INDIAN INSTITUTE OF SPACE SCIENCE AND TECHNOLOGY

(Declared as Deemed to be University under Section 3 of the UGC Act, 1956)
Thiruvananthapuram – 695547

Notification for Ph.D. admissions

January 2027 Admissions

Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, invites applications from eligible Indian citizens for admission to its Full-time Ph.D. programme for the January 2027 session. IIST is a Deemed to be University under Section 3 of the UGC Act, 1956, and functions as an autonomous body under the Department of Space, Government of India. The Institute offers doctoral research on 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 programmes in the following departments.

Sl. No.	Department
1	Aerospace Engineering
2	Avionics
3	Chemistry
4	Earth and Space Sciences
5	Humanities and Social Sciences
6	Mathematics
7	Physics

Table -1

IMPORTANT DATES		
Sl. No.	**Event**	**Date***
1.	Opening of online submission of applications	11 November, 2026 - 1600 hrs (Wednesday)
2.	Closing of online submission of applications	01 December, 2026 – 2359 hrs (Tuesday)
3.	Display of shortlisted candidates under (1) Direct Interview and (2) Screening test followed by shortlisting and interview	07 December, 2026 (Monday) – 1600hrs
4.	Screening test at IIST Campus, Valiamala	21 December, 2026 (Monday)
5.	Interview at IIST Campus, Valiamala	21-24 December, 2026
6.	Display of provisionally selected candidates	29 December, 2026 (Tuesday) – 1700hrs
7.	Payment of Seat Acceptance fee & Rounds	29 December, 2026 – 15 January, 2027
8.	Reporting date at the Institution	01 January, 2027 (Friday)
9.	Commencement of Ph.D. coursework	04 January, 2027 (Monday)
10.	Orientation Programme	06 January, 2027 (Wednesday)
11.	Last date of Admission	15 January, 2027 (Friday)

Table-2

*Tentatively

1. About the Programme

The full-time Ph.D. programme at IIST requires scholars to pursue their research work on a full-time basis at IIST. Selected candidates will be admitted to the Ph.D. programme under one of the following categories:

1.1 Categories

Sl. No	Category	Agencies funding the research fellowship
1	IIST Fellowship	IIST
2	External Fellowship	CSIR, UGC, DST, INAE, NBHM or any other national or state fellowship
3	ASRG	The Advanced Space Research Group (ASRG) projects supported by ISRO/DoS
4	External Project	Ph.D. fellowship is provided from the funds of an external project

Table-3

1.2 Research Fellowship and duration

- **IIST Funded:** The fellowship for scholars selected under the IIST category is ₹37,000 per month for the first two years. On completion of two years, a scholar selected under the IIST category may be awarded Senior Research Fellowship (SRF), with the fellowship enhanced to ₹42,000 per month, based on a review of the scholar's performance. The IIST fellowship is available for a maximum period of five years.
- **External Fellowship:** Scholars receiving fellowships from external agencies such as CSIR/UGC-NET-JRF, NBHM, State Government Science and Technology Scheme, etc., will draw the fellowship from the concerned funding organisation, and the rules and regulations of the respective funding agency will apply.
- **ASRG Project**: The fellowship and its duration will be as specified in the ASRG MoU. The disbursement and continuation of the fellowship will be subject to the norms specified in the ASRG MoU or as specified by IIST.
- **External Project**: The fellowship and its duration will be as specified in the awarding agency's offer letter. The disbursement and continuation of the fellowship will be subject to the norms specified by the awarding agency or as specified by IIST.
- For external fellowships, IIST will not bear the fellowship if the concerned funding agency stops the fellowship for any reason.
- **Hostel/HRA:** Hostel accommodation will be provided subject to availability. Preference will be given to candidates whose fellowships are borne by the Institute. House Rent Allowance (HRA) will be provided to scholars residing outside the campus, as per applicable rules.
- **Academic Assistance:** Scholars are normally required to assist departments with tutorials, laboratory practical training, or similar academic activities, with a maximum of 6 hours per week.

