

# NEWSLETTER

## INDIAN SPACE ASSOCIATION



### EXPLORING THE FINAL FRONTIER:

**ISpA Newsletter Unveils Future of  
Sustainable Space Exploration**



Welcome to **ISpA Newsletter**, a trusted conduit for illuminating the latest strategic endeavours, technological innovations and industry insights shaping the future of sustainable space exploration.

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# MESSAGE FROM DG-ISpA

June 2025 marked a proud moment in India's space journey as Group Captain Shubhanshu Shukla, a serving Indian Air Force test pilot, made history aboard Axiom Mission 4 (Ax-4), which successfully docked with the International Space Station (ISS). Four decades after Wing Commander Rakesh Sharma's iconic 1994 flight, India once again celebrated a milestone in human spaceflight. I am confident that Group Captain Shukla's experience will significantly contribute to ISRO's ongoing Gaganyaan mission and will serve as an inspiration for future Gaganauts. His flight not only ignites national pride but also sparks awareness space among youth about the vast opportunities in space.

This month, ISpA signed a Memorandum of Understanding with INFOTER (Information & Technology for Society) of Hungary to promote B2B engagement in space and dual-use technologies with partners from Central and Eastern Europe-expanding our global collaborative footprint.

The Indian Government's licensing approval to Starlink reflects its intent to foster a competitive and inclusive satellite communications ecosystem-crucial for building a digitally connected India. Meanwhile, our member companies continue to make impressive strides; Skyroot Aerospace signed an MoU with Axiom Space for advanced LEO space exploration. GalaxEye unveiled its second satellite with a 0.5-meter resolution, enhancing India's Earth observation capabilities. Dhruva Space signed an MoU with Sodern (Ariane Group) for an in-orbit demonstration of the HORUS star tracker onboard the LEAP-2 P-30 mission, tentatively scheduled for 2026-further strengthening Indo-French space collaboration. I congratulate all our member organizations for their commitment to innovation, excellence, and the collective vision of India's space future.

ISpA participated at the 7<sup>th</sup> IN-SPACE Industry Connect in Ahmedabad on 10 & 11 June 2025. I moderated a discussion on 'ISRO's role in enhancing India's share of the space economy' during the 'Leadership Dialogue and CXO Round Table'. On Day 2, I also presented ISpA's recommendations during the session themed 'Kaleidoscope' along with the Industry, Investors and public sector representatives. Additionally, I had the opportunity to speak on "Space Situational Awareness & Domain Intelligence" key pillars of national security at the Geospatial World's Space Artha Summit 2025 held at NIAS, Bengaluru. We celebrated the National Day of Luxembourg and Italy and voiced the Industry's view at the Japan-India Science, Technology & Innovation Exchange Year reception held at the Embassy of Japan in India.

With India's expanding space ambitions including human spaceflight, space applications, workforce development, and emerging state-level policies—supported by ISRO and collaborative private sector participation, the Indian space economy is well poised for rapid growth, unlocking potential to reach USD 44 billion by 2033.



Lt Gen A K Bhatt  
PVSM UYSM AVSM SM VSM (Retd)  
Director General,  
Indian Space Association (ISpA)  
(Former DGMO, MS & GOC 15 Corps)

# HIGHLIGHTS OF THE MONTH

- Qualified cheer: On Shubhanshu Shukla, Axiom-4 mission
- Axiom partners with India's Skyroot to boost access to low-earth orbit
- Spacetechn startup GalaxEye to build second satellite with 0.5 m resolution
- SatSure and Dhruva Space forge strategic alliance to deliver end-to-end Earth Observation-as-a-Service (EOaaS) Solutions
- 'Furthest from motherland but closest to Indian hearts': PM Modi interacts with Shubhanshu Shukla in ISS
- Post Op Sindoor, India to fast-track launch of 52 defence surveillance satellites
- ISRO, IN-SPACe And IIMA Are Turning Ahmedabad Into India's Latest Spacetechn Startup Launchpad
- SpaceX President Meets Scindia Days After Starlink Secures India Licence
- In a first, Indian firm bags rocket tech from ISRO; HAL wins SSLV ToT
- Former ISRO Chief S Somanath joins Skyroot Aerospace as honorary chief technical advisor



# MEMBERS BULLETIN



## **GALAXEYE**

Spacetechn startup GalaxEye said it is developing a second satellite amid growing global demand for sharper and faster geospatial insight. The satellite has near 0.5 metre resolution for quality insights needed in defence and other critical sectors. GalaxEye's first satellite, Mission Drishti, is scheduled for launch later this year. Drishti will have a resolution of 1.25 metres and serves as a milestone in demonstrating the company's proprietary technology stack, including a proven sensor system and data processing pipeline tested over 500 drone flights and spaceflight missions.



## **SKYROOT AEROSPACE**

On the day its Ax-4 mission put India's Group Captain Shubhanshu Shukla in space, Houston-based Axiom Space announced a partnership with Indian Space startup Skyroot Aerospace to jointly expand access to low-Earth orbit. Axiom signed a Memorandum of Understanding (MoU) with Skyroot, opening the door for deeper collaboration between the two private space firms. The agreement, signed by Axiom CEO Tejpal Bhatia and Skyroot CEO Pawan Kumar Chandana will explore integrated launch and in-orbit solutions. Former ISRO Chief S Somanath joins Skyroot Aerospace as honorary Chief Technical Advisor.



## **DHURVA SPACE**

SatSure and Dhruva Space forge strategic alliance to deliver end-to-end Earth Observation-as-a-Service (EOaaS) Solutions. The partnership aims to deliver fully-managed Earth Observation (EO) services, including satellite development, launch services, ground station infrastructure, analysis-ready data, and industry-specific solutions. Also Dhruva Space, announced a strategic partnership with France-based Sodern ArianeGroup, a global leader in optical and inertial instrumentation for space and defence sectors, and a subsidiary of Airbus Defence and Space. Sodern will be deploying its next generation 'HORUS' star tracker on a Dhruva Space hosted payload mission scheduled for launch in 2026, as per a press release.

# MEMBERS BULLETIN



## MAXAR

Maxar and Saab Agree Strategic Partnership to Develop Multi-Domain Battlespace Solutions and Advance Europe's Space-Based Capabilities  
Maxar Partners with Array Labs to Fuel its 3D Operational Terrain. Maxar Launches Sentry™, a Breakthrough Persistent Monitoring Suite that Delivers Predictive Intelligence at Global Scale.  
Maxar Awarded Contract by National Geospatial-Intelligence Agency (NGA) to Deliver AI-Powered Object Detection Services.



