who got a job offer may change their category from Regular & Full-time to Part-time (Refer Point 16).

#### 3. ADMISSION TO Ph.D. PROGRAMME

#### 3.1 ELIGIBILITY CRITERIA

The details of the eligibility criteria for admission to various PhD programmes are given in **Appendix-I**.

These criteria are revised by the Senate from time to time.

#### 3.2 ADMISSION PROCEDURE

**3.2.1** A PhD scholar, in the categories JRF/SRF Fellows [1.1 b], SPONSORED (FULL-TIME) [1.2] and PROJECT STAFF [1.4], can be admitted to the Institute throughout the year. The Department can conduct admission test/interview anytime for JRF/ SRF

Fellows, Sponsored (full time) and Project staff. However, registration to the PhD Programme of the Institute normally takes place in January and July every year. Advertisements are issued in September/October for the even semester (January – April) and February/March for the odd semester (July/August – November).

- **3.2.2** Admission to all categories of students is granted on the basis of interview/admission test held tentatively in the month of December and May July every year.
- **3.2.3** Foreign nationals can only register as regular full time scholars. Foreign nationals with degree from Indian Universities will be treated on par with Indian nationals for admission purposes. Foreign nationals with foreign degrees must meet the minimum educational requirements as given in **Appendix-I** equivalent to an Indian Master's degree in the relevant disciplines.

The applications of foreign nationals may be considered based on a web-interface personal interview/presentation.

**3.2.4** The following documents are to be furnished along with the application by candidates falling under Sponsored, Project Staff, and Part-time categories:

Form I: Sponsorship letter for Sponsored category.

**Form II**: No objection certificate from Dean/ Associate Dean, R&D IIT Patna, for Project Staff category.

Form III: No objection certificate from the employer for Employed & Part-time category.

#### 4. ASSISTANTSHIP

- **4.1** Institute assistantships will be available to eligible students as per prevailing norms.
- **4.2** Assistantships from external funding organizations will be available as per terms and conditions of the concerned funding organizations.
- **4.3** Students receiving assistantships from the Institute or fellowships from any other funding agencies are required to perform academic duties as per prevailing Institute norms.
- **4.4** 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.

#### 5. SUPERVISORS

- **5.1** Every student admitted to the PhD Programme undertakes research under the guidance of a faculty member of the Department in which she/he is admitted. The faculty member is called her/his Supervisor. The Supervisor is responsible for moving all the administrative paperwork on behalf of the student.
- **5.2** A student may have a second Supervisor from the same or another Department/ Centre as Joint-Supervisor. The Joint-Supervisor preferably should have PhD degree.
- **5.3** The following categories of persons can also act as Joint-Supervisor but not as a Supervisor.
- i. A faculty nearing superannuation with less than 18 months of service left at the Institute.

**ii.** Professionals/Scientists from industry/ reputed National/International University/Institute/Center/ Organization who are outstanding researchers having a proven track-record in research. On recommendation of the Supervisor and Doctoral Committee, the Chairperson Senate approves appointment of the individual as Joint-Supervisor.

5.4 In official documents, in case of joint supervisors, both supervisors will be mentioned as supervisor.

#### **5.5 Administrative Supervisor:**

Administrative supervisor is the faculty member who will take care of the administrative work in absence of the supervisor. Until the appointment of the supervisor of newly admitted candidates the Department Ph.D. coordinator will act as the Administrative supervisor.

In cases of dissociation by the supervisor, the concerned Head of Department will act as the Administrative supervisor.

The Administrative supervisor will be from the parent department, i.e. the department in which the student was admitted. The student may have an academic supervisor from another department. The financial aspects of the student will be taken care by the parent department, while the academic/ technical aspects will be looked after by the adopting department.

#### 6. APPOINTMENT OF SUPERVISOR(S)

Except project category, all admitted students will get time to choose supervisor, but not later than a semester of their admission. Research scholar admitted under project staff category get immediately bound to his/her supervisor. However, official assignment will be done at the end of first semester for all cases.

In exceptional cases, the chairperson senate may allow early binding as may be required by funding agency.

All faculty members of a particular department hold a meeting to assign Supervisor(s) to a scholar. While identifying the Supervisor(s) in this meeting, student's interest must be taken into consideration. The appointed supervisor(s) must be approved by DAPC.

