



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.

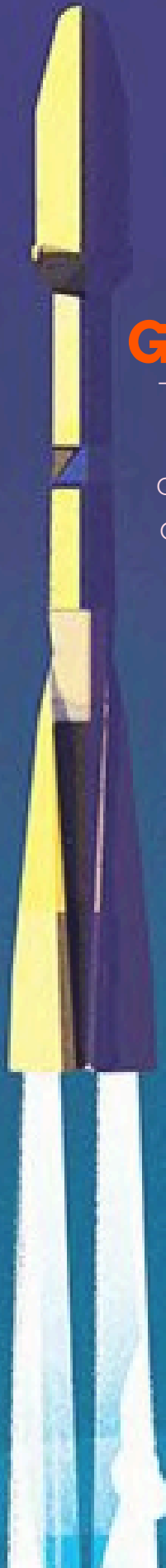
As part of this worldwide initiative, participants—ranging from software developers, engineers, technologists, scientists, and designers—leveraged open **NASA data** to develop innovative solutions addressing challenges in **environmental sustainability, space science, climate awareness, and related 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
● SURAT



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 Sarvajnik College of Engineering and Technology (SCET)** under **Sarvajnik 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.



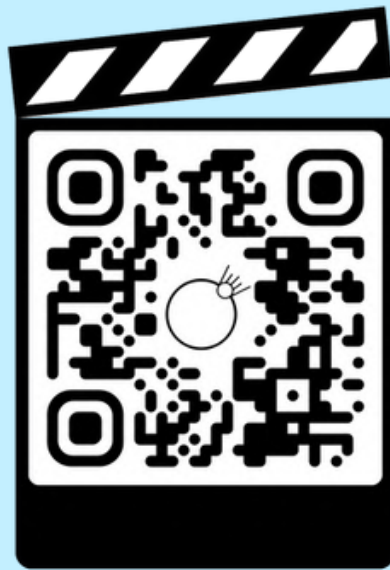
NASA INTERNATIONAL SPACE APPS CHALLENGE 2025 SURAT

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

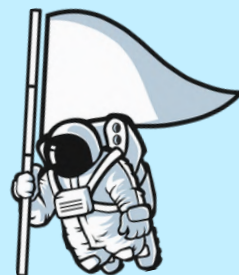
Surat Space Apps Team established



5

Mid - August

Orientation Session



2

6th July Co- Leads formed



1

2nd July
Parth Lathiya selected as
Local Lead Surat



6

1st September
Virtual Bootcamp

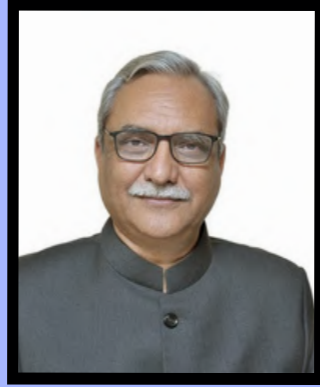


NASA Space Apps Challenge 2025 Surat Team

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 Prajapti
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



Collaboration Team

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



Sarvajani College of Engineering and Technology (SCET)
Sarvajani 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

2025 NASA Space Apps Challenge

On October 4-5, 2025 hackathon participants came together to "Learn, Launch, Lead" as they worked alongside a vibrant community of scientists, technologists, and storytellers at 551 Local Events worldwide. Participants learned skills to succeed in STEM fields, launched ideas that transform NASA's open data into actionable tools, and lead their communities in driving technological innovation.



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



Virtual Bootcamp poster for Shakoor Rather. The poster features a dark space background with a starry field. At the top, there are logos for NASA, SPACE APPS SURAT, and several partner organizations including SU, IIT Gandhinagar, and others. The central text reads "VIRTUAL BOOTCAMP". Below this is a portrait of Shakoor Rather. A white callout box contains his name, title "CEO, Science matters", and previous role "Former Science and Tech Editor at Press Trust of India(PTI)". The topic is "Space Stories from Data to Public Understanding". The date and time are "16th SEPT, 2025 7:00 PM". There are QR codes for registration and LinkedIn, and a "Register Now" button. At the bottom, there are logos for NETIZENS, SSIP, YD-VIVID CONSULTANT, SIGMA, Enviro Wealth, and SPCBL. A note at the very bottom states "Note: Certificate will be given to the participants".