2 Eligibility

2.1 General

Requirement	Details
Nationality	The applicant must be an Indian citizen.
Age limit	The applicant should be below 35 years as on 01 December 2026 (last date of application).
Age relaxation	Applicable as per Government Rules.
Educational Qualifications	The minimum qualification shall be one of the four categories specified in the next table, Table-5
No Objection Certificate (NOC)	Applicants employed in Central Government Organizations are required to submit a NOC from the employer at the time of application

Table-4

2.2 Educational Qualifications

Category	Applicant's highest qualifying degree	Minimum academic qualification	Qualifying Test
A	Masters in Engineering/Technology	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 candidates. 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.	**GATE/CSIR/UGC-NET/NBHM/JEST/ IIST Screening Test.
B*	Bachelor's in Engineering/Technology	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 candidates.	**GATE/CSIR/UGC-NET / NBHM / JEST / GATE or IIST Screening Test for the candidates listed in the Table 6.
C	Master's / BS-MS in Science/Humanities/ Management/Social Sciences	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 candidates	**CSIR/UGC-NET / NBHM / JEST / .GATE in the relevant discipline.
D	Four-year Bachelor's in Science/Humanities/ Management/Social Sciences	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 candidates.	**CSIR/UGC-NET / NBHM / JEST / GATE in the relevant discipline.

Table-5

*Candidates whose Bachelor's degree is their highest qualification will be required to undergo additional coursework, as prescribed by the Institute.

** **Validity of qualifying tests: Applicants who have qualified for a national eligibility test must have their score/certificate valid at the time of admission.** Also, applicants with JEST must have a valid JEST rank to be considered.

2.3 Eligibility Criteria to write the IIST Screening Test for applicants in Category B

Please click this link to access the Syllabus for the Screening Test.

Qualification	Eligibility to write Screening Test
B.E./B.Tech. from IIST/IIT	B.E./B.Tech. from IIST/IIT with 7.50 CGPA on a 10-point scale or equivalent; 7.00 CGPA for OBC/EWS/SC/ST/PwD. The applicant must qualify the IIST Screening Test.
Dual degree	Dual degree comprising Bachelor's in Engineering and Master's in Science from IIST/IIT, with the minimum Bachelor's score specified above. The applicant must qualify the IIST Screening Test.

Table-6

Note: Candidates awaiting final results: Applicants awaiting final-year/final-semester results may apply if they otherwise meet the prescribed eligibility criteria. Selected candidates may be offered provisional admission. The admission will be confirmed only after the required documents are produced within the specified time; failing to do so, IIST will cancel the provisional admission.

3 Selection Procedure

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

Selection Process	Who may be considered	Remarks
Direct Interview	Applicants who meet the minimum eligibility criteria and hold a valid CSIR/UGC-NET/NBHM/JEST/ GATE score will be shortlisted and invited for interview.	Candidates are required to appear for an interview, if shortlisted.
Screening Test + Interview	Applicants satisfying the minimum eligibility criteria (Master's Degree in Engineering/Technology) but not having a valid CSIR/ UGC- NET/ NBHM /JEST/GATE score can be shortlisted for Ph.D. through the screening test of one hour duration, followed by an interview.	Based on the performance of candidates in the screening test, the departments will set the minimum qualifying marks for the UR category. 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 shortlisted to appear for the interview.

Table-7

3.1 Final Selection

i) The final selection will be based on performance during the interview.

ii) 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 in the interview to be considered for selection.

3.2 Quick checklist of documents for online submission of application

Candidates are advised to use the following checklist when submitting their online applications.

Tick	Before submission, ensure that you have the relevant details
☐	Checked nationality and age eligibility.
☐	Checked the applicable academic eligibility category.
☐	Confirmed the validity of the required GATE/CSIR-UGC-NET/NBHM/JEST score/certificate, where applicable.
☐	Selected no more than four broad research areas.
☐	Upload Recent passport-size photograph and signature
	Upload Proof of date of birth/age
☐	Upload valid GATE / CSIR-NET / UGC-NET / NBHM / JEST score/rank/certificate, wherever applicable.
☐	Uplaod a semester/year mark sheets and degree/provisional degree certificates of the qualifying programme. If the applicants are in the final-year/final-semester and awaiting result, upload latest available academic record and a declaration regarding expected completion, as prescribed in the application portal.
☐	Upload category certificate for SC/ST/OBC-NCL/EWS/PWD, wherever applicable

☐	Upload NOC from the employer for applicants employed in Central Government Organizations
☐	Any additional documents required for a specific research position, project-funded position or sponsored category, if required
☐	Completed the online profile carefully before final submission.
☐	Paid the applicable application fee.
☐	Saved/retained a copy of the submitted application and payment details.

Table-8

4 Fee Structure

Institute Fees and Services: Applicable fees and charges for services such as boarding, lodging, and medical facilities shall be payable in accordance with the rules of IIST. Every selected candidate seeking admission to IIST shall remit the applicable fees either online or at the Institute, as per the provisions given below.

Fee component	**Amount**	
	1st Semester	**Subsiquent Semesters**
Seat Acceptance Fees	₹4,950	-
Semester Fees	-	₹4,950
Tuition Fee*	₹2,500	₹2,500
Hostel Fee	₹10,250	₹10,250
Admission Fee (Non-refundable)	₹1,500	-
Caution Deposit (Refundable)	₹5,000	-
Grand Total	**₹24,200**	**₹17700**

* SC/ST/PwD students are exempted from payment of tuition fees

Table-9

- A candidate who confirms the seat must remit the Seat Acceptance Fee of **₹4,950** online before the deadline as prescribed in the table above. He/She has to remit the balance amount of **₹24,200-₹4,950=₹19,250** to IIST online at the time of reporting to the Institute for in-person admission.
- The mess bill corresponds to **₹3,000** per month. An advance payment of **₹18,000** for six months is to be remitted to the Canteen Office upon completion of the admission procedure.
- Fees are liable to change at the discretion of the Institute.
- Ph.D. students must pay semester fees until submission of his/her thesis. If the thesis is submitted without delay within one month of the semester (before 31 July or 31 January), the tuition fee will be waived.

4.1 Refund of Fees paid

Notice of withdrawal (Applicable to a candidate applying for the withdrawal of admission in the prescribed format online**)**	**Refund of aggregate fees**
15 days before the formally notified last date of admission	90%
Not more than 15 days after the formally notified last date	80%
More than 15 days but less than 30 days after last date	50%
More than 30 days after last date	0%

Table-10

4.2 Additional Fees to be paid

Item	Fee
Supplementary Examination Fees	₹100 for a course
Ph.D. Re-registration Fees at the time of re-registration	₹1,500
Thesis Fees at the time of thesis submission	₹1,000
Convocation Fees at the time of thesis submission	₹2,000
Alumni Registration Fees at the time of thesis submission	₹500

Table-11

5 How to Apply and General Information

No.	Information
1	Submit the application online through https://admission.iist.ac.in. Only online applications will be considered.
2	Complete the registration profile carefully. No changes can be made to the registration profile after submission.
3	Applicants are advised to visit the respective department profiles on https://iist.ac.in/ for details of research areas.
4	Candidates may apply for a maximum of four broad research areas, including areas across different departments, subject to eligibility.
5	Candidates holding a valid fellowship from a Government funding agency must upload a scanned copy of the fellowship award letter and indicate the fellowship validity period.
6	SC/ST/OBC (Non-Creamy Layer)/EWS/PwD candidates must upload the relevant certificates in the prescribed format available on the admission portal before the last date of online submission
7	GEN-EWS/OBC-NCL candidates must produce an updated certificate issued on or after 1 April 2026 during the reporting process at the Institute.
8	Applications under GEN-EWS/OBC-NCL/SC/ST/PwD categories will be processed only after the relevant proof is received online. Non-submission of the required proof will lead to rejection of the application
9	The application fee should be paid online upon completion of the registration process. The application fee for the General /EWS/OBC candidates is ₹700 and for SC/ST/PWD /Women is ₹350. The application fee is non-refundable
10	The shortlist for the Screening Test and/or Direct Interview will be displayed on the IIST admission portal. Please click this link to access the Syllabus for the Screening Test.
11	The Screening Test syllabus will be made available through the admission portal.
12	The Screening Test will be conducted at the IIST campus on 21 December 2026.
13	The shortlist for the Screening Test will be displayed on the portal on 21st December 2026 at 5PM. Out station candidates may have to stayback for interview, if shortlisted.
14	Interviews are scheduled for 21–24 December 2026 (tentatively).
15	Out-station applicants will be reimbursed 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 interview, upon production of original tickets.
16	Accommodation and canteen facilities at IIST may be availed by applicants on a payment basis from 20 December 2026 (09:00 hrs) to 24 December 2026 (18:00 hrs).
17	Applicants employed in Government/Semi-Government/PSUs/Autonomous Bodies should produce a No Objection Certificate (NOC) from the current employer at the time of interview.

18	The list of provisionally selected candidates after the interview will be displayed on the IIST admission portal.
19	Admissions are governed by the Ph.D. Rules and Regulations of IIST (IIST PhD Guideline Book.)
20	The date of the screening test and interview window 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.

Table-12

6 Allotment and Seat Confirmation

1. Offer letters will be issued to the selected candidates against the available positions in the Ph.D. programme. Candidates are required to remit the stipulated fees on or before the specified deadline; failing to do so will result in cancellation of the offer of admission.
2. A fresh allotment list will be prepared and updated on the IIST website every Monday, Wednesday, and Friday at 1700 hours, if vacancies exist. The candidate in the allotment list must remit the stipulated fees on or before the subsequent Wednesday, Friday, and Monday at 1100 hours to confirm their candidature for the allotted program and branch. Any changes to the aforementioned schedule will be notified on the website.
3. 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 canceled. No further request to reconsider the cancellation will be entertained.

Any changes to the allotment schedule will be notified on the IIST website. The Institute reserves the right to fill or not to fill any vacancy.

7 Contact and Official Information

Item	Details
Official website	https://iist.ac.in/
Ph.D. admission portal	https://admission.iist.ac.in
Admission office email	admissions@iist.ac.in
Telephone	0471-256-8618/477
Postal address	Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, Kerala, India-695547
Ph.D. admission helpdesk time	From 9:30AM to 4:30PM on all working days

Important Note

Applicants are advised to read the rules, regulations, and guidelines carefully before applying. In the event of any discrepancy between this admission notification and the applicable IIST rules/regulations, the IIST rules and regulations shall govern.