The selected list of supervisors should be communicated to academic office by HoD/Secretary DAPC at the beginning of each semester.

#### 7. DOCTORAL COMMITTEE (DC)

- **7.1** To monitor the progress of the PhD student, there will be a Doctoral Committee with the following composition:
- (i). A faculty member other than the Supervisor(s) from the department: Chairperson
- (ii). Supervisor(s): Member(s)
- (iii). Two other faculty members of which one should be from another department with knowledge of subject: Members

(iv) The DC may co-opt additional members, if required.

In case, any member goes on leave exceeding six months duration, or resigns or retires from the Institute, the Supervisor(s) recommends another member for approval to the Dean/Associate Dean Academic.

- **7.2** The DC is constituted by the Supervisor(s) within one week from the date of appointment of the Supervisor(s). The list is sent to the Institute PhD Program Coordinator for approval from the Dean/ Associate Dean Academic through Head of the Department.
- **7.3** If any change in the composition (as in 7.1) of DC of a research scholar is proposed by respective Supervisor(s), then such an appeal is forwarded through the Dean/Associate Dean Academic to the Chairperson, Senate who may permit such a change for valid reasons.

#### 8. CHANGE/ADDITION OF SUPERVISOR(S)

- **8.1** If a student has only one Supervisor and the Supervisor goes on leave for more than 12 months, then an administrative Supervisor is appointed by her/his Supervisor for official/administrative reason(s) during the period of the leave. Mutual consent of both the student and Supervisor is taken for such cases. The Chairperson, Senate approves such a change of Supervisor.
- **8.2** The Chairperson Senate may permit a student to change her/his Supervisor(s) for valid reasons. Mutual consent of the student and Supervisor(s). The new supervisor(s) will reconstitute the DC in such case within 15 days as per clause 7.1. Such cases are reported to the IAPC and Senate.

#### 9.COURSE WORK AND GRADING

#### 9.1 Course Work

- **9.1.**1The administrative supervisor/ supervisor suggests the courses that a student has to register.
- **9.1.2** A student registers for a minimum number of courses as mentioned below, depending on her/his highest degree obtained:

Highest degree obtained	Minimum No. of coursesto be registered	Credits
M.Tech./ M.E./M.Phil/equivalent degree	2	12
M.Sc/M.A./M.B.A./M.C.A./M.Com./equivalentDegree	4	24
B.Tech./B.E.	6	36

In all the above cases, at least 50% course must be relevant to the research scholar's research area.

In addition to the above courses, all research scholars (except M.Tech degree holders from IIT Patna) must register a credit course in Essential English/Technical Communication offered by the HSS department.

In each course, a student must obtain at least BC grade, otherwise she/he will have to repeat/replace the course and has to obtain a CPI of at least 7.5. If a student obtains BC grade in all the subjects and hence fails to obtain minimum CPI 7.5 then she/he will have to register in additional courses.#

**9.1.3**Under normal circumstances, a student is required to complete all course work within one/two semesters, and registering for at least two courses in the first semester. The maximum possible time for completing the course is 3 semesters.

#### 9.2 Grading

**9.2.1**Based on the performance of a student, each student is awarded a final letter grade in each subject at the end of the semester. The letter grades and the corresponding grade points are as follows:

Grade Letter	Grade Value
AA	10
AB	9
BB	8
BC	7
CC	6
CD	5
DD	4
F	0

- **9.2.2**In addition, there shall be two transitional grades 'I' and 'X' used by the instructors.
- **9.2.3** A student is considered to have completed a subject successfully and earned the credits if he secures a letter grade other than 'I', 'X' or 'F' in that subject. A letter grade 'F' in any subject implies a failure in that subject.
- **9.2.4 (a)** The Instructor of a subject may award the grade 'I' to a student if the latter was compelled to absent himself from the end semester examination on account of: (i) Illness or accident which disabled him from appearing at the examination. (ii) A calamity in the family at the time of the examination, which, in the opinion of the Institute, required the student to be away from the campus.

A student will be eligible for the award of grade 'I' only if his/her attendance at classes and performance in other components of assessment are complete and satisfactory.

