



NATIONAL SPACE DAY 2024: EMBRACING INDIA'S SPACE SAGA WITH A MONTH OF INSPIRING EVENTS

Join the National Space Day 2024 Celebrations

August 2, 2024

To celebrate the first National Space Day on August 23, 2024, the Government of India is launching a month-long campaign to highlight the remarkable achievements of India's space missions and to inspire the nation's youth. The theme for this year's celebration is "Touching Lives while Touching the Moon: India's Space Saga," which emphasizes the profound impact of space exploration on society and technology.

**INAUGURAL
NATIONAL SPACE DAY 2024**

A Month-Long Celebration

August 23, 2024

Theme: "Touching Lives while Touching the Moon: India's Space Saga"

Purpose: Highlight India's space mission achievements and inspire the nation's youth

Focus: Emphasize the impact of space exploration on society and technology

The graphic features a dark space background with a lunar surface in the foreground. A large yellow and black lander is positioned in the center, with a smaller rover to its right. The Earth is visible in the distance. The text is overlaid in white and orange.

Purpose of Celebrating National Space Day

- The Government of India has officially declared August 23rd as "**National Space Day**" to honour the success of the **Chandrayaan-3 mission**, which achieved a safe and soft landing of the Vikram Lander at the 'Shiv Shakti' point and deployed the Pragyaan Rover on the lunar surface on August 23, 2023.
- National Space Day recognizes significant achievements in space exploration and highlights advancements in space technology. The day is dedicated to **inspiring future generations** by generating interest in space science and technology among students and providing them with role models.
- Furthermore, National Space Day enhances public awareness of the importance and benefits of space exploration, promoting **national pride and unity**. It serves as a powerful reminder of the impact of space exploration on our lives and the need for continued support and progress in this essential field.

To mark National Space Day, various stakeholders will organize pan-India events to celebrate and engage the public. A look at the various events to be organised in the one-month-long campaign.

1. Two-day Finale at Bharat Mandapam

A grand two-day event will take place at Bharat Mandapam in honour of National Space Day, showcasing a range of high-profile sessions, interactive exhibitions, and significant announcements related to India's space achievements.



Day 1: August 22, 2024

On the first day of the grand event at Bharat Mandapam, attendees will be treated to a comprehensive overview of the Indian Space Programme. The day will commence with an engaging exhibition and the release of significant reports that set the stage for a series of focused sessions.

These sessions will bring together ministries, industry leaders, startups, and academic institutions to discuss various aspects of space exploration. Panels will address the benefits of space applications and their societal impacts, with discussions moderated by a Senior Scientist or Director from ISRO.

Another panel, led by a Senior Official from IN-SPACe, will examine the progress of private space activities and related policy implementations. Industry representatives will share insights into their current and plans, facilitated by NSIL, while academic institutions will conduct sessions coordinated by IIST.

To cap off the day, a report on the 'Socio-Economic Impact Analysis of the Indian Space Programme,' prepared by an external consultant, will be unveiled, providing valuable insights into the broader impact of India's space endeavours.

Day 2: August 23, 2024

August 23, 2024, known as National Space Day, will feature major announcements, and the unveiling of models for new projects, including Chandrayaan-4 and others.

2. Space on Wheels – Showcasing ISRO's Vision for Scientific Advancement

This project involves mobile exhibition buses that will travel to various universities and colleges during National Space Day celebrations. On January 24, 2023, ISRO signed a Memorandum of Understanding (MoU) with a prominent science organisation Vijnana Bharati (VIBHA), which is dedicated to promoting scientific knowledge and awareness, to collaborate on a unique initiative called **"Space on Wheels."**

The primary goal of this initiative is to disseminate information about ISRO's activities and India's space missions to school students across all states of India. This collaboration represents a joint effort between VIBHA and ISRO to enhance public understanding of space science and foster greater interest in space exploration.

"Space on Wheels" : Objectives

- **Showcasing ISRO's Achievements:** The event highlights ISRO's capabilities in deploying rockets, satellites, and their applications, demonstrating India's commitment to scientific development.

