Newsletter





September 2023 Edition

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.

HIGHLIGHTS OF THE MONTH

- ISRO PSLV-C57 successfully launched the Aditya-L1 spacecraft, from the SDSC, Sriharikota.
- L&T, Walchandnagar Industries, Ananth Technologies, Godrej Boyce, Centum Electronics, Astra Microwave Products contributed to the realization of Aditya-L1 Mission.
- Eutelsat and OneWeb successfully completed their merger, forming the world's first geostationarylow earth orbit (GEO-LEO) satellite space connectivity company.
- Maxar is being restructured as two separate businesses: Maxar Space Infrastructure and Maxar Intelligence.
- OneWeb announced the launch of its new fully person-portable user terminal (UT) "FoldSat Leo Ku OW Mil terminal".
- SatSure Analytics' India subsidiary KaleidEO has become the first Indian firm to deploy edge computing in space.
- Fifteen nos. of Indian Space Industry Standards prepared jointly by IN-SPACe and BIS released.
- Module for Application submission for Short Term Course on using Space Technology for Agriculture & Dashboard, released by IN-SPACe.
- GalaxEye unveiled a high-resolution aerial drone-based SAR system.
- Manastu Space announced closure of \$3 million pre-series A funding round led by Capital 2B, BIG Capital, and E2MC Ventures.













Members Bulletin

ISpA Members Contribution to Aditya-L1 Solar Mission

 $\label{eq:Larsen & Toubro} (L\&T) \ \ \ have \ made \ following \ significant \ contributions \ \ -$

- Middle Segments
- Honeycomb Deck Panels

A Aradition of Engineering Excellence

- 32-m Antenna
- Precision Monopulse Tracking Radar
- System Integration & Launch Support



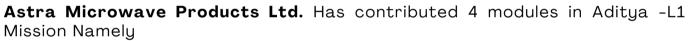
Walchandnagar Industries -

Core stage of the launch vehicle - PSLV is the S139 Booster that is augmented by solid rocket strap-on motors (PSO-XL) to augment the thrust provided by the first stage.

The S139 Motor Casings (Head end & Nozzle end segments) & PSO-XL flown in the PSLV C57 mission are manufactured by Aerospace group at WIL's exclusive facility.

Godrej & Boyce -

 Godrej Aerospace has contributed to the Vikas Engine and thrustors used for ISRO's PSLV Aditya-L1 mission



- Astra Microwave Products Ltd.
 - X band SSPA 10W in Telemetry Transmitter, Qty 2 nos.
 - X band SSPA 4W in Data Transmitter, Qty 2 nos.

Centum Electronics

- PSLV-C57 (93 Modules & Subsystems):
 - **Telemetry:** Data Acquisition Units; SMT DC-DC Converters; TEX Modules
 - RESINS (Redundant Strap down Inertial Navigation System)-Mk IV: Inertial Microelectronics Modules
 - Advanced Inertial Navigation Electronics: Accelerometer Electronics; Accelerometer Processing Electronics
- Aditya-L1 (145 Modules & Subsystems):
 - Microelectronics for Bus Systems
 - $\circ~\mbox{Onboard}$ Data Handling System (ODHS) Electronics
 - Wheel Drive Electronics Modules
 - $\circ\,$ Inertial Referencing Accelerometer Package (IRAP)
 - IRU Microcircuits; Accelerometer Electronics; Accelerometer Processing Electronics



Ananth Technologies

- Ananth Technologies, played a pivotal role in the Aditya-L1 Program by manufacturing numerous avionics packages. These packages encompass a wide array of components, including on-board computers, Star sensor, Modular EED systems, payload DC-DC converters, etc.
- For PSLV-C57 launch vehicle, ATL supplied 48 subsystems such as SARB, NGCP, Quad SBU, tracking transponder and various other interface units and did complete Assembly, Integration and Testing (AIT).