**(b)** The Instructor of a subject may award the grade 'X' to a student if the overall performance of the student in the course is good, but is likely to get grade 'F' based on his/her end semester examination.

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<sup>#</sup> This provision is applicable for the students taking admission from July 2018 onwards for PhD programme. For the students admitted before July 2018, minimum CPI and grade requirements will be 6.5 and CC respectively

- **(c)** All 'I' and 'X' grades awarded by Instructors must be converted by them to appropriate letter grades and communicated to the academic office (through Head of the Department) within two days of the respective make up examination. Any outstanding 'I' and 'X' grades two days after the last scheduled make up examination will be automatically converted to an 'F' grade.
- **9.2.5** A Semester Performance Index (SPI) will be computed for each semester. The SPI will be calculated as follows:

$$SPI = (C1*G1 + C2*G2 + C3*G3 + ... + Cn*Gn) / (C1 + C2 + C3 + ... + Cn)$$

where, n is the number of courses registered during the semester,

Ci is the number of credits allotted to a particular course, and

Gi is the grade points corresponding to the grade awarded for the course.

**9.2.6** A Cumulative Performance Index (CPI) will be computed at the end of each semester and communicated to the students along with the SPI and the grades obtained by them for that semester.

The CPI gives the cumulative performance of the student from the first semester up to the end of the semester to which it refers, and will be calculated as follows:

$$CPI = (C1*G1 + C2*G2 + C3*G3 + ... + Cm*Gm) / (C1 + C2 + C3 + ... + Cm)$$

where, m is the number of courses registered upto that semester, Ci is the number of credits allotted to a particular course, and Gi is the grade points corresponding to the grade awarded for the course.

Whenever a student repeats or substitutes a course in any semester, the lower grade(s) obtained by him/her in the course is to be ignored in the computation of CPI from that semester onwards.

- **9.2.7** Both SPI and CPI will be rounded off to the second place of decimal and recorded as such. Whenever these CPI are to be used for the purpose of determining the merit ranking of a group of students, only the rounded off values will be used.
- **9.2.8**The SPI and CPI are calculated in consideration of all the credits including the Grade "F".
- **9.2.9** When a student gets the grade 'I' or 'X' for any course during a semester, the SPI for that semester and the CPI at the end of that semester will be tentatively calculated ignoring 'I' and 'X' graded course(s). After conversion of 'I' and 'X' grade(s) to appropriate grade(s), the SPI and CPI for that semester will finally be recalculated after taking the converted grade(s) into account.
- **9.2.10** The faculty advisor may permit a student to register for an audit course, provided the course instructor allows auditing a course. The course instructors should inform at the beginning of semester, regarding modalities of evaluating audit courses to the students. The word "AU" or "NU" shall be written alongside the Course Name in the Grade Card. The audit course & the grade "AU" or "NU" shall not carry any credits and grade points. The status will be shown in the grade card as "AU" for Met Audit Criteria and "NU" for Not Met Audit Criteria. However, a student is not required to register again for meeting audit criteria in a course.

#### 10. COMPREHENSIVE EXAM

- **10.1** 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 ME/M.Tech/MPhil/equivalent degree and within 24 months for the students with Bachelor degrees (BE/B.Tech/MA/MSc/equivalent) from the date of admission. The exam is conducted by the department and Coordinated by the Supervisor.
- 10.2 Comprehensive examination committee for this purpose will be same as Doctoral committee which may co-opt other members as needed. The committee should be approved by Dean/Associate Dean Academic forwarded by Institute PhD Coordinator, at least one week before date of the examination.
- **10.2** Comprehensive Examination of a candidate can be held only after successful completion of coursework. After comprehensive exam, no further academic credits can be acquired through course-work.
- 10.3 In this exam, a candidate will be evaluated on the basis of oral exam only.
- **10.4** The date and syllabus of the Comprehensive Examination is informed to the student at least one month prior to the date of examination.
- **10.5** A student failing in the Comprehensive Examination in the first attempt is given a 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, she/he is not allowed to continue in the PhD programme.
- **10.6** All cases of failure in the Comprehensive Examination are reported to the IAPC and Senate.