- **Educational Outreach:** ‘Space on Wheels’ travels to schools and public places, engaging a wide audience, including students and the general public, to educate them about space science and technology.
- **Exhibit Features:** The exhibition will showcase detailed models of the first two launch pads, highlight the Chandrayaan-1 mission and the Indian Mars Orbiter Mission (Mangalyaan), and display technological applications like Indian remote sensing and satellite communication. Additionally, artistic depictions of the Moon’s surface and the Chandrayaan-II spacecraft will creatively illustrate India’s lunar exploration achievements.
- **Engaging the Public:** The initiative aims to inspire and inform through interactive displays and hands-on experiences

Space on Wheels



Showcasing ISRO's Vision for Scientific Advancement



Source: <https://www.isro.gov.in/SpaceOnWheelsGallery.html>

3. ISRO Space Tutors: Engaging and Educating

- **Space Tutors** are educators and mentors registered with ISRO who are dedicated to advancing space science and technology education. They play a crucial role in engaging students and the public through various outreach activities. In response to the evolving educational landscape, ISRO is committed to disseminating enriched knowledge in the space domain.
- To support this, numerous NGOs and educational institutions have developed frameworks that **encourage students** to register and explore space science and technology. These frameworks include educational modules with books and lab work that complement regular classroom learning. Additionally, digital content creators and online educators use social media and mobile applications to offer virtual learning experiences.
- **ISRO's 120 registered Space Tutors** will organize outreach events such as talks, quizzes, and exhibitions across the country, aiming to promote space education and raise awareness about space activities and applications. They will receive support through promotional materials to enhance their efforts in fostering scientific curiosity and innovative thinking among students.

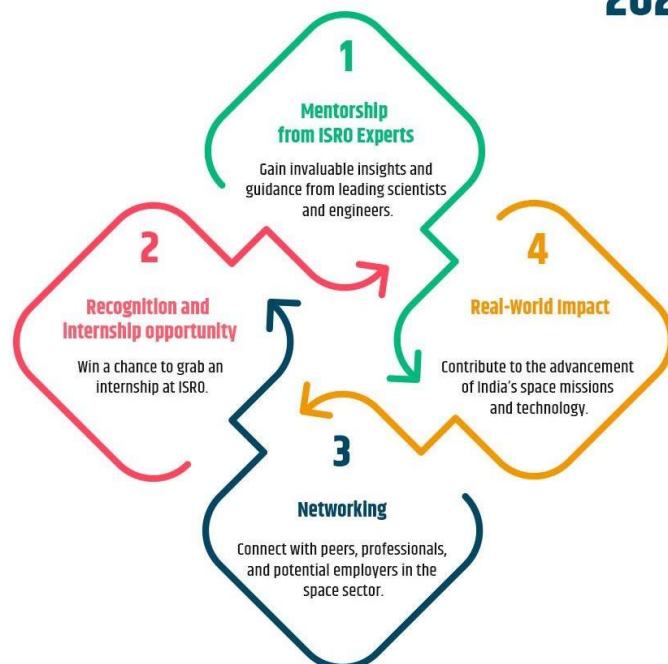
4. Bharatiya Antariksh Hackathon

The Bharatiya Antariksh Hackathon 2024 is a key feature of the National Space Day-2024 celebrations, aiming to discover innovative ideas and solutions in Space Tech. As India continues to advance in space research and exploration, this premierevent seeks to inspire the next generation of innovators to contribute to the nation's space missions.

Organized by ISRO, the national-level hackathon will present students with various problem statements, encouraging them to develop

Benefits of

Bharatiya Antariksh Hackathon 2024



creative solutions. Teams will be shortlisted based on their responses to compete in the finale at selected centres.

The Hackathon Features



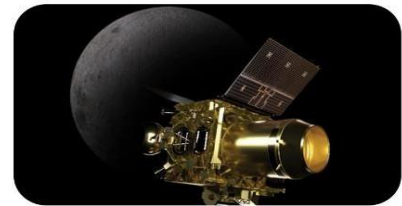
12 Problem statements spanning the following domains



Optimizing Urban Futures: Leveraging Digital Twins for Comprehensive Infrastructure Management.



