



INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY
(Declared as Deemed to be University under section 3 of the UGC act 1956)
Thiruvananthapuram – 695547

IIST Ph.D. Programme – January 2026 Admissions

Indian Institute of Space Science and Technology (IIST) envisions basic and applied research for meeting the national R&D requirements of Science and Technology in general and the Indian Space Programme in particular. The institute provides a vibrant research atmosphere and offers doctoral and post-doctoral programmes.

Applications are invited from highly motivated applicants for admission to the Ph.D. Programme starting in January 2026, in the departments given below: -

- (i) Aerospace Engineering
- (ii) Avionics
- (iii) Chemistry
- (iv) Earth and Space Sciences
- (v) Humanities and Social Sciences
- (vi) Mathematics
- (vii) Physics

Eligibility

1. **Nationality:** Applicant should be an Indian citizen.
2. **Age Limit:** Applicant should be **below 35 years*** as on **20th November, 2025**.

*Age relaxation is applicable as per Government Rules.

Educational Qualifications

The minimum educational qualification for admission to a Ph.D. programme falls into one of the following four broad categories, based on the highest qualifying examination and category of Ph.D., namely full-time or part-time.

- (a) Applicants with a Master's Degree in Engineering/Technology as their highest qualifying degree
- (b) Applicants with a Bachelor's Degree in Engineering / Technology as their highest qualifying degree
- (c) Applicants with a Master's/BS-MS Degree in Science/ Humanities/ Management/ Social Sciences as their highest qualifying degree
- (d) Applicants with a Bachelor's Degree with a four-year duration in Science/Humanities / Management / Social Sciences as their highest qualifying degree.

(a) Applicants with a Master's Degree in Engineering/Technology as their highest qualifying degree

- M.E./M.Tech. with 60% marks or its equivalent grade in a point scale, if the grading system is followed. (55% marks or equivalent CGPA for OBC/EWS/SC/ST/PwD) in the qualifying master's degree.

or

Master of Science in Engineering or equivalent from leading foreign Universities with a minimum CGPA of 8.00/10 or 3.60 /4 or equivalent.

- Applicants must qualify a National Eligibility Test, such as GATE/CSIR/UGC-NET/NBHM/JEST or Screening Test conducted by IIST.

(b) Applicants with a Bachelor's Degree in Engineering/Technology as their highest qualifying degree

B.E./B.Tech. with 75% marks or its equivalent grade in a point scale, if the grading system is followed. (70% marks or equivalent CGPA for OBC/EWS/SC/ST/PwD) in the Qualifying Bachelor's degree. **They should have a valid GATE score.**

Candidates in the following categories are exempted from the requirement of GATE score: -

- i) B.E./B.Tech. from Indian Institute of Space Science and Technology (IIST) / Indian Institute of Technology (IIT) with 7.50 CGPA (CGPA of 7.00 for OBC/EWS/SC/ST/PwD) on a scale of 10 or equivalent in the Qualifying Bachelor's degree. They need to qualify the screening test conducted by IIST.

or

- ii) Dual degree (Bachelor's in Engineering and Master's in Science from Indian Institute of Space Science and Technology / Indian Institute of Technology (IIT)) with a minimum score in the Bachelor's degree as mentioned above. They need to qualify the screening test conducted by IIST.

or

- iii) Applicants who have qualified CSIR/UGC-NET/NBHM/JEST in the relevant disciplines, the score/certificate should be valid at the time of application. Applicants with valid JEST rank are required.

(c) Applicants with a Master's/BS-MS Degree in Science/Humanities/Management/Social Sciences as their highest qualifying degree

- Master's in the relevant area with a minimum of 60% marks or its equivalent grade in a point scale, if the grading system is followed. (55% marks or equivalent CGPA for OBC/EWS/SC/ST/PwD) in the Qualifying Master's degree. They must have qualified a National Eligibility Test, such as CSIR/UGC-NET/NBHM/JEST/GATE, in the relevant discipline.

- The score/certificate should be valid at the time of application
- Applicants with JEST should have a valid JEST rank.