Shakoor Rather

Space Stories from Data to Public Understanding

Prashant Bhardwaj

Vibe Coding



Virtual Bootcamp poster for Prashant Bhardwaj. The poster features a dark background with a network of glowing green lines and nodes. At the top, there are logos for NASA, SPACE APPS SURAT, and several partner organizations including SU, IIT Gandhinagar, and others. The central text reads "VIRTUAL BOOTCAMP". Below this is a portrait of Prashant Bhardwaj. A white callout box contains his name, title "Innovation Manager, CRIF", and topic "Vibe Coding". The date and time are "17th SEPT, 2025 7:00 PM". There are QR codes for registration and LinkedIn, and a "Register Now" button. At the bottom, there are logos for NETIZENS, SSIP, YD-VIVID CONSULTANT, SIGMA, Enviro Wealth, and SPCBL. A note at the very bottom states "Note: Certificate will be given to the participants".







VIRTUAL BOOTCAMP

Jason Michaud
CEO, Stardust

Decentralizing Space

25th SEPT, 2025 7:00 PM

Register Now LinkedIn









Note - Certificate will be given to the participants

Jason Michaud

Decentralizing Space







VIRTUAL BOOTCAMP

Nishant Painter
Founder, Shivantra

Building Space Apps on the Web: Tools for the Next Generation

26th SEPT, 2025 7:00 PM

Register Now LinkedIn









Note - Certificate will be given to the participants

Nishant Painter

Building Space Apps on the Next Generation







VIRTUAL BOOTCAMP

Rashmi Sheoran
ISRO Space Tutor

Prototype to Pitch

27th SEPT, 2025 6:00 PM

Register Now LinkedIn









Note - Certificate will be given to the participants

