Summer Training 2026

Training and Internship Program

BATCH-2

India Space Academy

Department of Space Education

BROCHURE

Content

About India Space Academy

India Space Academy is an academic institution under the Department of Space Education of India Space Week. India Space Week is an autonomous body supported by the central and state governments. The role of India Space Week is to promote space education and employment among the students, teachers, and research scholars of schools, colleges, universities, and institutions. The academy develops workshops that spread awareness about the current requirements of the space industry. Additionally, it develops various programs to equip students with the necessary information, skills, practical experience, research exposure, and training to make them future-ready.

Mission

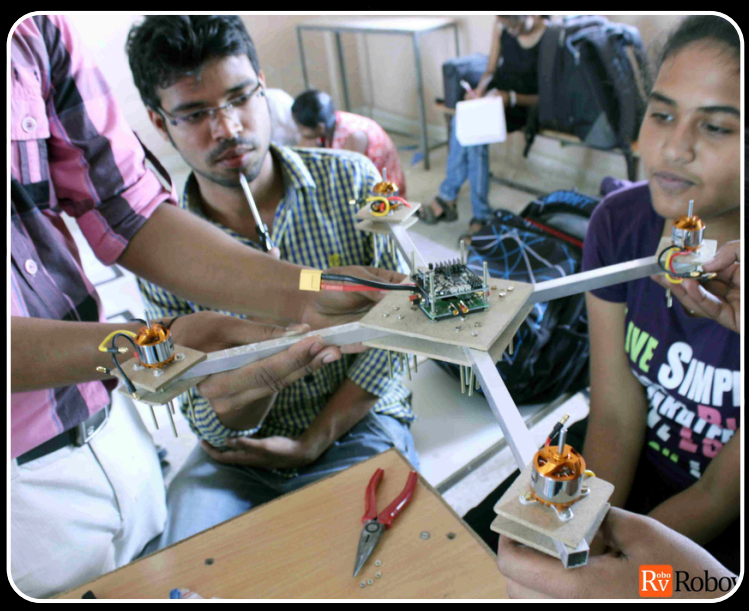
Mission: The mission of India Space Academy is to cultivate a premier technical learning environment that bridges the gap between academic theory and industry demands in the space sector. By delivering high-quality, research-driven education in specialised domains such as Satellite Technology, Remote Sensing, and Advanced Robotics, the academy empowers students and professionals with hands-on expertise. Through curricula aligned with modern educational standards and a commitment to fostering a collaborative network of experts and learners, the institution aims to build a future-ready workforce capable of driving global innovation and scientific discovery.

Vision

To create a sustainable ecosystem where innovation and advanced knowledge in space science are accessible to all. India Space Academy envisions a future where aspiring professionals are empowered with the high-end skills necessary to drive the next frontier of human discovery and technological excellence.

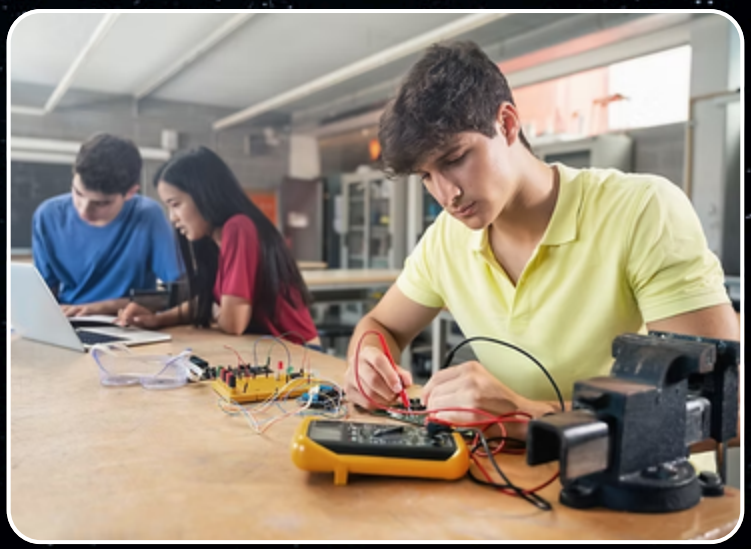
Program Vision

The Summer Training 2026 aims to bridge the gap between academic learning and high-level industrial application by providing a rigorous, research-oriented platform for aspiring scientists and professionals. By integrating the study of advanced solar physics through Heliophysics with Aditya L1 and the practical implementation of Remote Sensing and GIS using Python, the program seeks to cultivate a future-ready workforce equipped with the technical expertise and analytical skills necessary to drive innovation in space science and Earth observation.



Key Objectives

- **Specialised Technical Training:** To provide in-depth theoretical and hands-on training in two distinct tracks—Astronomy and Astrophysics or Remote Sensing and GIS—allowing participants to specialise according to their academic or professional interests.
- **Expert-Led Knowledge Transfer:** To facilitate direct learning from distinguished scientists and experts from premier institutions such as ISA, IITs, ISRO, and DRDO, ensuring the curriculum meets global industry standards.
- **Practical Project Execution:** To transition from theoretical concepts to real-world application through a dedicated project phase, where participants must complete at least two specialised projects to demonstrate their understanding and technical proficiency.
- **Digital Resource Accessibility:** To offer a streamlined learning experience via a centralised LMS portal, providing a single window for live classes, recorded sessions, resource materials, and project evaluations.
- **Professional Certification and Validation:** To provide formal recognition of skills through a tiered certification process, including a 15-day training certificate, a 45-day internship completion letter, and a comprehensive project evaluation report.
- **Interdisciplinary Inclusivity:** To create a collaborative learning environment open to a wide demographic, ranging from undergraduate students and research scholars to government and private sector professionals.



Program Overview

The Summer Training 2026 by India Space Academy is a comprehensive, 45-day intensive program designed to provide deep technical expertise in space science and Earth observation. Participants can choose between two specialised tracks: Astronomy and Astrophysics (Heliophysics with Aditya L1) or Remote Sensing and GIS using Python.

The program is structured into two distinct phases: a 15-day synchronous training phase featuring live sessions from scientists and experts at ISA, IITs, ISRO, and DRDO, followed by a 30-day project phase. Managed through a centralised LMS portal, the program offers a seamless experience for accessing resources, attending live classes, and submitting assignments. Completion of the project phase is mandatory for those seeking a full 45-day internship certification, ensuring that every graduate possesses both theoretical knowledge and practical application skills.

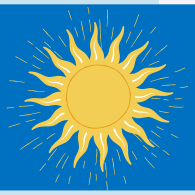
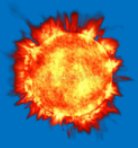
Phase / Activity	Dates	Description
Registration Period	21 May - 30 Jun 2026	Enrollment Window for UG/PG/PHD Students and Professinals.
Phase 1 : Training	1 July - 15 July 2026	15 days of online theory and hands-on training with experts.
Phase 2 : Project Work	16 July - 14 August 2026	Participants execute a minimum of two projects in their chosen track
Project Submission	16 August 2026 (Strict Deadline)	Final Strict deadline for all project submission via the LMS.
Certification	To be announced	Release of Training Certificates and internship Letters
Evaluation Report	~ September 2026 onwards	Detailed projcet reports are released after thorough evaluation.

Technical Curriculum & Modules

Tentative Syllabus

Track 1: Astronomy & Astrophysics

Subject Focus: Heliophysics with Aditya L1

Module	Topics Covered
	**Solar Fundamentals** • Introduction to Solar Physics: Interjor,Photoshere, Chromoshere,and Corona.
	**Aditya L1 Mission** • Mission objectives,Orbit (Lagrange Point L1) , and the 7 Scientific Payloads (VELC,SUIT,ASPEX,etc)
	**Solar Phenomena** • Studying Solar Flares, Coronal Mass Ejections (CMES), and Solar Wind dynamics.
	**Space Weather** • Impact of solar activity on Earth's magnetosphere, satellites, and communication systems
	**Data Analysis** • Introduction to utilizing ISRO's PRADAN portal and analyzing solar imagery/spectral data.
	**Advanced Topics** • Solar cycle variations, magnetic reconnection, and helioseismology basics.