Generation of Rooftop Solar Energy Potential Map Using Machine Learning/Deep Learning Based Building Footprint Extraction



Automatic detection of craters & boulders from Orbiter High Resolution Camera(OHRC) images using AI/ML techniques



Voice enabled user interface for geospatial map based



Nowcasting of Precipitation Systems using C-Band Doppler Radar Observations



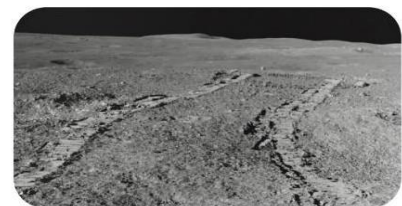
Feature Extraction from Remote Sensing High Resolution Data using AI/ML (Ex-High Tension tower, windmill, electric substation, Brick Kiln, farmbunds)



How much the Crab pulsar has slowed down since launch of AstroSat? Finding rate of spin down rate of Crab pulsar with AstroSat LAXPC and CZTI observations.



Spectral classification of Chandrayaan-2 IIRS using AI/ML for understanding geological diversity of the Moon



Identification of safe navigation routes on the Moon using Chandrayaan Images

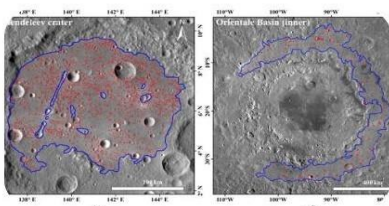
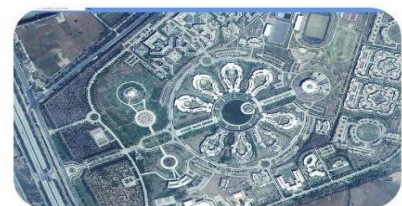


Image based Search of Lunar craters from global mosaic.



Lunar surface image simulation and Visualization



Context-Aware Geospatial Data Retrieval using LLM/NLP

Source: <https://isro.hack2skill.com/2024/>

Exceptional students from the finale will be offered internships at ISRO centres. The top three winners of the hackathon will have the opportunity to showcase their applications during the National Space Day celebrations on August 23, 2024.

5. ISRO Robotics Challenge

The ISRO Robotics Challenge 2024 was launched on November 8, 2023, with an extended period for registration and proposal submissions. Following team selections and the release of competition details, participants showcased their hardware and rover functionality through video submissions and design reports.

With the tagline “**Let’s Build a Space Robot,**” this challenge offers students a chance to engage in space robotics. Teams from institutions are tasked with creating robots for an extraterrestrial-inspired arena, addressing real-world space robotics challenges.



Source: <https://www.ursc.gov.in/IRoC-U2024/>

The competition featured live demonstrations, leading to up to ten teams advancing to the Field Round. After an Operation Readiness Review, the main competition is scheduled for **August 5 and 6, 2024**, with the awards ceremony on National Space Day, August 23, 2024.

ISRO Robotics Challenge: Objectives

- To provide a standardised platform for exploring the area of space robotics
- To develop a deeper understanding of space robotics and its applications among the student community. It enhances their communication, collaboration, inquiry, problem-solving and flexibility skills which will benefit them in their academic and professional lives.
- To co-develop (students and ISRO) future technologies needed in the area of space robotics.

Conclusion

The National Space Day 2024 campaign aims to not only commemorate India's achievements in space but also to inspire the next generation to reach for the stars. Join us in celebrating and exploring the wonders of space throughout August.

Reference

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- robotics challenge <https://www.ursc.gov.in/IRoC-U2024/>
- <https://x.com/isro/status/1724022521606107620>
- Bharatiya Antariksh Hackathon
- <https://www.isro.gov.in/LaunchingBhartiyaAntarikshHackathon2024.html>
- <https://x.com/isro/status/1808458170836418753>
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- <https://www.isro.gov.in/SpaceOnWheelsGallery.html>
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Santosh Kumar/Sarla Meena /Sheetal Angral/ Ritu Kataria /Aparajita Priyadarshini