Rashmi Sheoran

Prototype to Pitch

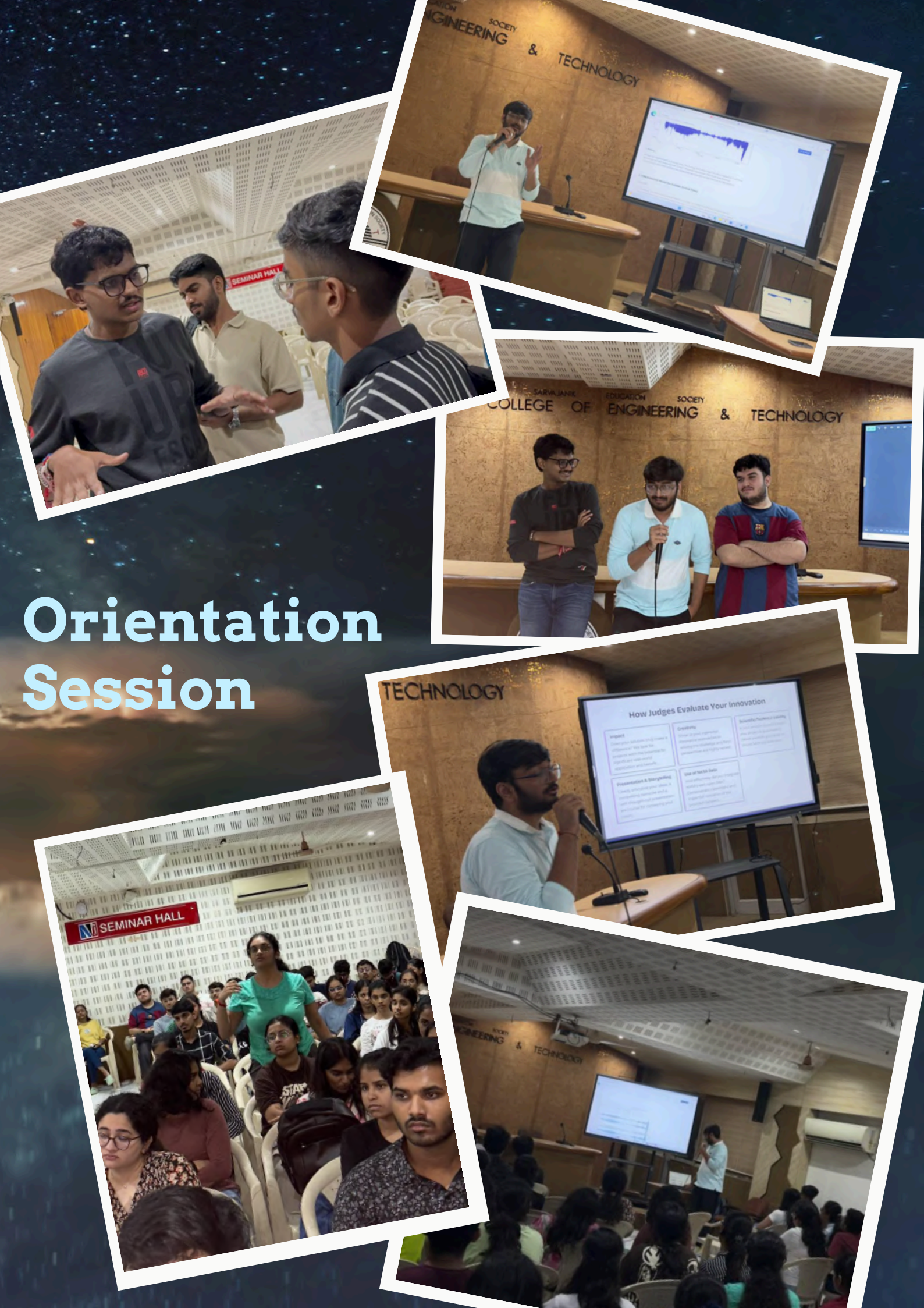


Unlock the secrets to success at the NASA Space Apps Challenge with our Orientation Session—your guide to innovation and collaboration!

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 poster features a blue and teal background with a white grid pattern. At the top left is the logo of Sardar Vallabhbhai University (SVU). At the top center is the NASA Space Apps logo with 'SURAT' below it. At the top right is the logo of Sardar Vallabhbhai Education Society (SVES) College of Engineering & Technology. The main title 'GLOBAL NOMINEE' is in large white letters. Below it is a portrait of Dr. Charmy Patel, labeled 'Mentor' and 'DR. CHARMY PATEL'. To the right is a white box with 'TERRACAST'. Below are six portraits of team members: Rushi Dave, Patel Devanshi, Patel Megh, Divya Golakiya, Kshama Adani, and Jaydip Devganiya. At the bottom, a white box contains the challenge text: 'CHALLENGE : Animation Celebration of Terra Data!'.

GLOBAL NOMINEE


Mentor
DR. CHARMY PATEL

TERRACAST

| | | | | | |
|--|--|--|--|---|--|
|  RUSHI DAVE |  PATEL DEVANSHI |  PATEL MEGH |  DIVYA GOLAKIYA |  KSHAMA ADANI |  JAYDIP DEVGANIYA |
|--|--|--|--|---|--|

CHALLENGE : Animation Celebration of Terra Data!

[PROJECT LINK](#)

GLOBAL NOMINEE

GLOBAL NOMINEE

Mentor
Dr. Snehal Rathi

TECHPANDAVAS


JANHVI RAJESH MISHRA


PRADNYA RAMSING VALVI


PRANITA PRASAD BHOR


RADHIKA JAHINDRA THALE

CHALLENGE : Animation Celebration of Terra Data!

[PROJECT LINK](#)