#### 11. REGISTRATION SEMINAR (RS)

- **11.1** Within six months of the successful completion of the Comprehensive Examination, a student presents a Registration Seminar (RS) coordinated by the Supervisor. The presentation is open to all. In this, she/he presents a short research proposal mentioning her/his research plan during the PhD programme. In addition, the candidate will present the main objectives of her/his research to the DC.
- **11.2** A student submits a write-up to the DC members at least one week before the date of the RS.
- **11.3** A report on the successful completion of the RS, is submitted by the DC to the Institute PhD Programme Coordinator who communicates the same to the Chairperson, Senate.
- **11.4** A student delivers another RS if the first RS is not satisfactory within 30 days, If the student fails in the second attempt, she/he is not allowed to continue in the PhD programme.
- **11.5** All cases of unsatisfactory performance in the RS are reported to the IAPC and Senate.

#### 12. FELLOWSHIP ENHANCEMENT

After two years (from the date of first registration in the PhD programme), the performance of regular and full time scholars (Institute fellows, 1.1 (a)) will be reviewed by a committee constituted by the Principal Supervisor. Based on the satisfactory

performance of the candidate, the committee will recommend the enhancement of the fellowship as per office memorandum A.20020/11/97-IFD, Dated31<sup>st</sup> March, 2010. The review will be done by Doctoral Committee. It may co-opt additional members, if required.

The enhancement seminar of externally funded students will be organized by supervisor as per the requirement of funding agency.

Recommendations made by this committee is conveyed by the departmental PhD coordinator to Chairperson Senate through the Institute PhD Programme Coordinator.

The copy of submitted report be communicated to Dean/ Associate Dean Academic.

#### 13. PROGRESS REPORT

- **13.1** After the RS (clause 11), a student presents annual progress seminar to DC for evaluation of research activity. The Supervisor schedules a meeting where the student presents her/his progress report to DC as per schedule in academic calendar. All such presentations are open to all. However, the DC may schedule more such meetings depending on the progress of the student.
- **13.2** The DC reviews the progress and submits a report to the Associate Dean/Dean Academic through Institute PhD Programme Coordinator after every such review. The Associate Dean/Dean Academic may convey these reports to Chairperson Senate.
- **13.3** Based on needs, the DC may fix a minimum number of working days (up to fifteen) twice a year for a student in Employed & part-time category to be present in IIT Patna for her/his research work.
- **13.4** The Head of the Department should make sure that the progress reports of all candidates are submitted as per the academic calendar.
- **13.5** If progress seminar is not satisfactory or not completed as per schedule, the fellowship may be discontinued.

#### 14. LEAVE RULES

#### **14.1 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 her/his 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 maximum of 5 days of such leave is allowed to avail at a stretch if student having any teaching assignment. However, a student can accumulate leave, and avail a maximum of 30 days leave at a time in a year. HoD sanctions leave on recommendation of supervisor.

The medical leave for Ph.D. students shall be considered on case to case basis on recommendation of the medical officer, only if the ordinary leave of the Ph.D. student is exhausted.

#### 14.2 Maternity/Paternity Leave

A student is eligible for maternity leave (as per Government of India rules) or 15 days of paternity leave as applicable only once during the PhD Programme. The HoD sanctions

maternity/paternity leave on recommendation of the Supervisor(s) and submission of a certificate from Senior Medical Officer /Medical Officer of the Institute.

#### 14.3 Academic leave

Academic leave is permitted on the following grounds:

**14.3.1** To attend conferences/seminars/workshops/trainings/short-term courses. A maximum of 15 days of leave is permissible in a calendar year with approval of respective Supervisor(s).

A maximum of 30 days of leave in a calendar year is permissible for field trips such as data collection, survey work, etc. The HoD sanctions such academic leave on recommendation of the Supervisor(s) & Chairperson DC.

Academic leave exceeding 30 days but up to a maximum of 60 days in a calendar year is approved by the Dean/ Associate Dean Academic on recommendation of the Supervisor(s) & Chairperson DC.

**14.3.2** 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. However, for academic visits with remuneration/scholarship must be approved by Chairman Senate, and such candidates are not allowed to get his/her regular fellowship.

On recommendations of the Supervisor(s), the doctoral committee (DC), the Chairperson Senate, approves such an academic leave with/without remuneration/scholarship, as the case may be. 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 her/his academic leave.

