

Doctor of Philosophy

Programme Ordinance



Indian Institute of Information Technology Vadodara

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EXTRACTS FROM IIIT (PPP), ACT 2017

The following are the extracts from THE INDIAN INSTITUTES OF INFORMATION TECHNOLOGY (PUBLIC-PRIVATE PARTNERSHIP) ACT, 2017 (NO. 23 OF 2017)

Section 33: Subject to the provisions of this Act and the Statutes, the Ordinances of every

Institute may provide for all or any of the following matters, namely: —

- a. the admission of the students to the Institute;
- b. the courses of study to be laid down for all degrees and diplomas of the Institute;
- c. the conditions under which students shall be admitted to the degree or diploma courses and to the examinations of the Institute, and shall be eligible for degrees and diplomas;
- d. the conditions of award of the fellowships, scholarships, exhibitions, medals and prizes;
- e. the conditions and mode of appointment and duties of examining bodies, examiners and moderators;
- f. the conduct of examinations;
- g. the maintenance of discipline among the students of the Institute; and
- h. any other matter which by this Act or the Statutes is to be or may be provided for by the Ordinances.

Section 34:

1. Save as otherwise provided in this section, Ordinances shall be made by the Senate.
2. All Ordinances made by the Senate shall have effect from such date as it may direct, but every Ordinance so made shall be submitted, as soon as may be, to the Board and shall be considered by the Board at its next meeting.
3. The Board shall have power by resolution to modify or cancel any such Ordinance and such Ordinance shall from the date of such resolution stand modified accordingly or cancelled, as the case may be.

PHR 1 PROGRAM OVERVIEW

Doctor of Philosophy (PhD) program at the Indian Institute of Information Technology, Vadodara (IIITV) is intended for students who wish to conduct high quality research in the selected areas. The structure involves intensive course work followed by quality research work demonstrated with strong publications.

The program aims at shaping the students to engage into the research work leading to excellence. The design of the program is devised inculcation of discipline in the research while exploring the new frontiers of selected faculties.

Research Groups:

- Signal Processing & Computer Vision
- Electronics & Physics
- Linguistics
- Mathematics

PHR 2 ELIGIBILITY CRITERIA AND ADMISSIONS

Eligibility

Eligibility criteria for admission will be laid down by the Senate from time to time. These criteria may be discipline specific.

The minimum requirement is a B.E/ B.Tech. for Engineering disciplines and a Master's degree for other disciplines.

Applicants must possess any one of the following degrees:

Engineering: M.Tech./ME in CS/IT/ECE or related areas.

OR

M.Sc. Applied Mathematics/Computer Science and related areas. Exceptional candidates with B.E/B.Tech. in relevant areas can also be considered.

Science: M.Tech. Material Science/ Nano-Technology/ Applied Optics/Engineering Physics/ Scientific Computing, M.Sc. in Mathematics/ Physics/ Statistics/ Electronics/ Computer Science and related areas

OR

Exceptional candidates with B.E/B.Tech. in relevant areas can also be considered.

Humanities: MA/M.Phil in Linguistics/ English and related areas.

ADMISSION

Students can be admitted two times in a year. Admission will be granted on the basis of interview/admission test held by Institute. Admission will be normally made at beginning of semester (autumn and winter)- Advertisement for admission will be widely circulated.

ASSISTANTSHIP

Institute assistantships will be available to eligible students as per prevailing norms.

Assistantships from external funding organizations will be available as per terms and conditions of the concerned funding organizations.

Students receiving assistantships from the Institute or fellowships from any other funding agencies are required to perform academic duties as per prevailing norms.

PHR 3 RESEARCH GROUPS

PHR 3.1 Signal Processing & Computer Vision

Core Courses: Essential Mathematics, Random Process & Simulations, Advance Signal Processing.

Electives: Computer Vision, Pattern Recognition & Machine Learning, Image Analysis, Convex Optimization, Vector Space Projections, Remote Sensing Data Analysis, Inverse Problems in Imaging, Medical Image Processing, Multiview Geometry, Statistical Signal Processing, Natural Language Processing, Speech Processing.

PHR 3.2 Electronics & Physics

Core Courses: Essential Mathematics, Quantum Mechanics, Statistical Mechanics, Physics of Semiconductor Devices, VLSI Design, Digital IC Design, Numerical Methods.

Electives: Condensed Matter Physics, Nano & Molecular Electronics, Information Displays, Nano Scale Devices & Circuits, Flexible Electronics, Non Linear Systems, Advanced Embedded Systems, Mixed Analog & Digital Design, Bose Einstein Condensate System.