(d) Applicants with a Bachelor's Degree with a four-year duration in Science/Humanities/Management/Social Sciences as their highest qualifying degree

- Bachelor's Degree (4 years' duration) with 75% marks or its equivalent grade in a point scale, if the grading system is followed (70% marks or equivalent CGPA for OBC/EWS/SC/ST/PwD).
- They must have cleared a National Eligibility Test, such as CSIR/UGC-NET/NBHM/JEST/GATE score in the relevant discipline.
- The score/certificate should be valid at the time of application
- Applicants with JEST should have a valid JEST rank.

Note: *Candidates with a Bachelor's degree as their highest qualification need to undergo additional coursework, as prescribed by the institute.*

Applicants awaiting results in the final year/semester are also eligible to apply for a Ph.D. if they meet the prescribed eligibility criteria. In such cases, IIST will offer provisional admission to the selected candidates. For confirmation of admission, applicants must produce the relevant documents within the specified time; failing to do so, IIST will cancel the provisional admission.

IMPORTANT DATES		
Sl. No.	Event	Date*
1.	Opening of IIST website for online submission of applications	03 November, 2025 - 1100 hrs (Monday)
2.	Closing of IIST website for online submission of applications	20 November, 2025 - 2359 hrs (Thursday)
3.	Display of shortlisted candidates for Screening Test & Direct Interview	27 November, 2025 (Thursday) - 1600hrs
4.	Date of screening test (Venue : IIST Campus, Valiamala) Note: Orientation and lab visit will be arranged in the afternoon	15 December, 2025 (Monday)
5.	Interview Dates (Venue: IIST Campus, Valiamala)	16-19 December, 2025
6.	Display of provisionally selected candidates	26 December, 2025 (Friday) - 1700hrs
7.	Payment of Seat Acceptance fee & Rounds	29 December, 2025 – 16 January, 2026
8.	Reporting date at the Institution	02 January, 2026 (Friday)
9.	Classes begin for Ph.D Programme	05 January, 2026 (Monday)
10.	Last date of Admission	16 January, 2026 (Friday)

***Tentatively**

Selection Procedure

The selection procedures for various Ph.D. categories are outlined below.

Full-time Ph.D. Programme (IIST Fellowship, External Fellowship, ASRG project funded, and External Project funded)

Ph.D. scholars for the full-time Ph.D. programme will be selected and admitted through the following selection procedure twice in a year for semester sessions beginning (i) January and (ii) July. The call for the PhD programme will be through an open advertisement in national newspapers and on the institute's website. The total number and area-wise distribution of full-time research scholars to be admitted for each of the two sessions in a year will be determined by the institute. The selection process is through one of the following

- (a) Direct Interview
- (b) Screening Test of one-hour duration (Objective type) + Interview.

(a) Criteria for Direct Interview

Applicants who satisfy the minimum eligibility criteria and have a valid CSIR/UGC-NET/ NBHM / JEST/GATE score will be shortlisted and invited for an interview.

(b) Screening test + Interview

Applicants satisfying the minimum eligibility criteria but not having a valid CSIR/ UGC-NET/ NBHM /JEST/GATE score can be admitted for Ph.D. through the screening test of one hour duration, followed by an interview, with details as provided below:

- i) Based on the performance of the candidates in the screening test, the departments will set the minimum qualifying marks for the UR category in the screening test. There will be a 5% relaxation in qualifying marks for SC/ST/PwD/OBC/EWS candidates. The candidates who qualify for the screening test will only be called to appear for the interview.
- ii) The final selection will be based on performance during the interview.
- iii) Candidates in the UR category must secure 60% or more, while candidates in the SC/ST/PwD/OBC/EWS categories must secure 55% or more above in the interview to be considered for selection.

RESEARCH FELLOWSHIP:

- 1) All scholars selected to the PhD programme (listed in Table 1) shall receive a Junior Research Fellowship (JRF) of ₹ 37,000/- per month. (Research Scholars selected with CSIR/UGC - NET-JRF / NBHM and State Government Science and Technology Scheme etc., shall draw fellowship from the concerned organizations). For all research scholars with external fellowship, the concerned rules and regulations of the funding agency apply.
- 2) The fellowship will be enhanced to Senior Research Fellowship (SRF) of ₹ 42,000/- per month based on a performance review after two years of the programme. SRF will be given to a maximum of another three years.