## ICEYE

ICEYE signs agreement to deliver SAR satellite capabilities to the Portuguese Air Force. ICEYE to deliver space-based ISR capability to the Royal Netherlands Air Force. ICEYE to provide SAR Satellite Data to NATO Allied Command Operations within Alliance Persistent Surveillance from Space Initiative. Finland Ministry of Defense selects ICEYE for space-based intelligence and surveillance capabilities.



## EUTELSAT ONEWEB

French Armed Forces have signed a contract worth 1 billion Euros to reserve capacity on Eutelsat's low-Earth orbit OneWeb constellation.



## PIXXEL

Pixxel, a Bengaluru-based space technology company building the world's highest-resolution hyperspectral satellite constellation, has signed a second agreement with the Innovations for Defence Excellence (iDEX), Ministry of Defence, Government of India. This new SPARK (Support for Prototype and Research Kickstart) grant, awarded to SpacePixxel Pvt Ltd under IDEX DISC 8 Challenge 6.2, supports the development of advanced Hyperspectral and MWIR (Mid-Wave Infrared) payloads, tailored for the Indian Air Force.



# ISRO

# INDIAN SPACE RESEARCH ORGANISATION

## **WORKSHOP ON “HARNESSING SPACE-BASED EARTH OBSERVATION AND GIS TECHNOLOGIES FOR DISASTER RISK MANAGEMENT” | 05 JUNE 2025**

National Disaster Management Authority (NDMA), MHA in association with National Remote Sensing Centre (NRSC)/ ISRO successfully conducted a one-day workshop on “Harnessing Space-Based Earth Observation and GIS Technologies for Disaster Risk Management” on 23rd May 2025 at Vigyan Bhawan, New Delhi. The workshop is an outcome of the continuous interaction between ISRO and MHA, to bring all stakeholders from Central and State government organisations, academia, and industry together, to deliberate on the application of Space technology and Geospatial tools in disaster risk management.



Shri Rajendra Singh, Member & HoD, NDMA delivered a Special Address and Shri Safi Ahsan Rizvi, Advisor (Mitigation), NDMA provided an “Overview on the role of space technology in disaster risk management”, in the inaugural session. Dr. Prakash Chauhan, Director, NRSC, delivered the Chief Guest's Address, emphasizing the role of Earth observation in strengthening disaster risk management and ISRO's efforts towards achieving Honourable Prime Minister's 10- Point Agenda for building disaster resilient country.

## **MOU SIGNED BETWEEN NRSC, HYDERABAD AND NIAS, BENGALURU | 10 JUNE 2025**

National Remote Sensing Centre (NRSC) and National Institute of Advanced Studies (NIAS) entered into a MoU for the joint initiatives in advanced space applications. The MoU was signed by Dr. Prakash Chauhan, Director, NRSC, ISRO and Dr. Shailesh Nayak, Director, NIAS at a function at NIAS campus, Bengaluru.



The main purpose of the MoU is to encourage research-oriented collaboration between the faculty/scientists, researchers, and students to pursue joint research activities, based on mutual interests, using remote sensing and geospatial technologies and development of geospatial database in various applications like archaeology, urban expanse, air quality, environment, energy, etc., and dissemination of the same on Bhuvan platform based on prevailing policy guidelines. The duration of the MoU is five years.



# ISRO

## INDIAN SPACE RESEARCH ORGANISATION

### NRSC/ISRO AND IISC JOIN HANDS FOR RESEARCH TO ASSESS CO<sub>2</sub> SOURCE / SINKS AND PREDICTING EXTREME RAINFALL EVENTS | 10 JUNE 2025

On May 13, 2025, the NRSC / ISRO and IISc representatives signed the Joint Project Implementation Plan (JPPI) documents for the two projects at the IISc campus. These projects are 'Assimilation of Ground & Space-based CO<sub>2</sub> data to Assess CO<sub>2</sub> Source/Sinks over India-Earth System model' and 'Development of a Machine Learning (ML) tool for predicting city-scale Extreme Rainfall Events using a hybrid Physics-AI approach'.

Following are the research details of these projects:



- Assimilation of Ground- and Space-Based CO<sub>2</sub> Observations to Evaluate Carbon Sources and Sinks Over India Using an Earth System Model:** Terrestrial ecosystems, particularly vegetation and soils, act as major carbon reservoirs by absorbing atmospheric CO<sub>2</sub>. Accurately quantifying the carbon sequestration potential of these ecosystems is essential in the context of the Paris Agreement and the global goal of limiting temperature rise below 2°C. NRSC has deployed CO<sub>2</sub> eddy-covariance flux towers across various Indian biomes and climatic regions to monitor CO<sub>2</sub> exchanges. This project focuses on estimating Net Ecosystem Exchange (NEE) through data-driven modelling approaches, aiming to deepen scientific insight into carbon dynamics and to aid policymakers in identifying carbon source and sink hotspots across India.
- Development of a Hybrid Physics-AI Model for Predicting Urban-Scale Extreme Rainfall Events:** A notable surge in extreme precipitation events has been observed in recent years, sometimes exceeding the seasonal average rainfall, causing significant climatic and societal impacts. Predicting such extremes remains a complex challenge. Conventional forecasting methods based on Numerical Weather Prediction (NWP) models face inherent limitations. This study proposes to develop a hybrid modelling framework that integrates Machine Learning (ML) with physical models to improve the prediction accuracy of extreme rainfall events at the city scale. The hybrid approach complements traditional NWP techniques, enhancing their precision and operational utility in forecasting.





# ISRO

## INDIAN SPACE RESEARCH ORGANISATION

### **NRSC ISRO AND SVPUAT SIGN MOU FOR JOINT COLLABORATION FOR RESEARCH, ACADEMIC INTERFACE AND OUTREACH ACTIVITIES | 10 JUNE 2025**

Regional Remote Sensing Centre-North, National Remote Sensing Centre (NRSC), Indian Space Research Organisation (ISRO), Department of Space, has signed an MOU with Sardar Vallabhbhai Patel University of Agriculture and Technology (SVPUAT) Meerut, Uttar Pradesh, premier University in India under U.P. Govt. & ICAR, Govt. of India, for Joint Collaboration for Research, Academic Interface and Outreach Activities on May 16th, 2025. The event took place at SVPUAT campus, and was presided by Dr. K. K. Singh Vice Chancellor, SVPUAT.



