Admissions Prospectus

Admission to the Ph.D. program | Spring Semester 2026-27

Academic Office
Indian Institute of Technology Goa

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1. Eligibility criteria for PhD admission

a. Full-time PhD program

i. Applicants must have one of the following in the appropriate subject areas[1].

1. Master's Degree in Engineering/Technology or equivalent degree with a minimum 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 a minimum 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 a minimum 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 a minimum 70% marks or CPI 7/10 or equivalent (65% marks or CPI 6.5/10 or equivalent for SC/ST).

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

1. For engineering stream[2,3]:

a. For Computer Science and Engineering: Qualified GATE/UGC-NET/JEST in the relevant streams. For all other engineering streams: 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** score).

b. Junior Research Fellowship (JRF) of CSIR/ UGC/ NBHM/ DBT/ ICAR/ ICMR/ ICPR Fellowship in the relevant streams.

c. 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 an additional requirement for applying to the PhD program at IIT Goa.

[3] Candidates with B.Tech/B.S./Dual degree from CFTIs with a minimum CPI/CGPA of 7.5/10 or equivalent (CPI/CGPA 7/10 or equivalent for SC/ST) are exempted from having an additional requirement for applying to the PhD program.

2. **For science stream:**

    a. Qualified GATE/CSIR/UGC-NET/JEST in the relevant streams.

    b. Junior Research Fellowship (JRF) of CSIR/ UGC/ NBHM/ DBT/ ICAR/ ICMR/ ICPR Fellowship, etc, in the relevant streams.

    c. B.Tech[4] degree in Mathematics and Computing from IIT with a CPI/CGPA of 8.0 or more.

3. **For the humanities and social science stream:**

    a. UGC-NET/GATE Qualified in the relevant streams.

    b. UGC-NET/JRF Qualified Candidates are encouraged to apply

    c. Candidates with a minimum 70% marks or equivalent in their Master's degree (65% or equivalent 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 a minimum 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 a minimum 60% marks or CPI 6/10 or equivalent. (55% marks or CPI 5.5/10 or its 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 a minimum 60% marks or CPI 6/10 or equivalent. (55% marks or CPI 5.5/10 or equivalent for SC/ST) from CFTIs 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 a minimum 80% marks or CPI 8/10 or equivalent (75% marks or CPI 7.5/10 or equivalent for SC/ST) from CFTIs and a minimum of one (01) year of work experience at the time of application.

[4] Only applicable for Mathematics Program

2. Application categories for PhD admission

a. Full-time or Regular PhD program

- Teaching Assistantship (TA): Students receive a fellowship from the institute in accordance with the guidelines of the Ministry of Education.
- TA through Project (TAP): Students get a fellowship from the research project and partial support from the institute.
- Govt./ Semi Govt. Fellowship Awards such as QIP, CSIR-JRF, UGC-JRF, DAE, DST-INSPIRE, DBT, NBHM, etc.
- Sponsored: A student in this category is sponsored by an R&D organization, academic institution, government organization, or industry for doing research in the institute on a full-time basis. The institute does not provide any assistantship/fellowship to such a student.
- Self-financed: A student in this category works full-time or part-time towards the PhD program. The institute does not provide any assistantship/fellowship to such a student.

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 their employment duties. 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 PhD Program in AY 2026-27 Spring Semester

Sr. No.	Particulars	Date
1	Start date of application (online only)	26 Oct 2026
2	Last date for submitting an online application form and completing the payment	13 Nov 2026
3	Commencement of classes for the Spring Semester	7 Jan 2027

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

4. Areas of Specialisation

Program	Research Area
Computer Science and Engineering	**Institute TA category:** 1. Programming and Interactive Theorem Proving 2. Cyber Physical Systems 3. Machine Learning 4. In-Context Learning (ICL) - Chain 5. Robust Optimization 6. Game Theory and Mechanism Design 7. AI Processors, FPGA, Medical Devices (Computing Hardware), Digital Systems for TinyML, Hardware for Video Systems, Lightweight Cryptography Hardware 8. Theoretical Computer Science **Part-time:** 1. Machine Learning, Game Theory, and Mechanism Design 2. Theoretical Computer Science
Chemical and Materials Engineering	**Institute TA category (UR/OBC/SC/ST):** 1. Design and Development of High-Performance Electrodes for Next-Generation Batteries 2. Surface and Interface Engineering of Advanced Materials for Electrochemical Energy Conversion and Storage
Chemistry	**Institute TA category:** 1. Theoretical and computational chemistry 2. Organic chemistry and polymer chemistry 3. Experimental physical chemistry 4. Inorganic chemistry **JRF category:** 1. Theoretical and computational chemistry 2. Organic chemistry and polymer chemistry 3. Experimental physical chemistry 4. Inorganic chemistry
Electrical Engineering	**Institute TA category:** Communication and Signal Processing 1. AI for Signal/Image Processing 2. Signal Processing for 6G 3. 5G/6G Wireless Communications - PHY Layer Power Engineering 1. Power Electronics 2. Electrical Machines and Drives