- 3) The scholars will be required to assist the Departments in tutorials, practical training in labs or similar academic activities normally limited to 6 hours per week.
- 4) The scholars will have to pay applicable fees as well as charges for the services provided by the Institute like boarding/lodging/medical facilities etc., as per IIST rules.
- 5) For those who receive fellowship from agencies such as DST, CSIR, NBHM, UGC and candidates who have been provided research fellowship by State Government Science and Technology Scheme through competitive written test etc., the Institute will not bear the fellowship of the student if the same is stopped due to any reasons by the concerned agency.
- 6) Hostel accommodation will be provided to Ph.D. students, subject to availability. Preference will be given to candidates whose fellowships are borne by the Institute. HRA will be provided to those who stay outside the campus.

FEE STRUCTURE:

(To be paid at the beginning of every semester)

Description of Fees	Amount (₹)
Tuition Fees(*)/ Semester	₹2500(*)
Other Fees/Semester	₹4950
Total Fee(A)	₹7450
Hostel Fee/ Semester	₹10250
Admission Fee (Non-Refundable) One-time	₹1500
Caution Deposit (Refundable)(One-time)	₹5000
Total Fee(B)	₹16750(**)
Grand Total 1 st Semester (A+B)	₹24200
2 nd Semester onwards (A+B-one time)	₹17700

* SC/ST/PwD students are exempted from payment of Tuition Fees.

** Will be collected at the time of physically reporting to the Institute for admission

*** Amount subject to change according to institute policy

The following are to be noted regarding the above fees.

- **A candidate who confirms the seat has to remit Seat Acceptance fee of Rs. 4950/-.**
- Mess bill corresponds to Rs. 3000/- per month. Advance bill of 6 months is collected by Canteen office after the student physically reports to the Institute.
- The fees are liable to change at the discretion of the Institute.
- Ph.D. students must pay fees till the submission of the thesis. If the student is submitting the thesis, without delay, within one month of the semester (i.e., before July 31 or January 31), only the tuition fee will be waived.

Additional fees:

- Supplementary Examination fees - Rs.100/- per paper
- PhD Re-registration fee- Rs. 1500/-
- Thesis Submission – Rs. 1000/-
- Convocation fees – Rs. 2000/-

- Alumni Registration fees – Rs. 500/-

The Convocation fees and the alumni registration fees will be collected along with the final semester fee.

GENERAL INFORMATION:

- 1) Applications will be received through online only (at <https://admission.iist.ac.in>).
- 2) **Candidates are permitted to apply up to a maximum four broad research areas only, including research areas across different departments, if eligible**
- 3) Candidates are advised to visit the department profile on www.iist.ac.in for more details on the areas of research.
- 4) Candidates with a valid fellowship from Government funding agencies shall upload a scanned copy of the fellowship award letter and indicate the period of fellowship validity.
- 5) A shortlist of applicants for the screening test or interview will be displayed on the IIST admission portal.
- 6) **Screening test will be conducted at the IIST campus on 15th December 2025 (Monday), and the interview will be held from 16th to 19th December 2025 (tentatively) for the candidates who qualify the screening test.** [Please click this link to access the Syllabus for the Screening Test.](#)
- 7) Out-station applicants will be reimbursed for the to-and-fro sleeper class train fare/bus fare by the shortest route from the place mentioned in the online application to Thiruvananthapuram, or the actual fare paid (whichever is less), for attending the screening test and/or the interview, upon production of the original tickets.
- 8) Hostel accommodation and canteen facility may be availed by the applicants on a payment basis from **14th December 2025 (9.00am) to 19th December 2025 (6.00pm)**
- 9) Applicants who are employed in Government/Semi-Government/ PSUs/ Autonomous Bodies should produce a “No Objection Certificate (NOC)” from the current employer at the time of the Interview.
- 10) The list of provisionally selected candidates, after the interview, will be displayed on the IIST admission portal.
- 11) Admissions are governed by the Ph.D Rules and Regulations of IIST. ([IIST PhD Guideline Book.](#))
- 12) **The date of the screening test and interview will not be changed under any circumstances. The interview would span several days. In case the date and time of the interview clash with the applicant’s End semester examination in his/her qualifying examination, the Institute will consider shifting the date and time of the interview within the overall window available.**
- 13) **A fresh allotment list will be prepared and updated in IIST website every Monday, Wednesday and Friday at 1700 hrs, if vacancies exist. The candidate in the allotment list has to remit the stipulated fees on or before the subsequent Wednesday, Friday and Monday 1100hrs to confirm their candidature to the**

program and branch allotted. Any change in the aforementioned schedule would be notified in the website.