The MOU was signed by Dr. S. K. Srivastav, Chief General Manager, Regional Centres, NRSC from ISRO side, and Dr. Kamal Khilari, Director Experiment Station, SVPUAT, from SVPUAT side. This collaboration marks a significant step toward integrating space-based technologies with agriculture using field experiments. The MoU focuses on capacity building, academic interface, and collaborative research initiatives, particularly by applying remote sensing, and advanced technologies in agriculture.

Under this partnership, both institutions aim to jointly work on:

- Research projects addressing key challenges in agriculture through field experimentation using remote sensing.
- Capacity building and outreach activities for students, researchers, and faculty members.



# ISRO

## INDIAN SPACE RESEARCH ORGANISATION

### LAUNCHING OF BHARATIYA ANTARIKSH HACKATHON-2025 | 20 JUNE 2025



Bharatiya Antariksh Hackathon (BAH) is a flagship initiative by the Indian Space Research Organisation (ISRO) introduced in 2024 as a key outreach program to inspire young innovators. It is held annually in the lead-up to National Space Day on August 23, this hackathon aims to foster creativity and technological advancement among students.

The second edition of the Bharatiya Antariksh Hackathon was launched by Dr V Narayanan, Secretary, DOS/ Chairman, ISRO on June 18, 2025 with 14 problem statements in the area of Geospatial Domain, Space Science, Image Processing and AI/ML. A team of 3 to 4 students pursuing Under Graduate/ Post Graduate/ Ph.D. across the country can participate and address these challenges with innovative solutions. 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.

Secretary, DOS / Chairman, ISRO, highlighted the transformative potential of the hackathon, noting that solutions developed by participants could inspire new technologies and influence the development of numerous space application products. He emphasized that students should approach the challenges with an open mind, highlighting that their contributions could serve as a stepping stone to innovations in space technology. Scientific Secretary, ISRO, Directors of various ISRO Centres / Units, mentors & senior ISRO scientists witnessed the event.



# ISRO

## INDIAN SPACE RESEARCH ORGANISATION

### **SUCCESSFUL COMPLETION OF HEALTH-QUEST PROGRAMME: SPACE TECHNOLOGY AIDING EMERGENCY HEALTHCARE IMPROVEMENT** | 23 JUNE 2025



The Health-QUEST (Quality Upgradation Enabled through Space Technology) initiative, jointly undertaken by the Indian Space Research Organisation (ISRO), the Association of Healthcare Providers India (AHPI), and the Society for Emergency Medicine India (SEMI), has successfully concluded its implementation phase. Launched in 2017, the programme aimed at enhancing the quality, safety, and efficiency of emergency care in Indian hospitals by adapting systems and practices from the space sector. Over the years, progress under the initiative was shared with the public at various stages. The latest milestone is the publication of detailed findings in the International Journal for Quality in Health Care (ISQUA).

This publication presents the outcomes of the programme's pilot phase, which was implemented across 10 hospitals, covering more than 10,000 patients. The pilot introduced real-time tracking of key performance indicators such as door-to-triage, door-to-doctor, pain assessment, and discharge times. The results demonstrated measurable improvements in patient flow and clinical responsiveness. For example, triage times were consistently brought under five minutes, pain assessments were conducted 23 minutes earlier on average, and discharge times were reduced by up to 90 minutes. These improvements reflect the effective integration of space mission principles such as process accuracy, monitoring, and standardisation into healthcare operations.

With the pilot phase concluded and its effectiveness validated, the Health-QUEST team is now preparing for the next stage of the initiative. Future activities include geospatial mapping of emergency care facilities, AI-driven forecasting for emergency department crowding, and wider adoption of standardised protocols across hospitals.

ISRO's involvement in Health-QUEST highlights its commitment to applying space-derived knowledge for public benefit. Through this initiative, ISRO has demonstrated how space technologies and process engineering approaches can contribute meaningfully to addressing challenges in critical areas like healthcare, thus reinforcing its role in supporting national development through science and technology.



# ISpA ACTIVITIES

## DG ISpA Lt Gen Anil Kumar Bhatt(retd), attended Space Artha Summit 2025

- DG ISpA, Lt Gen Anil Kumar Bhatt (retd) chaired a panel discussion on "Space Situational Awareness & Domain Intelligence – Enabling National Security and Strategic Defence" and was the guest speaker at the valedictory session during Geospatial World Space Artha Summit 2025 in National Institute of Advanced Studies, Bengaluru on 4<sup>th</sup> june.



## ISpA participated in the Japan-India Science Technology & Innovation Exchange Year.

- ISpA participated in the reception hosted by Embassy of Japan in India to celebrate the Japan-India Science Technology & Innovation Exchange Year on 5<sup>th</sup> june. DG ISpA, Lt Gen Anil Kumar Bhatt (retd) had detailed discussions with the Deputy Chief of Mission & Mr Saku Tsuneta, Vice Chair of Committee on National Space Policy, Cabinet Office, Govt of Japan.



## DG ISpA and Director ISpA attended IN-SPACe Industry Connect-7 (IIC-7) conference and a CXO round table on 10-11 June, 2025 at Ahmedabad.

- DG ISpA, Lt Gen Anil Kumar Bhatt (retd), steered a discussion on the Indian Space Economy at the CXO meet. He also presented all industry associations combined views on the space eco-system.
- Also, Director, ISpA, Gp Capt TH Anand Rao (Retd) steered a brainstorming session on 'Demand Generation' strategies and solutions for the space sector.





# ISpA ACTIVITIES

## **ISpA attended Luxembourg's National Day in New Delhi on 20<sup>th</sup> June.**

- ISpA had the honour to attend the Grand Duchy of Luxembourg's National Day in New Delhi was hosted by H.E. Mrs. Peggy Frantzen, Ambassador of Luxembourg to India, on June 20, 2025.



## **ISpA signed of a pivotal Memorandum of Understanding (MoU) between the ISpA and INFOTÉR (Information & Technology for Society)**

- The MoU was formally signed by DG ISpA Lt Gen Anil Kumar Bhatt (retd) and Zsigmond Perényi, Vice President of Infotér, in the esteemed presence of His Excellency Mr. István Szabó, Ambassador Extraordinary and Plenipotentiary of the Hungarian Embassy in India, at his residence on 27<sup>th</sup> June 2025.
- This significant collaboration is set to invigorate the India-Hungary Space domain.