GLOBAL NOMINEE



GLOBAL NOMINEE

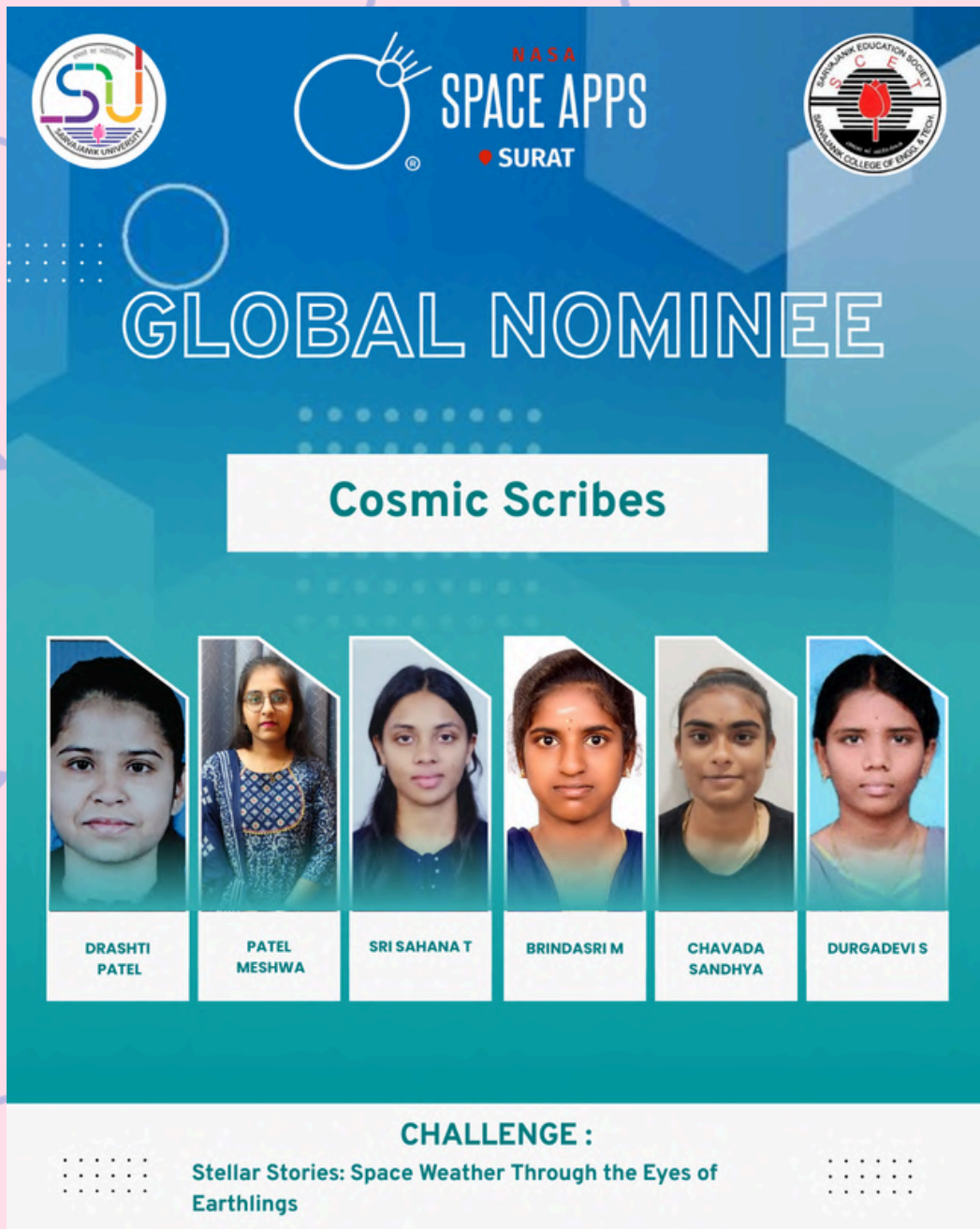
TECHNO_GPNs

| | | | | | |
|---|---|---|---|--|---|
|  |  |  |  |  |  |
| KAZMA SALIM SHEIKH | HIMANSHI ARVINDKUMAR THAKUR | TANMAYI HITESH PAIKINE | NIKHIL SANJAY KUBADE | DIVYA PATEL | HARSH AMBHAIKAR |

CHALLENGE :
From EarthData to Action: Cloud Computing with Earth Observation Data for Predicting Cleaner, Safer Skies

[PROJECT LINK](#)

GLOBAL NOMINEE



The poster features a blue and teal background with a white border. At the top left is the logo of Sardar Vallabhbhai Patel University (SVU) with the motto 'WISDOM TO SERVE'. At the top center is the NASA Space Apps logo with 'SURAT' below it. At the top right is the logo of Sardar Vallabhbhai Education Society (SVES) with 'COLLEGE OF ENGINEERING' below it. The main title 'GLOBAL NOMINEE' is in large white letters. Below it, 'Cosmic Scribes' is in a white box. A row of six portraits of female students is shown, each with a name below: DRASHTI PATEL, PATEL MESHWA, SRI SAHANA T, BRINDASRI M, CHAVADA SANDHYA, and DURGADEVI S. At the bottom, 'CHALLENGE : Stellar Stories: Space Weather Through the Eyes of Earthlings' is written in white.