Centum



Members Bulletin



- OneWeb and Sat One, a Perth-based satellite service company, have announced a multi-year, multi-million dollar partnership to deliver OneWeb's low Earth orbit (LEO) connectivity solutions across Australia and New Zealand.
 - Eutelsat and OneWeb successfully completed their merger, forming the world's first geostationary-low earth orbit (GEO-LEO) satellite space connectivity company. The newly established entity, headquartered in Paris, will have Bharti Enterprises as its primary shareholder, owning 21.2 per cent of the shares.
 - Bharti Enterprises-backed satellite operator and services firm, Eutelsat Group, on Friday announced its listing on the London Stock Exchange (LSE) in the UK—the second country where the company's shares will be listed publicly.
 - OneWeb has bagged a distribution agreement with Japanese telco Softbank, one of its biggest shareholders.
 - OneWeb announced the launch of its new fully person-portable user terminal (UT) "FoldSat Leo Ku OW Mil terminal", designed to provide satellite connectivity to military operations and emergency response teams operating beyond traditional terrestrial networks.
 - OneWeb Technologies and SES Space & Defense, a wholly-owned subsidiary of global content connectivity leader SES, announced the availability of secure, high-speed, low-latency, LEO broadband services for school districts and healthcare facilities throughout Alaska.
 - SES Space & Defense installed 50 OneWeb satellite terminals in remote locations across Alaska in collaboration with OneWeb Technologies, the U.S. proxy company for OneWeb. This initiative will deliver secure, high-speed broadband solutions leveraging OneWeb's network of 648 LEO satellites, providing primary and backup capacity to SES Space & Defense's expansive Arctic terrestrial network spanning 19 microwave towers across 600 miles of interior Alaska and a fiber optic network from Nome to Prudhoe Bay.
 - Intellian Technologies and OneWeb have unveiled a product lineup of Intellian Flat Panel user terminals designed for OneWeb's satellite network. Intellian and OneWeb said the new Flat Panel user terminals, available in Pro and Compact models, are designed for Land Fixed, Land Mobile, Maritime, and Government markets.
 - The United Kingdom's National Physical Laboratory (NPL) announced that it has signed an MoU with OneWeb to work together on Position, Timing and Navigation (PNT) capabilities in the company's second-generation satellite constellation.

India could soon emerge as the preferred destination for satellite launches, with an ambition to conduct one launch every week, as per the visionary insights of Sunil Bharti Mittal, Founder and Chairman of Bharti Enterprises.





🔘 OneWeb

MapmyIndia

MAPPLS

In an interview to ET Infra, Arun Ramchandani, Executive VP & Head, L&T Defence, said that the first such launch is expected to be undertaken in mid of 2024. In September 2022, a consortium of Larsen & Toubro Ltd and HAL bagged Rs 860 crore contract for production of five PSLVs over a period of four years from NSIL.

- MapMyIndia collaborated with Delhi Police to show real-time traffic updates on its Mapples app during the G20 Summit.
- Al travel expert app Mappls KOGO has raised Rs 9 crore from MapMyIndia (CE Infosystems Ltd). The company had previously raised Rs 10 crore from MapMuIndia. Mappls KOGO has a user base of over 20 lakh.

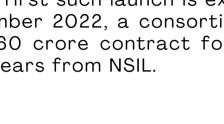
Maxar Technologies has reorganized and eliminated executive positions, the company confirmed on Sept 20. The restructuring comes less than five months after Maxar, previously a publicly traded company, was acquired by the private equity firm Advent International in a \$6.4 billion deal.

Maxar is being restructured as two separate businesses: Maxar **Space Infrastructure** and **Maxar Intelligence**. Chris Johnson, who runs Maxar's satellite manufacturing operations, was named CEO of Maxar Space Infrastructure. Daniel Jablonsky, who had been president and CEO of Maxar Technologies since 2019, will lead Maxar Intelligence as interim CEO.

Maxar Space Infrastructure will oversee spacecraft manufacturing. Maxar Intelligence will be responsible for the satellite imagery business, which was previously known as Earth Intelligence and led by executive vice president Tony Frazier.



Amazon extended the reach of their satellite systems with U.K.-based operator Vodafone signing a deal to link. The moves bolster attempts by operators to extend the physical reach of their 4G LTE and 5G networks.









Intelsat and California-based Aalyria have signed a commercial agreement to develop a new optical technology to transfer swathes of data between the ground and space. Aalyria is a provider of advanced software-defined and optical networking communications.

IN-SPACe has issued Provisional authorization to Inmarsat India Private Limited for provisioning C and L Band capacity in MSS payload of INMARSAT6F1 satellite over India, considering the continuity of the existing critical services being provided through the satellite in the Country.

- Awais Ahmed Founder of Pixxel Space has been recognized in the MIT 35 Under 35 Innovators List 2023 in the Climate and Energy category.
- Pixxel announced a partnership with Sanborn, a leading geospatial solutions company. Using Pixxel's hyperspectral dataset, Sanborn will equip their customers with advanced insights to solve problems as varied as agriculture crop and forestry health monitoring, exploration for minerals and mining, natural resource management, monitoring the impacts of extreme events flood, storm, wildfire and much more.
- Pixxel has formed a strategic partnership with SkyFi, the leading geospatial hub for the world that is simplifying the process of acquiring Earth observation and geospatial data through its web and mobile apps.
- Pixxel recently participated in a space session with the Netherlands Space delegation & the Consul-General, Mr Ewout de Wit, arranged by IISc Bangalore and Netherlands Innovation Network to discuss how space cooperation between the two countries can be enhanced & the future of space exploration.
- IN-SPACe has issued the Advisory note to Pixxel to enable SCOMET license application to DGFT and making ITU filing through WPC Wing of DOT for the proposed Firefly Satellite Constellation.















- IN-SPACe has issued the Advisory note to GalaxEye to enable them to apply for the ITU filing through WPC Wing of DOT for the proposed Earth Observation Satellite Constellation.
- Drone maker ideaForge has signed a pact with space technology (spacetech) startup GalaxEye to develop a UAV Foliage Penetration (FOPEN) radar for security forces to address the needs for enhanced aerial surveillance and mapping.

GalaxEye unveiled a high-resolution aerial drone-based Synthetic Aperture Radar (SAR) system, which the space technology startup said can perform detailed, high-resolution all-weather imaging. GalaxEye said that its in-house developed 'data fusion technology' will deliver detailed insights and data from space, enabling satellite constellations to conduct all-weather imaging without facing hindrances that "plague" current single sensor satellites.





GalaxEye Space won the Startup Award at the Defence Tech Expo Tamil Nadu.

- SatSure, which recently raised \$15-million funding, is firing all cylinders to launch four earth imaging satellites by 2025. Satsure's satellites, each of which will be around 150 kg. SatSure, has laid out an investment plan of \$35 million for the launch of four earth imaging satellites by 2025.
- SatSure Analytics' India subsidiary KaleidEO has become the first Indian firm to deploy edge computing in space by successfully generating actionable insights from an image taken by an orbiting satellite in real-time.







Manastu Space announced the successful closure of \$3 million preseries A funding round led by Capital 2B, BIG Capital, and E2MC Ventures.



Successful Launch & Status of Aditya-L1

PSLV-C57 successfully launched the Aditya-L1 spacecraft, from the Second Launch Pad of Satish Dhawan Space Centre (SDSC), Sriharikota.

After a flight duration of 63 minutes and 20 seconds, Aditya-L1 spacecraft was successfully injected into an elliptical orbit of 235x19500 km around the Earth. Aditya-L1 spacecraft will undergo four earth-bound orbital maneuvers before placing in the transfer orbit towards the Lagrange point L1. Aditya-L1 is expected to arrive the intended orbit at the L1 point after about 127 days.

- 5 Sept: Second Earth-bound maneuvre (EBN#2) is performed successfully. The new orbit attained is 282 km x 40225 km.
- 10 Sept: Third Earth-bound maneuvre (EBN#3) is performed successfully. The new orbit attained is 296 km x 71767 km.
- + 15 Sept: Fourth Earth-bound maneuvre (EBN#4) is performed successfully. The new orbit attained is 256 km x 121973 km.
- 18 Sept: Aditya-L1 has commenced the collection of scientific data.
- 19 Sept: Trans-Lagrangean Point 1 Insertion (TL1I) maneuvre performed.
- 30 Sept: The spacecraft has escaped the sphere of Earth's influence, on its way to the Sun-Earth Lagrange Point 1(L1).
- 08 Oct: Trajectory Correction Maneuvre (TCM), TCM ensures that the spacecraft is on its intended path towards the Halo orbit insertion around L1.

Department of Space Updates

- 11 Data Dessiminators are registered with IN-SPACe for dissemination of primary data pertaining to Indian territory and greater than 30cm GSD at nadir from EO/ Remote Sensing Satellites till September 2023.
- NSIL had preliminary discussion with Nuclear Power Corporation of India Ltd. (NPCIL) for upgradation of their VSAT network.
- Fifteen nos. of Indian Space Industry Standards prepared jointly by IN-SPACe and BIS released during the International Space Conference held at Bengaluru during 13-14, September, 2023. (Read Here: https://www.inspace.gov.in/inspace/sys_attachment.do?sys_id=3657ed7987193110de76a8660cbb3544)
- Technology Transfer Agreement with 7 seven Indian industries has been signed on 20 September, 2023.
- Module for Application submission for Short Term Course on using Space Technology for Agriculture & Dashboard, released by IN-SPACe.
- IN-SPACe has issued the Advisory note to C V Raman Global University, Odisha for making ITU filing through WPC Wing of DOT for the proposed Student Satellite named CGUSAT-1.





Gaganyaan Update

- CE20 E13 Engine Hot Test for the Gaganyaan & 22t Thrust Qualification.
- Stage integration activities for the 1st Test Vehicle (TV-D1) Sub-orbital flight towards Crew Escape System in-flight abort demonstration has been completed.
- Shock Survivability test to verify the integrity of Pyros by firing the pyros as per mission sequence upto pilot parachute deployment completed at '0' g facility, ASMG/ VSSC.
- 2nd hardware (Qualification hardware) of CES Conical Shroud (CECS) realized.
- CM-CES separation system functional qualification test successfully completed.
- Sub-assembly preparation activities for TV-D1 flight CES structure and motors completed at SDSC.
- Crew module open-sea trials for nominal as well as off-nominal cases conducted at Vizag.
- Cabin and communication systems for Gaganyaan Static Mock-up Simulator (SMS) realized and flagged-off from SAC.

ISpA Activities



Speciale Invest Mixer: Deep Tech Startups Ecosystem & Policy

The gathering organized by Speciale Invest, FITT IIT Delhi, and DS Group brought together a diverse spectrum of stakeholders spanning from academia to public policy, DeepTech Founders, Investors, and Ecosystem Enablers for a mixer in Delhi to discuss the draft National Deep Tech Startup Policy, and overall state of Deep Tech in India.





CII - International Conference on Space 2023

DG-ISpA addressed the gathering at CII International Conference on Space 2023', in a panel discussion on "Expediting New Space in India: Current Scenario and Challenges". During the panel discussion, DG-ISpA provided a compelling and insightful perspective on the rapid evolution of the Indian space industry.

Telecom Leadership Forum - Voice&Data 5G+ Conference

5th edition of the Telecom Leadership Forum (TLF), organised by Voice&Data, supported by ISpA as the Supporting Partner. DG-ISpA participated in the panel on "Creating Networks for 5G and Beyond". The session delved into the challenges and opportunities in building robust networks and evolving satellite-based communication to support emerging technologies, including 5G and beyond.





Shikshak Samaan Diwas

'Shikshak Samaan Diwas/Teacher Honouring Day'. In a unique initiative by Chairman, City Board Mussoorie to facilitate School Teachers. 500+ Teachers of 50+ Schools in Mussoorie were honoured on Teacher's Day Eve. DG-ISpA who has done schooling in Mussoorie was Chief Guest.

ISpA Activities





Geospatial Webinar: India's Geospatial Industry Outlook and Business Directions

Geospatial World organized the webinar to delve into the evolving landscape of the space industry in India. DG-ISpA participated as panellist in the Session "India's Space Economy: The Role of Private Sector" where he engaged in a dynamic discussion on business priorities shaping the Indian Space Sector, sharing valuable insights and forward-looking perspectives.