## **ISpA Presence at the 5<sup>th</sup> anniversary of Australia-India Comprehensive strategic Partnership (AICSP)**

- It was an honour to attend a special reception to celebrate 5th anniversary of Australia-India Comprehensive Strategic Partnership (AICSP), in presence of visiting Hon'ble Richard Marles MP, Deputy Prime Minister and the Minister of Defence, at the Australian High Commission in New Delhi on 4<sup>th</sup> June 2025.





# ISpA IN NEWS



A Falcon 9 rocket carrying the Axiom-4 crew of four astronauts lifts off from Kennedy Space Center Launch Complex 39A on a mission to the International Space Station, in Cape Canaveral, Florida, US, REUTERS

**Mission to carry on**

India

**Mission research for**

Axiom-4 isn't just a symbolic flight science and research. The experiments and research a

**Research Domains**

Human Physiology & Biology

Earth Observation

Material Sciences

Life Sciences

As Group Captain Shubhanshu Shukla's mission is historic and the stakes are high, Mission 4 is the world's first and the best way for the success

Dr. Pradipta Kumar, President



**Shubhanshu Shukla takes off for Axiom-4 mission**  
News on historic Space Milestone | Indian embassy in Iran says evacuation exercis

## CHARTING A NEW ORBIT: Axiom-4 sets the stage for Gaganyaan & Bharatiya Antariksha Station Shukla's mission lifts India's space future

**KALYAN RAY**  
NEW DELHI, DHNS

Group Captain Shubhanshu Shukla's space voyage marks the beginning of India's sustained exploration of outer space, setting the stage for the Gaganyaan mission in 2027 and the Bharatiya Antariksha Station eight years later.

India's homegrown human spaceflight programme, which will send astronauts into the 400 km above Earth, will catapult the country into an elite group of nations that have launched citizens into space using their own space craft and rockets.

Moreover, the programme will have several technology spin-offs ranging from shock-resistant automobile seats to load with long shelf life. The Gaganyaan mission will also open up the possibility of commercialising space.

"Rakesh Sharma's space trip was an experiment. That was very much like the man on the moon in the 1960s and 1970s. It was a heroic feat, but symbolic because India didn't have a follow-up programme," veteran astronaut Somnath Chaturvedi, Vice-Chief of Ashoka University, told *DHNS*.

"Shukla's trip, on the other hand, carries new meaning. This will be a game-changing moment, showing that we are serious about building our astronaut corps."

The Gaganyaan mission, scheduled for launch in the first quarter of 2027, will be followed by the Bharatiya Antariksha Station.

**COMBAT JETS TO SPACECRAFT**

**Lucknow lad turns star voyager: The rise of 'Shuk'**

**NEW DELHI, DHNS**

Flying to space was no where for Group Captain Shubhanshu Shukla's mind when he first stepped into the hall of the National Defence Academy (NDA).

Born in 1985 in Lucknow, a year after Wing Commander Rakesh Sharma's historic journey to space aboard a Russian spacecraft—Shukla was inspired by an air show and resolved to join the armed forces.

He cracked the NDA exam and passed out in 2005. A year later, he was commissioned into the Indian Air Force's fighter stream. He later earned an M.Tech in aerospace engineering from the Indian Institute of Science, Bengaluru.

After clocking hours on the IAF's main machines—from Su-30 MKIs and MiG-29s to Hawk and Jaguar—the ace pilot, 'Shuk' to his mates and 'Ganjan' to his old friends and family, got the chance of a lifetime in 2019. He was selected as one of four

**Emotional parents watch son's space journey with tears of joy**

**SANJAY PANDEY**  
LUCKNOW, DHNS

With tears of joy in their eyes and prayers on their lips, the parents of Group Captain Shubhanshu Shukla watched with baited breath as SpaceX's Crew Dragon spacecraft lifted off from Launch Pad 39A at NASA's Kennedy Space Center in Florida around 12 PM Wednesday.

Students and teachers of the private school where Shukla once studied erupted in celebration as the spacecraft took off. The school had set up large screens to show a live telecast of the historic launch.

Shubhanshu's parents were present at the school to witness the event. As the spacecraft successfully launched, teachers, students, and his family broke into joyful dances.

"Great pride!" It's a matter of great pride for all of us, we are extremely happy, these are tears of joy," said Shubhanshu's mother, Asha Shukla, who watched the launch with fold

ed hands. "We have been waiting for this moment for long time. Our joy knows no bounds today," she added.

"He has our blessings... we pray to God for the success of the mission," said Shukla's father, Shambhu Dayal Shukla.

In the moments leading up to liftoff, Shukla's mother was seen wiping away tears and later clapping in joy as the rocket soared into space.

Shubhanshu joined the Indian Air Force as a fighter pilot in 2006. He was selected as an astronaut for the Gaganyaan Mission in 2019 and underwent basic astronaut training from 2019 to 2021 at the Yuri Gagarin Cosmonaut Training Centre in Russia.

He completed training with SpaceX in 2023. Earlier, Wing Commander Rakesh Sharma became the first Indian in space as part of a Soviet mission in 1994.

Along with Shukla, the Axiom-4 crew includes Poland's Sławosz Uznanski-Wisniewski, Hungary's Tibor Kapo, and Commander Peggy Whitson.

He carries with him the wishes, hopes and aspirations of 1.4 billion Indians. Wish him and other astronauts to space on an entirely indigenous platform."

Peggy Whitson, former NASA astronaut and Director of Human Spaceflight at Axiom Space, is commanding the commercial mission, while ISRO astronaut Shubhanshu Shukla is

serving as the pilot.

The two mission specialists are European Space Agency project astronaut Sławosz Uznanski-Wisniewski of Poland and HUNOR (Hungarian for Orbit) astronaut Tibor Kapo of Hungary.

During their planned 14-day mission, the Axiom-4 crew will live and work aboard the orbiting laboratory, conducting around 60 different research activities representing 31 countries.

The studies will contribute to human research, Earth observation and life, biological and material sciences—showcasing each country's space research initiatives.

The mission also aims to foster industrial advancement and technological innovation beyond Earth.