GLOBAL NOMINEE

Cosmic Scribes

DRASHTI PATEL

PATEL MESHWA

SRI SAHANA T

BRINDASRI M

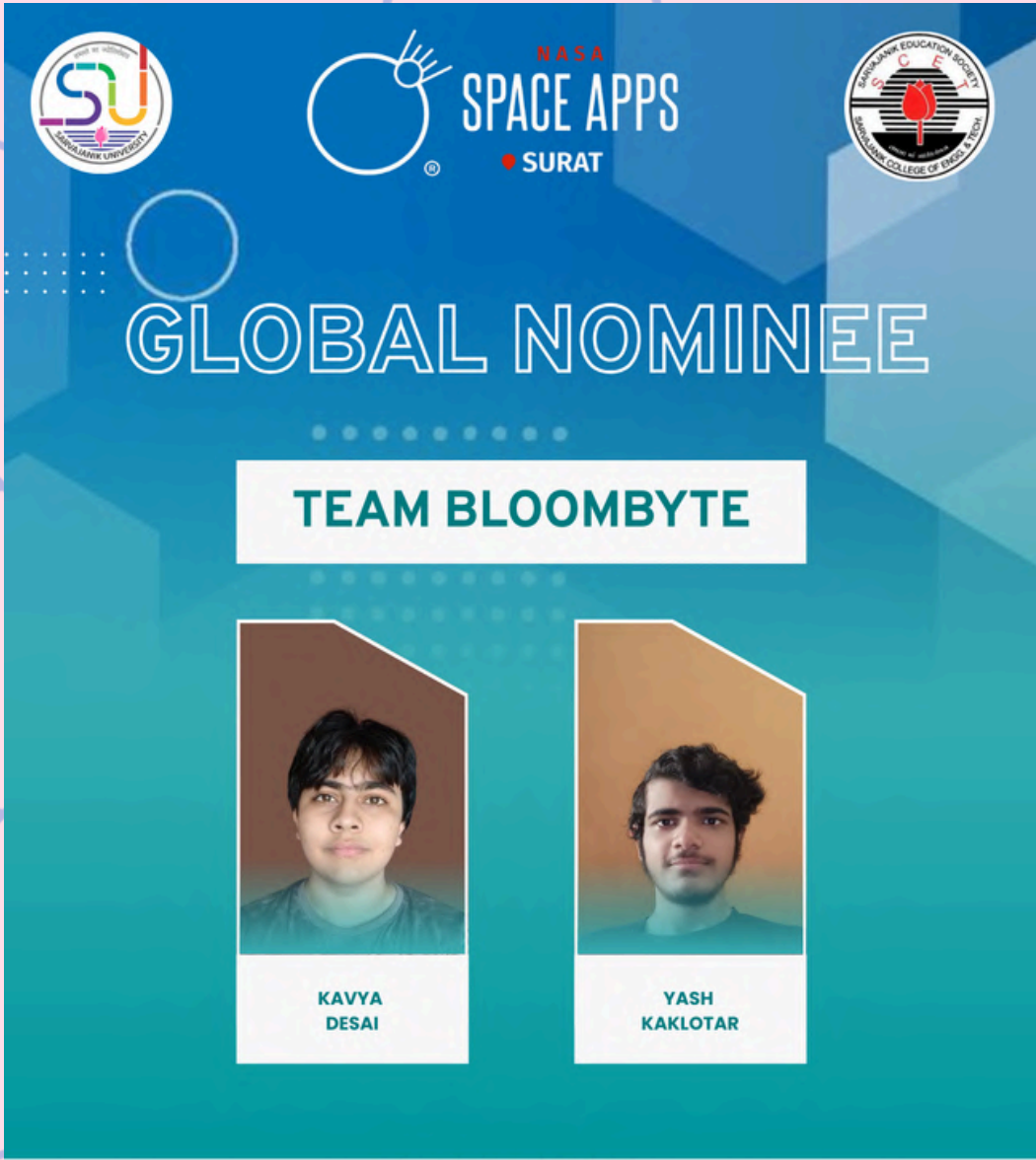
CHAVADA SANDHYA

DURGADEVI S



CHALLENGE :
Stellar Stories: Space Weather Through the Eyes of Earthlings

PROJECT LINK

GLOBAL NOMINEE




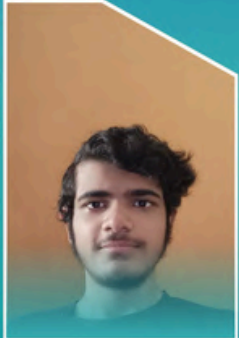
The poster features a blue and teal background with a white border. At the top left is the logo of Sardar Vallabhbhai Patel University (SVPU), and at the top right is the logo of Sardar Vallabhbhai Education Society (SVES). In the center, there is a stylized sun icon and the text 'NASA SPACE APPS SURAT'. The main title 'GLOBAL NOMINEE' is written in large, white, outlined letters. Below it, a white box contains the text 'TEAM BLOOMBYTE'. Two portrait photos of team members are shown: Kavya Desai on the left and Yash Kaklotar on the right. At the bottom, a white box contains the text 'CHALLENGE : NASA Farm Navigators: Using NASA Data Exploration in Agriculture'. The entire poster is framed by a red border and set against a light pink background with blue orbital lines.

  **NASA SPACE APPS SURAT**

GLOBAL NOMINEE

TEAM BLOOMBYTE


KAVYA DESAI


YASH KAKLOTAR

CHALLENGE :
**NASA Farm Navigators: Using NASA Data
Exploration in Agriculture**

[**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

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GLOBAL NOMINEE

COSMIC LOOP

KRISHIL PRAJAPATI

NANCY GAJERA

HET PATEL

PRAJAPATI KRISHA

CHALLENGE : Meteor Madness

[PROJECT LINK](#)

GLOBAL NOMINEE



The poster features a blue and teal background with a white grid pattern. At the top left is the logo of Sardar Vallabhbhai Patel University (SVU) with the motto 'WISDOM TO SERVE'. At the top center is the NASA Space Apps logo with 'SURAT' below it. At the top right is the logo of Sardar Vallabhbhai Education Society (SVES) with 'SCE' and 'SARDAR VALLABHBHAI COLLEGE OF ENGINEERING' below it. The main title 'GLOBAL NOMINEE' is in large white letters, with 'CLIMATE GUARDIANS' in a white box below it. Below the title are six portraits of the nominees, each with their name in a white box underneath. At the bottom, the challenge name 'CHALLENGE : Will It Rain On My Parade?' is centered between two sets of dots.

SVU
WISDOM TO SERVE
SARDAR VALLABHBHAI UNIVERSITY

NASA
SPACE APPS
SURAT

SVES
SARDAR VALLABHBHAI EDUCATION SOCIETY
SARDAR VALLABHBHAI COLLEGE OF ENGINEERING

GLOBAL NOMINEE

CLIMATE GUARDIANS

| | | | | | |
|---|---|--|--|--|--|
|  YASHESH PATEL |  VANDAN SUTARIYA |  KRISH GORASIYA |  HARSH KEVADIYA |  FALGUN RATHOD |  ARJUN SHAH |
|---|---|--|--|--|--|

CHALLENGE : Will It Rain On My Parade?

[PROJECT LINK](#)

GLOBAL NOMINEE



GLOBAL NOMINEE

ARESCYCLING

| | | | | | |
|---|---|---|---|--|---|
|  |  |  |  |  |  |
| KUNJ SORATHIYA | DEVANSH JASANI | SAAIB QURESHI | GLADWIN BRITTO | SWASTIK RAJPALI | AUJAS MEHTA |

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

PROJECT LINK

TEAM-HELIOS

[LINK](#)



F SOCIETY

[LINK](#)



[LINK](#)

TEAM VOIDS

Regional Winners

LINK
PRAVYN



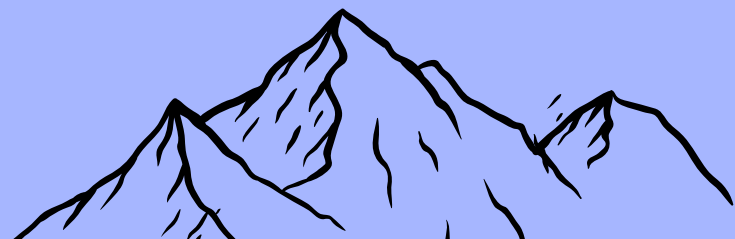
LINK
**THE SPITI SPACE
SEEDLINGS**

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 Sarvajanic Education Society



Interaction with Visionary Leader of SCET



Interaction with Visionary Leaders of Sarvajnik Education Society



Interaction with Visionary Leaders of Sarvajnik Education Society



Social Media Presence

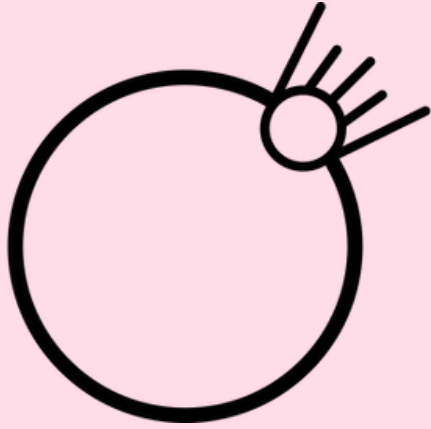
Official Handles

Instagram: [@nasaspacesurat](https://www.instagram.com/nasaspacesurat)

LinkedIn: [NASA Space Apps Surat](https://www.linkedin.com/company/nasaspacesurat)

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.





NASA™
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)