

Guest Country

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**International Conference on Space 2023**  
***Expediting New Space in India***  
**14 - 15 September 2023: Taj Hotel, Bengaluru, India**

**DAY 1 – 14 September 2023**

0800 - 1000 Hrs Registration

1000 - 1130 Hrs Inaugural Sessions

**1130 - 1200 Hrs Tea Break**

1200 - 1300 Hrs Expediting New Space in India: Current Scenario, challenges & way forward

**1300 - 1400 Hrs Lunch Break**

1400 – 1500 Hrs Driving India's Space Sector through favorable policies and demand creation

1500 - 1600 Hrs Indian Space Industry moving towards AtmaNirbharata across the value chain

1600 - 1700 Hrs Earth Observation: current trends, innovations, challenges and opportunities

**DAY 2 - 15 September 2023**

1000 – 1100 Hrs Propelling India's Economy through Space start-ups

1100 – 1200 Hrs Emerging Trends in SatCom: India's Perspective

1200 – 1300 Hrs Human Spaceflight and Space Exploration Missions

**1300 – 1400 Hrs Networking Lunch**

1400 – 1500 Hrs Enhancing International collaborations in space sector: Roadmap ahead

1500 – 1600 Hrs Innovation & Emerging Technologies: The future of Space

1600 – 1700 Hrs Earth Observation Data & Dissemination Platform: The Vision & Strategy

Event Partner

**SATSURE**



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**DAY 1- 14 SEPTEMBER 2023, TAJ WEST COURT HALL**

**INAUGURAL SESSION**

1000 – 1005 Hrs	Opening remarks	<b>Kamal Bali</b> Chairman, CII Southern Region
1005 – 1010 Hrs	Industry perspective	<b>Apparao Mallavarapu</b> Co-chair CII National Committee on Space
1010 - 1015 Hrs	Theme Address	<b>Jayant Patil</b> Chairman CII National Committee on Space
1015 - 1025 Hrs	Address	<b>Sarah Storey</b> Deputy High Commission Australian High Commission
1025 – 1040 Hrs	Special Address	<b>A S Kiran Kumar</b> Former Chairman, ISRO & Distinguished Indian scientist
1040 - 1055 Hrs	Special Address	<b>Pawan K Goenka (Dr.)</b> Chairman Indian National Space Promotion and Authorization Center (IN-SPACE)
1055 – 1105 Hrs	Exchange of MoU between INSPACE & NIIFL	Release of 'Catalogue of Indian Standards for Space Industry, developed by INSPACE & BIS'
	Release of report on 'NewSpace: India Perspective'	
1105 – 1110 Hrs	Closing Remarks & Vote of Thanks	<b>Sudheer Kumar N,</b> Director, CBPO, ISRO, HQ



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**DAY 1- Session 1**

**1200 - 1300 Hrs Expediting New Space in India: Current scenario and Challenges**

A discussion on the emerging trends, investment patterns, and notable achievements within the Indian private space industry in recent times. Experts will propose strategies to create an enabling environment for private sector growth. This will include suggestions on how legacy organizations from all sectors can tap into the nascent ecosystem, industry-academia collaborations, and the importance of fostering innovation and entrepreneurship within the sector.

The session aims to provide valuable insights and recommendations to stakeholders interested in the Indian private space industry. Participants will gain a deeper understanding of the industry's dynamics and explore opportunities for collaboration, investment, and innovation in one of the fastest-growing sectors in India.

1200 - 1203 Hrs	Opening remarks & session moderation	Laxmesh BH, Vice President, L&T
1203 - 1210 Hrs	Special Address	Vinod Kumar (Dr.), PD, INSPACe
1210 - 1300 Hrs	Key panelists	<p>Anil Kumar Bhatt (Retd. Lt Gen), Director General, ISpA</p> <p>M.V. Reddy, Joint Managing Director, Astra Microwave Products Ltd</p> <p>Maneck Behramkamdin, Assistant Vice President, Godrej Aerospace</p> <p>Sanjay Nekkanti, Founder &amp; CEO, Dhruva Space</p> <p>Satyanarayanan R Chakravarthy, Professor, IIT Madras</p> <p>Yashas Karanam, CEO, Bellatrix Aerospace Private Limited</p> <p>Anirudh Sharma, CEO, Digantara</p>



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**DAY 1- Session 2**

**1400 - 1500 Hrs Driving India's space sector through favorable policies & demand creation**

Six years since the Government of India's announcement of privatizing India's space sector, over a hundred companies have emerged in this domain. Several legacy space and defense enterprises are pivoting to adjust to the New Space Era to support and eventually execute space missions of their own. The recently announced space policy (2023) outlines the roles and responsibilities of key institutions involved in the Indian space industry.

