M.S. by Research Admissions

Information Brochure | Autumn Semester 2026-27

Academic Office
Indian Institute of Technology Goa

Contents

1. Eligibility criteria for M.S. by Research admission

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

   i. Bachelor's degree or equivalent degree in Engineering/Technology with a minimum 60% marks or CPI 6/10 or equivalent. (55% marks or CPI 5.5/10 or equivalent for SC/ST).

   ii. Master's degree in Science 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).

   iii. Bachelor's degree in Science with 4-year/8-semester 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).

b. Applicants must also fulfil one of the following additional requirements[2,3]

   i. Valid GATE score in the relevant streams.

   ii. Junior Research Fellowship (JRF) of CSIR/ UGC/ ICAR/ ICMR Fellowship in the relevant streams.

   iii. 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.

2. Application category for M.S. by Research admission

- Teaching Assistantship (TA): Students receive a fellowship from the institute for the full-time M.S. by Research program, in accordance with the Ministry of Education's guidelines.

[1] An ongoing degree may also be considered as a qualifying degree provided the applicant graduates before the M.S. by Research program starts.

[2] Candidates with MTech/ME degree are exempted from having an additional requirement for applying to the M.S. by Research program.

[3] Candidates with B.Tech/B.S./Dual degree from CFTIs with a minimum CPI/CGPA of 7.0/10 or equivalent (CPI/CGPA 6.5/10 or equivalent for SC/ST) are exempted from having an additional requirement for applying to the M.S. by Research program.

3. Schedule of Admission for M.S. by Research Program in AY 2026-27 Autumn Semester

Sr. No.	Particulars	Date
1	Start date of application (online only)	10 April, 2026
2	Last date for submitting an online application form and completing the payment	03 May, 2026
3	Commencement of classes for the Autumn Semester	27 July, 2026

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	1. Theoretical Computer Science 2. Computer Vision and Edge AI 3. Machine Learning 4. Robust Optimization 5. Game theory, Mechanism design, and Machine Learning 6. Computational Complexity 7. Computing Systems (Hardware and Software) for AI-Based Medical Devices, Hardware (FPGA, Microprocessors)for Post Quantum Cryptography, Hardware Acceleration of Formal Methods-Based Verification 8. Learning augmented Cyber Physical Systems Design 9. Parallel and Hybrid Simulation, AI-based Modeling Automation 10. Graph Algorithms
Chemical Engineering	1. Rechargeable Liquid Organic Hydrogen Carrier (LOHC) - Based Batteries for Safe and SustainableGreen Energy Storage. 2. Development of MXene-based materials for next-generation hybrid energy storage (battery–supercapacitor systems) 3. Structure, Dynamics, and Mechanical Response in Magnetic Colloidal Systems. 4. Nanomaterials for Cancer Therapy and Antibacterial Activity Applications.

Electrical Engineering	**Communication and Signal Processing:** Signal Processing for 5G/6G Wireless Communications, Image Restoration and Computational Imaging **Power Engineering:** Power Electronic Converters and Drives, Electric Vehicles and Drives, High Voltage Engineering, Plasma Technology **VLSI and Microengineering**: Analog/Mixed-Signal Circuits, VLSI Design, Circuits and Systems for Communication, Sensors and Systems, IoT
Mechanical Engineering	**Domain**: Solid Mechanics and Design 1. Architected Structures and Composites, Mechanics of 2D Materials. 2. Impact Mechanics of Composites, Multiscale Modelling of Composites. 3. Vibrations of dynamical systems, Ambient vibration energy harvesting using piezo-composites, Smart material structures/systems for sensor, harvester, and actuator applications, Nonlinear dynamical response characterization using high-performance computing. 4. Mechanics of granular materials, Computational modelling of crowd dynamics. 5. Mechanical modelling of cells, Micro-robotics using compliant mechanisms. **Domain**: Fluid and Thermal Sciences 1. High-performance computational fluid dynamics. 2. Phase change (cavitation/boiling) on engineered surfaces, Friction/adhesion manipulation on engineered surfaces, Hydrodynamic Instability, Bio-Microfluidics, Nanoparticle synthesis for sensor applications, application of AI & ML-based digital twins for heat transfer and fluid flow problems. 3. Characterization of Hydrogen-blended Hydrocarbon fuels, Emission Characterization and Mitigation. 4. Computational combustion & modelling of sustainable fuel, Data-driven modelling of turbulent combustion, Aeroacoustic noise predictions from turbulent flows. 5. Heat transfer in transition regime (Microfluidics), Viscoelastic flows. 6. Experimental combustion for sustainable energy, Carbon-free fuels (metals, hydrogen, biofuels), Emission mitigation technologies, Aerospace propellants and energetic materials.

	Domain: Manufacturing 1. Finishing and super finishing of additively manufactured components for aerospace applications, Application of AI/ML in manufacturing. 2. Modelling and control of laser-based manufacturing processes.

5. General Instructions

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

b. 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.

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 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 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), and other applicable documents.
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, the data 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.
11. For any academic query, please send an email to academic_query@iitgoa.ac.in, and for any technical issue, please send an email to ms_tec_issue@iitgoa.ac.in.