#### **15. ENROLMENT**

- **15.1** Students of all categories will have to enroll **in person** every semester on the stipulated date till thesubmission of their theses.
- **15.2** They are required to pay the prescribed fees till the submission of their theses within stipulated dates.
- **15.3** A student may be exempted from the prescribed fees for the last semester if he 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(s), Chairperson, DC and Dean/Associate Dean Academic, the Chairperson, 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.

PhD Scholars who got a job offer can change her/his status to employed and part time category, while keeping their registration alive on payment of the requisite fees every semester and furnishing a No Objection Certificate (NOC) from their respective employer, on the following condition:

Scholars who take up jobs will be relieved on their request, based on the recommendations of Doctoral Committee, if they have completed their:

- (a) Course Work,
- (b) Comprehensive Examination,
- (c) Registration Seminar.

#### 17. CONDUCT AND DISCIPLINE

- **17.1** Regulations for Conduct and Discipline are common for all students of IIT Patna, and these are the same as that prescribed in the B.Tech. ordinance.
- **17.2** 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.
- **17.3** All research scholars in IIT Patna should abide by the Intellectual Property Rights and Honor Code and will not violate such rules.

#### 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 completing coursework requirement.
- iv. Failure in Comprehensive Examination.
- v. Failure in Registration Seminar.
- vi. Consistent lack of progress in research.
- vii. Violation of discipline and conduct rules of the Institute.
- viii. Not submitting a thesis within the stipulated period.
- ix. Not enrolling for a semester within stipulated dates.

#### 19. DURATION OF PhD PROGRAMME

The duration of the PhD programme is as follows:

- **19.1** The minimum duration of the PhD Programme (excluding dropped semester(s)/maternity leave) is four semesters for scholars having M.Tech./M.E./M.S./M.Phil. and six semesters for other degrees.
- **19.2** PhD students registered in Employed and Part time category, the minimum residential requirement is one or two semester(s) depending on the completion of mandatory course work required for PhD students.
- **19.3** The maximum duration of the PhD programme (excluding dropped semester(s)/maternity leave) is 7 years from the date of admission for a full-time student and 8 years for a employed & part-time student.

- **20.1** Prior to the submission of the thesis, a student submits the synopsis of thesis to all the members ofthe DC, only if she/he has at least one peer reviewed publication in fora with stringent metrics. The research scholar should submit both hard and electronic version of the synopsis written in the prescribed format of IIT Patna to Dean/ Associate Dean Academic. The synopsis contains outline of the research contained in the thesis.
- **20.2** The student makes a presentation of her/his thesis work before the DC in an open seminar (named as Synopsis Seminar). The synopsis is submitted one week before the Synopsis Seminar date to all members of DC. If the DC approves the synopsis, the Supervisor sends the synopsis and the report of the Synopsis Seminar (through the Departmental PhD Programme Coordinator) to the Chairperson, Senate and the Chairperson, DC.
- **20.3** If a student fails to submit the thesis within two months from the date of the Synopsis Seminar, she/he shall present another Synopsis seminar. Her/his synopsis has to be approved by the DC and sent to the Chairperson, Senate.

#### 21. PANEL OF EXAMINERS

- **21.1**Three external experts Two from India and one from abroad, examine a thesis
- **21.2** At least fifteen days prior to the submission of the thesis, the DC submits to the Dean/ Associate Dean Academic a panel of ten examiners, five each from India and abroad. The Dean/ Associate Dean Academic forwards it to the Chairperson of Senate for approval.
- **21.3** The list of examiners remains confidential with the office of the Chairperson, Senate. The office of the Chairperson, Senate makes all correspondence with the examiners through DR Academic.

#### 22. SUBMISSION OF THESIS

Within two months of the acceptance of the synopsis by the DC, the student submits four (or five, if there are two Supervisors) copies of her/his thesis in prescribed format (soft binding) to the Academic Section along with no dues certificate.

#### 23. THESIS REPORTS

- **23.1** Examiners are expected to send reports on the thesis within two months from the date of receipt of the thesis.
- **23.2** If two of the thesis examiners recommend the thesis for award of the PhD degree, the Chairperson, Senate approves the conduct of a Viva Voce. Corrections in the thesis, responses to comments of examiners are incorporated by the research scholar in consultation with the DC.
- **23.3** If two examiners suggest resubmission of the thesis, the student is allowed to resubmit the thesis after due revision within the time stipulated.
- 23.4 If two of the thesis 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.
- **23.4.1** If the DC is satisfied with the work already done and the contents of the thesis already submitted, it may request the Chairperson, Senate that the thesis may be sent to another set of examiners. Such a request has to be recommended by the DC.

