



NASA™
INTERNATIONAL
SPACE APPS
CHALLENGE

NASA **SPACE APPS CHALLENGE** **2025**

SURAT

Executive Summary

The **NASA Space Apps Challenge Surat 2025**, hosted by the **Computer Engineering Department of Sarvajanik College of Engineering and Technology (SCET)** under **Sarvajanik University**, successfully brought together a diverse community of innovators to address real-world Earth and space challenges inspired by NASA.

Held on **October 4–5, 2025**, the event was part of NASA's prestigious global hackathon and was conducted with the support of esteemed sponsors and partners, including **Netizens, SSIP, D-VID Consultant, Science Matters, Sigma Trainers and Kits, Enviro Wealth, The Surat People's Co-Operative Bank Limited (SPCBL) and Computer Society of India(CSI)**, highlighting the strength of collaborative partnerships in fostering innovation.

As part of this worldwide initiative, participants—ranging from software developers, engineers, technologists, scientists, and designers—leveraged open **NASA data** to develop innovative solutions addressing challenges in **environmental sustainability, space science, climate awareness, and related domains**. Teams worked under the guidance of experienced mentors, judges, and distinguished guests, encouraging creativity, teamwork, and problem-solving.

The 2025 edition featured both **local and remote participation**, enabling global engagement and knowledge exchange. The hackathon concluded successfully with **five regional winning teams** and **nine exceptional teams** nominated for global recognition, marking a significant achievement for the Surat edition.

The NASA Space Apps Challenge Surat 2025 once again served as a powerful platform for innovation, empowering participants to contribute meaningful, impactful solutions aligned with **NASA's mission to explore, discover, and improve life on Earth and beyond**.

What is the NASA Space Apps Challenge?

The NASA Space Apps Challenge is the world's largest hackathon, launched in 2012, inviting participants from all ages and backgrounds to solve challenges in space and Earth sciences. Open to everyone and entirely free, it fosters a culture of innovation through technology, creativity, and global collaboration, promoting DEIA (Diversity, Equity, Inclusion, and Accessibility) across diverse communities. With a STEAM focus—Science, Technology, Engineering, Arts, and Mathematics—the challenge encourages teamwork to create impactful solutions, leveraging NASA's open data and resources from partner space agencies to tackle real-world issues.

Goal and Purpose

To inspire global collaboration in solving real-world challenges using NASA's open data, fostering innovation and accessibility in space and Earth sciences.

Theme

The theme is "Learn, Launch, Lead."



NASA Space Apps Challenge Surat 2025

From learning minds to leading missions

The **NASA Space Apps Challenge Surat 2025**, hosted by the **Computer Engineering Department of Sarvajani College of Engineering and Technology (SCET)** under **Sarvajani University**, brought together a diverse group of participants to address challenges inspired by NASA's missions. Held on **October 4-5, 2025**, the event showcased innovation, collaboration, and problem-solving on a global platform.

The challenge united a vibrant global community of innovators, engaging participants from **schools, universities, and diverse professional backgrounds**. The event fostered a dynamic exchange of ideas, with guidance from both local and international mentors who supported teams in developing impactful solutions to critical Earth and space challenges.

The event strongly promoted **women's empowerment** and upheld Space Apps' **DEIA (Diversity, Equity, Inclusion, and Accessibility)** values, ensuring an inclusive and welcoming environment where every voice was heard. These principles, combined with a strong culture of teamwork and innovation, made the NASA Space Apps Challenge a powerful example of unity and shared purpose in science and technology.