### SPACE HERO SHUBHANSHU

SHUBHANSHU INSIDE CAPSULE

AX-4

27002 1:00:10:37 199

CEO, KALAM CENTRE

**BREAKING NEWS**

**'JAI HIND' IN SPACE**

**Shubhanshu: Start of India's human space programme**

### SHUBHANSHU SENDS 'SPACE NAMASKAR'

WHAT'S NEXT IN SHUBHANSHU'S JOURNEY?

LT GEN (R) AK BHATT

AFTER DOCKING, AXIOM-4 CREWMEMBERS WILL ENTER THE ISS

ONBOARD THE DRAGON CAPSULE

SHUBHANSHU'S ROLE IS PRIMARILY TO MONITOR THE TRAJECTORY, ORBITAL PARAMETERS AND THE MOVEMENT OF THE SPACE STATION

**MISSION MAY NEUP INDIA'S PVT SPACE SECTOR TAKE OFF: INDUSTRY**

Shukla's words once captured a generation's passion. Shukla's mission lands in a different era. One shaped by India's emerging space sector and its growing interest in global supply chains and research.

The Axiom mission, a joint venture between NASA and Houston-based Axiom Space, is the first of its kind. It is a 14-day mission involving research experiments in 30 countries, which have been proposed by researchers.

The Indian astronaut, carrying with him the hopes and aspirations of 1.4 billion Indians, said Prime Minister Narendra Modi, Chief Minister Muralidhar Reddy, and the Union Minister for Space, Dr. Jitendra Singh, in a video message.

The Axiom mission is a public-private collaboration—has spurred conversation in India about adopting similar frameworks. "As a beacon for the new era of space exploration,"

# ISpA IN NEWS

Shubhanshu Shukla's flight to ISS  
countdown to India's manned  
missions

07 june 2023

The Financial Express

Shukla's ISS flight set to mark liftoff  
for India's space industry

08 june 2025

Business Standard

How India is building a decentralised  
space economy to power its \$44  
billion orbit

june 14 2025

Fortune India

Terrestrial mobile services to stay as  
Satcom services will be expensive for  
India: ISpA

15 june 2025

HinduBusinessLine/ Communications  
Today

Axiom-4, India's Big Cosmic Leap:  
How Is Space Travel Shaping Up In  
India?

21 June 2025

NDTV Profit

Shubhanshu Shukla's space mission  
start of India's human space journey,  
say industry leaders

25 June 2025

economic times/The week

Shubhanshu Shukla Takes Off for  
Axiom-4 Mission | Expert Insights

25 June 2025

DD India

Shubanshu Shukla's Space Mission: A  
New Chapter for India

25 june 2025

Zee Business

Axiom-4: Grp Capt Shubhanshu  
Shukla Scripts History As The 2nd  
Indian In Space

25 june 2025

NewsX

Axiom-4 Mission की लॉन्चिंग आज,  
Shubhanshu Shukla मिशन के लिए तैयार

25 june 2025

DD News

Shubhanshu Shukla going to space,  
Axiom-4 launch

25 june 2025

NDTV News

Indian back in space after 41 years,  
Shubhanshu Shukla lifts off on  
Axiom-4 mission

26 June 2025

The economic times

IAfter 41 years, India sends  
Shubhanshu Shukla to space on ISS-  
bound SpaceX capsule

26 June 2025

Hindu BusinessLine

IShubhanshu Shukla Scripts History |  
First Indian Aboard ISS | Axiom-4  
Docking Special

26 june 2025

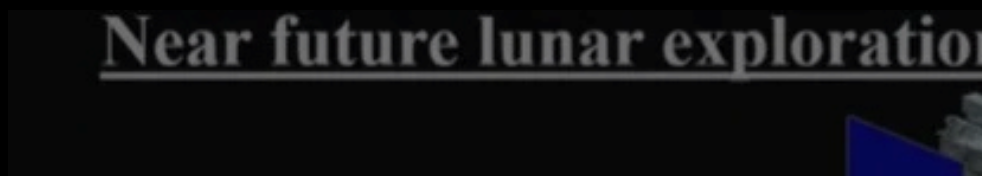
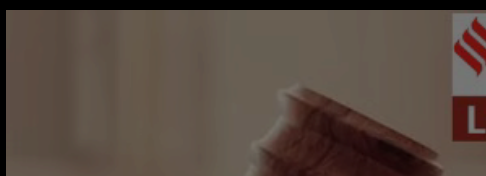
NewsX

ISpA hails HAL winning SSLV bid

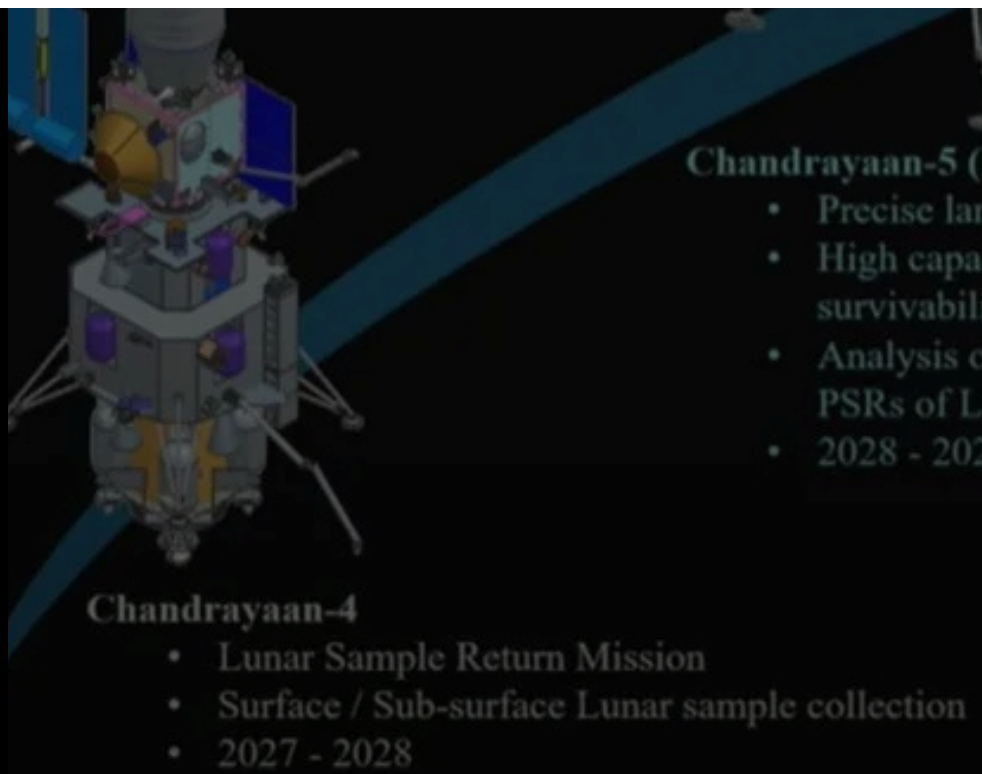
21 June 2025

United News of India





# NATIONAL NEWS





# NATIONAL NEWS

Who Controls the Skies, Controls the Nation: Why India Must Rethink Starlink Before It's Too Late  
June 02, 2025-Swarajya