	3. High Voltage and Plasma Technology 4. High Voltage and Insulation Engineering VLSI and Microengineering 1. Analog/Mixed-Signal Circuits, VLSI Design, Circuits and Systems for Communication 2. Sensors and Systems, IoT Systems, VLSI Technology, Semiconductor Devices* **JRF category:** VLSI and Microengineering 1. Sensors and Systems, IoT Systems, VLSI Technology, Semiconductor Devices* **TAP category:** VLSI and Microengineering 1. Sensors and Systems, IoT Systems, VLSI Technology, Semiconductor Devices* **Part-time:** Communication and Signal Processing 1. 5G/6G Wireless Communications - PHY Layer VLSI and Microengineering 1. Sensors and Systems, IoT Systems, VLSI Technology, Semiconductor Devices* * Candidates having an MSc in Electronics, Biotechnology, or allied areas with JRF/NET will also be considered for this area.
Humanities and Social Science	**Institute TA category (EWS/OBC/SC/ST):** Economics 1. Macroeconomics 2. Macro-Finance 3. Behavioural and Experimental Economics 4. Health Economics 5. Causal Inference and Applied Microeconometrics **JRF category:** 1. Green Finance 2. Financial Economics 3. Blue economy
Mathematics	**Institute TA category:** 1. Partial Differential Equations and Numerical Analysis 2. Functional Analysis 3. Nonlinear Functional Analysis and PDE (the knowledge of Multivariate Calculus, Functional Analysis and Measure Theory is required) 4. Analytic Number Theory **JRF category:**

	1. Partial Differential Equations and Numerical Analysis 2. Functional Analysis 3. Nonlinear Functional Analysis and PDE (the knowledge of Multivariate Calculus, Functional Analysis and Measure Theory is required) 4. Analytic Number Theory
Mechanical Engineering	For the Mechanical Engineering program, a candidate can submit **only one** application by selecting only one of the three domains mentioned below. A candidate can opt for more than one research area/topic mentioned under the selected domain. **Institute TA category:** <u>Domain: Solid Mechanics and Design</u> 1. Architected composite materials, Mechanics of marine composites, Mechanics of 2D materials. 2. Impact Mechanics of Composites. (EWS/SC/ST/PwD) 3. Micro-robotics for biological applications using compliant mechanisms. 4. Granular mechanics; Granular systems in space and natural hazards. 5. Dynamical systems - linear and nonlinear vibrations of structures and multiphysical systems, Mechanics of smart material composites; Energy and Sustainability - Ambient energy harvesting from mechanical/wind-induced vibrations. <u>Domain: Thermal and Fluid Engineering</u> 1. Particulate matter, Characterization and mitigation of emissions from combustion sources. 2. Computational fluid dynamics, High-performance computing, Fluid-structure interaction. 3. Computational combustion & modelling of sustainable fuel, Data-driven modelling of turbulent combustion, Aeroacoustic noise predictions from turbulent flows. 4. Radiative heat transfer and Fluid mechanics. 5. Experimental combustion for sustainable energy, Carbon-free fuels (metals, hydrogen, biofuels), Emission mitigation technologies, Aerospace propellants and energetic materials. 6. Microscale transport phenomena and microfluidics, Interfacial science and experimental fluid mechanics; Marine Hydrodynamics - Cavitation, Drone and AUV acoustics and hydrodynamics, Sustainable technology in energy and water. <u>Domain: Manufacturing</u> 1. Laser-based manufacturing. 2. Robotic machining/finishing, Analytical/Numerical modelling of machining/finishing processes, Solid-state additive manufacturing, Dynamics of Robotic machining.
Physics	**Institute TA:**

	1. Astroparticle Physics and Cosmology 2. Experimental Quantum Photonics 3. Quantum Information and Communication Theory 4. Statistical Mechanics at the Micrometer Scale 5. Theoretical High Energy Physics **JRF category:** 1. Astroparticle Physics and Cosmology 2. Experimental Quantum Photonics 3. Quantum Information and Communication Theory 4. Statistical Mechanics at the Micrometer Scale 5. Theoretical High Energy Physics

6. General Instructions

a. Candidates are required to apply *online* only. No downloadable forms are available.

b. Candidates should be engaged in professional work related to the area of research discipline applied for in a part-time PhD.

c. 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:

   i. The candidate will be allowed to fulfil the coursework requirement and qualifier examination.

   ii. Leave will be granted to complete the coursework, and he/she will be allowed to attend lectures, labs, etc., as per the academic calendar of IIT Goa.

d. Meeting the basic eligibility criteria listed in the advertisement doesn't guarantee that the candidate will be shortlisted for the test/ interview. The admission committee's decision in this regard will be treated as final.

e. For more information about the PhD program, please refer to the PhD Manual.

7. 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 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.

8. How to Apply

Please read the instructions and proceed to the 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. Log in to the portal.
6. Candidates are required to fill in the 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 and degree certificate 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), “research experience and publications if any, skills, “ 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 send an email to academic_query@iitgoa.ac.in, and for any technical issue, please send an email 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: