

PhD Admissions

Information Brochure | Spring Semester 2025-26



Academic Office
Indian Institute of Technology Goa

Contents

01. Eligibility criteria for PhD admission	1
a. Full-time PhD program	1
i. Applicants must have one of the following in the appropriate subject areas.	1
ii. Applicants must also fulfill one of the following additional requirements.	1
1. For engineering stream:	1
2. For science stream:	2
3. For humanities and social science stream:	2
b. Part-time PhD program	2
i. Applicants must have ONE of the following in the appropriate subject areas.	2
02. Application categories for PhD admission	3
a. Full-time or Regular PhD program	3
b. Part-Time PhD program	3
03. Schedule of Admission for the Spring of the AY PhD Program in 2025-26	3
04. Areas of Specialisation	4
05. General Instructions	6
06. Application Fee Payment	7
07. How to Apply	7
08. Glossary	8
Appendix A	9
Appendix B	10

1. Eligibility criteria for PhD admission

a. Full-time PhD program

i. Applicants must have one of the following in the appropriate subject areas¹.

1. Master's Degree in Engineering/Technology or equivalent degree with 60% marks or CPI 6/10 or equivalent. (55% marks or CPI 5.5/10 or equivalent for SC/ST).
2. Bachelor's degree or equivalent degree in Engineering/Technology with 70% marks or CPI 7/10 or equivalent. (65% marks or CPI 6.5/10 or equivalent for SC/ST).
3. Master's degree in science, arts, social sciences, or equivalent degree with 60% marks or CPI 6/10 or equivalent. (55% marks or CPI 5.5/10 or equivalent for SC/ST).
4. Bachelor's degree in science with 4-year/8-semester or equivalent degree with 70% marks or CPI 7/10 or equivalent (65% marks or CPI 6.5/10 or equivalent for SC/ST).

ii. Applicants must also fulfill one of the following additional requirements.

1. For engineering stream²:

- a. Qualified GATE in the relevant streams. (Candidates with B.E./B.Tech/B.S./MCA/M.Sc. degree or equivalent relevant degree must have a **valid** GATE score).
- b. Junior Research Fellowship (JRF) of CSIR/ UGC/ NBHM/ DBT/ ICAR/ ICMR/ ICPR Fellowship in the relevant streams.
- c. B.Tech/Dual degree from IIT with a CPI/CGPA of 8.0 or more.
- d. Minimum of 2 years of professional experience. (Acquired after obtaining the qualifying degree and completed before the start of the semester in which admission is sought in the relevant areas. (Applicable to B.Tech/B.E./B.S./MCA/M.Sc. qualifying degree candidates).

¹ An ongoing degree may also be considered as a qualifying degree provided the applicant graduates before the PhD program starts.

² MTech/ME qualifying degree candidates are exempted from having a additional requirement for applying to the PhD program at IIT Goa.

2. For science stream:

- a. Qualified GATE/CSIR/UGC-NET/JEST in the relevant streams. (Candidates with B.E. /B.Tech/B.S./MCA/M.Sc. degree or equivalent relevant degree must have a **valid** GATE score).
- b. Junior Research Fellowship (JRF) of CSIR/ UGC/ NBHM/ DBT/ ICAR/ ICMR/ ICPR Fellowship, etc, in the relevant streams.

3. For humanities and social science stream:

- a. Qualified UGC-NET/GATE in Economics
- b. Junior Research Fellowship (JRF) of UGC in Economics
- c. Candidates with at least 70% marks in their Master's degree (65% for SC/ST) in Economics may also be considered (Non-UGC-NET/GATE Candidates)

b. Part-time PhD program

- i. Applicants must have ONE of the following in the appropriate subject areas.
 1. Master's Degree in Science/ Engineering/ Technology or equivalent degree with 60% marks or CPI 6/10 or equivalent. (55% marks or CPI 5.5/10 or equivalent for SC/ST) marks or equivalent and a minimum of two (02) years of work experience at the time of application.
 2. Bachelor's degree in Science/Engineering/Technology with 60% marks or CPI 6/10 or equivalent. (55% marks or CPI 5.5/10 or equivalent for SC/ST) or equivalent and a minimum of four (04) years of work experience at the time of application.
 3. Master's degree in Science/Engineering/Technology or equivalent degree with 60% marks or CPI 6/10 or equivalent. (55% marks or CPI 5.5/10 or equivalent for SC/ST) or equivalent from IIT/ IISER/ IIIT/ IISc/ NIT and a minimum of one (01) year of work experience at the time of application.
 4. Bachelor's degree in Science/Engineering/Technology or equivalent degree with 80% marks or CPI 8/10 or equivalent (75% marks or CPI 7.5/10 or equivalent for SC/ST) or equivalent from IIT/ IISER/ IIIT/ IISc/ NIT and a minimum of one (01) year of work experience at the time of application.

2. Application categories for PhD admission

a. Full-time or Regular PhD program

- Teaching Assistantship (TA): Students get fellowship from the institute as per the guidelines by the Ministry of Education.
- TA through Project (TAP): Students get fellowship from the research project and partial support from the institute.
- Govt./ Semi Govt. Fellowship Awards such as CSIR-JRF, UGC-JRF, etc.

b. Part-Time PhD program

A student in this category is a professionally employed person (including IIT Goa staff), who pursues the PhD program while continuing the duties of the employment. The institute does not provide any assistance/fellowship to such a student.

- Permanent employees from state or central government universities, colleges, or research institutes and labs.
- External - This category refers to a student employed in an R&D organization/academic institution/industry having adequate research facilities. The research work leading to the PhD degree may be carried out largely in the parent organization of the candidate under a Local Supervisor from the organization but with the overall guidance provided by a faculty member (Institute Supervisor) of the AU in which the student is registered.
- Self-sponsored.
- Permanent staff of IIT Goa.

3. Schedule of Admission for the Spring of the AY PhD Program in 2025-26

Sr. No.	Particulars	Date
1	Start date of application (online only)	14 October 2025
2	Last date for submitting an online application form and completing the payment	04 November 2025 (5 PM)
3	Commencement of classes for the Spring Semester	06 January 2026

The schedule for the written exam/interview will be informed to the shortlisted candidates via email separately.

4. Areas of Specialisation

Unless otherwise specified, the opening is open to all categories.

Program	Research Area
Computer Science and Engineering (CSE)	Institute TA category: 1. Theoretical Computer Science 2. Discrete-event systems, Parallel and hybrid simulation, Computer systems performance modeling 3. Machine learning 4. Cyber Physical System 5. Game Theory and Mechanism Design 6. Robust Optimization 7. Algebraic Algorithms Part-Time: 1. Formal Methods in Machine Learning.
Chemical and Materials Engineering (CME)	Institute TA category: 1. Next-Generation Redox Flow Batteries: Advanced Electrolytes and Electrode Architectures for Sustainable Grid-Scale Energy Storage. 2. Dynamic Colloidal Structures: From Self-Assembly to Collective Dynamics. 3. Atomic Layer Deposition Engineered Catalyst Surfaces for Green Hydrogen Generation. 4. Nanomaterials for Antibacterial Activity and Cancer Therapy Applications.
Chemistry	Institute TA and JRF category: Candidates must have a valid GATE score for the Institute TA category. 1. Theoretical Physical Chemistry. 2. Experimental Physical Chemistry. 3. Synthetic Organic Chemistry. 4. Inorganic Chemistry.
Economics	Institute TA category: 1. Financial Economics. 2. Development Economics. 3. Macroeconomics. JRF category: 1. Financial Economics. 2. Development Economics

Electrical Engineering	Institute TA category: 1. Communication and Signal Processing: Signal/Image Processing, Signal Processing for 6G, Audio Signal Processing. 2. Power Engineering: Electrical Machines for EVs, Power Electronics, Electric Drives, High Voltage Engineering and Plasma Technology. 3. VLSI and Microengineering: VLSI Design, Circuits and Systems for Communication, MEMS Sensors, Biomedical devices, IoT, Electronic Device Modelling. JRF category: 1. VLSI and Microengineering: MEMS Sensors, Biomedical devices, IoT, Electronic Device Modelling
Mechanical Engineering	Institute TA category: Domain: Solid Mechanics and Design 1. Mechanics of marine composites, Mechanics of 2D materials. 2. Granular materials in space exploration, Bio-inspired design for granular systems. 3. Ambient energy harvesting using smart materials. 4. Impact mechanics of composites (UR/OBC). 5. Micro-robotics for manipulating biological cells (EWS/SC/ST/PwD) Domain: Fluid and Thermal Sciences 1. Characterization and mitigation of particulate matter from combustion sources, Optical properties of atmospheric aerosols. 2. Mechanics of granular fluids 3. Experimental multiscale hydrodynamics and heat transfer, Interfacial & colloid science, Energy and sustainability 4. Experimental combustion for sustainable energy, Carbon-free fuels (metals, hydrogen, biofuels), Emission mitigation technologies, Aerospace propellants and energetic materials 5. Computational combustion & modelling of sustainable fuel, Data-driven modelling of turbulent combustion, Aeroacoustic noise predictions from turbulent flows 6. Computational fluid dynamics, High-performance computing, Porous media flows (EWS/SC/ST/PwD) Domain: Manufacturing 1. Precision finishing, Application of ML in manufacturing process, Numerical and analytical modelling of nano-scale material removal process, Additive

	manufacturing (UR/OBC) Part-Time: Domain: Fluid and Thermal Sciences 2. Optical properties of atmospheric aerosols. 3. Experimental multiscale hydrodynamics and heat Transfer, Interfacial & colloid Science, Energy and sustainability.
Physics	Institute TA category and JRF Category: 1. Theoretical High Energy Physics. 2. Theoretical Quantum Condensed Matter and Quantum Materials Modelling. 3. Statistical Physics at Micrometer Scale. 4. Experimental Quantum Photonics. 5. Theoretical Astroparticle Physics and Cosmology. 6. Quantum foundation, information, communication, and network architecture theory.