TRACK 2 : REMOTE SENSING & GIS

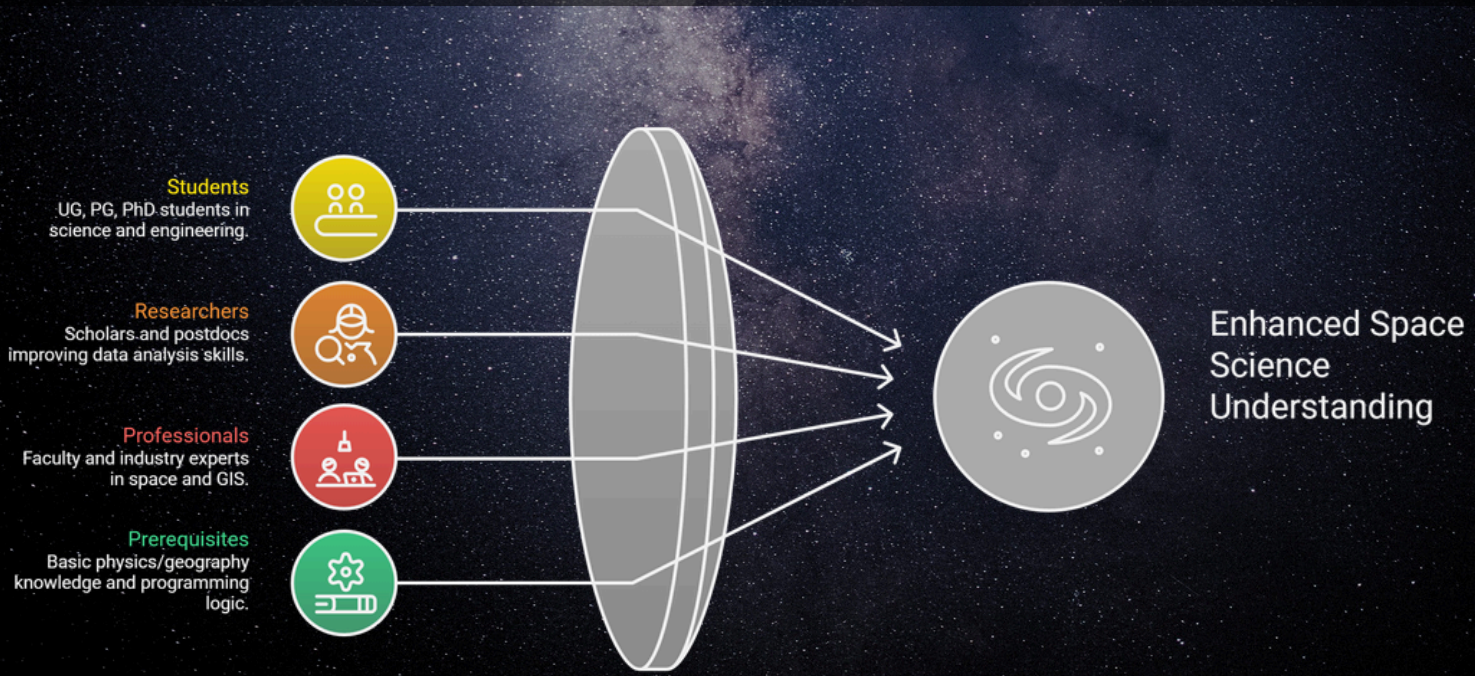
Subject Focus : Practical Implementation using Python