NASA INTERNATIONAL SPACE APPS CHALLENGE 2025 SURAT

500+ Participants

90+ Teams

15+ Total Winner
Teams

5+ Global Nominees
Team



From learning minds to leading missions

4th-5th

OCTOBER

2025

Timeline

NASA INTERNATIONAL SPACE APPS CHALLENGE 2025 SURAT

4

17th July

Registration opens

3

Mid-July

Surat Space Apps Team established

5

Mid - August

Orientation Session

6

1st September

Virtual Bootcamp

2

6th July Co- Leads formed

1

2nd July

Parth Lathiya selected as Local Lead Surat



NASA Space Apps Challenge 2025 Surat Team

Patrons



Bharat Shah
SES Chairman
Sarvajanik University



Dr. Kiran Pandya
Provost
Sarvajanik University

Principal



Dr. Hiren Patel
Principal
SCET, Surat

Faculty & Student Lead

Dr. Dipali Kasat
Professor, HOD
Computer Engg Dept
SCET
Chairperson
NASA Space Apps
Challenge 2025 Surat



Prof. Dhatri Pandya
Assistant Professor
Computer Engg Dept
SCET
Faculty Lead
NASA Space Apps
Challenge 2025 Surat

Parth Lathiya



**Local Lead NASA
Space Apps
Challenge 2025 Surat**

"Where leadership meets the spirit of exploration."

Organizing Team



"Individually unique, collectively unstoppable."

Organizing Team



Lead
Parth Lathiya

Organizing Team



Co- Leads

Anika Mehta
Jay Reshamwala
Jit Prajapati
Satyam Tiwari

Organizing Team

- **Co - Leads**



Marketing Team

Daksh Mistry (Team Lead)

Jal Parekh

Farshaz Master

Snehi Patel

Manya Shah

Tirth Parekh

Rishabh Bajaj

Aryan Chopda

Khushi Bhavsar

Hetasvi Patil

Organizing Team



Graphics Team

Aayushi Tamakuwala (Team Lead)

Jay Variya (Team Lead)

Anshumala Pandit

Twisha Savani

Dev Patel

Siddhi Salunke

Organizing Team



Networking Team

Devanshu Mangal
Dhairya Prajapati

Organizing Team



Content Writing Team

Jeet Rao (Team Lead)

Amrit Singh

Rajvi Raval

Shubh Lineswala

Organizing Team



Community Management Team

Pooja Maru (Team Lead)

Mangalya Desai

Roshan Patel

Vekariya Krish

Singh Harsh

Organizing Team



Digital Marketing Team

Rudra Pandya

Jay Variya

Organizing Team



CollaborationTeam

Aryan Pandya

Team Directory

- **Lead**

Parth Lathiya

- **Co - Leads**

Anika Mehta | Jay Reshamwala | Jit Prajapti |
Satyam Tiwari

- **Marketing Team**

Daksh Mistry (Team Lead) | Jal Parekh | Farshaz
Master | Snehi Patel | Manya Shah | Tirth
Parekh | Rishabh Bajaj | Aryan Chopda | Khushi
Bhavsar | Hetasvi Patil

- **Graphics Team**

Aayushi Tamakuwala (Team Lead) | Jay Variya
(Team Lead) | Anshumala Pandit | Twisha
Savani | Dev Patel | Siddhi Salunke

- **Networking Team**

Devanshu Mangal | Dhairya Prajapati

- **Content Writing Team**

Jeet Rao (Team Lead) | Amrit Singh | Rajvi Raval
| Shubh Lineswala

- **Community Management Team**

Pooja Maru (Team Lead) | Mangalya Desai |
Roshan Patel | Vekariya Krish | Singh Harsh

