

**Doctor
of
Philosophy**

Rules and Regulations

Effective from 2016-17

Version 2

Indian Institute of Information Technology
Vadodara

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

2. Eligibility Criteria and Admissions

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 Process: Short listing process will be done based on Academic records (minimum 55% or CPI of 6 on a scale of 10). GATE scores, CSIR/UGC NET qualifications are optional. Shortlisted candidate will be called for written exam followed by personal interview.

3 Research Groups

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.

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.

3. Linguistics

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

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

4. Mathematics

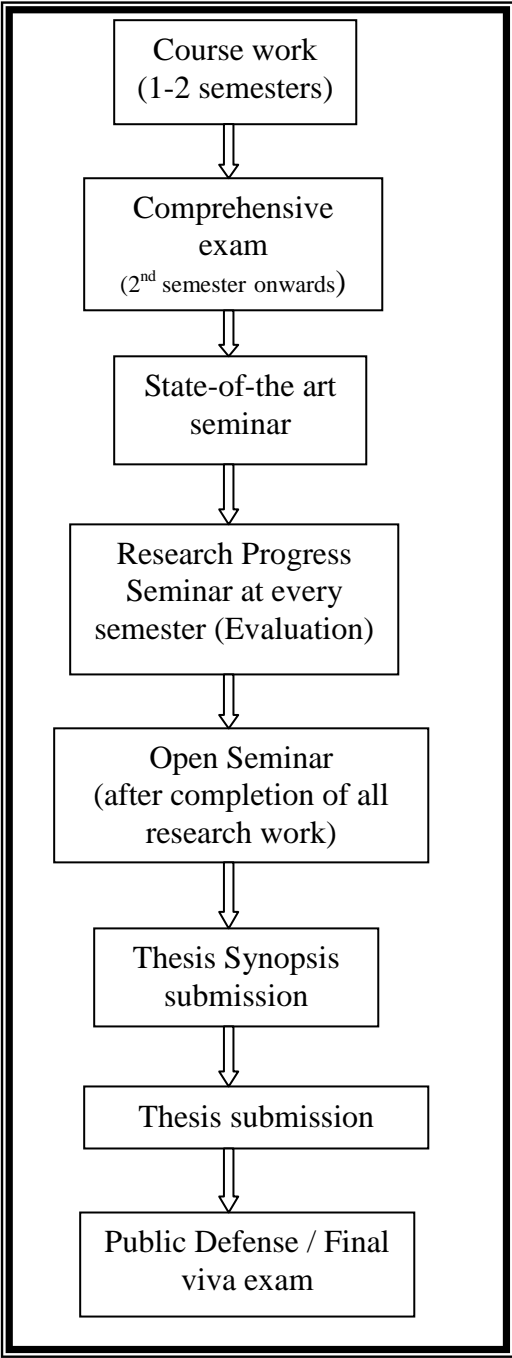
Linear Algebra, Abstract Algebra, Analysis and Topology, Commutative Algebra, Algebraic Geometry, Representation Theory.

4. Program Structure

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 IITV.
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.

4.2 PhD Program flow



5. Credit Structure and Academic Requirement

- Course credits.
- Research credits in research progress seminar (RPS).
- After completion of course work, the 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.
- Maximum duration - 05 years
- Minimum CPI (for degree) - 7.0/10.0
- Minimum CPI (for continuation in program) - 6.0/10.0
- Minimum CPI (TA/RA-ship eligibility) - 6.5/10.0 (Full) & 6.0/10.0 (Half)
- 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.
- Minimum Course Credit: 12
- Minimum Research Credit: 48
- Minimum Credit Requirement for Degree: 72

6. Change of Program:

After successful completion of course work/comprehensive examination at the end of second year, a student may apply for change of program. In such cases, the Dean (AP) in consultation with Research Progress Committee and PG Committee may ask the students to complete some additional requirements and refer the matter to the Academic Council of the Institute. The decision to allow such change shall be solely to the Academic Council.

7. Financial Details

7.1 Fee Structure

Tuition Fee: Rs. 20,000 per Semester

7.2 Financial Assistance

CPI (TA/RA-ship eligibility) - 6.5/10.0 (Full) & 6.0/10.0 (Half)

Full TAship before Comprehensive exam: Rs. 20,000 Per Month

Full TAship after Comprehensive exam: Rs. 25,000 Per Month

Half TAship before Comprehensive exam: Rs. 10,000 Per Month

Half TAship after Comprehensive exam: Rs. 15,000 Per Month

Students with qualified GATE score will be inducted as Teaching Assistants and provided with financial assistantship as per the Institute rules. Students are also eligible to other fellowships such as UGC, CSIR, DST-Inspire etc. If a student is involved in a funded project as a Research Assistant, he/she will receive financial assistance from the project.

7.3 Teaching Assistance (TA) Evaluation Form

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

8. Leave Rules

Students may be granted leave on application to the Post Graduate Committee (PGC). Applications must be submitted well in advance of the date of commencement of the leave requested.

8.1 Personal Leave and Casual Leave

- A postgraduate student may take a maximum of 30 days of personal leave in an academic year (including winter break and mid-semester breaks) such that no more than 10 days of leave are taken during a semester. However, this 10-day cap will not be enforced when semesters are not in progress and during the summer term. Leave not availed in one academic year may be carried over to the next academic year up to a maximum of 15 days.
- In addition, a student may be allowed casual leave for up to 6 days during a semester and 4 days during the summer term. The casual leave cannot be carried over.
- There will be no loss of financial assistantship for students going on personal or casual leave.

8.2 Medical Leave

Leave on medical ground, duly supported by a medical certificate, may be granted to a student for up to 8 days per semester and 4 days during the summer term. Leave not availed may be carried over to the next semester/term up to a maximum of 8 days in the case of carry over to semester and 4 days in the case of carry over to term. However, at a stretch, the medical leave shall not exceed 15 days during a semester and 8 days during the summer term. Such leave shall not entail any loss of financial assistantship.

8.3 Maternity Leave

A female student may be granted maternity leave for a maximum of 180 days. Leave up to 45 days can also be granted for miscarriage including medical termination of pregnancy, if supported by a proper medical certificate. Such leave can be combined with any other leave due and will not entail any loss of financial assistantship.

8.4 Semester/Term Leave

Students may be sanctioned semester leave for up to a maximum of two semesters and a summer term for bonafide reasons. Except for medical reasons, such leave would not normally be sanctioned before a student has completed his/her minimum total credit requirements and in no case before the student has spent two semesters and a summer term in the programme. However, on medical considerations such leave may be sanctioned after his/her stay of one semester. Leave for more than one semester/term at a time will not be granted.

8.4.5. Medical Certificate

If a student falls ill while on the campus, the medical certificate must be obtained from the Institute's medical officer. If he/she falls ill outside the campus while on sanctioned leave, the medical certificate must be obtained from a registered medical practitioner.

8.6 Absence without Sanctioned Leave

Absence without sanctioned leave will entail loss of financial assistantship for the period of absence, and may result in the termination of the student's programme on the recommendation of the PGC.

9. Code of Conduct

IITV is a professional institute of academic excellence. A positive and successful 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. This document is intended to represent minimum guidelines only; students should be aware of the fact that the absence of a specific policy, statement, procedure or provision should not be interpreted to be a waiver of such item by the Disciplinary Action Committee (DAC). Following enumerates of some possible indiscipline activities and possible action towards offenders.

1. Students found involved in any of following activities will be immediately expelled from the institute:

- Ragging.
- Possession or consumption of any form of intoxicant (like narcotic drugs, alcohol, etc.).
- Sexual harassment.
- Criminal activity.
- Use or possession of firearms and weapons.
- Gambling or betting for money or other items of value.

2. Following is the indicative list of other acts of indiscipline:

- Smoking.
- Improper behavior with any student, faculty member or staff.
- Violation of Institute / Halls of Residence (HoR) rules.
- Damage, defacement, or destruction of any private or Institute property.
- Theft.
- Violation of any traffic rule within the campus.
- Causing disturbance or discomfort to co-residents.
- Visiting HoR of opposite gender.
- Violation of the computing practices of IITV, including but not limited to, the misuse of IITV computers or computer network (like bypassing firewall / security system of the internet in an unauthorized manner, sending offensive email, etc.).
- Disruption or obstruction of teaching, research, administration, or other IITV activities.
- Failure to appear and/or report to DAC in conjunction with any disciplinary matter, at the time specified.

In these acts of indiscipline, based on the severity of offence, the offender will be liable to the disciplinary action, which will include one or more punishments from the ones stated later in this document.

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.