**23.4.2** The DC may advise the student to augment the research and submit the synopsis again. If 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.

#### 24. VIVA VOCE

- **24.1** In a Viva Voce, a student makes an oral presentation on her/his thesis. The presentation is open toall.
- **24.2** The following is the composition of the Viva Voce Board (VVB) to be constituted by Supervisor(s)

Chairperson of the DC: Chairperson

- 1. Supervisor(s): Member(s)
- 2. One examiner of the thesis within the country, or a specialist in the subject nominated by the Chairperson, Senate, from the approved panel of examiners: Member
- 3. One faculty member of the Department with knowledge of the subject of the thesis: Member

The other members of DC of the student will be invitees to the oral examination.

- **24.3** The VVB conducts the defense of the thesis by the candidate ensuring that she/he answers all the queries of the thesis examiners satisfactorily.
- **24.4** If the VVB 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).
- **24.5** If the VVB finds the performance of the student unsatisfactory on the second attempt also, then the matter will be referred to the Senate for a decision.
- **24.6** The VVB may also recommend revisions to be made in the final version of the thesis after taking into consideration the suggestions of the examiners who evaluated the thesis and the discussion at the Viva Voce. The Chairperson of the VVB shall forward the report to the Chairperson, Senate, certifying that the recommended revisions by the VVB, if any, have been incorporated in all copies of the thesis, for award of the degree.
- **26.7** The members of viva voce board should be provided with hard copy of thesis at least 15 days before the conduct of viva.

#### 25. AWARD OF PhD DEGREE

If the Viva Voce Board 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.

#### 26. OTHER MATTERS: LEGAL

- **26.1** All other cases, not covered by the above, shall be referred to the Senate.
- **26.2** Any legal matter relating to Rules and Regulation under 1 25 shall be subjected to jurisdictions of Court(s) in Patna.

#### 27. POWER TO MODIFY

Notwithstanding all that has been stated above, the Senate has the right to modify any of the above regulations from time to time.

#### APPENDIX-I ELIGIBILITY CRITERIA FOR ADMISSION INTO PhD PROGRAMME

In all the disciplines, the upper age limit is 28 years (B.Tech./B.E./M.Sc./MA/MCA/MBA) and 32years (M.Tech./M.E./M.S./M.Phil.) and is applicable only for candidates applying in Regular and Fulltime category (Institute Fellows). Upper age is relaxed upto 05 years in case of candidate belonging to Schedule Castes/Schedule Tribes, Women, Physically Handicapped and OBC applicants.For Research/ project fellows, age limit will be as per the funding agency norms. Inabsence of any age criteria, the Institute norms will be followed.

#### A.1 PhD in Engineering

For admission to the PhD Programme in Engineering department, a candidate must satisfy one of the following criteria:

- **A.1.1** Candidates having M.Tech./M.E. degree in a Engineering/Technology, with a minimum CPI of 6.5 or 60% of marks.
- **A.1.2** Bachelor's degree in Engineering/Technology (from any Institute other than IITs) in a relevantarea with a minimum CPI of 8.0 or 75% of marks.
- **A.1.3**. Bachelor's degree from an Indian Institute of Technology (IIT) in a relevant area with aminimum CPI of 7.0.
- **A.1.4**. Master's degree in Science in a relevant area with a minimum CPI of 7.5 or 70%.

#### A.2 PhD in Science

For admission to the PhD Programme in Science departments, a candidate must satisfy one of the following criteria:

- **A.2.1** M.Phil. or Master's degree in Science in a relevant area with a minimum CPI of 6.5 or 60% ofmarks.
- **A.2.2** Master's degree in Engineering/Technology in a relevant area with a minimum CPI of 6.5 or 60% of marks
- **A.2.3** Bachelor's degree in Engineering/Technology from an Indian Institute of Technology (IIT) in a relevant area with a minimum CPI of 7.0.
- **A.2.4** Bachelor's degree in a related area in Engineering/Technology (from any Institute other than IITs/IISc) in a relevant area with a minimum CPI of 8.0 or 75% of marks.