Times of India 'Technovation' Summit 2023

DG-ISpA actively engaged in the panel discussion focused on the 'Spacetech Revolution,' offering profound insights into the catalytic potential of space technology. Technovation summit concluded with top leaders, bureaucrats, entrepreneurs, tech experts and influencers discussing the past, present and future of technology across various sectors shaping a visionary path for technological advancement

ISpA Guest Article on "NavIC: Navigating South Asia's Technological Sovereignty" in United Service Institution of India South Asia Monitor September 2023 Edition

READ HERE

ISpA in News

Opting for auction of spacebased spectrum would amount to killing golden goose: Space body ISpA

31 Aug 2023 The Economic Times

Launch of Aditya L1

2 Sept 2023 DD India

Chandrayaan-3: India's space sector is roaring to go

6 Sept 2023 Business Today

Aditya-Ll launch fires up funding prospects for private space companies

4 Sept 2023 Business Standard

Suggestions on flexible use of satellite spectrum misleading: ISpA

11 Sept 2023 The Economic Times

India space start-ups say funding remains biggest challenge

15 Sept 2023 The Hindu

Trai to decide fate of satcom spectrum, rationalisation of BG, entry fee this month

18 Sept 2023 ET Telecom

Indian space industry at the inflection point

27 Sept 2023 The Pioneer

Govt may let satcom companies provide wireless service

29 Sept 2023 The Economic Times





Aditya L1 Launch Highlights: Mission accomplished, India's solar mission in space

2 Sept 2023 India Today

Weeks after moon landing, India launches first mission to sun

3 Sept 2023 Arab News

Fostering Cosmic Alliances: India and Saudi Arabia's Thriving Space Partnership

12 Sept 2023 The Financial Express

Space technology startups want Centre to share insurance liability

18 Sept 2023 Business Standard

India set to relax FDI norms in space sector in bid to give a boost to Satcom

25 Sept 2023 The Economic Times

A Trillion Dollar Dream! India Could Become The Launch Pad For Global Satellites Outbidding US, EU Rivals

27 Sept 2023 EurAsian Times

Allocation of satellite spectrum without auction will raise concerns on legality: Former SC Judge

l Sep 2023 Telangana Today (PTI)

National News



Ex-ISRO Chief Dr K Sivan Named Chairman Of IIT Indore's Board Of Governors

31 Aug 2023 BQ Prime

After Moon and Sun, ISRO readies XPoSat mission to enhance understanding in Astronomy

2 Sept 2023 Busihess Today

India, US likely to send astronaut to International Space Station next year

9 Sept 2023 Hindustan Times

India-France discuss cooperation in defense, space and nuclear energy

11 Sept 2023 Greater Kashmir

Looking at further easing FDI norms in space sector: DPIIT secretary Rajesh Kumar Singh

11 Sept 2023 ET Sátcom

India not in race, time for global space collaboration for exploration: ISRO scientist

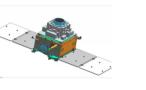
12 Sept 2023 The Indian Express

Aeroflex Industries In Talks To Enter India's Space Sector: Top Official

13 Sept 2023 NDTV

ISRO's Small Satellite Launch Vehicle Technology Garners Interest Of 23 Private Firms, Only One Will Get It

14 Sept 2023 Jaqran English











Starlink may get nod to start India service

12 Sept 2023 The Times of India



13 Sept 2023 ET Satcom



DoT forms working groups to drive telecom exports in 5G, 6G, satellite gear & other segments

14 Sept 2023 ET Telecom

Telecom Diarv: Satcom tusslé spectrum global réferences vs legal views?

2 Sept 2023 ET Satcom

India's space sector shines on the global stage during G20 presidency

6 Sept 2023 CNBC TV18

ISRO's New Rocket Facility Raises Concerns in Kulasekarapattinam

10 Sept 2023 The Hindu BusinessLine

All-woman team's satellite gears up for spaceflight to study impact of UV rays

11 Sept 2023 The New Indian Express

US company to unveil luxury space adventures in India; tó offer travel to ISS, space balloons, zero-gravity plane

12 Sept 2023 The Times of India



National News



Apple iPhone 15 series includes ISRO-made NavIC system

14 Sept 2023 Hindustan Times

B'luru firm inks 3 pacts to boost research in space

17 Sept 2023 The Times of India

India is using space tech in sectoral development projects, space tech has entered every household: Jitendra Singh

18 Sept 2023 ET Government

Former ISRO chairman G Madhavan Nair calls for industries to fund R&D in India's universities