ISRO has selected seven microgravity experiments for Ax-4, spanning agriculture, food, and human biology  
june 02 2025-NDTV

ISRO, IN-SPACe And IIMA Are Turning Ahmedabad Into India's Latest Spacetechn Startup Launchpad  
JUNE 02 2025-BUSINESSWORLD

Indian flyers to double in 5 years, ambition to commercialise space flights: PM Modi  
JUNE 03 2025-Times of india

After Elon Musk's Starlink, Jeff Bezos' Amazon Project Kuiper may enter India's lucrative satellite internet market  
03 JUNE 2025-msn.com

Andhra Pradesh to use space tech to improve real-time governance  
june 03 2025-Indiatoday

Airtel and Reliance Jio send letter to DoT on Elon Musk's Starlink, says: Businesses will suffer  
june 04 2025-Times of india

Starlink to get licence to operate in India soon: Jyotiraditya Scindia  
june 04 2025-Economic times

Satcom firms say telcos' criticism of Trai spectrum suggestions unjustified  
June 04 2025-Economic times

Astronaut Shukla's ISS experiments crucial for India's space future: Jitendra Singh  
june 04 2025-Indiatv

India's Space Policy: Between Strategic Autonomy and Alignment With the United States  
june 05 2025-Council foreign relations

Human-rated Falcon 9 Block 5 rocket to carry India's space hopes  
june 05 2025-Theweek

Will Musk-Trump clash delay Indian astronaut Shubhanshu Shukla's space launch?  
june 06 2025-Indiatoday

Starlink India licence: Elon Musk's satellite internet gets major approval - 3rd after Reliance Jio, Bharti's OneWeb  
june 06 2025-etownnews

IA Hyderabad startup is launching India's 1st 'thinking' satellite. A brain in space  
june 09 2025-theprint

Security topmost priority: Elon Musk's Starlink may have to share data on seized kits under Indian satcom permit; US company was unwilling to  
june 09 2025-Timesofindia

Former Secy E.A.S. Sarma Expresses 'Serious Concerns' Over Starlink Deal; Seeks Judicial Probe  
june 10 2025-thewire

YAxion-4 mission postponed due to LOx leak, delaying Shubhanshu Shukla's team again — all you need to know  
june 11 2025-mint

Mysuru's DFRL gets gravity of astronauts' food cravings  
JUNE 11 2025-Deccan herald

NISAR Arrives at Indian Launch Site  
JUNE 12 2025-Jet Propulsion Laboratory

Eye in the sky: India to set up satellites to spy on satellites  
13 June 2025-MINT

Working closely with Nasa to address Ax-4 delay, says Isro chairman 13 june 2025-Business Standard

NDTV Exclusive: Close Call For Musk's SpaceX Rocket: How ISRO Helped Avert Space Disaster  
JUNE 14 2025-NDTV

India Space Congress to begin on June 25 in Delhi; bring together policymakers, industry leaders  
JUNE 15 2025-economictimes

Opening up space and nuclear sectors most unexpected decisions of Modi government: Minister Jitendra Singh  
june 15 2025-swarajya

# NATIONAL NEWS

India To Launch \$1.5 Billion Joint Earth Mission With NASA In July  
JUNE 16 2025-NDTV

Opening up space and nuclear sectors most unexpected decisions of Modi government: Minister Jitendra Singh  
june 16 2025-times of india

Alert sounded after terror threat to Sriharikota space centre; police, CISF conduct searches, security upped  
june 16 2025-times of india

ISRO successfully carries out model rocket launch test in UP's Kushinagar  
june 16 2025 - mint

India enters new quantum era of secure communication: Rajnath Singh  
17 June 2025-ET Satcom

Starlink India Launch BIG Update: Unlimited Data Plans starting at Rs 3000, Setup Kit of Rs..., Airtel and Reliance Jio  
17 June 2025-india.com

indian scientist in Florida to help Shukla conduct experiments aboard space station  
17 June 2025-The Tribune

SpaceX President Meets Scindia Days After Starlink Secures India Licence  
17 June 2025-NDTV

Govt, Trai dismiss telecom companies' revenue fears on satcom  
18 June 2025-Economic times

Recommended by NASA, driven by passion! Kerala boy discovers four asteroids  
19 june 2025-The New Indian Express

Vodafone Idea connects with AST to foray into satcom services  
19 June 2025- The Economic Times

BIF claims telcos attempting to block entry of satellite services into India  
June 20 2025- the new Indian express

In a first, Indian firm bags rocket tech from Isro; HAL wins SSLV ToT  
Jun 20, 2025-The times of india

Bharti Space to invest ₹313 crore in Eutelsat's satellite expansion  
June 20 2025 - mint

ISRO, Coffee Board tie up to assess coffee's carbon footprint  
Jun 20, 2025-The economic time

ISRO readies SpaDeX-2 mission to dock satellites in elliptical orbit  
JUNE 22 2025-The indian express

ISRO's Vision for the Future: Dr A S Kiran Kumar Highlights Manned Space Missions at Mangaluru Event  
JUNE 22 2025-mangalore today

Isro ex-chief-led panel to onboard HEIs in new regulatory setup  
JUNE 22 2025- Times of india

Andhra woman becomes first Indian to complete Nasa program, to go to space in 2029  
23 June 2025-Indiatoday

AP's Aerospace and Defence Policy 4.0 aims for ₹1 lakh cr investments in 5 years  
23 June 2025-The Hindu BusinessLine

Not sufficient acumen in India's private space industry yet: Jitendra Singh  
23 june 2025-deccan herald

Space race: Is competition among Indian startups ready for lift-off?  
24 june 2025-The mint

Duopoly not good, must ensure competition in every sector: Telecom Minister Scindia  
24 june 2025-The New Indian Express