#### A.3 PhD in Humanities and Social Sciences

For admission to the PhD Programme in the department of Humanities and Social Sciences (HSS), a candidate must satisfy one of the following criteria:

**A.3.1** M.Phil. or Master's degree in Arts/Commerce/Science in a relevant area with a minimum of 55%marks or equivalent.

- **A.3.2** Master's degree in Engineering/Technology/Design in a relevant area with a minimum CPI of 6.5or 60% marks.
- **A.3.3** Bachelor's degree from an Indian Institute of Technology (IIT) in a relevant area with a minimumCPI of 7.0.
- **A.3.4** Bachelor's degree in Engineering/Technology (from any Institute other than IITs/IISc) in a relevant area with a minimum CPI of 7.5 or 70% marks.

## A.4 MINIMUM EXPERIENCE FOR SPONSORED, SELF-FINANCED and PART-TIME CATEGORIES

- **A.4.1** Candidate in Sponsored and Part-time categories must be a regular employee of the sponsoring organization with at least two year of professional experience in the respective field.
- **A.4.2** Candidates in Self-financed category should have at least one year of professional experience in the respective field.

#### A.5 DIRECT ADMISSION (WAIVER OF WRITTEN TEST):

A.5.1 For candidates in Sciences, Engineering & Technology:

The Institute may admit exceptionally bright students and Full-time (Institute Fellows) directly (i.e., without written test) into the Ph.D. program.

- **A.5.2** Eligible candidates meeting one of the following criteria may be consider for waiver of the written test.
  - i) B.Tech. from the IITs, graduated within the last five years, with a degree in the respective discipline with a CPI/CGPA of 8/10 and above.
  - ii) Masters from the IITs/IISc, graduated within the last five years, with a degree in the respective discipline with a CPI/CGPA of 8.5/10 and above.

Further relaxation criteria and requirements if any would be decided by the Department and applied after approval by the Chairman, Senate.

- **A.5.3** Such a candidate has to apply online. Additionally, an application must be sent with supporting documents to the Assistant Registrar, Academics.
- **A.5.4** There would be no admission in direct admission category in Department of Humanities and Social Sciences.

## Form I (Sponsorship letter)

	Reference No.  Date:
To,	
The Director	
Indian Institute of Technology Patna	
Sub: Sponsoring an Employee for PhD P	rogramme
Dear Sir,	
We hereby sponsor the candidature of Mr./I who is an employee in our orga	nization, for joining PhD programme in
It is certified that she/he has completed 2(T as a regular employee.	wo) years of service in our organization/institute
We shall relieve him/her from her/his duties the PhD programme.	in the organization during the first three years of
	Signature and Seal of the Sponsoring Authority

### Form II No-Objection Certificate for IIT Patna's Project Staff

(This should be typed on the letterhead of the R&D Section of IIT Patna)

	Reference No.
	Date:
_	
То,	
The Director	
Indian Institute of Technology Patna	
Sub: No-Objection Certificate for IIT Patna's Pro	piect Staff
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Door Sir	
Dear Sir,	
The R&D Section, of IIT Patna, has no objection if	Mr./Ms./Mrs
a project employee in the project	
under	
programme in	
Principal Investigator of the concerned project has	agreed to allow him/her to attend
classes/research work during the PhD programme.	
3 1 3	

Signature and Seal of the Dean/A. Dean R&D

### Form III No-Objection Certificate for Part-Time Students

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

					Referen Date:	ce No.	
To, The Director							
Indian Institute of Technology Patna							
Sub: No-Objection Certificate							
Dear Sir,							
We have no objection if Mr./Ms./Mrs.							_ ar
employee in our organization,	is	admitted	to	the	PhD	programme	ir
at	you	r institute as	a PA	RT-T	IME stu	dent.	
It is certified that she/he has completed as a regular employee.	ł TW	O YEARS o	f serv	rice in	our org	anization/insti	tute
We shall grant him/her leave of absence during the PhD programme.	e to	attend class	ses/re	searc	h works	at IIT Patna	
		Signature	e and	Seal	of theEr	nployer	