20 Sept 2023 News9

Fresh spectrum allocation plan in the works, may open up more bands

26 Sept 2023 Business Standard

Venus mission configured: Isro chief reveals post Chandrayaan-3 plans

27 Sept 2023 India Today

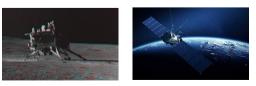
India-China Space Race: Top Chinese Scientist disputes Chandrayaan-3's claim to south pole Moon landing

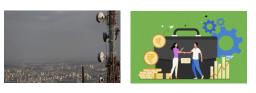
28 Sept 2023 Mint

Neeraj Mittal takes charge as DoT secretary

7 Sept 2023 The Financial Express







Investing in sp yielding rich Rajarajan

in space research rich dividend: A.

16 Sept 2023 The Hindu

Government appoints Abhay Karandikar as Department of Science & Technology Secretary

17 Sept 2023 ET Telecom

Telec

Navigating the Ethical Frontiers of Space Exploration: From Chandrayaan-3 Triumphs to Cosmic Conundrums

19 Sept 2023 The Financial Express

Supplier of antennae for Chandrayaan-2, Aditya L1, ECIL joins ISRO's Mangalyaan-2 mission

21 Sept 2023 The Times of India

The critical role of space technology in improving systems of governance

26 Sept 2023 ET Government

India working on public-private partnerships to fully tap into space sector's commercial potential: ISRO Chief

27 Sept 2023 Business Today

Maharashtra government eyes first-of-its-kind state-owned weather satellite for disaster preemption

29 Sept 2023 The Telegraph



26 Sept 2023 ET Satcom

International News



USA



Watch this space: NASA's SLS too expensive, SpaceX's Starship too explosive

10 Sept 2023 The Indian Express



Telesat taps SpaceX to launch its broadband satellites in orbit

11 Sept 2023 ET Satcom



FCC directing more satellite constellations to mitigate effects on astronomy

20 Sept 2023 Space News



AT&T claims made 5G call in space

20 Sept 2023 The Times of India



FCC moves to streamline satellite application processing

21 Sept 2023 Fierce Wireless



ISS to retire in 2031, NASA initiates plan to bring it back to Earth

28 Sept 2023 WION





SpaceX's defense-focused Starshield satellite internet business lands first contract

29 Sept 2023 TechCrunch

US-China rivalry spurs investment in space tech

26 Sept 2023 BBC

SpaceX no longer taking losses to produce Starlink satellite antennas, a key step to improving profitability

13 Sept 2023 CNBC

International News



CHINA



Wenchang Space Launch Site in S. China's Hainan plans to build a new generation of manned lunar rocket launch site

Global Times September 1, 2023

Cambridge University to end partnership with Chinese missiles company

The Times September 4, 2023



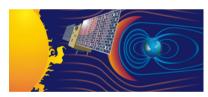
Private company becomes first in China to launch rocket from sea

China Daily September 5, 2023



China shares over 1.5 terabytes of remote sensing satellite data with BRICS countries: CNSA

Global Times September 13, 2023



China to initiate 3D solar exploration as solar probing satellite Xihe-2 enters demonstration stage

Global Times September 15, 2023

China launches Yaogan 39 remote sensing satellite

China Daily September 17, 2023

Chinese satellite ground stations installed on disputed South China Sea reefs

South China Morning Post September 20, 2023

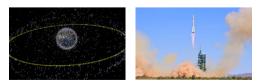
China's military sets up new base for space domain awareness

14 Sept 2023 Space News

Cyberattack blinded two of the most advanced telescopes in the world

Cybernews 1 September 2023





China's Chang'e-6 lunar farside sample return mission scheduled to launch around 2024: CNSA

Global Times September 29, 2023

China to help Pakistan launch miniature satellite in Chang'e 6 lunar mission

1 Oct 2023 Hindustan Times



China releases road map to explore solar system, mine water-ice on Moon

4 Sept 2023 India Today

International News



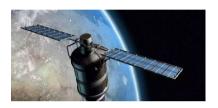
EUROPE



Aditya L1 in space: How Europe is helping India track its solar mission 4 Sept 2023 India Today

Eutelsat Brings Two Hotbird Satellites into Commercial Service

13 Sept 2023 Satellite Today



Berlin blocks complete takeover of satellite startup by Chinese firm

13 Sept 2023 ET Satcom



Germany signs U.S.-led space norms pact Artemis Accords

17 Sept 2023 The Hindu



France, Bangladesh sign deal to provide loans, satellite technology during Macron's visit to Dhaka

12 Sept 2023 ET Telecom



Other Nations



Space Race: Hyundai, Mitsubishi are working on a moonshot

6 Sept 2023 Moneycontrol

Japan launches 'moon sniper' lunar lander SLIM into space

7 Sept 2023 Reuters



Japanese startup aims to launch 1st orbital rocket in 2025

16 Aug 2023 Space.com

Saudi Arabia sees India as key partner in space sector: Saudi investment minister

11 Sept 2023 Moneycontrol



Explainer-How could Russia help North Korea build a satellite?

13 Sept 2023 The Times of India

Space junk in Earth orbit and on the Moon will increase with future missions – but nobody's in charge of cleaning it up

2 Sept 2023 The Hindu

The new space race: Mining the moon and beyond for Earth's future

25 Sept 2023 The Week

How Big is the Satellite Industry's Direct-to-Device Opportunity?

12 Sept 2023 Analytics India Magazine

Using AI To Predict And Prevent Potential Satellite Problems: Researchers' Breakthrough

20 Sept 2023 India Education Diary





11 Sept 2023 Space News

Iran says it has successfully launched an imaging satellite into orbit amid tensions with the West

27 Sept 2023 The Hindu

5G satellite networks to generate \$17 bn additional revenue for telcos over next seven years: Juniper Research

18 Sept 2023 ET Satcom



The Startup Nation in Space – Israel's Equation for the Space Ecosystem

20 Sept 2023 SpaceNews



Job Openings from our Members





https://www.linkedin.com/company/bellatrix-aerospace/jobs/

https://www.dhruvaspace.com/careers

https://www.linkedin.com/company/digantara/jobs/

https://galaxeye.zohorecruit.in/careers

http://lnkiy.in/kawa-space Send CV at: <u>support@kawa.space</u>

https://www.pixxel.space/careers

https://skyroot.in/career.html

https://www.linkedin.com/company/skyserve-ai/jobs/

https://tsctech.in/#/careers

https://xovian.zohorecruit.com/jobs/Careers

Government Policies / Consultations / Recommendations / Announcements



IN-SPACe Announcement of Opportunity in Urban Development & Disaster Management using Space Technology

https://www.inspace.gov.in/inspace?id=inspace_disaster_urban_page_

Last Date to Submit: 30 Nov 2023

1st Joint Call for Proposals under MeitY -NSF Research Collaboration

https://www.meity.gov.in/content/announcement-1st-joint-call-porposal-under-meity-nsf-research-colaboration

Last Date to Submit Comments: 01 Jan 2024

Consultation Paper on Review of Terms and Conditions of PMRTS and CMRTS Licenses

https://www.trai.gov.in/consultation-paper-review-terms-and-conditions-pmrts-and-cmrts-licenses

Last Date to Submit Comments: 7 Nov 2023

Pre-Consultation Paper on Inputs for Formulation of "National Broadcasting Policy"

https://www.trai.gov.in/pre-consultation-paper-inputs-formulation-national-broadcasting-policy

Last Date to Submit Comments: 7 Nov 2023

Consultation Paper on Digital Inclusion in the Era of Emerging Technologies

https://www.trai.gov.in/consultation-paper-digital-inclusion-era-emerging-technologies

Last Date to Submit Comments: 16 Nov 2023

Consultation Paper on Encouraging R&D in Telecom, Broadcasting, and IT (ICT) Sectors

https://www.trai.gov.in/consultation-paper-encouraging-rd-telecom-broadcasting-and-it-ict-sectors

Last Date to Submit Comments: 07 Dec 2023

Consultation Paper on Assignment of Spectrum in E&V Bands, and Spectrum for Microwave Access (MWA) & Microwave Backbone (MWB)

<u>https://www.trai.gov.in/consultation-paper-assignment-spectrum-ev-bands-and-spectrum-microwave-access-mwa-microwave-</u> backbone

Last Date to Submit Comments: 29 Nov 2023

Draft National Strategy on Robotics released by MeitY

https://www.meity.gov.in/writereaddata/files/Draft-National-Strategy-Robotics.pdf

Department of Space released Indian Space Policy 2023

https://www.isro.gov.in/IndiaSpacePolicy.html

Government Policies / Consultations / Recommendations

(Contd.)



IndiaAI 2023: Expert Group Report – First Edition released by MeitY

https://www.meity.gov.in/content/indiagi-2023-expert-group-report-%E2%80%93-first-editionthe-ministry-electronics-andinformation

Consultation Paper on Open and De-licensed use of Unused or Limited Used Spectrum Bands for Demand Generation for Limited Period in Tera Hertz Range

https://www.trai.gov.in/consultation-paper-open-and-de-licensed-use-unused-or-limited-used-spectrum-bands-demandgeneration

Last Date to Submit Comments: 29 Nov 2023

Consultation Paper on Digital Transformation through 5G Ecosystem

https://www.trai.gov.in/consultation-paper-digital-transformation-through-5g-ecosystem

Last Date to Submit Comments: 11 Dec 2023

IN-SPACe Consultation Paper on EO Data from Indian Satellites Missions

https://www.inspace.gov.in/inspace?id=inspace_eo_consultation

Draft National Deep Tech Startup Policy (NDTSP) 2023 released by The Office of **Principal Scientific Adviser to the Government of India**

https://psa.gov.in/CMS/web/sites/default/files/process/NDTSP.pdf

Read here the main features of the policy: <u>https://ispaspace-</u> my.sharepoint.com/:w:/g/personal/abhinav_ispa_space/EVOdIM9rflpHsHWkxr4UdLYB_smOjvvOjPJw1GmS4BHHDA? e=K8h1lz

Union Cabinet approved the National Research Foundation Bill 2023

https://dst.gov.in/lok-sabha-passes-anusandhan-national-research-foundation-bill-2023-moved-union-minister-dr-jitendra

Production Linked Incentive Scheme - PLI 2.0 for IT Hardware

https://www.meity.gov.in/writereaddata/files/Guidelines PLI-Scheme-ITHW.pdf

Recommendations & Policy Directives of Startup Policy Communique` by Startup20 **Engagement Group of G20**

https://www.startup20india2023.org/

Think Tank Recommendations on Corporate Governance for Indian Start-ups by Startup20 Engagement Group of G20

https://www.startup20india2023.org/

Upcoming Events



August 2024	3rd Indian Space Conclave	New Delhi
06–15 August 2024	XXXII IAU General Assembly	South Africa
13-21 July 2024	45th COSPAR Scientific Assembly - COSPAR 2024	South Korea
April 2024	2nd Indian DefSpace Symposium	New Delhi
26 February 2024 - 1 March 2024	ISRO 22nd National Space Science Symposium (NSSS-2024)	Goa
31 January-04 February 2024	42nd meeting of the Astronomical Society of India (ASI) 2024	Bengaluru
January 2024	ISpA Space War Game	New Delhi
11-15 December 2023	American Geophysical Union (AGU) 2023	USA & Online
10-14 December 2023	IEEE MAPCON 2023	Ahmedabad
28-30 November 2023	United Nations Conference on Space Law and Policy: The Outer Space Treaty for the 21st Century	Online
20 November-15 December 2023	World Radiocommunication Conference 2023 (WRC-23)	Dubai
13-17 November 2023	ITU Radiocommunication Assembly 2023 (ITURA 23)	Dubai

CALL FOR NEW MEMBERSHIP

ISpA is an apex non-profit industry body, set up exclusively for the successful collaborative development of the Private Space Industry in India.

JOIN US

- Participate in policy advocacy
- Networking and publicity opportunities
- Plethora of opportunities to advance your Business in Space Sector
- Multisectoral Partnerships
- Engagement with industry and defence experts via diverse platforms
- Access to industry-related information via reports and newsletters
- Be a part of ISpA Committees to bring expertise & interests and to guarantee the holistic development of the space sector.

For General Queries: <u>info@ispa.space</u>, +91 9667303304 For Membership: Ms Aditi <u>(aditi@ispa.space</u>, +91 8437985777)