Research Areas for January 2027 PhD Admission

Table 1: Funded by IIST			
Department of Aerospace Engineering			
Sl No	**Department code**	**Broad Area**	**Eligibility**
1	PAE01	Heat Transfer in Space Applications	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 Sciences OR Masters (MS) in Biomedical/ Biomechanics/ Sciences /Computational Natural Sciences or equivalent areas OR M.E./M.Tech. in Artificial Intelligence, Machine Learning, Data Science, Computer Science and Engineering, or Computational Science, preferably with a background or demonstrated experience in scientific computing, computational modelling, or engineering applications. OR B.E./B.Tech. in Aerospace Engineering, Applied Mechanics, Bioengineering, Biomedical Engineering, Computer Science and Engineering, Chemical Engineering, Mechanical Engineering, or related disciplines, including Artificial Intelligence, Machine Learning, Data Science, and Computational Science. Candidates with experience or demonstrated aptitude in AI/ML, scientific computing, computational modeling, or engineering applications will be preferred.
2	PAE02	Fluid Mechanics, Aerodynamics, Compressible flow, Heat transfer, Computational fluid dynamics	ME / M.Tech / MS in Aerospace / Mechanical / Chemical /Applied Mechanics / Aerodynamics and Flight Mechanics /Thermal and Propulsion / Computational Science /Scientific Computing / Computational Mechanics / Ocean Engineering / Physics or equivalent OR B.E./B.Tech. in Aerospace / Aeronautical / Mechanical / Chemical / Applied mechanics / Computational Mechanics or equivalent
3	PAE03	Mechanics of composites, Structural Health Monitoring	Masters (M. Tech / ME / MS) or equivalent in Aerospace/ Mechanical/Civil/Applied Mechanics/naval architecture/ allied OR BE / B.Tech or equivalent in Aerospace/ Mechanical/ Civil/ applied Mechanics/naval architecture/allied
4	PAE04	Manufacturing Technology (Subtractive/ Additive Processes)	Masters (M. Tech / ME / MS) in Mechanical Engineering/ Manufacturing Technology / Production Engineering / Aerospace Manufacturing / CAD-CAM/ Materials and Metallurgy /Applied Mechanics / Machine Design / Mechatronics or Equivalent with B.Tech./B.E. in relevant disciplines of Engineering OR BE / B.Tech in Mechanical Engineering / Aerospace Engineering / Production Engineering / Manufacturing engineering / Metallurgical engineering 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	Fluid structure interactions/Turbulent flows	M.E./ M.Tech / M.S or equivalent degree in Aerodynamics / Aerospace /Structures/ Computational Science / Energy / Fluid Mechanics / Mechanical / Mechanics / Thermal Sciences / Scientific Computing/Ocean engineering or equivalent OR BE / B.Tech or equivalent in Aerospace/ Mechanical/Civil/ applied Mechanics/naval architecture/ocean engineering/ allied/Computational science
7	PAE07	Propulsion and Laser Diagnostics	M.Tech/ ME/ MS in Mechanical/ Thermal/ Propulsion/ Energy/ Aerodynamics/ Chemical/ Applied Mechanics/ Aerospace/ Aeronautical/Photonics/Physics or equivalent OR B.Tech/ BE in Mechanical/ Aerospace/ Aeronautical/ chemical or equivalent
8	PAE08	Robotics	Masters (M. Tech / ME / MS) in Mechanical Engineering/ Aerospace/ Machine Design / Mechatronics or Equivalent with B.Tech./B.E. in relevant disciplines of Engineering OR BE / B.Tech in Mechanical Engineering / Aerospace Engineering / Robotics or equivalent
Department of Avionics			
1	PAV01	Power Electronics	M. Tech/ M. E in Power Electronics / Power Systems / Control Systems/ Industrial Electronics/Electrical Engineering or related areas OR B.E /B.Tech in Electrical Engineering / Electrical and Electronics Engineering or related areas
2	PAV02	Micro electronics/ nanoelectronics/ sensors/MEMS	M.Tech/MS in Electronics / Biomedical Engineering /Nanotechnology/ Instrumentation / Biotechnology/or equivalent area OR B.E./B.Tech in Electronics and Communication Engineering /Electronics and Instrumentation / Biomedical Engineering / Avionics / Engineering Physics/or equivalent
3	PAV03	VLSI & Microsystems Sensor Technologies	ME/M-Tech/MS in Microelectronics/ Microsystems/ VLSI/ Electronics/ Applied electronics /or Equivalent areas OR B.Tech/ B.E. in Electronics & Communication Engineering/ Electronics Engineering/ Applied Electronis & Instrumentation Engineering/ Electrical Engineering/ Engineering Physics or equivalent
4	PAV04	Instrumentation, Sensor Embedded Electronics, Biomedical Instrumentation	M. Tech/ M.E./ Master of Science in Electronics and Instrumentation/ Electronics and Communication/ Instrumentation and Control / Biomedical Electronics/ Mechatronics/Industrial Electronics or related fields. OR

			B. Tech/B.E. in Electronics and Instrumentation/Electronics and Communication/Biomedical Engineering/Engineering Physics or equivalent.
5	PAV05	Security in AI/ML, Cryptography, Post Quantum Crypto	MTech / ME in Computer Science/ ECE / IT OR BE / B.Tech in CSE / IT / Equivalent in related areas
6	PAV06	Photonics	M.Tech/MSc Tech/ME/MS in Optoelectronics/Optics/Laser technology/Photonics/Optoelectronics/Optical Engineering/ Optical Communication/Physics OR B.Tech/B.E Avionics, Electronics and Communication, Electronics and Telecommunication, Electronics, 4 year B.Sc in Physics/Electronics
7	PAV07	Reinforcement Learning	M.Tech / M.E / M.S or equivalent in Electronics/ Electronics and Communication/ Electrical/ Electrical and Electronics/ Communication / Communication Networks/ Telecommunication /Signal Processing/Machine learning/ Computer Science/ Control-Systems/ System-Science/Data-analytics or equivalent. OR M.Sc. in Mathematics. OR B.Tech/B.E or equivalent in Avionics, Electronics and Communication, Electrical Engineering, Electronics and Telecommunication, Electronics, Computer Science or equivalent
8	PAV08	RF Circuits and Systems, Antenna theory, Microwave Engineering/ Wireless Systems	ME./ M.Tech/MS in RF Microwave Engineering /Radio Physics and Electronics/Communication/ Electronics and Communication / Instrumentation/ Applied Electronics/ Space Technology / MSc Electronics/ or equivalent areas OR B.E./B.Tech in Electronics and Communication Engineering /Electronics and Instrumentation / Electrical and Electronics/ Avionics / Engineering Physics/ or equivalent area
9	PAV09	Guidance Navigation and Control, Satellite Mission Design, Deep Space Navigation	ME./ M.Tech /MS in Electronics/ Communication/ Electronics and Communication / Instrumentation/ Applied Electronics/ Space Technology / Aerospace/Aeronautical Engineering / Avionics / or equivalent areas MSc Electronics/ Mathematics /Applied Maths/Physics or equivalent areas OR B.E./ B.Tech in Electronics and Communication Engineering / Electronics and Instrumentation / Electrical and Electronics/ Avionics / Engineering Physics/ Aerospace / Aeronautical or equivalent area/BSc Mathematics/Physics or equivalent areas (Four year degree)
10	PAV10	Power Electronics in terrestrial and aerospace microgrids	M. Tech/ M. E in Power Electronics / Power Systems / Control Systems/ Industrial Electronics/Electrical Engineering or related areas OR B.E /B.Tech in Electrical Engineering / Electrical and Electronics Engineering or related areas
11	PAV11	Signal processing for wireless communication	ME./ M.Tech/ in Electronics/Communication/ Electronics and Communication / Signal Processing or equivalent areas OR

			B.E./B.Tech in Electronics and Communication Engineering / Electronics and Instrumentation / Avionics or related areas
12	PAV12	Computer vision, AI and ML and intelligent signal processing	BS-MS/ME/MTech/ integrated MTech/ME in Computer science /IT/Signal processing/ biomedical engineering/ artificial intelligence/computer vision/data science and related areas OR B.E./B.Tech in Electronics and Communication Engineering /Electronics and Instrumentation / biomedical engineering/ computer science/cse/IT/Avionics or related areas computer science and Signal processing basics, maths and optimization
Department of Chemistry			
1	PCH01	Nano materials for environmental / sensing/energy applications	M.Sc/BS-MS in Chemistry (all branches) or equivalent /M.Sc Materials Science and allied areas OR Four year B.Sc Chemistry
Department of Earth and Space Sciences			
1	PES01	Astrophysics	Master of Science in Physics / Astronomy & Astrophysics / Astrophysics / Space Physics; Integrated BS-MS in Physics; Integrated B.Tech-MTech in Engineering Physics OR B.Tech in Engineering Physics Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered
2	PES02	Hyperspectral Image Processing and Analytics	M.Tech or equivalent in Computer Science Engineering / Geoinformatics (with UG in any branch of Engineering or MSc in Mathematics / Physics) / Electronics and Communication Engineering / M.Sc in Mathematics / Physics OR Four year Bachelor Degree in Computer Science Engineering / Electronics and Communication Engineering or equivalent Note: Applicants with a valid CSIR/ UGC – NET /NBHM/JEST/GATE score will only be considered
3	PES03	Geospatial data Intelligence and spatial analysis	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 Four year B.E./ B.Tech/B Sc. in Geoinformatics, Remote Sensing, GIS, Computer Science, Machine Learning, Information Technology, Image Processing, ECE, Mathematics, Physical Sciences, Engineering Physics or equivalent
Department of Humanities and Social Sciences			
1	PHS01	Sociology, Social Work and Allied Areas	MA in Sociology, Social Work, or Allied areas OR FYUP in Sociology, Social Work, or Allied areas
Department of Mathematics			
1	PMA01	Partial Differential Equations (Theory and Numerics)	M.Sc. in Mathematics / Applied Mathematics or BS-MS in Mathematics or equivalent

2	PMA02	Computational Methods and Analysis of Differential Equations	
3	PMA03	Nonlinear Dynamics, Differential Equations and Mathematical Modelling of Complex Fluid Systems	
4	PMA04	Applied Mathematics: Analysis, Optimization and Numerical Methods for Partial Differential Equations	
5	PMA05	Commutative Algebra and Affine Algebraic Geometry	M.Sc / Integrated MSc in Mathematics /BS-MS in Mathematics or equivalent
6	PMA06	Stochastic Processes; Queueing Theory	M.Sc / Integrated M.Sc in Mathematics/ Applied Mathematics/ Statistics or BS-MS in Mathematics or equivalent
7	PMA07	Physics-informed AI /Explainable AI/ Lunar Mapping	M.Tech/MSc/MS in CSE/Maths/AIML/Data Science/ Physics / allied Areas with exposure to AIML OR B.Tech in CSE/Maths/AIML/Data Science/Physics/allied Areas with exposure to AIML
Department of Physics			
1	PPH01	Fundamental and Applied Optics	M.Sc. /MS/BS-MS/M. Tech. in Physics/ Applied Physics/ Optics/Applied Optics/ Photonics/ Optics and Optoelectronics /Optical Engineering/Quantum Technology. OR B. Tech. in Engineering Physics or equivalent Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered
2	PPH02	Quantum Optics and Quantum Technology	MSc/MS/MTech in Physics/Applied Physics/ Quantum Science and Technology/Quantum Technology/Quantum Information/Applied Optics/Photonics/Optical Engineering/ Solid-State Physics/ or Equivalent Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered

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 Avionics			
1	EAV01	Micro electronics/ nanoelectronics/sensors/ MEMS/Biotechnology/ Biochemistry	M.Tech/MS/MSc in Applied Electronics /Physics/ Chemistry/ Biomedical Engineering / Instrumentation / Biotechnology/or equivalent OR BTech/ B.E. in Electronics & Communication Engineering/ Electrical and Electronics Engineering/Applied Electronics/ Engineering Physics /Instrumentation/or equivalent

2	EAV02	VLSI & Microsystems Sensor Technologies	ME/M-Tech/MS in Microelectronics/ Microsystems/ VLSI/Electronics/ Applied electronics /or Equivalent areas OR BTech/ B.E. in Electronics & Communication Engineering/ Electronics Engineering/ Applied Electronis & Instrumentation Engineering/ Electrical Engineering/Engineering Physics or equivalent
3	EAV03	Security in AI/ML, Cryptography, Post Quantum Crypto	MTech/ME in Computer Science/ ECE / IT OR BE/B.Tech in CSE/ IT / Equivalent in related areas
4	EAV04	Space Biology	Masters ME/MTech/Msc in Astrobiology, Space Life Sciences, Cellular and Molecular Biology, Bioastronautics, or Biomedical Instrumentation. OR Four year B.Sc. / B.Tech / B.E. Microbiology, Molecular Biology, Biochemistry, Biotechnology, Biophysics, Physiology, or Biomedical Engineering. Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered
5	EAV05	Artificial intelligence, large language models and theoretical machine learning	BS-MS/MSc Maths / MSc Computer Science/ MSc.Physics/ME/MTech/ Integrated MTech/ME in Computer Science/ Signal Processing/ Biomedical Engineering/Artificial Intelligence/Computer Vision/Data Science and related area with UGC/NBHM/CSIR/other National and State Fellowship for research OR Four year BSc Maths / BSc Computer Science/ BE/BTech/ Integrated MTech/ME in Computer Science/Signal Processing/ Biomedical Engineering/ Artificial Intelligence/ Computer Vision /Data Science and related areas
Department of Chemistry			
1	ECH01	Bioastronautics	MSc/BS-MS in Biosciences (all branches) or equivalent /MSc Biochemistry, MTech in Biotechnology/Bio Materials Science and allied areas/ MTech in Materials Science, Nanoscience & Technology, Chemical Engineering, and related areas or equivalent. OR BTech in Biosciences (all branches) Biochemistry or Four year BSc /BTech in Biotechnology/Agriculture/ Polymer Technology with relevant research experience. Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered
2	ECH02	Smart and functional materials	MSc/BS-MS in Chemistry (all branches) or equivalent /MSc/MTech in Biotechnology and allied areas/ MSc Materials Science and allied areas, MTech in Materials Science, Polymer Technology, Chemical Engineering, and related areas or equivalent. OR B.Tech/BS (Four year degree) in Materials Science, Four year BSc in Biochemistry/ Four year BSc/BTech in Biotechnology/ Polymer Technology/ Chemical Engineering or equivalent with relevant research experience Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered
3	ECH03	Energy Storage materials and Devices and Surface coatings	BS-MS/M. Sc in Chemistry/Physics/ Materials Science /allied disciplines with CSIR/UGC JRF/ DST-INSPIRE/ KSCSTE and other external fellowships.

4	ECH04	Nano materials for environmental / sensing/energy applications	M.Sc/BS-MS in Chemistry (all branches) or equivalent /M.Sc Materials Science and allied areas OR Four year B.Sc Chemistry Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered
Department of Earth and Space Sciences			
1	EES01	Hyperspectral data modelling and applications	M.Tech or equivalent in Computer Science Engineering / Geoinformatics / Electronics and Communication Engineering / Environmental Engieering or MSc in Mathematics/ Agriculture/ Forestry / Life Sciences / Environmental Sciences / Geosciences Note: Applicants with a valid CSIR/ UGC – NET /NBHM/JEST/GATE score will only be considered
2	EES02	Astrophysics	Master of Science in Physics / Astronomy & Astrophysics / Astrophysics / Space Physics; Integrated BS-MS in Physics; Integrated B.Tech-MTech in Engineering Physics OR B.Tech in Engineering Physics Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered.
Department of Humanities and Social Sciences			
1	EHS01	Sociology, Social Work and Allied Areas	MA in Sociology, Social Work, or Allied areas OR FYUP in Sociology, Social Work, or Allied areas
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	Partial Differential Equations (Theory and Numerics)	M.Sc. in Mathematics / Applied Mathematics or BS-MS in Mathematics or equivalent
3	EMA03	Computational Methods and Analysis of Differential Equations	
4	EMA04	Applied Mathematics: Analysis, Optimization and Numerical Methods for Partial Differential Equations	
5	EMA05	Nonlinear Dynamics, Differential Equations and Mathematical Modelling of Complex Fluid Systems	
6	EMA06	Commutative Algebra & Affine Algebraic Geometry	M.Sc/ Integrated MSc in Mathematics/BS-MS in Mathematics or equivalent
Department of Physics			
1	EPH01	Quantum Optics and Quantum Technology	MSc/MS/MTech in Physics/Applied Physics/Quantum Science and Technology/Quantum Technology/Quantum Information/Applied Optics/Photonics/Optical Engineering /Solid-State Physics/ or Equivalent Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered

Table 3: External Projects			
Sl. No	**Department code**	**Broad Area & Project Title**	**Eligibility**
Department of Aerospace Engineering			
1	EPAE01	Manufacturing Studies under Micro/ Partial gravity	Masters (M. Tech / ME / MS) in Mechanical Engineering/ Manufacturing Technology / Production Engineering / Aerospace Manufacturing / CAD-CAM / Materials and Metallurgy /Applied Mechanics / Machine Design / Mechatronics or equivalent with B.Tech./B.E. in relevant disciplines of Engineering OR BE / B.Tech in Mechanical Engineering / Aerospace Engineering/ Production Engineering/ Manufacturing engineering /Metallurgical engineering or equivalent
Department of Avionics			
1	EPAV01	Design of CMOS RFICs for wideband receivers and synthesizers	MTech in VLSI/ Microelectronics/ RF & Microwave Engg/ Telecommunication Engg/ Electronics/ Electronics & Communication Engg or equivalent OR BTech in Electronics and Communication Engg (ECE)/ Electronics Engg/ Electronics & Instrumentation Engg/ Electrical Engg/ Telecommunication Engg or equivalent
2	EPAV02	3D printable Smart Mask and Eye Wear based Sensor Modules for Continuous Nasal temperature driven respiration monitoring (AICTE RPS Scheme)	Master's Degree Holders: M. Tech/M.E./Master of Science in Electronics and Instrumentation/Electronics and Communication/ Instrumentation and Control/Biomedical Electronics/Mechatronics/Industrial Electronics or related fields. OR B. Tech/B.E. in Electronics and Instrumentation/Electronics and Communication/Biomedical Engineering/Engineering Physics or equivalent.
Department of Earth and Space Sciences			
1	EPES01	LiDAR and Microwave Geospatial Data Processing for Biomass estimation	Masters in Geoinformatics, Remote Sensing, GIS, Computer Science, Computer Applications, Machine Learning, Information Technology, Signal Processing, Image Processing, ECE, Natural Resource Management or relevant fields OR B.E./ B.Tech in Geoinformatics, Remote Sensing, GIS, Computer Science, Machine Learning, Information Technology, Image Processing or equivalent
Department of Physics			
1	EPPH01	Atomic and molecular Physics, Mass Spectroscopy	BS-MS in physics, Masters in physics OR B. Tech Engineering Physics Note: Applicants with a valid CSIR/ UGC – NET /NBHM/ JEST/GATE score will only be considered