Qualified cheer: On Shubhanshu Shukla, Axiom-4 mission  
JUNE 26 2025-The hindu

India's space sector must shift beyond ISRO, go global: Pawan Goenka  
26 june 2025-Business Standard

Axiom-4 crew docks: Shubhanshu Shukla becomes first Indian to enter International Space Station  
26 JUNE 2025-The Times India

Former ISRO chief S Somanath joins Skyroot Aerospace as honorary chief technical advisor  
26 JUNE 2025- the economic times

# NATIONAL NEWS

**India's new space revenue driver:  
surveillance satellites**  
**27 June 2025-The Mint**

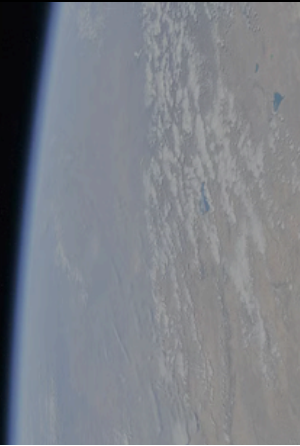
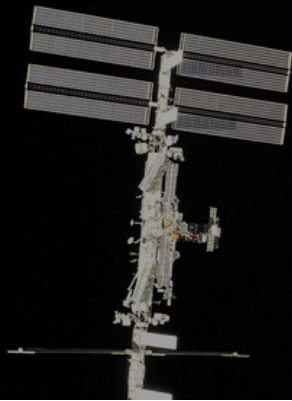
**I'Furthest from motherland but  
closest to Indian hearts': PM Modi  
interacts with Shubhanshu Shukla  
in ISS**  
**28 June 2025-The Times of India**

**Starlink India: Elon Musk's US  
satcom to get final regulatory nod  
soon! 'The authorisation...' - What  
sources said**  
**29 June 2025-ET NOW**

**Post Op Sindoor, India to fast-  
track launch of 52 defence  
surveillance satellites**  
**30 June 2025-The times of india**

**SatSure, Dhruva Space sign MoU  
to deliver end-to-end space-based  
solution**  
**30 June 2025-business standard**

**US Influencer Praises India's Space  
Success As Shubhanshu Shukla  
Reaches ISS**  
**30 June 2025- NDTV**



# INTERNATIONAL NEWS





# INTERNATIONAL NEWS

## USA

- NASA seeks commercial relay and navigation solutions for future Earth-orbit missions | June 02, 2025 - military aerospace
- Rocket Lab launches BlackSky satellite June 02, 2025-space news
- After Elon Musk's Starlink, Jeff Bezos' Amazon Project Kuiper may enter India's lucrative satellite internet market | June 03, 2025-MSN
- SpaceX launches more Starlink satellites into low-Earth orbit | JUNE 03, 2025-Space daily
- Elon Musk has a SpaceX 'challenge' for NASA's entire budget for 2026 | June 04 2025-Times of india
- Introducing the First-Ever Utility Meter to Satellite Communication | June 11, 2025 -iot business news
- Private agencies in space race has its perils | June 12, 2025-The tribune
- NASA discovers mysterious X shaped ionospheric structures in the earth upper atmosphere | June 13, 2025-Times of india
- 500 Falcon missions! SpaceX sends 26 Starlink satellites to orbit on landmark launch | June 13 2025-Space.com
- How Nasa biologist Sharmila Bhattacharya is prepping humans for space | June 14, 2025-The Mint
- Amazon Kuiper second satellite launch postponed by ULA due to rocket booster issue | June 16, 2025-CNBC
- MACOM Technology Solutions Unveils New RF and Optical Products for SATCOM Applications | 16 June 2025-Nasdaq
- SpaceX launch from California sends 26 Starlink satellites into low Earth orbit June 17, 2025 - Space .com
- NASA Issues RFI for Commercial Space Communication Capabilities | June 17, 2025- Executive Gov
- President Trump pushes for EchoStar-FCC resolution | JUNE 17 2025-Data Centre Dynamics
- The Starlink effect: NGSO services to dominate maritime satellite communications market | June 18 2025-satnews
- Varda to launch its first in-house built spacecraft for on-orbit manufacturing June 18 2025-Space news
- SpaceX's Starship Explodes On Test Stand In Yet Another Setback | June 19 2025
- Portal Space Systems to build larger factory for Supernova vehicle | June 19 2025-Space news

# INTERNATIONAL NEWS

## USA

- Pentagon struggles to build unified satellite network | June 20, 2025-Space news
- Starlink Imposes Eye-Popping 'Demand Surcharge' for New Sign-Ups in This State | June 21 2025-PC MAG
- Airbus says space business turnaround going well | June 21, 2025-Space news
- Army asks industry for Ka-band tactical terminal for next-gen battlefield satellite communications (SATCOM), June 23,2025- military aerospace
- Space Inventor Launches First Danish Arctic Satellite | June 23 2025- space news
- SpaceX, ULA launch back-to-back rockets in under 5 hours at Cape Canaveral Space Force Station | June 23 2025- news journal
- AST SpaceMobile pays \$550m to access premium spectrum in North America for satellite D2D | June 24 2025-Data Center Dynamics
- SpaceX launches Space Development Agency's IDES Prototype Satellite the first of 12 risk reduction satellites | June 24 2025-satNews
- Space Development Agency accelerates launch of first experimental tactical SATCOM satellite | June 24 2025-defence scoop
- Pentagon to consider SpaceX alternative for Space Force satellite program | June 26 2025- Spacenews
- New SLS booster design suffers anomaly during test | June 27 2025- Spacenews
- Space Force eyes maneuverable satellites and cloud-based control software to outpace threats in orbit June 30 2025- Spacenews

# INTERNATIONAL NEWS

## CHINA

- China launches fourth group of Guowang megaconstellation satellites | JUNE 06 2025-Spacenews
- Chinese spacecraft prepare for orbital refueling test as US surveillance sats lurk nearby | June 10, 2025-Spacenews
- China testing orbital refueling procedures for satellite missions | 13 Jun, 2025 – Space.com
- CAS Space performs Kinetica-2 first stage hot fire test ahead of first launch and cargo dem | June 13, 2025 – Space.com
- China lays foundation for cislunar infrastructure with spacecraft in novel lunar orbits | June 16, 2025-Spacenews
- China's Cangyu plans mixed-orbit commercial data relay satellite system | June 16, 2025-Space news
- China conducts pad abort test for crew spacecraft, advancing moon landing plans | June 17, 2025-Space news
- Mengzhou spacecraft for China's moon-landing mission passes landmark test flight | June 18, 2025-Scmp.com
- China to lead global space weather network to monitor dangerous solar eruptions | JUNE 19, 2025-Scmp.com
- 2 Chinese spacecraft just met up 22,000 miles above Earth. What were they doing? | June 19, 2025-Spacenews
- LandSpace performs 9-engine static fire test for reusable Zhuque-3 rocket June 20, 2025-space news
- What is China really doing in space? Mysterious satellite maneuver stuns experts | JUNE 20, 2025-Times of india
- China launches ChinaSat-9C to boost national broadcasting capabilities June 22, 2025-ilkha
- Chinese satellite reportedly beats Starlink by transferring data 5x faster using a tiny laser | 24 July 2025- The times of india
- China Strikes Hard: Chinese Satellite Pulverizes Starlink With a 2-Watt Laser 36,000 KM From Earth | 26 June 2025- MSN
- China's Shenzhou-20 astronauts complete second spacewalk to enhance Tiangong space station | 27 June 2025-Spacenews

# INTERNATIONAL NEWS

## OTHER NATIONS

- Japanese scientists reveal how earthquakes can disrupt satellites in space june 02 2025-India Today
- honda Unexpectedly Enters the Space Race With First Successful Rocket Launch June 02 2025-Gizmodo.com
- Eutelsat OneWeb LEO services granted regulatory license by South Korea june 04 2025-Inflight
- Private lunar lander from Japan crashes into moon in failed mission 06 2025-The hindu
- Russia patents technology for launching drones to maintain orbital space station 07 2025-Deccan Herald
- LG Innotek Unveils World's First Automotive 5G Broadband Satellite Communication Module june 09 2025-prnewswire.com
- Hanwha Systems Exits Eutelsat OneWeb Stake, Focusing on Military Satellite Business - 09 June 2025 - SatNews
- French SSA company Look Up raises 5 million euros June 13,2025-Spacenews
- ESA Satellites Create First Artificial Total Solar Eclipse in Space 17 june 2025-Peta Pixel
- Venturi Space announces European lunar rover design June 18, 2025-Spacenews
- French government to lead Eutelsat's \$1.56 billion capital boost June 19, 2025-Spacenews
- ST Engineering iDirect and solutions by stc Strengthen Strategic Partnership to Advance Satcom Services in Saudi Arabia 19 Jun, 2025-PR NEWSWIRE
- ESA and EU emphasize good relationship as they press forward on imaging constellation June 20, 2025 - Space News
- ESA signs agreement for potential use of Orbital Reef June 20, 2025 - Spacenews
- Ukraine and partner countries to raise funds for imagery satellites to lessen reliance on the June 23, 2025-Spacenews
- Space Inventor Launches First Danish Arctic Satellite 23-june 2025-Spacenews
- GRUS-3a Microsatellite Successfully Launched and First Signal Received JUNE 24, 2025-AXELSPACE
- EU revamps regulations for expanding space market 26 june 2025 - ET Telecom
- 30 European countries are concerned about Russia's interference with satellite communications 27 June 2025-UNN
- Rocket Lab launches HawkEye 360 satellites 27-june 2025-Spacenews
- Rocket Lab launches second Electron within 48 hours 28-june 2025-Spacenews
- Final H-2A launches Earth science satellite 29-june 2025-Spacenews



# GOVERNMENT POLICIES/ CONSULTATIONS/ RECCOMENDATIONS/ ANNOUNCEMENTS

- **ANDHRA PRADESH GOVERNMENT TO COME UP WITH SPACE POLICY 4.0 SOON**

CHIEF MINISTER N CHANDRABABU NAIDU HAS DIRECTED OFFICIALS TO DRAFT THE ANDHRA PRADESH SPACE POLICY 4.0, AIMING TO PUT THE STATE ON TOP IN THE SPACE SECTOR, WHILE ATTRACTING RS 25,000 CRORE INVESTMENTS.

**Concept & Designed by:  
GUNASHREE.M**

## Founding Members

- Alpha Design Technologies Ltd
- Bharti Airtel
- CE Info Systems Pvt Ltd (Map my India)
- Larsen & Toubro
- Nelco (A TATA Enterprise)
- Eutelsat One Web India Communications
- Walchandnagar Industries

## Associate Members

- Avantel
- Axon Interconnectors & Wires
- BAE Systems India
- Bharat Electronics
- Broadcast Engineering Consultant India Ltd
- BEML Limited
- Capella Space
- ESRI India
- HAL
- ICEYE
- Inmarsat India
- Intelsat Inflight India
- LeoLabs
- MAXAR Technologies
- Nibe Space
- NorthStar Earth&Space
- Planet Labs
- Tata Advanced Systems
- Tata consultancy services

## Core Members

- Ananth Technologies
- Astra Microwave Products
- Azista-BST Aerospace
- Bharat Forge
- Centum Electronics
- Godrej & Boyce Mfg
- Hughes Communication India
- Ipstar (India)

## Start-up Members

- Agnikul Cosmos
- AIDIN Technologies
- Altz Technologies
- Anvikshiki sarvajna
- Augsenselab Pvt Ltd
- Astrogate Labs
- Astrome Technologies
- Bellatrix Aerospace
- BES Space
- BosonQ PSI Tech
- Caliche
- C14
- CI-Mertics
- CYRAN AI Solutions
- Dhruva Space
- Digantara Research & Tech
- Elena Geo Systems
- GalaxEye Space
- Geo Solutions India
- Hyspace Technologies
- Indian Technology Congress Association
- Inspecty Space
- Kaleido Space Systems
- Kawa Space
- Kepler Aerospace
- Kerala Space Park
- Maan Defence
- Manastu Space
- Micronet Solutions
- Omspace Rocket
- OnEarth Space TS
- Omnipresent Robot Tech
- OrbitAid Aerospace
- Piersight Space
- Pixxel
- Robinsons Cargo & Logistics
- Saankhya Labs
- Samkalpa Systems
- SatLeo Labs
- SISIR Radar
- Skymap Global India
- Skyroot Aerospace
- Space Machines Co.
- SpaceFields Pvt Ltd
- Suhora Technologies
- Upgraha Space
- Vihaan SpaceTech
- Xovian Aerospace

## Other Members

- Space Kidz India



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