- **Digital Marketing Team**

Rudra Pandya | Jay Variya

- **Collaboration Team**

Aryan Pandya

Collaborators



Sarvajanic College of Engineering and Technology (SCET)
Sarvajanic University



Netizens



**Student Startup and
Innovation Policy Cell
(SSIP)**



**Computer Society
of India (CSI)**



**The Surat People's
Co-Operative Bank Limited
(SPCBL)**



**Sigma Trainers
and Kits**



D-VID Consultant



**Science
Matters**



Enviro Wealth

PROBLEM STATEMENTS



1. Animation Celebration of Terra Data!
2. A World Away: Hunting for Exoplanets with AI
3. BloomWatch: An Earth Observation Application for Global Flowering Phenology
4. Build a Space Biology Knowledge Engine
5. Commercializing Low Earth Orbit (LEO)
6. Create Your Own Challenge!
7. Data Pathways to Healthy Cities and Human Settlements
8. Deep Dive: Immersive Data Stories from Ocean to Sky
9. Embiggen Your Eyes!
10. From EarthData to Action: Cloud Computing with Earth Observation Data for Predicting Cleaner, Safer Skies
11. International Space Station 25th Anniversary Apps
12. Meteor Madness
13. NASA Farm Navigators: Using NASA Data Exploration in Agriculture
14. Sharks from Space
15. SpaceTrash Hack: Revolutionizing Recycling on Mars
16. Stellar Stories: Space Weather Through the Eyes of Earthlings
17. Through the Radar Looking Glass: Revealing Earth Processes with SAR
18. Will It Rain On My Parade?
19. Your Home in Space: The Habitat Layout Creator

