



## Space Experiential Learning Centre(SELC)

### "Beyond Earth: India - U.S. Space Applications Workshop"

Together, empowering the Next-Gen Space Pioneers

11 June 2025

Space Applications Centre (SAC - ISRO), Ahmedabad

#### ABOUT SELC

The **Space Experiential Learning Centre (SELC)** is a collaborative initiative led by the **Indo-U.S. Science and Technology Forum (IUSSTF)** in partnership with **Genex Space**, with support from the **American Center, New Delhi**.

The SELC program, funded by the Public Diplomacy Section of the U.S. Department of State, aims to advance STEM education and foster innovation in the space sector, aligning with the U.S.-India TRUST (Transforming the Relationship Utilizing Strategic Technology) framework. SELC provides students with immersive, hands-on experiences in space exploration, astronomy, and satellite technology, bridging the gap between theoretical learning and real-world application.

#### ABOUT THE WORKSHOP

The **Beyond Earth Series of Workshops** are organized to inspire and educate space enthusiasts across U.S. Consulate regions in India, combines interactive classroom sessions with engaging hands-on activities in space exploration and astronomy.

The **Beyond Earth: India- U.S. Space Applications Workshop**, spearheaded by the Indo-U.S. Science and Technology Forum (IUSSTF), the American Center New Delhi (ACND), and Genex Space, is conducted as part of the Consulate region - **U.S. Embassy in Mumbai, India** in Ahmedabad in collaboration with **the Space Applications Centre (SAC-ISRO), Ahmedabad**.

The primary focus of the workshop is on Space Applications and the NISAR Satellite, offering participants valuable insights into cutting-edge advancements in space technology and its practical applications.



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#### **PARTICIPANTS**

The program is specifically designed to support students from Grade 8 to 12 who have a strong interest in space science and technology. A total of 30 students have been carefully selected to participate, representing a diverse group from various schools and regions. This initiative provides them with unique opportunities to engage in workshops, hands-on activities, and projects, fostering their passion for space exploration and STEM education.

#### **THE HANDS-ON WORKSHOP**

The Mini Ground Station Kit and workshop, designed and developed by Genex Space, offer a unique opportunity for students to explore the fascinating world of satellite communication and data reception.

This innovative kit provides hands-on experience in understanding the principles of satellite tracking, signal reception, and telemetry. Through the workshop, participants learn to assemble and operate the kit, gaining insights into how ground stations interact with satellites in orbit.

By combining theoretical knowledge with practical application, this initiative aims to inspire students to delve deeper into the field of space technology and satellite systems.

#### **SPACE ART COMPETITION**

The Space Art Competition serves as an inspiring platform for students to express their creativity and imagination through various artistic mediums. Unlike traditional art contests, this competition goes beyond colorful visuals, encouraging participants to explore diverse forms of expression such as poetry, songwriting, doodling, and comic creation.

Held with a unique twist, the theme is provided on the spot, challenging students to think quickly and channel their ideas into meaningful art pieces that reflect their passion for space and astronomy. This event fosters innovative thinking and allows students to connect with the universe in a profoundly creative way. All the required materials will be provided at the Venue, just carry your creative imagination! Artists for the best Art work will be awarded.



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### AGENDA

9:00 AM - 09:30 AM Entry to SAC Campus and Assemble at Vikram Hall (Lecture Hall)

#### Inaugural Session

09:30 AM - 09:40 AM Registration of Students

09:40 AM - 09:45 AM Invitation to Dignitaries on Dais

09:45 AM - 09:50 AM Lighting of Lamps & Prayer

09:45 AM - 09:55 AM Welcome Address by Shri Krunal Joshi Sci/Engr. - SG, SAC

09:55 AM - 10:05 AM Opening Remarks by Dr. Nisha Mendiratta, Executive Director, Indo-U.S. Science and Technology Forum

10:05 AM - 10:20 AM Special Address Officers from American Embassy

10:20 AM - 10:40 AM Keynote Address by Shri Nilesh M. Desai Director, Space Applications Center, ISRO, Ahmedabad

10:40 AM - 10:50 AM Briefing on Workshop & Closing remarks by Ms. Nikhitha Chadde, Co-founder & CEO, Genex Space

10:50 AM - 11:05 AM

#### Group Photo & Tea Break

11:05 AM - 11:20 AM Overview of Indian Space Programme, SAC and International Cooperation by Shri Priten Desai / Shri Hemant Jain Sci./ Engr. - SE, SAC

11:20 AM - 11:40 AM Overview of NISAR Mission & SAC contributions by Shri Himanshu Patel APD, NISAR Payload

11:40 AM - 11:55 AM Earth Science Applications with focus on NISAR Dr. Anup Kumar Das by Dr. Anup Kumar Das Co-Lead, Science (ISRO), NISAR

11:55 AM - 12:00 PM

#### Questions & Answers Session



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#### AGENDA

12:00 PM - 01:00 PM Visit to PLASIV & MRSA Clean Room

01:00 PM - 02:00 PM

**Lunch Break @ RSA Canteen (VIP Lunch)**

02:00 PM - 04:00 PM

Hands-on Workshop at Vikram Sarabhai Exhibition, SAC Space Build the Mini Satellite Ground Station, demonstration of tracking the satellite data and conduct an analysis.

04:00 PM - 05:00 PM

Space Art Competition along with High Tea

05:00 PM - 05:30 PM

Session on Astronomy by Shri Vishal Joshi, Physics Research Laboratory (PRL)

**Valedictory Session @ VSSE Auditorium**

05:30 PM - 05:40 PM

Scientists-Students Interaction by Dr. Abha Chhabra, SAC Shri Himanshu Patel, Dr. Anup Das, Dr. Mehul Pandya, Smt. Minal Rohit, Shri Anurag Verma, Shri Vishal Joshi, Dr. Chaitali, IUSSTF

05:40 PM - 05:50 PM

Certificate Distributions to Students

05:50 PM - 06:00 PM

Concluding Remarks by Shri Nilesh Desai, Director, SAC and Dr. Nisha Mendiratta, Executive Director, Indo-U.S Science and Technology Forum

06:00 PM

National Anthem and Dispersal

06:00 PM - 07:30 PM

**Sky Gazing (optional, only if weather permits)**