However, for the sector to further accelerate, companies will need extensive support from an ecosystem of financiers, technology partners, the government and policy specialists. The importance of space insurance for rockets and satellites cannot be overstated and new policies need to be raised for private institutions to participate. Also, it is crucial for the Indian industry to collaborate and work towards creating a support ecosystem for domestic manufacturing of critical electronics components and setting up state-of-the-art facilities for fabrication and manufacturing. This would help reduce India's import dependency for space systems, as proposed by the Indian government's policy to reduce electronics imports significantly by 2025.

The session will deliberate on what the current regulatory landscape of the sector is, how the government envisions operationalizing the more recent policies to benefit all actors in the ecosystem, and finally, how they'll open up different avenues of demand creation for the commercial actors.

1400 - 1403 Hrs	Opening remarks & session moderation	Sreeram Ananthasayanam, Partner, Deloitte India
1403 – 1415 Hrs	Key panelists	Ganesh Mohan, Assistant Director, INSPACE  Rohan Ganapathy, Director, Bellatrix Aerospace  ATL GS Bedi, Director Ananth Technologies  Sunil Indurti, Director, Azista BST  Venkatesh Kumaran, President, Astrome Technologies Pvt. Ltd  Palava Bagla, Journalist, Science & Technology  Ashok GV, Partner, Factum Law



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**DAY 1- Session 3**

**1500 - 1600 Hrs Indian Space Industry moving towards AtmaNirbharata across the value chain**

As part of the government's Atmanirbhar Bharat (Self-Reliant India) initiative, India is taking steps towards becoming a self-reliant nation in the space sector. This includes reducing import dependence and encouraging domestic manufacturing. To promote coordination in the industry, the Government of India has taken many initiatives by launching the Indian Space Association (ISpA), NSIL and Indian National Space Promotion and Authorization Centre (IN-SPACE) with the aim of promoting private players and making India Atmanirbhar in space and satellite technology. With the approval of the Indian Space Policy 2023, the private sector is being encouraged to participate in the space sector through investment opportunities and conducive regulatory policies. Apart from this, indigenization also has strategic benefits, as it can provide India with greater control over its space assets and improve its national security.

This session will explore how indigenization can enhance India's competitiveness in the space industry and enable it to provide affordable and innovative space-related services to other countries. Indigenization of the space technology value chain will also have spillover effects in other industries, leading to the development of new technologies and products.

1500 - 1503 Hrs	Opening remarks & session moderation	Vinod Chippalkatti, President, Centum Electronics
1503 - 1510 Hrs	Special Address	Rajiv Jyoti, Director, TD, IN-SPACE
1510 - 1600 Hrs	Key panelists	SK Jha, CMD, MIDHANI  Chirag Doshi, MD & CEO, Walchandnagar Industries N Balaji, Addl. General Manager, HAL  Ashtesh Kumar, Co-founder, Manastu Space C.V.S.Kiran, Lead, R&D and Strategy. Skyroot Aerospace Private Limited Mahadevan ATI, Senior Manager- Space, Dassault Systems  Mahadevan ATI, Senior Manager- Space, Dassault Systems



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**DAY 1- Session 4**

**1600 - 1700 Hrs Earth Observation: current trends, innovations, challenges and opportunities**

Earth observation is a significant aspect of the Indian space sector. With increasing demand for satellite-based remote sensing and earth observation services, companies in India have a great opportunity to develop and manufacture satellites and related technologies. EO has become increasingly important in recent years due to its applications in agriculture, disaster management, climate change monitoring, defence, and natural resource management. The means of acquiring and processing huge amounts of EO data are getting cheaper with the advent of technology and the miniaturisation of the avionics used in satellites.

This session will explore how the emerging industry will address challenges in Earth Observation (high costs associated with satellite development and launch, data privacy concerns, the lack of standardisation in data collection and processing) and solutions for combating problems like climate change, food security, and resource management.

1600 - 1603 Hrs	Opening remarks & session moderation	K Sreenivas (Dr.), DD, NRSC
1603 - 1610 Hrs	Special Address	Thomas JV (Dr.), Director, EDPO, ISRO HQ
1605 - 1700 Hrs	Key panelists	<p>Arpan Sahoo, COO, KaleidEO</p> <p>Krishna Rao TVB, ESRI India</p> <p>Kishan Thakkar, VP Engineering, GalaxEye</p> <p>Sathvik Shetty, Chief Commercials Officer, QL Space</p> <p>Naveen Reddy, Head, South Asia, Planet</p>



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**DAY 2 - Session 5**

**1000 - 1100 Hrs Propelling India's Economy through Space start-ups**

The Indian government has recently approved the Indian Space Policy, which aims to encourage private sector participation in the space sector. The government is offering investment opportunities and friendly regulatory policies to encourage private sector participation. These initiatives are expected to propel India's economy through space sector start-ups and make India self-reliant in the sector. India is home to close to 4% of the world's space technology companies. To achieve the vision of capturing 10% of the global space economy, the sector will see significant consolidation to increase the technological capacity of each company. A new wave of startups has emerged in the last couple of years that intend to solve some of the most pressing problems in space engineering. In doing so, they will significantly contribute to the Indian economy, both directly and indirectly.