Virtual Bootcamps

16th-27th September, 2025



Shakoor Rather

Space Stories from Data to Public Understanding

Prashant Bhardwaj

Vibe Coding





Jason Michaud

Decentralizing Space



Nishant Painter

Building Space Apps on the Next Generation



Rashmi Sheoran

Prototype to Pitch

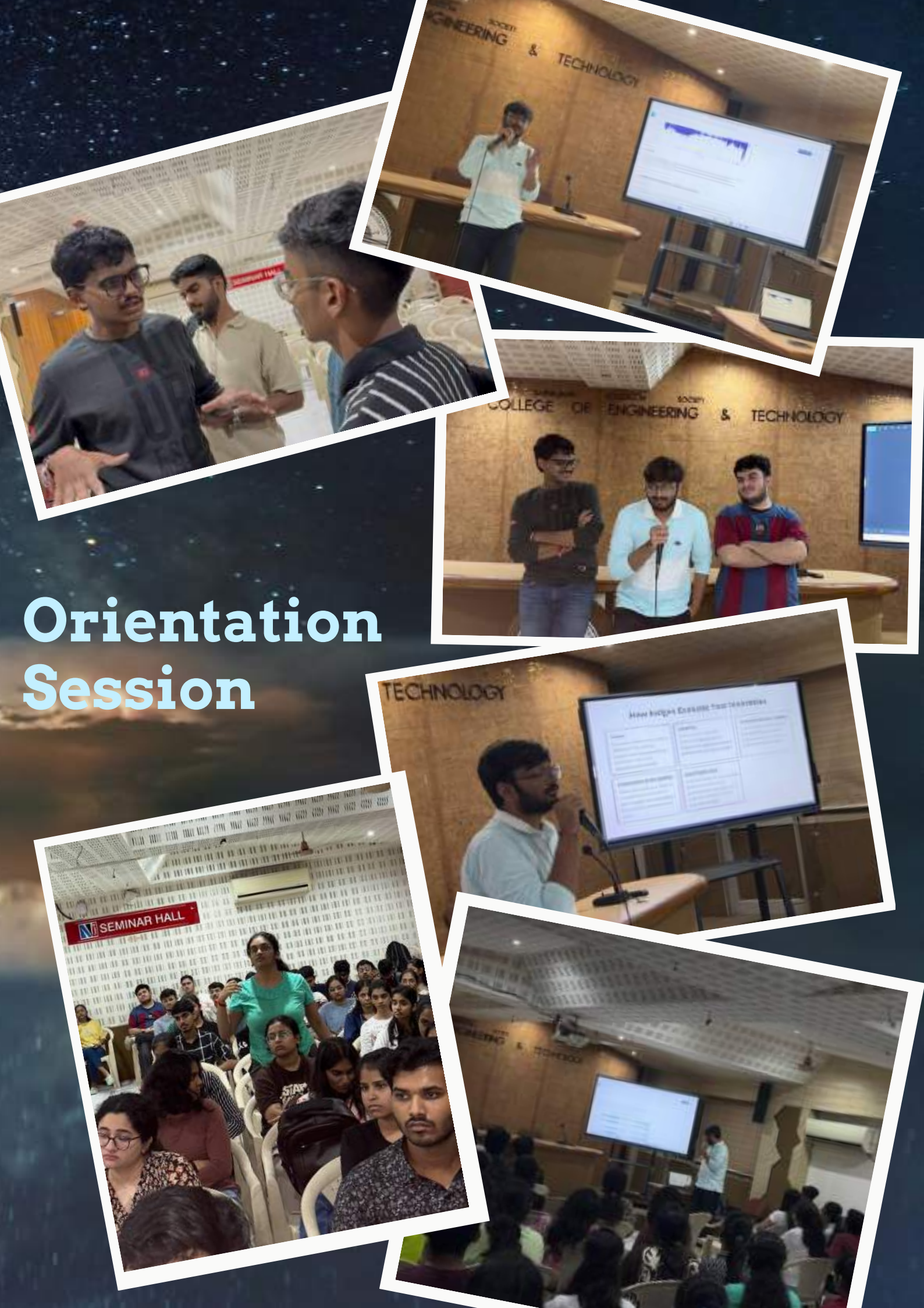


Unlock the secrets to success at the NASA Space Apps Challenge with our Orientation Session—your guide to innovation and collaboration!

Orientation Session

SARVAJANIK COLLEGE OF
ENGINEERING AND TECHNOLOGY

An Offline Info Session for NASA Space Apps is a pre-hackathon event designed to prepare participants for the challenge. It provides insights into the hackathon's structure, themes, and problem statements while introducing NASA's open data and tools. Participants can connect with like-minded individuals, build teams, and brainstorm innovative ideas. These sessions often feature success stories, tips from mentors, and opportunities to clarify doubts. They serve as a platform to inspire creativity and collaboration, setting the stage for an impactful hackathon experience.



Orientation Session



Judges

MEET OUR JURIES BEHIND THE
INNOVATION!

DISHANT LODALIYA

Head of Technology @Whitelion |
Ex JP Morgan | AWS Certified |
Double Gold Medalist



SAGAR AHIR

Graphic Designer | Social Media |
Master's in Digital Technology

JAY THAKKAR

Researcher | Google
Developer Expert (GDE)



ABHILEKH VERMA

Microsoft 2x Microsoft MVP (AI) |
Copilot Innovation Award Winner |
Global Startup & Hackathon
Mentor/Judge | Top 3% Sessionize
Speaker (2024-25) | Media & Content
Creator | Top 50 Community Days
Speaker (2025)



AMOL AGRAWAL

Global AI Ecosystem Builder | NASA Judge | Startup World Cup
Mentor | 12K+ Mentored | Applied AI in Emerging Markets



BHOOMI VAGHASIYA GADHIYA

Lead Android Engineer @Box Box Club | WTM Ambassador

Judges

MEET OUR JURIES BEHIND THE
INNOVATION!

GLOBAL NOMINEE



The certificate is for the Space Apps Surat 2020 competition. It features the logos of the organizing institutions at the top: SU (Sardar Vallabhbhai Patel University), Space Apps Surat, and the Government of Gujarat. The main title is 'GLOBAL NOMINEE'. Below this, a portrait of Dr. Charmy Patel is shown with the label 'Mentor'. To the right, a white box contains the word 'TERRACAST'. At the bottom, six portraits of the team members are displayed in individual boxes, each with their name below: Rushi Dave, Patel Devamshi, Patel Megh, Divya Golakiya, Kshama Adani, and Jaydip Devganiya. The challenge is stated as 'Animation Celebration of Terra Data!'. The entire certificate is framed by a red border and set against a background with faint blue orbital lines.

SPACE APPS
SURAT

GLOBAL NOMINEE


Mentor
DR. CHARMY PATEL

TERRACAST


RUSHI
DAVE


PATEL
DEVAMSHI


PATEL
MEGH


DIVYA
GOLAKIYA


KSHAMA
ADANI


JAYDIP
DEVGANIYA

**CHALLENGE : Animation Celebration
of Terra Data!**

[PROJECT LINK](#)

GLOBAL NOMINEE



A certificate titled "GLOBAL NOMINEE" for the "SPACE APPS SURAT" competition. The certificate features the logos of SU (Sardar Vallabhbhai Patel University) and the Space Apps Surat logo. It lists a mentor, Dr. Snehal Rath, and four team members: Janhvi Rajesh Mishra, Pradnya Ramsing Valvi, Pranita Prasad Bhore, and Radhika Jahindra Thale. The challenge is "Animation Celebration of Terra Data!".

GLOBAL NOMINEE

SPACE APPS SURAT

MENTOR
Dr. Snehal Rath

TECHPANDAVAS

JANHVI RAJESH MISHRA

PRADNYA RAMSING VALVI

PRANITA PRASAD BHORE

RADHIKA JAHINDRA THALE

CHALLENGE : Animation Celebration of Terra Data!

[**PROJECT LINK**](#)

GLOBAL NOMINEE



A certificate titled "GLOBAL NOMINEE" for the "TECHNO_GPNs" category. It features logos for SU (Savitribai Phule Pune University), SPACE APPS SURAT, and the Department of Computer Science and Information Technology. Below the title, there are six portraits of the nominees, each with their name printed underneath. At the bottom, the challenge is described as "From EarthData to Action: Cloud Computing with Earth Observation Data for Predicting Cleaner, Safer Skies".

GLOBAL NOMINEE

TECHNO_GPNs

 KAZMA SALIM SHERKI	 HIMANSHI ARVINDKUMAR THAKUR	 TANMAY HITESH PARKHE	 NIKHIL SANJAY KUMBADE	 DIVYA PATEL	 HARSH AMBHARKAR
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CHALLENGE :
From EarthData to Action: Cloud Computing with Earth
Observation Data for Predicting Cleaner, Safer Skies

PROJECT LINK

GLOBAL NOMINEE



A certificate titled "GLOBAL NOMINEE" for the "Cosmic Scribes" challenge. It features logos for SU (Savitribai Phule University), SPACE APPS SURAT, and the Department of Space. Below the title, six portraits of female students are displayed, each with their name underneath. The challenge is identified as "Stellar Stories: Space Weather Through the Eyes of Earthlings".

GLOBAL NOMINEE

Cosmic Scribes

 DRASHTI PATEL	 PATEL MESHWA	 SRI SAHANA T	 BRINDASRI M	 CHAVADA SANDHYA	 DURGADEVIS
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CHALLENGE :
Stellar Stories: Space Weather Through the Eyes of Earthlings

[PROJECT LINK](#)

GLOBAL NOMINEE



[PROJECT LINK](#)

GLOBAL NOMINEE

GLOBAL NOMINEE


Mentor
MS. HARSHA KHURANA

FOURmula One


GOTI HIR


HAVELIWALA SUMAIYA


AHIR HENIKUMARI


HINGU TRISHA

CHALLENGE : Build a Space Biology Knowledge Engine

[**PROJECT LINK**](#)

GLOBAL NOMINEE



[PROJECT LINK](#)

GLOBAL NOMINEE



[PROJECT LINK](#)

GLOBAL NOMINEE



The certificate is a blue and white document with a red border. It features the logos of SU (Sardar Vallabhbhai Patel University), SPACE APPS SURAT, and the Gujarat Sahitya Akademi. The text 'GLOBAL NOMINEE' is prominently displayed in the center. Below it, the project name 'ARES CYCLING' is written in a white box. At the bottom, there are six portraits of the team members, each with their name written below. The challenge is identified as 'SpaceTrash Hack: Revolutionizing Recycling on Mars'.