Module	Topics Covered
Python Foundations	**Basics of Python** Syntx, Data Types,Loops,Functions,and Libraies(Numpy,Pandas
Remote Sensing Basics	**Electromagnetic Spectrum & Satellite Sensors** ✓ Digital Image Processing Fundmentals
Geospatial Libraries	**Hands - on with Speciallized Libraries** Rasterio · Geopandas · GDAL · Shapely
GIS Operrations	**Vector vs. Raster Data & Spatial Analysis** ✓ Coordinate Reference Systems (CRS), Spatial Joins , and Buffering
Satellite Imagery	**Processing Real Satellite Date** ✓Sentinel/ Landset,NDVI Calculation,& Change Detection Sentinel · Landsat
Automation & ML	**Automation Workflow & Machine Learning** ✓Automate GIS tasks & Intro to ML for Land- Cover Classification

Eligibility Criteria

The program is designed for a broad range of participants interested in space science and its practical applications:

- **Students:** Currently pursuing or graduated from UG, PG, or PhD programs (B.Sc., M.Sc., B.Tech, M.Tech, etc.) in Physics, Mathematics, Geography, Computer Science, Engineering, or related fields.
- **Researchers:** Research Scholars and Postdoctoral Fellows looking to enhance their data analysis skills.
- **Professionals:** Faculty members, and working professionals from the Government or Private sectors (Space startups, GIS firms, Environmental agencies).
- **Prerequisites:** Basic knowledge of physics/geography is helpful. For the Remote Sensing track, a basic familiarity with any programming language is an advantage but not mandatory, as the course covers Python from the basics.



Certification

The certification process for the Summer Training 2026 is designed to validate both the theoretical knowledge gained during the training phase and the practical skills demonstrated during the project phase. To maintain high academic and professional standards, the certificates are categorised based on program participation and successful completion of requirements.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Department of Space Education, India Space Week
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Forkgram Supervisor
India Space Academy
Affiliation Regulatory Authority
India Space Week
Director
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Certificate Type	Duration	Requirement	Release Date
Training Certificate	15 Days	• Completion of the initial online training phase (Theory & Hands-on)	After 16 August 2026
Internship Completion Letter	45 Days	• Completion of the training phase PLUS successful submission of at least two projects.	After 16 August 2026
Project Evaluation Report	N/A	• Detailed assessment of the submitted projects by experts.	Before 20th September 2026 onwards

Important Guidelines

- **The Project Mandate:** Submission of at least two projects is strictly mandatory to earn the 45-day Internship Completion Letter. Participants who choose not to do the project or fail to submit by the deadline will only receive the 15-day Training Certificate.
- **Strict Submission Deadline:** The last date for project submission through the LMS portal is 16 August 2026. This deadline is final and will not be extended for any reason.
- **Evaluation Timeline**: While the primary certificates and internship letters are released shortly after the program ends, the Project Evaluation Report requires a thorough review by scientists and experts. This process typically takes one month or more following the submission deadline.
- **Digital Access:** All certificates, letters, and reports will be accessible via the website, which serves as the permanent record for participant credentials.

Registration Details

- **Registration Start:** 21st May 2026
- **Registration End:** 30th June 2026
- **Registration Fee:** ₹1,750 /- (Non Refundable)
- **Registration** Link: https://isa.internship.indiaspaceweek.org/
- **Select your preferred track:** Astronomy & Astrophysics or Remote Sensing & GIS.
- Complete the payment and provide the required personal and academic/professional information.
- Upon successful registration, a confirmation email will be sent to your registered email.

Logistics & Platform Access

The entire 45-day program is conducted in a virtual/online format, allowing participants from across the country and abroad to join without travel requirements.

Technical Requirements

- A stable internet connection.
- A laptop or PC (required for the hands-on project phase, particularly for Python-based Remote Sensing).
- Basic software installations as guided by the trainers during the first week.

CONTACT INFORMATION

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