This session will explore how Indian startups are contributing to the Indian economy, the challenges they are facing, and their vision for the next 10 years.

1000 - 1005 Hrs Opening remarks & Sudheer N Kumar, Director- CBPO, ISRO  
 chaired by

1005 - 1100 Hrs Key panelists Brijesh Soni, Deputy Director PD, IN-SPACE

Devleena Bhattacharjee, Founder & CEO, Numer8 Analytics Pvt. Ltd

Vishesh Rajaram, Co-founder, Speciale Invest

Govind Joshi, Executive Vice President, TransUnion CIBIL Limited

Harshan V, Program Director (Principal), Mach33.Aero

Ankit Bhateja, Founder & Director, Xovian Aerospace

Navneet Singh, Chief Executive Officer, Kepler Aero



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**DAY 2 - Session 6**

**1100 - 1200 Hrs Emerging Trends in SatCom: An India Perspective**

The Satellite Communications (SatCom) market is projected to grow to ~\$90 billion globally. Deloitte's analysis has estimated India's satellite broadband market to be worth \$1.9 billion by 2027. The disparity in the nature of SatCom services that's relevant to continents such as North America and Asia will play a vital role in how the SatCom market will evolve in India.

SatCom has become an essential part of modern-day life, providing reliable and high-speed connectivity to remote and inaccessible areas. In India, SatCom has played a crucial role in bridging the digital divide by providing access to the internet, telemedicine, and education services to people in remote areas. Now, many legacy and mammoth companies have been launching commercial satellite constellations and are ready for the monetization of their space assets.

High-throughput satellites and the integration of satellite communications with 5G networks are likely to revolutionize the way people connect and communicate. This session will discuss how SatCom can enable IoT (Internet of Things) applications, such as connecting sensors and devices in industries like agriculture, daily mobility, and logistics. Further, the session will deliberate how advances in AI and other emerging technologies can be adopted to improve SatCom usage to its full potential.

1100 - 1103 Hrs	Opening remarks & session moderation	Praneet Kumar, Director, Deloitte India
1103 - 1110 Hrs	Special Address	Hanumanth Rayappa, Director, Satcom PO, ISRO HQ
1110 - 1200 Hrs	Key panelists	Sumit Kumar, Chief Manager, NSIL Vinod Sood, MD, Hughes Systique  Nishtha Kapoor, Director- Africa, South Asia, and India, OneWeb  Gautam Sharma, MD Inmarsat-UK  Madhu Radhakrishnan, Product Manager, SES





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**DAY 2 - Session 7**

**1200 - 1300 Hrs Human Spaceflight and Space Exploration Missions**

As ISRO begins the preparations for its maiden human spaceflight mission, the country waits in eager anticipation to send human beings to space on an Indian crew module and launch vehicle for the very first time. This can be the most important step in making space truly accessible. This wonder and fascination with humans in space, however, comes at a significant cost. This panel discussion will look at the private sector's role in supporting human spaceflight while still maintaining its responsibility for being commercially healthy.

This session will also explore the advances in technology that will enable space exploration missions in the future. This can range from how human habitats can be designed for space, how food can be preserved, and the engineering that goes behind making space safe and livable, among many others.

1200 - 1203 Hrs	Opening remarks and session moderation	Imtiaz Ali Khan, Director, DHSP, ISRO Hq
1203 - 1210 Hrs	Special Address	R Hutton, Project Director, Gaganyaan
1210 - 1300 Hrs	Key panelist	<p>Gp Capt Amarendra Samal, Gp Capt Ops (Space) DTE of Ops (Space), Air HQ (VB)</p> <p>R Kumar (Dr), Joint Director, Defence Food Research Laboratory (DFRL), DRDO</p> <p>Vinod Chippalkatti, President, Centum Electronics</p> <p>Aakash Porwal, Founder &amp; CEO, Space Aura</p> <p>Akshat Mohite, CEO, Astroborne Aerospace</p>



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**DAY 2 - Session 8**

**1400 - 1500 Hrs**    **Enhancing International collaborations in space sector: best practices and the roadmap ahead**

India's space sector has great potential for growth, and international collaborations can play a crucial role in enhancing its capabilities. We should focus on developing partnerships, encouraging private sector participation, collaborating with international organisations, facilitating joint missions, and sharing data to enhance our capabilities to become a global leader in the space sector. While the long-term strategy will be to develop indigenous expertise in all segments of space, it is important that companies remain financially healthy, and seek out competitive advantages in other companies and regions through JVs and partnerships. Partnerships can also be leveraged to further the research happening in medicine, materials science, and novel launch mechanisms and provide opportunities for international collaboration and diplomacy.