GLOBAL NOMINEE

ARES CYCLING

KUNJ SORATHIYA

DEVANSH JASANI

SARIB QURESHI

OLADWIN BRITTO

SWASTIK RAJPALE

AUJAS MEHTA

**CHALLENGE : SpaceTrash Hack:
Revolutionizing Recycling
on Mars**

[PROJECT LINK](#)

TEAM-HELIOS

[LINK](#)



F SOCIETY

[LINK](#)



[LINK](#)

TEAM VOIDS



Regional Winners

[LINK](#)
PRAVYN



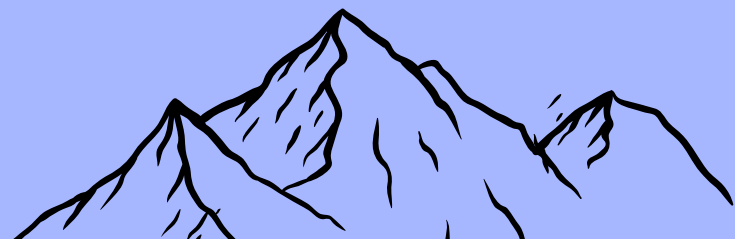
[LINK](#)
**THE SPITI SPACE
SEEDLINGS**

Regional Winners

From the Himalayas to the Stars

This year, a special group of **young innovators** from **Rewa Buddhist Model School**, supported by the **Planet Spiti Foundation**, proudly participated in the **NASA Space Apps Challenge 2025**. Hailing from the breathtaking landscapes of **Spiti Valley**, these aspiring “**little astronauts**” showcased extraordinary creativity and imagination through their storytelling and artwork. From conceptualizing oxygen bubbles in space and designing moonlight-powered water collectors for Spiti, to imagining robots that clean cosmic debris, their ideas reflected bold thinking beyond boundaries. Through sketches of alien friendships and stories of futuristic problem-solving, these students demonstrated that innovation has no limits—not even altitude—proving that even from the remotest mountains, dreams can reach the stars.





Interaction with Visionary Leaders of Saravajnik Education Society



Interaction with Visionary Leader of SCET



Interaction with Visionary Leaders of Saravajnik Education Society



Interaction with Visionary Leaders of Saravajnik Education Society



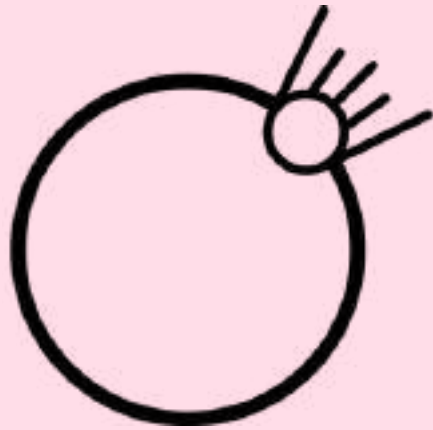
Social Media Presence

Official Handles

Instagram: [@nasaspaceapps.surat](#)

LinkedIn: [NASA Space Apps Surat](#)

We utilized our social media platforms to effectively document and showcase our journey during the **NASA Space Apps Challenge 2025**. These platforms served as a medium to share our progress, spread awareness about our project, and connect with a broader global audience.



NASATM
INTERNATIONAL
SPACE APPS
CHALLENGE
SURAT

THANK YOU

Dr. Dipali Kasat

Chairperson

NASA Space Apps Challenge, Surat
HOD, Computer Engg. Dept.

Prof. Dhatri Pandya

Faculty Lead

NASA Space Apps Challenge, Surat
Assistant Professor, Computer Engg. Dept.

Parth Lathiya

Local Lead

NASA Space Apps Challenge, Surat



 nasaspaceappssurat@gmail.com

Compiled & Designed by:

Aayushi Tamakuwala
3rd Year, Computer Engineering (CO)

<https://www.spaceappschallenge.org/2025/local-events/surat/>