- 14) If the candidate's highest preference is allotted and if the candidate fails to remit the fees in the stipulated time, the candidature will be cancelled.

HOW TO APPLY:

- 1) Only applications submitted online through the IIST website: <https://admission.iist.ac.in> will be considered.
- 2) No changes can be made to the registration profile once it has been submitted. Hence, applicants should take utmost care while filling out their profile.
- 3) The application fee should be paid online upon completion of the registration process.
- 4) Application fee for General/EWS/OBC candidates are ₹700/- (for SC/ST/PwD and Women applicants - ₹350/-). **The application fee is non-refundable.**
- 5) SC/ST/OBC (Non-Creamy Layer)/EWS/Persons with Disabilities (PwD) candidates shall upload the relevant certificates as per the format available in admission portal before the last date of online application. **GEN-EWS/OBC-NCL candidates need to produce updated certificate issued on or after 01st April, 2025 during the reporting at the Institute.**
- 6) **Applications of GEN-EWS/OBC-NCL/SC/ST/PwD candidates will be processed only after the receipt of the relevant proof online. In other words, non-submission of proof online will lead to rejection of application.**

Research Areas for January 2026 PhD Admission

Table 1 (Funded by IIST)			
Please click this link to access the Syllabus for the Screening Test.			
Department of Aerospace Engineering			
SI No	Department code	Broad Area	Eligibility
1	PAE01	Biofluid Mechanics/Bioastronautics	M.E./ M.Tech / M.S or equivalent degree in Aerodynamics / Aerospace / Bioengineering / Biomedical /Chemical/ Computational Science / Energy / Fluid Mechanics / Mechanical / Mechanics / Propulsion / Scientific Computing / Thermal /Propulsion or equivalent OR Masters (MS) in Biomedical / Biomechanics / Sciences/ Computational Natural Sciences or equivalent OR B.E./B.Tech in Aerospace / Bioengineering / Biomedical / Chemical / Mechanical / or related disciplines.

2	PAE02	Experimental & CFD Combustion, combustion instability	M.Tech/ ME/ MS in Mechanical/ Thermal/ Propulsion/ Energy/ Aerodynamics/ Chemical/ Applied Mechanics/ Aerospace/ Aeronautical or equivalent OR B.Tech/ BE in Mechanical/ Aerospace/ Aeronautical/ chemical or equivalent
3	PAE03	Fluid mechanics, Aerodynamics, Compressible flow, Heat transfer (Experimental/Numerical analysis)	ME/M.Tech/MS in Aerospace/ Mechanical/ Chemical/ Applied Mechanics /Aerodynamics and Flight Mechanics/ Thermal and Propulsion/ Computational Science/ Scientific Computing or equivalent OR BE/B.Tech in Aerospace / Mechanical / Chemical / Engineering Mechanics or equivalent (AMIE/AesI BTech equivalent)
4	PAE04	Mechanics of Composites	Masters in Aerospace/ Mechanical/ Civil/ Applied Mechanics /naval architecture or equivalent OR BE/ B.Tech/ equivalent in Aerospace/ Mechanical/ Civil/ applied Mechanics/naval architecture or equivalent
5	PAE05	Industrial Engineering and Operations Research	M.E./M.Tech/M.S. in Industrial Engineering/Production Engineering/Manufacturing Technology/Manufacturing Management/Operations Management/Operations Research OR MBA in Operations Management/Decision Sciences or equivalent areas with a B.E./B.Tech. degree in any specialization. OR B.E./B.Tech in Mechanical Engineering/Production Engineering/Industrial Engineering/Manufacturing Engineering or related disciplines
6	PAE06	Subtractive /Additive Manufacturing	Masters (M.Tech / ME/ MS) in Manufacturing Technology / Production Engineering / Mechanical Engineering /Applied Mechanics / Mechanical Design/ Machine Design/ Mechatronics or equivalent OR BE / B.Tech in Mechanical Engineering / Aerospace Engineering/ Production Engineering/ Manufacturing or equivalent
7	PAE07	Fluid Structure Interaction	M.E./ M.Tech / M.S or equivalent degree in Aerodynamics / Aerospace or Aeronautical / Fluid Mechanics /Dynamics and Vibrations/ Mechanical / Civil/ Applied Mechanics /Naval architecture or Ocean Engineering or equivalent OR BE/B.Tech/equivalent in Aerospace/ Mechanical/ Civil/ applied Mechanics/ naval architecture /Applied Data science and physics or equivalent

Department of Avionics			
1	PAV01	Electronics and Communication (EC) 1. RF, Microwave Engineering, MM wave circuits, Applied Electromagnetics, Antennas 2. Microelectronic Sensors, MEMS & Microsystems, Nanotechnology 3. Semiconductor Optoelectronics & Photonics 4. Instrumentation & Embedded Sensor-Electronics, Biomedical Electronics 5. Reinforcement Learning for 5G/6G networks, 6. Analog/RF VLSI, 7. Signal Processing and Communication, 8. Digital VLSI Design 9. Astrobiology	M. Tech/ ME/MS in Microelectronics / Nano electronics/ Materials / Biotechnology/ VLSI/ RF & Microwave Engineering / Signal Processing / Electronics and Communication Engineering/ Telecommunication and network / Instrumentation and control / Computer Science/ Instrumentation and Signal Processing/ Embedded Systems/ Digital Systems/ System science/ Machine learning/ Data analytics or related areas/ Optoelectronics and Laser Technology /Optical Engineering/ Optical Communication/ Optics/ Electrical Engineering/ Electrical and Electronics Engineering or related areas or MSc in Bioscience/ Biology / Applied Electronics/ Electronics and related areas/ Physics /Applied physics or equivalent /Computer Science and related areas / Mathematics/ or DD (Dual Degree) Engineering Physics/ Photonics or equivalent. OR B. Tech/ B.E or equivalent in Avionics/ Electronics and Communication/ Electrical Engineering / Electronics and Telecommunication / Electronics / Electrical and Electronics Engineering / Applied Electronics and Instrumentation Engineering / Telecommunication Engineering / Engineering Physics Photonics / Optoelectronics / Biomedical / Computer Science or equivalent / B. Sc Mathematics/ physics or equivalent areas / Computer Science or equivalent areas/ Electronics or equivalent areas/ Photonics
2	PAV02	Electrical and Electronics Engineering (EE): 1. Quantum Cryptography/Physiological Modeling and control 2. Navigation Guidance and Control, 3. Convex programming and decentralized control for Swarm robotics 4. Power Electronics and Electric Drives 5. Power Electronics in terrestrial/aerospace/space microgrids	ME/M.Tech/MS in Control Systems / Signal Processing / Applied Electronics / Biomedical Engineering / Instrumentation / Instrumentation and Control / Power Electronics / Electrical Engineering / Electrical and Electronics Engineering / Computer Science and Engineering / MSc Mathematics / MSc Computer Science/ DD Engineering Physics and equivalent areas OR B.E./B.Tech in Electronics and Communication Engineering / Electrical and Electronics Engineering /Electronics and Instrumentation / Biomedical Engineering / Avionics / Engineering Physics/ Mechanical Engineering / Computer Science and Engineering / BSc Mathematics / BSc Computer Science or equivalent areas
Department of Chemistry			
1	PCH01	High temperature materials	MSc/BS-MS in Chemistry (all branches) or equivalent / MSc Materials Science and allied areas/ M.Tech in Materials Science, M.Tech Ceramic Technology
Department of Earth and Space Sciences			
1	PES01	Geospatial data Intelligence and spatial analysis for high resolution remote sensing datasets (LiDAR/UAV/ satellite imagery)	Masters in Geoinformatics, Remote Sensing, GIS, Civil Engineering, Computer Science, Computer Applications, Machine Learning, Information Technology, Signal Processing, Image Processing, ECE, Mathematics, Natural Resource Management or relevant fields OR

			B.E./ B.Tech in Geoinformatics, Remote Sensing, GIS, Computer Science, Machine Learning, Information Technology, Signal Processing, Image Processing, ECE, Mathematics., Physical Sciences, Engineering Physics or equivalent
2	PES02	Astronomy & Astrophysics	Master of Science in Physics / Astronomy & Astrophysics / Space Physics / Integrated MS (Physics) / BS-MS (Physical Sciences) or equivalent. OR B.E./ B.Tech in any discipline
3	PES03	Atmospheric Science	M.Sc / M.Tech (Atmospheric Science), M.Sc / M.Tech (Meteorology), M.Sc (Physics), BS-MS (Physical Sciences), M.Tech (Earth System Science) or equivalent.

Department of Humanities and Social Sciences

1	PHS01	Sociology/Social Work	Post Graduation in Sociology/Social Work
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Department of Mathematics

1	PMA01	Stochastic Processes; Queueing Theory	M.Sc / Integrated M.Sc in Mathematics/ Applied Mathematics/ Statistics or BS-MS in Mathematics or equivalent
2	PMA02	Partial Differential Equations (Theory and Numerics)	MSc in Mathematics / Applied Mathematics or BS-MS in Mathematics or equivalent
3	PMA03	Differential Equations, Numerical Simulations and Orbital Mechanics	M.Sc in Mathematics/Applied Mathematics or BS-MS in Mathematics or equivalent

Department of Physics

1	PPH01	Physics (experiment oriented)	M. Sc. Physics, M. Sc. Electronics, M. Sc. Space Science, BS-MS with Physics, B. Tech- MS dual degree in physics related areas.
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Table 2: External Fellowship Holders

Candidates **having a valid fellowship from** Government agencies such as DST, CSIR, NBHM, UGC or State Government Science and Technology Scheme etc. only are eligible to apply for the positions given in this list. They should have a valid score card/certificate in any of the National level eligibility tests (listed in the minimum qualifications. Such candidates will be selected based on an Interview.

Sl. No.	Department code	Broad Area	Eligibility
Department of Aerospace Engineering			
1	EAE01	Radiative heat transfer through participating medium	M.Sc Physics, Applied Science (with Physics / Mathematics) OR BSc Applied Science (4 year programme only)
Department of Avionics			

1	EAV01	Quantum Cryptography / Modeling of Physiological Systems	M.Tech/MS in Control Systems / Signal Processing / Applied Electronics / Biomedical Engineering / Instrumentation / Computer Science and Engineering / MSc Mathematics/ MSc Electronics / MSc Computer Science / MSc Biology and equivalent areas OR B.E./B.Tech in Electronics and Communication Engineering / Electrical and Electronics Engineering / Electronics and Instrumentation / Biomedical Engineering / Avionics / Engineering Physics/ Mechanical Engineering / Computer Science and Engineering / BSc Mathematics / BSc Electronics / BSc Computer Science / BSc Biology or equivalent areas
2	EAV02	Power Electronics in terrestrial/aerospace/space microgrids	M.E/ M.Tech/ MS in Power Electronics/ Electrical Engineering/ Electrical and Electronics Engineering or related areas OR B.E/ B.Tech in Electrical Engineering/ Electrical and Electronics Engineering or related areas
3	EAV03	Nanotechnology for Sensors/MEMS/Astro biology	M.Tech / ME in Nano electronics / Materials/ Biotechnology / Biology/ Nanotechnology/ Microelectronics / Instrumentations / Electronics and Communication Engineering / Signal Processing or related areas OR MSc in Bioscience / Biology / Electronics / Electronics or equivalent OR B.Tech / BE in Electronics and Communication Engineering / Electrical Engineering / Electronics & Instrumentation Engineering / Telecommunication Engineering or equivalent
4	EAV04	Microelectronics Sensors, MEMS & Microsystems	ME / M.Tech/ MS in Microelectronics / Microsystems/ VLSI / Electronics / Solid State Technology / Optoelectronics and Laser Technology / Optical Communication / Optical Engineering / Photonics / Quantum Technology and Equivalent areas OR MSc in Physics/ Electronics or equivalent OR B.Tech/ B.E. in Electronics & Communication Engineering / Electrical and Electronics Engineering / Engineering Physics or equivalent
5	EAV05	Analog/ RF IC Design (VLSI)	MTech/ME in Microelectronics/ VLSI/ RF & Microwave Engineering/ Electronics and Communication Engineering / Communication/ Signal Processing or related areas, or MSc in Applied Electronics/ Electronics or equivalent OR BTech/BE in Electronics and Communication Engineering/ Electrical Engineering/ Electronics & Instrumentation Engineering/ Telecommunication Engineering or equivalent
6	EAV06	Guidance Navigation and Control, Satellite Mission Design, Deep Space Navigation	MSc Maths, BTech/MTech Mechanical Engineering Aerospace Engineering, BTech/MTech Computer Science

7	EAV07	Power Electronics and Electric Drives	ME/M.Tech/MS in Control Systems / Signal Processing / Applied Electronics / Biomedical Engineering / Instrumentation / Instrumentation and Control / Power Electronics / Electrical Engineering / Electrical and Electronics Engineering / Computer Science and Engineering / MSc Mathematics / MSc Computer Science/ DD Engineering Physics and equivalent areas OR B.E./B.Tech in Electronics and Communication Engineering / Electrical and Electronics Engineering / Electronics and Instrumentation / Biomedical Engineering / Avionics / Engineering Physics/ Mechanical Engineering / Computer Science and Engineering / BSc Mathematics / BSc Computer Science or equivalent areas
Department of Chemistry			
1	ECH01	Energy Storage Materials & Devices	MSc / BS-MS in Chemistry / Physics or MSc Materials Science or equivalent
2	ECH02	Nanomaterials for chemical sensors	MSc/BS-MS in Chemistry (all branches) or equivalent /MSc Materials Science and allied areas, M.Tech in Materials Science, Nanoscience& Technology, Polymer Technology and related areas or equivalent OR B.Tech/BS in Materials Science, Nanoscience& Technology, Nanotechnology, Polymer Technology or equivalent
3	ECH03	Bioastronautics	MSc/BS-MS in Biosciences (all branches) or equivalent /MSc Biochemistry, M.Tech in Biotechnology/ BioMaterials Science and allied areas/ M.Tech in Materials Science, Nanoscience& Technology, Chemical Engineering, and related areas or equivalent
Department of Earth and Space Sciences			
1	EES01	Astronomy & Astrophysics	Master of Science in Physics / Astronomy & Astrophysics / Space Physics / Integrated MS (Physics) / BS-MS (Physical Sciences) or equivalent. OR B.E./ B.Tech in any discipline
Department of Humanities and Social Sciences			
1	EHS01	Sociology/Social Work	Post-Graduation in Sociology/Social Work
Department of Mathematics			
1	EMA01	Stochastic Processes; Queueing Theory	M.Sc / Integrated M.Sc in Mathematics/ Applied Mathematics/ Statistics or BS-MS in Mathematics or equivalent
2	EMA02	Differential Equations, and Applications	MSc in Mathematics / Applied Mathematics or BS-MS in Mathematics or equivalent
3	EMA03	Partial Differential Equations (Theory and Numerics)	

4	EMA04	Differential Equations, Numerical Simulations and Orbital Mechanics	
5	EMA05	Machine Learning Algorithms	M.Sc in Mathematics/Statistics/Computer Science OR B.Tech (Any Discipline)

Department of Physics

1	EPH01	Physics (Quantum Materials & Devices)	M. Sc. Physics, M. Sc. Electronics, M. Sc. Space Science, BS-MS with Physics, B. Tech- MS dual degree in physics related areas OR B. Tech. Physical sciences, B. Tech. Engineering physics
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Table 3: External Projects

[Please click this link to access Syllabus for Screening Test](#)

Sl. No	Department code	Broad Area& Project Title	Eligibility
Department of Earth and Space Sciences			
1	EPES01	High Resolution Geospatial Data Processing / Geospatial Artificial Intelligence/ GeoInformatics Monthly Remuneration: ₹36000/- per month	Masters in Geoinformatics/ Remote Sensing/GIS/ Civil Engineering / Computer Science/ Machine learning/Information technology/ or relevant areas with potential application in Geospatial technology Desirable: Candidates with prior experience working with 3D point cloud data OR B.E/BTech/BS in Geoinformatics/ Remote Sensing and GIS or relevant area Desirable: Candidates with prior experience working with 3D point cloud data