This session will explore the possible routes of technology transfer, with space agencies and private companies abroad and what will be needed to facilitate the same. Bringing together expertise from industry veterans who have attempted technology transfer and international partnerships in the past with the people attempting or mooted their own ventures today, this session will explore agencies and companies pushing the frontiers of R&D in space. The session would highlight different opportunities and avenues that are forged between space agencies and companies to support the space sector.

1400 - 1403 Hrs	Opening remarks and session moderation	Anitha Nandini, Director, IC, DOS
1403 - 1410 Hrs	Special Address	Gowri Sankar (Dr), Director, OIIC, ISRO HQ.
1410 - 1500 Hrs	Key Panelists	Dmitri Loskutov, Director General, JSC Glavkosmos Naomi Kurahara, Founder & CEO, Infostellar Inc Narayan Prasad, CEO, Satsearch Group Captain Arvind Pandey, Senior Fellow, Geospatial Intelligence Professional, Centre for Air Power Studies (CAPS) Prof Simon Ellingsen, Dean of School of Natural Sciences, University of Tasmania Milind Pimprikar, Chairman, Caneus



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**DAY 2 - Session 9**

**1500 - 1600 Hrs Innovation and Emerging Technologies: The future of Space**

Technology innovation is a key driver of the development of a nation. It is prudent for every nation to identify its priority technology innovation sectors. Space is one of the sectors that is evolving rapidly and is becoming one of today's most technologically innovative sectors across the world. The adoption of emerging technologies such as AI and ML, advanced satellite systems, 5G and 6G, 3D printing, quantum computing, big data, and nanotechnology has seen a quantum leap in the space sector across the globe.

The session will deliberate on how emerging technologies have been changing the space sector and how Space is enabling the deep-tech and innovation ecosystem

1500 - 1505 Hrs	Opening remarks & Chair by	Sudheer N Kumar, Director- CBPO, ISRO HQ
1505 - 1600 Hrs	Speakers (Presentation 5- 7 mins each)	<p>Mani Thiru, Head of Space &amp; Satellite, AWS</p> <p>Divya Sharma, Vice President, Satsure</p> <p>Rajan Rajagopal, CEO, ZES Singapore</p> <p>Debopam Bhattacharjee (Dr), Sr. Researcher, Microsoft Research</p> <p>Col Sai Arul, Head- Region SAARC, Maxar Technologies</p> <p>Phil Ridley, CEO, Quarsat</p> <p>Terry van Haren, Managing Director, LeoLabs Pty Ltd</p>



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**DAY 2 - Session 10**

**1600 - 1700 Hrs Earth Observation Data & Dissemination Platform: The Vision & Strategy**

Earth Observation (EO) Sector has evolved significantly in the recent decades. Insights derived from high resolution satellite data, provides comprehensive understanding of the earth & its dynamic processes. ISRO has led the technological advancements in optical, microwave, stereo and hyperspectral Satellite Missions & its applications, through its fleet of Indian Remote Sensing Satellites ranging from series of IRS, Resourcesat, Cartosat, Oceansat & RISAT satellites. Indian Private Industries have also launched their EO Satellite Mission, and some are in pipeline. Considering the (a) requirements of geospatial projects executed by Government & Industry, (b) requirements from research community and the (c) overall penetration of geospatial technology in various sectors in the country, there is an increase in the demand, for high resolution satellite data at regular intervals. It is proposed to meet this demand, by realization of additional satellite constellations through Industry.

With a vision of (1) attaining self-reliance (आत्मनिर्भर) in EO sector, in the country and (2) positioning India as a leading global geospatial service provider, an analysis of the availability of the datasets from Indian satellite missions, was carried out by IN-SPACE & ISRO and a consultation paper was published in [www.inspace.gov.in](http://www.inspace.gov.in) seeking feedback and input from EO community.

This session focus on formulating an implementation plan for realization of additional constellation through Industry.

1600 - 1603 Hrs	Opening remarks & session moderation	Nivedita Bhattacharjee, Journalist, Reuter
1603 - 1612 Hrs	Special Address	Pawan K Goenka (Dr.), Chairman, Indian National Space Promotion and Authorization Center (IN-SPACE)
1612 - 1700 Hrs	Key Panelists	Prakash Chauhan, Director, NRSC  Rajiv Jyoti (Dr.), Director, TD, IN-SPACE Jayaprakash V. Thomas (Dr.), Director, EPDO, ISRO HQ Sanjay Nekkanti, Founder & CEO, Dhruva Space  Sai Prasad (Dr), CTO IoT & DE, TCS