

[ISRO]Bharatiya Antariksh Hackathon - 2025

Overview

The second edition of the **Bharatiya Antariksh Hackathon** was launched by **Dr. V. Narayanan**, Secretary, Department of Space (DOS) / Chairman, ISRO on **June 18, 2025**. This national innovation challenge is organized by **ISRO** in collaboration with **Hack2Skill** as the innovation partner. **In the first level of screening, 140 teams will be shortlisted based on their ideation and approach to problem solving. Following a second level of screening, an expert committee will select 30 teams to participate in the 30 hrs Grand Finale on 07th & 08th August, 2025 at NRSC, JD Metla Campus, Hyderabad.**

The hackathon presents **14 problem statements** in domains such as:

- Geospatial Technology
- Space Science
- Image Processing
- Artificial Intelligence / Machine Learning (AI/ML)

Who Can Participate?

Students pursuing the following can apply:

- Undergraduate (UG) Programs
- Graduate / Postgraduate (PG) Programs
- Ph.D. / Research Scholars

Team Size: **3 to 4 members**

Why Participate?

- **Internship Opportunity with ISRO**
Earn an exclusive internship opportunity to work on live projects with ISRO scientists and engineers.
 - **Mentorship from Experts**
Get guided by scientists, researchers, and space technology experts throughout the hackathon.
 - **Networking & Collaboration**
Connect with fellow innovators, industry professionals, and academia.
 - **National-Level Recognition**
Showcase your skills on a prestigious platform and gain recognition that can boost your academic and professional profile.
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What is Bharatiya Antariksh Hackathon?

An initiative by ISRO to invite India's brightest minds to solve space-based real-world challenges using their knowledge in tech and innovation. Participants will work on problem statements inspired by India's ambitious space exploration missions.

How to Participate?

1. **Register for Hackathon**
Sign up for the Bharatiya Antariksh Hackathon 2025.
 2. **Form Your Team**
Collaborate with fellow participants to form a team of 3–4.
 3. **Choose a Challenge**
Select a problem statement from the list provided by ISRO.
 4. **Innovate and Develop**
Work on your proposed solution under the mentorship of domain experts.
 5. **Submit Your Solution**
Submit your final project for evaluation by experts.
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Problem Statements / Challenges

1. **Simulation/Modeling of Forest Fire Spread using AI/ML techniques**
 2. **AI-based Help Bot for knowledge retrieval using web content knowledge graphs**
 3. **Monitoring Air Pollution using Satellite Data, Ground-Based Measurements, Reanalysis Data & AI/ML**
 4. **LLM-based System for Complex Spatial Analysis using Geoprocessing Orchestration**
 5. **Cloud Motion Prediction using Diffusion Models and INSAT Imagery**
 6. **AI/ML-based Feature Detection for Glacial Lakes, Roads, and Urban Drainage from Satellite Images**
 7. **Air Quality Visualizer and Forecasting App for Small Cities and Rural Areas**
 8. **Deep Learning Optimization for Imbalanced Earth Observation Data**
 9. **AI/ML Algorithm to Identify Tropical Cloud Clusters from INSAT Data**
 10. **Detection of Halo CME Events from Aditya-L1 Particle Data**
 11. **Landslide and Boulder Detection on the Moon using Chandrayaan Imagery**
 12. **Dual Image Super Resolution for Optical Satellite Imagery with Blind Evaluation**
 13. **High-resolution Lunar DEM Generation via Photoclinometry (Shape from Shading)**
 14. **Change Detection and Alert System using Multi-Temporal LISS-4 Satellite Imagery**
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Hackathon Timeline

Milestone	Date
Registration & Idea Submission Opens	Wednesday, June 18, 2025
Problem Statement Explainer Session – 1	Wednesday, June 25, 2025
Problem Statement Explainer Session – 2	Thursday, June 26, 2025
Mentor-Mentee Connects Begin	Friday, June 27, 2025
Mentor-Mentee Connects End	Thursday, July 4, 2025
Registration & Idea Submission Ends	Wednesday, July 9, 2025
Announcement of Shortlisted Teams	Thursday, July 24, 2025
Grand Finale (30-hour Hackathon)	Thursday–Friday, August 7–8, 2025
Finale Venue	NRSC, JD Metla Campus, Hyderabad

Rewards and Benefits

- **Recognition by ISRO**
 - **Internship Opportunities at ISRO**
 - **Expert Mentorship**
 - **Networking with Top Innovators**
 - **Exposure to National-Level Challenges**
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