PHR 3.3 Linguistics

Core Courses: Sociolinguistics, Applied Linguistics, Semiotics, Semantics.

Electives: Computational Linguistics, Second Language Acquisition, Language & Gender, Phonetics & Phonology, Morphology.

PHR 3.4 Mathematics

Linear Algebra, Abstract Algebra, Analysis and Topology, Commutative Algebra, Algebraic Geometry, Representation Theory.

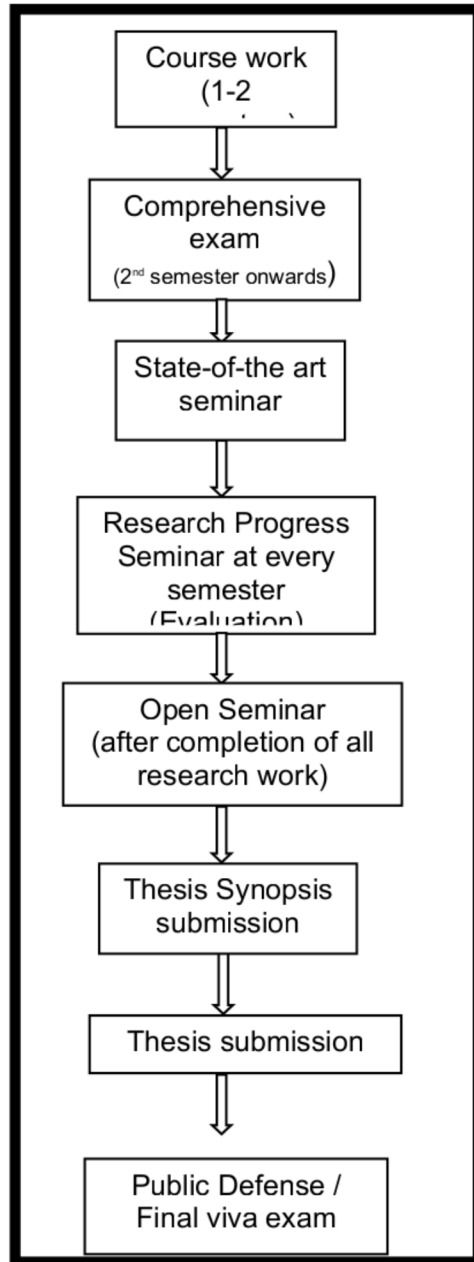
PHR 4 PROGRAM STRUCTURE

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PHR 4.1 Detailed Outline of PhD Program

1. The program is full-time. Students are expected to be in the Institute for the entire tenure of PhD program.
2. Students are required to take courses offered by respective research group and research courses in consultation with mentor/supervisor.
3. Student is required to appear for PhD qualifying exam (Comprehensive Exam) between (beginning of) 2nd and (end of) 4th semester. This will include a written exam and viva to be conducted by designated committee members. Students will be allowed to appear for Comprehensive Exam only twice.
4. If a student is not able to qualify Comprehensive Exam before end of 4th semester, the candidature of a student will be terminated automatically.
5. It is expected that the student will carry out at least 4 semesters of research work under the supervision of a faculty at IIITV.
6. Research Progress Committee (RPC) will evaluate the work done by student each semester. RPC will be constituted by Director/Dean-AP in consultation with supervisor.
7. Students may take maximum two self-study courses.
8. After completion of minimum credit requirements, student will have to submit a synopsis of his work. On approval from the RPC, candidate will have to submit thesis within six months from the date of synopsis presentation.
9. Thesis will be sent to examiners for reviews. Thesis examiners will be identified by the Institute.
10. On receipt of reviews, based on the feedback received, candidate will have to appear for a public defense.
11. We encourage the students to undertake research internship.

PHR 4.2 PhD Program flow



PHR 5. CREDIT STRUCTURE AND ACADEMIC REQUIREMENT

- Students will undergo credits referring to courses, i.e., Course credits, and credits referring to research, i.e., Research credits.
- At the beginning of the program, a student will typically undergo courses related to his/her area of research. This is called course work period.
- Every student has to appear for PhD comprehensive examination towards the end of his/her course work.
- After successful completion of the course credits and the PhD comprehensive examination, a student will formally allow to pursue research on a topic by registering for Research credits.
- Research credits are evaluated in research progress seminar (RPS) presented by the students at the end of every semester.
- A student will register 12 units of Research credits in each semester until submission of the Thesis.
- After Thesis submission, the student may go for leave and will have to register with zero units at the Institute.

ACADEMIC REQUIREMENT

- A student is allowed to complete the research work and submit the thesis within maximum of 05 years of duration from the date of admission.
- A student needs to have minimum CPI of 7.0 for the award of degree.
- A student should maintain minimum CPI of 6.0 for continuation in program.
- Minimum CPI of 6.5 is required for full TA/RA-ship and minimum of 6.0 CPI is mandatory for the Half TA/RA-ship.
- A semester load is defined as equivalent of 12 credits. A student registered for a full semester load solely by course work would typically take 4 courses. Depending on the merits of the case, the PGC may permit a student to register for a minimum of 9 credits.
- Following are minimum credit requirements for the graduation: a) minimum course credit: 12, b) minimum research credit: 48, and c) minimum credit requirement for degree: 72

PHR 6 APPOINTMENT OF SUPERVISOR (S)

The Institute will appoint Supervisor(s) to a student. The Supervisor(s) will be identified and appointed on successful completion of Comprehensive examination and Seminar.

CHANGE/ ADDITION OF SUPERVISOR(S)

The Chairman, Senate on recommendation of doctoral scrutiny committee may permit to change his/her Supervisor(s). Mutual consent of the student and supervisor(s) will be needed for the same.

PHR 7 FINANCIAL DETAILS

PHR 7.1 Fee Structures

The fee structure for PhD Programme will be provided by institute every year with approval of BoG, IIIT Vadodara.

PHR 7.2 Financial Assistance

Eligible students will be provided financial assistance in terms of teaching assistantship (TAsip). The eligibility criteria and the amount of TAsip are as follows:

A student securing minimum CPI of 6.5 is eligible for full TA/RA ship as per the guidelines by Government of India. A Student with CPI 6.0 is restricted to half TA/RA ship. Note that, CPI is not the only criteria for availing Full/Half TAsip from the second semester onward.

PHR 7.3 TA Evaluation

There will be **TA Evaluation Form** for performance evaluation of a TA by the Course Instructor. For every subsequent semester, TAs CPI and Feedback from Instructor will be considered as criteria for next semester TAsip.

PHR 8. LEAVE RULES

Leave rules for PhD students those who are receiving Institute scholarship:

- 8.1 The following rules are applicable with respect to receiving scholarship. The attendances for the courses will be governed by the academic regulations.
- 8.2 Total number of days of leaves permitted is 30 days in a year.
- 8.3 During the period of academic session (not defined as vacation for faculty), the student can avail at most 7 days of leaves in a semester. Remaining days of the leaves can be availed during the vacation period.
- 8.4 These students are not eligible for vacation.
- 8.5 Longer duration of leaves (beyond 7 days) can be permitted with the approval of the Director.
- 8.6 Female students will be eligible for maternity leaves at par with regular employee of the Institute.

PHR 9. CODE OF CONDUCT

IITV is an institute of academic excellence. A positive learning environment provides opportunities for students to practice good citizenship in the larger society and to practice respectful dissent. These are the practices and qualities that the Student Code of Conduct encourages.

The Student Code of Conduct serves as a reference and working guide when attempting to resolve student disciplinary issues. The student discipline manual is approved from time to time will provide the framework for code of conduct for students. .

Explanation of Punishments

1. Expulsion from the Institute:
The offender is asked to permanently leave the institute; the parents are called and the student is handed over to them.
2. Academic Suspension for a Semester(s):
The offender is suspended for a specified number of academic semester(s).
3. Expulsion from Hall of Residence (HoR):
The offender is asked to vacate the room from HoR. In such cases, the student is allowed to continue academics but is not allowed to stay in the HoR. He/she can visit the Institute premises only between 0800 to 2100 hrs on all days (including weekends/holidays). Entry is to be made at the register (kept with the security at the main gate) while coming/leaving IITV campus. The student is not allowed to enter the HoR for any reason at any time.
4. Restitution:
This is typically done if a student is found guilty in any kind of infrastructure damage. In such cases, student may be asked to repair or replace the damaged thing, in addition to some other penalty/punishment.
5. Suspension of Privileges:
Certain privileges are withdrawn like TA, if any.
6. Community Service:
The offender is assigned a specific number of hours of community/social service at IITV under a mentor. The idea behind this is to make the student realize the offence while not penalizing the parents due to consequent financial burden, otherwise.
7. Counseling:
A student under Disciplinary Probation can be mandated to meet the counselor.