5. General Instructions

- Candidates are required to apply *online* only. No downloadable forms are available..
- Candidates should be engaged in professional work related to the area of research discipline applied for in part-time PhD.
- The candidate of the PhD (Sponsored) category should submit a Sponsor's Letter from the organization in which he/she is employed. The sponsoring organization should give an undertaking in the prescribed format (Appendix A and Appendix B) stating the following:
 - The candidate will be allowed to fulfill the coursework requirement and qualifier examination.
 - Leave would be granted to fulfill the coursework and he/she will be allowed to attend the lectures, labs, etc., as per the academic calendar of IIT Goa.
- Meeting the basic eligibility criteria listed in the advertisement doesn't guarantee that the candidate will be shortlisted for the test/ interview. The decision of the admission committee in this regard will be treated as final.
- For more information regarding the PhD program, please visit the [PhD Manual](#).

6. Application Fee Payment

The application fee is as follows:

Female candidates	: ₹ 100/-
SC/ST/PwD Category candidates	: ₹ 100/-
All other candidates	: ₹ 200/-

The fee can be paid through NEFT/RTGS/UPI. The details of the institute bank details are:

Bank Name	: Union Bank of India
Account Name	: Student Fee Account IIT Goa
Account Number	: 520101260768219
Branch	: Farmagudi
IFSC	: UBIN0913286

Candidates are required to enter a valid UTR/Transaction Number and date in the online application form. The application fee is non-refundable.

7. How to Apply

Please read the instructions and proceed to online application portal

1. For New Registration click on New User Registration.
2. Register with your valid email ID.
3. Fill out the program applying for (fill out separate applications for different programs).
4. Click on submit, and you will be redirected to the login page.
5. Login to the portal.
6. Candidates are required to fill in details as given in the form and save the form.
7. Candidates are required to upload a recent Passport Photograph (Maximum 200KB), scanned copy of Signature (Maximum 12KB), detailed CV, and Mark sheets as per eligibility (Maximum 400KB), applicable documents, Appendix A or Appendix B (if applicable). The CV should mention the projects completed (bachelor's and master's) and the awards/recognition you received.
8. The system will not allow you to submit the application without filling in payment details.
9. Fill in the payment details carefully (see the corresponding section); once filled cannot be edited.
10. After filling in all the details, please Preview and Submit your application form. After the Final Submission, the system will not allow any further editing.

For any academic query, please mail to academic_query@iitgoa.ac.in, and for any technical issue, please mail to phd_tec_issue@iitgoa.ac.in.

8. Glossary

Institute TA	Institute Teaching Assistantship.
JRF	Govt./ Semi Govt. Fellowship Awards such as CSIR-JRF, etc.
TAP	Teaching Assistantship through Project.

Appendix A

(Employer's letter: To be submitted on the letterhead of the employer)

To

The Director,
Indian Institute of Technology Goa
Goa 403401

Sub: Employer's Letter for Part-Time PhD Admission under External Candidates Category

Dear Sir,

With respect to the application of Mr./Mrs./Miss _____,
employed as _____ (Designation) in our organization, for
Part-Time PhD Admission Under External Candidates Category, we hereby undertake the
following:

Mr./Mrs./Miss _____ will be allowed to take
leave as required for completing the coursework requirement and the PhD Qualifying
Examination as mandated by IIT Goa. We will/ will not continue to pay
Mr./Mrs./Miss _____ salary as per the HR policies
during the period of leave.

Name of Authorised Signatory

Signature of Authorised Signatory

Designation of Authorised signatory

Date:

Contact Details of Authorised Signatory

Employer's Seal:

Appendix B

(Sponsor's letter: To be submitted on the letterhead of the employer)

To

The Director,
Indian Institute of Technology Goa
Goa 403401

Sub: Sponsor's Letter for Part-Time PhD Admission under Sponsored Candidates Category

Dear Sir,

With respect to the application of Mr./Mrs./Miss _____,
employed as _____(Designation) in our organization, for
Part-Time PhD Admission Under Sponsored Candidates Category, we hereby undertake the
following:

- Mr./Mrs./Miss _____ will be allowed to take leave as required for completing the coursework requirement and the PhD Qualifying Examination as mandated by IIT Goa.
- We will/ will not continue to pay Mr./Mrs./Miss _____ salary as per the HR policies during the period of leave.
- We state that appropriate facilities relevant to the research of Mr./Mrs./Miss _____ exist in our organization.
- Bio-data of proposed co-supervisor in our organization" Dr. _____ who is employed as _____ (Designation) is attached with the letter.

Name of Authorised Signatory

Signature of Authorised Signatory

Designation of Authorised signatory

Date:

Contact Details of Authorised Signatory

Employer's Seal: