

ORGANIZER:



HOST:



CO-HOST:



GLEX2025

GLOBAL SPACE EXPLORATION
CONFERENCE

FINAL PROGRAMME

*Reaching New Worlds: A Space
Exploration Renaissance*

7-9 May 2025

New Delhi, INDIA भारत

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Inspired by the rich legacy of Dr. Vikram Sarabhai, the Father of Indian Space Programme, the Government of Gujarat has notified the Gujarat SpaceTech Policy (2025-2030)

Unique Attributes of the Gujarat SpaceTech Policy

GSEM - Nodal Agency for Policy Implementation

Dedicated Budget Outlay

CoE in Space Technologies

Synergy with ISRO & IN-SPaCe



Space Manufacturing Park



Shri Narendra Modi



Shri Bhupendra Patel

Target to achieve US\$ 5 billion space economy in Gujarat by 2033 and generate 25,000 employment opportunities

Incentives for the Space Tech Sector in Gujarat

Space Tech Manufacturing

- **20% CAPEX subsidy** for Investment ≤ ₹1000 Cr; 15% on Incremental Investment > ₹1000 Cr
- **7% Interest Assistance** on Term Loan (5 yrs, up to ₹10 Cr/year)
- **₹1/KWHr Power Tariff Subsidy** + Electricity Duty Exemption (5 yrs)
- **25% Logistics Subsidy** on Freight (up to ₹5 Cr/year)
- **EPF Reimbursement** (5 yrs): 100% Female, 75% Male Employees



- **100% Stamp Duty** & Registration Fee Reimbursement
- **25% Launch Cost Support** for Gujarat-Made Satellites (up to ₹5 Cr)
- **30% Assistance** for Indian IPR Filing (up to ₹50 Lakhs/unit)
- **25% Subsidy** on Common Technical Facility Charges (5 yrs)

Ground Segment, Space Apps & Design

- **20% CAPEX subsidy** for Non-IT Infra; 30% for IT Infra (up to ₹50 Cr – ITeS, ₹200 Cr – Mega Projects)
- **15% Bandwidth & Cloud Rental Support** (max 35% OPEX; ₹14 Cr/yr, ₹20 Cr – ITeS, ₹40 Cr – Mega Projects)
- **7% Interest Assistance** on Term Loan (up to ₹1 Cr/year)



- **100% Electricity Duty Reimbursement**
- **EPF Reimbursement** (5 yrs): 100% Female, 75% Male Employees
- **Employment Generation Incentive @50%** Monthly CTC: ₹60K – Female, ₹50K – Male
- **25% Subsidy** on Common Technical Facility Usage (5 yrs)

Space Tech Startups

- **25% Support** – R&D, Prototyping & Product Development (up to ₹25 Lakhs)
- **75% Patent Assistance:** ₹5L – Domestic, ₹10L – International
- **50% Quality Certification Support** (max 3 certificates, up to ₹5 Lakhs)
- **35% Internet & Cloud Cost Support** (6 months, up to ₹10 Lakhs)



- **₹25/sqft Monthly Lease Rental Support** (Built-up Area or Actual Rent)
- **Special Incentives** under Gujarat IT/ITeS Policy (2022–27)
- **25% Subsidy** on Common Technical Facility Usage (5 yrs)

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ORGANIZER:



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1 WELCOME MESSAGES

1.1 Welcome Message from IAF

Dear Delegates,

On behalf of the International Astronautical Federation (IAF), it is with great pleasure to welcome you to the Global Space Exploration Conference (GLEX 2025) here in New Delhi, India.

As the organizer, the IAF extends its sincere appreciation to the esteemed host and co-host of the conference – the Indian Space Research Organisation (ISRO) and the Astronautical Society of India (ASI), respectively – whose joint efforts have made GLEX 2025 a significant milestone in our global conference journey.

India's selection as the GLEX 2025 host country reflects its remarkable achievements in space science, strong international collaborations, and commitment to advancing human knowledge beyond Earth. The Indian Space Research Organisation (ISRO) has achieved remarkable milestones, including the successful Chandrayaan-3 landing on the Moon's south pole, the groundbreaking Mars Orbiter Mission (Mangalyaan), and the upcoming Gaganyaan human spaceflight mission. With its cost-effective and innovative approach, India has established itself as a leader in both scientific and commercial space activities, making it a fitting destination for this prestigious conference.

Under the theme *"Reaching New Worlds: A Space Exploration Renaissance,"* this year's conference brings together leading minds and visionaries from across the world – astronauts, heads of space agencies, engineers, scientists, policymakers, entrepreneurs, educators, and students – all united by a shared commitment to the future of space.

With an exceptional line-up of high-level plenaries, engaging technical sessions, dynamic IAF GNF sessions, and a thriving exhibition, this conference offers an unparalleled platform to shape the trajectory of human and robotic exploration – from Earth's orbit to the Moon, Mars, and beyond.

I invite you to take full advantage of every opportunity GLEX 2025 has to offer – be it presenting your research, connecting with peers, or exploring the exhibition.

Together, let us continue reaching for new worlds and ensuring that space exploration remains a source of inspiration, innovation, and collaboration for all!

Best regards,



Clay MOWRY

President,
International Astronautical Federation (IAF)

1.2 Welcome Message from ISRO

It is with great honour and enthusiasm that I extend a warm welcome to all delegates, distinguished guests, and participants of the Global Space Exploration Conference (GLEX 2025) to New Delhi, India. This esteemed gathering serves as a beacon of collaboration, innovation, and the collective aspirations of the global space community.

As we converge to deliberate upon the advancements shaping the future of space exploration, I am confident that GLEX 2025 will foster meaningful discussions, groundbreaking ideas, and strengthened international partnerships. The exchange of insights at this conference will undoubtedly propel humanity towards new frontiers, reaffirming our shared commitment to unlocking the mysteries of the cosmos for the benefit of all.

India has always embraced the spirit of exploration, with ISRO playing a pivotal role in pioneering missions that contribute to global scientific knowledge. As we advance towards new ambitious endeavours, I look forward to engaging with colleagues, experts, and visionaries who drive the quest for space exploration.

On behalf of the Indian Space Research Organisation, I wish you all a productive and inspiring conference. May GLEX 2025 ignite fresh perspectives and enduring collaborations as we embark on this exciting journey together.

Best regards,



V. NARAYANAN

Chairman,
Indian Space Research Organisation (ISRO)

1.3 Welcome Message from the IPC Co-Chairs

Dear Delegates,

It is with great pleasure that we welcome you to the IAF Global Conference on Space Exploration (GLEX 2025), here in the vibrant city New Delhi, India. The event is part of the IAF Global Conference series organized by the International Astronautical Federation (IAF) and this year's edition is hosted by the Indian Space Research Organisation (ISRO).

As we gather here in the heart of one of the world's fastest-growing spacefaring nations, we are reminded of the power of international cooperation and shared ambition. Since our last meeting at GLEX 2021, the global space exploration community has made remarkable strides in science, technology, and policy. GLEX 2025 offers a timely opportunity to reflect on these achievements, share valuable lessons learned, and chart the course ahead.

This conference is designed to foster the exchange of programmatic, technical, and policy insights among leaders, engineers, scientists, educators, entrepreneurs, and decision-makers from around the world. Through thought-provoking sessions, engaging panel discussions, and collaborative networking opportunities, we aim to strengthen global partnerships and accelerate progress in space exploration.

Together, we will explore how investments in space yield benefits here on Earth—spurring innovation, education, and international collaboration. In our role as Chairs of the International Programme Committee we are honored to host you in New Delhi and look forward to the conversations that will shape the future of space exploration.

Welcome to GLEX 2025!



Pascale EHRENFREUND

IAF Past President (2019-2022),
IAF Bureau, Honorary
Ambassador,
President of Committee on
Space Research (COSPAR),
Austria



Victor Joseph T

Outstanding Scientist,
Indian Space Research
Organisation (ISRO),
Project Director GSLV Mk III &
Mission Director of HLV M3-G1
Gaganyaan Mission,
India

2 ORGANIZER, AND CO-HOST INFORMATION

2.1 ORGANIZER: International Astronautical Federation (IAF)

Founded in 1951, the International Astronautical Federation is the world's leading space advocacy body with 563 members in 81 countries, including all leading space agencies, companies, research institutions, universities, societies, associations and institutes worldwide.

Following its theme "A space-faring world cooperating for the benefit of humanity", the Federation advances knowledge about space, fostering the development and application of space assets by promoting global cooperation.

As organizer of the annual International Astronautical Congress (IAC) and other thematic meetings, the IAF actively encourages the development of astronautics for peaceful purposes and supports the dissemination of scientific and technical information related to space.

International Astronautical Federation (IAF)

100 Avenue de Suffren
75015 Paris
France

Phone: +33 1 45 67 42 60

Email: info@iafastro.org

Website: www.iafastro.org



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2.2 HOST: Indian Space Research Organisation (ISRO)

ISRO has made remarkable strides, achieving numerous missions that have elevated India's stature in the global space community. ISRO has designed and developed a range of launch vehicles and satellites making India a key player in the global space market. A historic milestone was achieved in 2023 by the successful soft landing of Chandrayaan-3 on the Moon's southern polar region, bringing India as the first nation to reach south Lunar region. ISRO is now advancing for its first human spaceflight mission under the Gaganyaan program and the establishment of the Indian Space Station named Bharatiya Antariksh Station (BAS) which will enable sustained human presence in space and provide a platform for cutting-edge research.

Indian Space Research Organisation (ISRO)

ISRO Headquarters,
Antariksh Bhavan, New BEL Road,
Bengaluru - 560 094, INDIA

Phone: +91 80 22172294 / 96

Email: isropr@isro.gov.in

Website: www.isro.gov.in



2.3 CO-HOST: Astronautical Society of India (ASI)

Astronautical Society of India (ASI) was setup in 1990 to foster the development of astronautics in India, to disseminate technical and other information related to astronautics by conducting technical meetings, bringing out technical publications, and organizing exhibitions. ASI has been acting as a premier professional body of space engineers, scientists and researchers and efforts are made to bring awareness of state-of-the-art space activities among researchers and academia. Society is also playing an active role to promote the interests of other developing countries in the field of astronautics through various programs. ASI is a member of the International Astronautical Federation (IAF).



Astronautical Society of India (ASI)

U. R. Rao Satellite Centre,
ISRO, Old Airport Road,
Bengaluru - 560 017, INDIA

Email: asi@urisc.gov.in
Website: www.asindia.org



3 INTERNATIONAL PROGRAMME COMMITTEE

3.1 International Programme Committee Co-Chairs



Pascale EHRENFREUND
IAF Past President (2019-2022),
IAF Bureau, Honorary
Ambassador,
President of Committee on
Space Research (COSPAR),
Austria



Victor Joseph T
Outstanding Scientist,
Indian Space Research
Organisation (ISRO),
Project Director GSVL Mk
III & Mission Director of
HLVM3-G1 Gaganyaan
Mission,
India

3.2 International Programme Committee Members

Adnan AL RAIS

Assistant DG - Space Operations and
Exploration Sector, Mohammed Bin
Rashid Space Centre (MBRSC), United
Arab Emirates

Márcia ALVARENGA DOS SANTOS

Head of the International Cooperation
Office, Brazilian Space Agency (AEB),
Brazil

G. K. ANANTHASURESH

Department of Mechanical Engineering,
Indian Institute of Science, Bangalore,
India

Pakorn APAPHANT

Executive Director, Geo-Informatics and
Space Technology Development Agency
(GISTDA), Thailand

Dunay BADIRKHANOV

Vice-Chairman, Azercosmos, Azerbaijan

Stephanie BEDNAREK

Vice President of Commercial Sales,
SpaceX, United States

Pierre W. BOUSQUET

Head of Office, Planetology and
Microgravity Projects, Centre National
d'Etudes Spatiales (CNES), France

Marco BRANCATI

CTO, Telespazio, Italy

Michal BRICHTA

Director of Slovak Space Office - Industry
Branch, Slovak Investment and Trade
Development Agency, Slovakia

David CAPONIO

Senior Vice President of Product and
Business Development, VAST, United
States

Bruce CHESLEY

Senior Associate, Teaching Science and
Technology, Inc., United States

Mario COSMO

Science and Innovation Director, Italian
Space Agency (ASI), Italy

Rebekah DAVIS REED

Lead, International Integration,
Exploration Systems Development
Mission Directorate (ESDMD) National
Aeronautics and Space Administration
(NASA), United States

Rosa MA DEL REFUGIO RAMÍREZ DE ARELLANO Y HARO

General Coordinator of International
Affairs and Space Security Matters,
Mexican Space Agency (AEM), Mexico

Steve DURST

Director, International Lunar
Observatory Association (ILOA), United
States

Reinhold EWALD

Astronaut and Professor of Astronautics,
University of Stuttgart, President,
Association of Space Explorers (ASE),
Germany

Christian FEICHTINGER

Executive Director, International
Astronautical Federation (IAF), France

Bernard FOING

SRI president, CEO LUNEX
Euromoonmars, The Netherlands

Vincenzo GIORGIO

Vice President Institutional Marketing &
Sales, Thales Alenia Space, Italy

Mariella GRAZIANO

Executive Director of Space Systems,
GMV Aerospace & Defence SAU, Spain

Jeremy HALLET

Executive Chairman, Space Industry
Association of Australia (SIAA), Australia

Christian HAUGLIE-HANSSEN

Director General, Norwegian Space
Agency (NOSA), Norway

Arif KARABEYOĞLU

Board Member, Turkish Space Agency
(TUA), Türkiye

Ritu KARIDHAL

Scientist & Engineer, Rao Satellite Centre
(URSC) / Senior Scientist, Indian Space
Research Organisation (ISRO), India

Assylkhan KOSDAULETOV

Commercial Division Manager, Ghulam
LLP, Kazakhstan

Omar KUNBARGI

Director, Global Business Development,
SpaceX, United States

Julien-Alexandre LAMAMY

CEO, iSpace Europe, Luxembourg

Bob LAMBORAY

Senior Manager, Lead Exploration &
Space Resources,
Luxembourg Space Agency (LSA)

Aaron LEWIS

Vice President, ArianeSpace,
ArianeGroup, United States

Michael LOPEZ-ALEGRIA

Chief Astronaut, Axiom Space, United
States

Senjuti MALLICK

Legal & Business Operations Manager,
COMSPOC Corp., United States

Tanja MASSON-ZWAAN

Assistant Professor and Deputy Director
, International Institute of Air and Space
Law (IIASL), The Netherlands

Mayumi MATSUURA

Vice President and Director General
for Human Spaceflight Technology
Directorate, Japan Aerospace Exploration
Agency (JAXA), Japan

Carlo MIRRA

Head of ESA Business Affairs, AIRBUS
Defence and Space, The Netherlands

Ganesh MOHAN

Assistant Director, Promotion
Directorate, IN-SPACE, Bangalore, India

Manju S NAIR

Project Director, High Thrust Electric
Propulsion, Liquid Propulsion System
Centre, ISRO, Trivandrum, India

Daniel NEUENSCHWANDER

Director of Human and Robotic
Exploration, European Space Agency
(ESA), The Netherlands

Asanda NTISANA

Acting Managing Director, Earth
Observations, South African National
Space Agency (SANSA), South Africa

Nicolas PETER

Acting President , International Space
University (ISU), Germany

Anatoli Alekseevich PETRUKOVICH

Director, Space Research Institute
Of Russian Academy of Science,
corresponding member of Russian
Academy of Sciences, Russian Federation

K RAJEEV

Outstanding Scientist & Director, Space
Physics Laboratory, ISRO, Trivandrum,
India

Antonino SALMERI

Chair, Space Generation Advisory Council
(SGAC), Austria

Hiroshi SASAKI

Advisor, Strategic Planning and
Management Office, Space Strategy
Fund, Japanese Aerospace Exploration
Agency (JAXA), Japan

Marc SERRES

CEO, Luxembourg Space Agency,
Luxembourg

C. S. SHAIJUMON

Associate Professor, Indian Institute of
Space Science and Technology, Dept. of
Space, Trivandrum, India

Jill SMYTH

Counselor, Space Affairs, Canadian Space
Agency (CSA) / Embassy of Canada to the
United States / Government of Canada,
Canada

Igor SOROKIN

Deputy Head, Space Stations Utilization
Center of RSC Energia, Russian
Federation

R. I. SUJITH

Institute Professor and D. Srinivasan
Institute Professor, Head, Centre for
studying Critical Transitions in Complex
Systems (CTCS), Department of
Aerospace Engineering, IIT Madras, India

Tatiana TISHENKO

Head of the International Cooperation
Department, Roscosmos, Russian
Federation

Stephan ULAMEC

Project Manager, German Aerospace
Center (DLR), Germany

Lukasz WILCZYNSKI

President, European Space Foundation
(ESF), Poland

Wang ZHONGMIN

Director of International Cooperation,
Center of Deep Space Exploration Lab
(DSEL), China

4 PRACTICAL INFORMATION

4.1 Conference Venue

GLEX 2025 will take place at IICC – Yashobhoomi

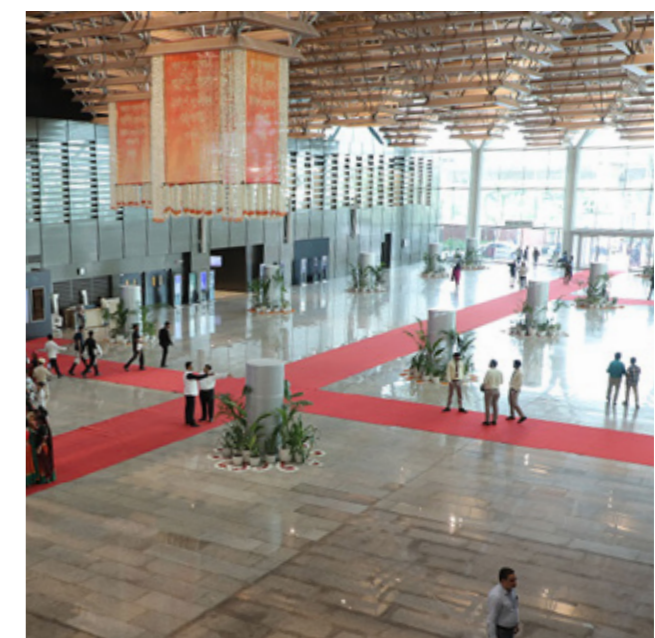
As one of the country's most advanced and expansive convention centers, India International Convention & Expo Centre (IICC) - Yashobhoomi offers state-of-the-art facilities, cutting-edge technology, and a dynamic space for global collaboration.

YASHOBHOOMI (IICC) is located 10 km from Delhi International Airport, with the surrounding area home to a sports complex, diplomatic residences, a golf course and the airport city hotel. It is 25 km from the city centre of New Delhi, but is in the best geographical location with no traffic.

India International Convention & Expo Centre (IICC) - Yashobhoomi

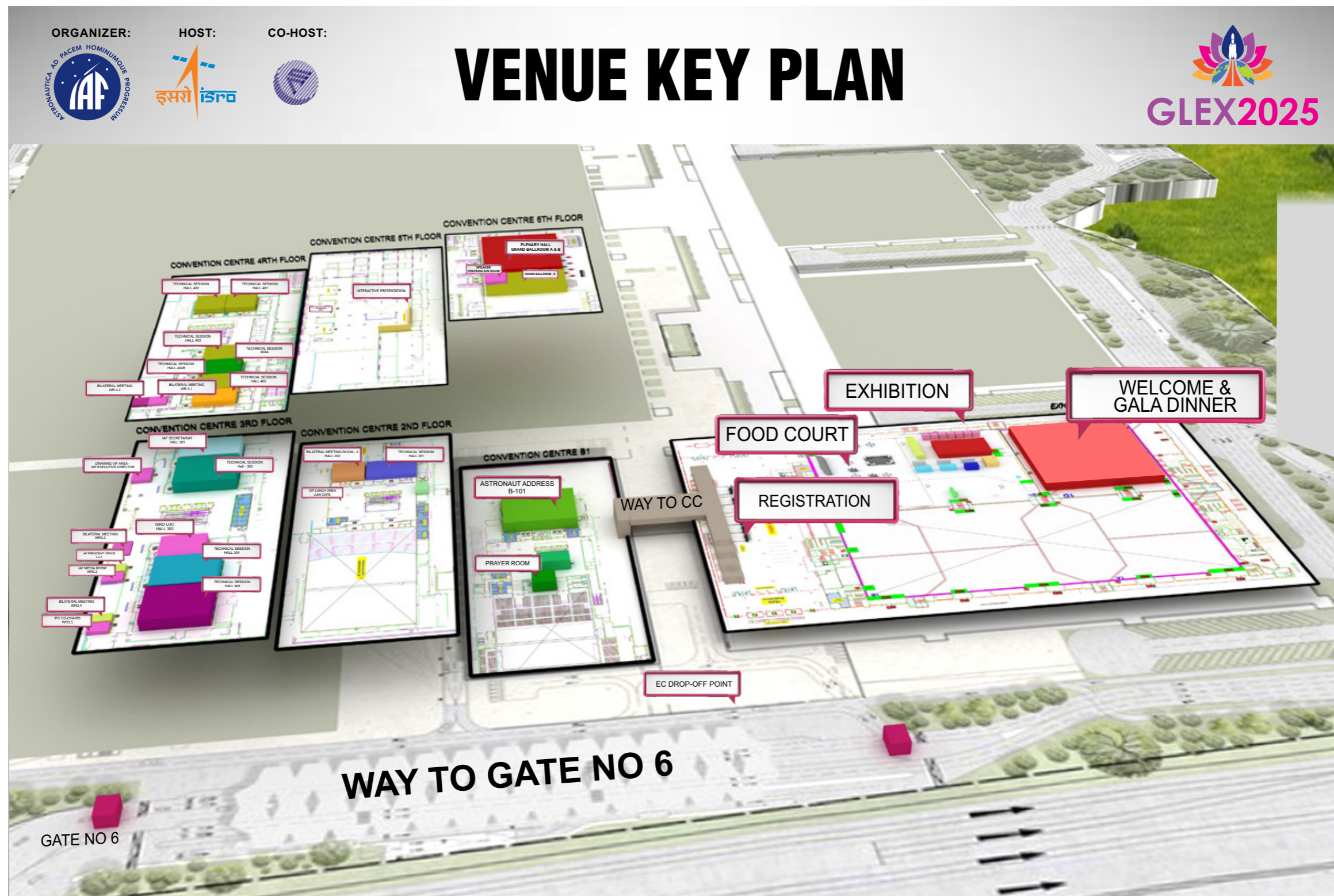
Sector 25 Dwarka, Dwarka, New Delhi, 110061, India

<https://www.iiccnwdelhi.com/>

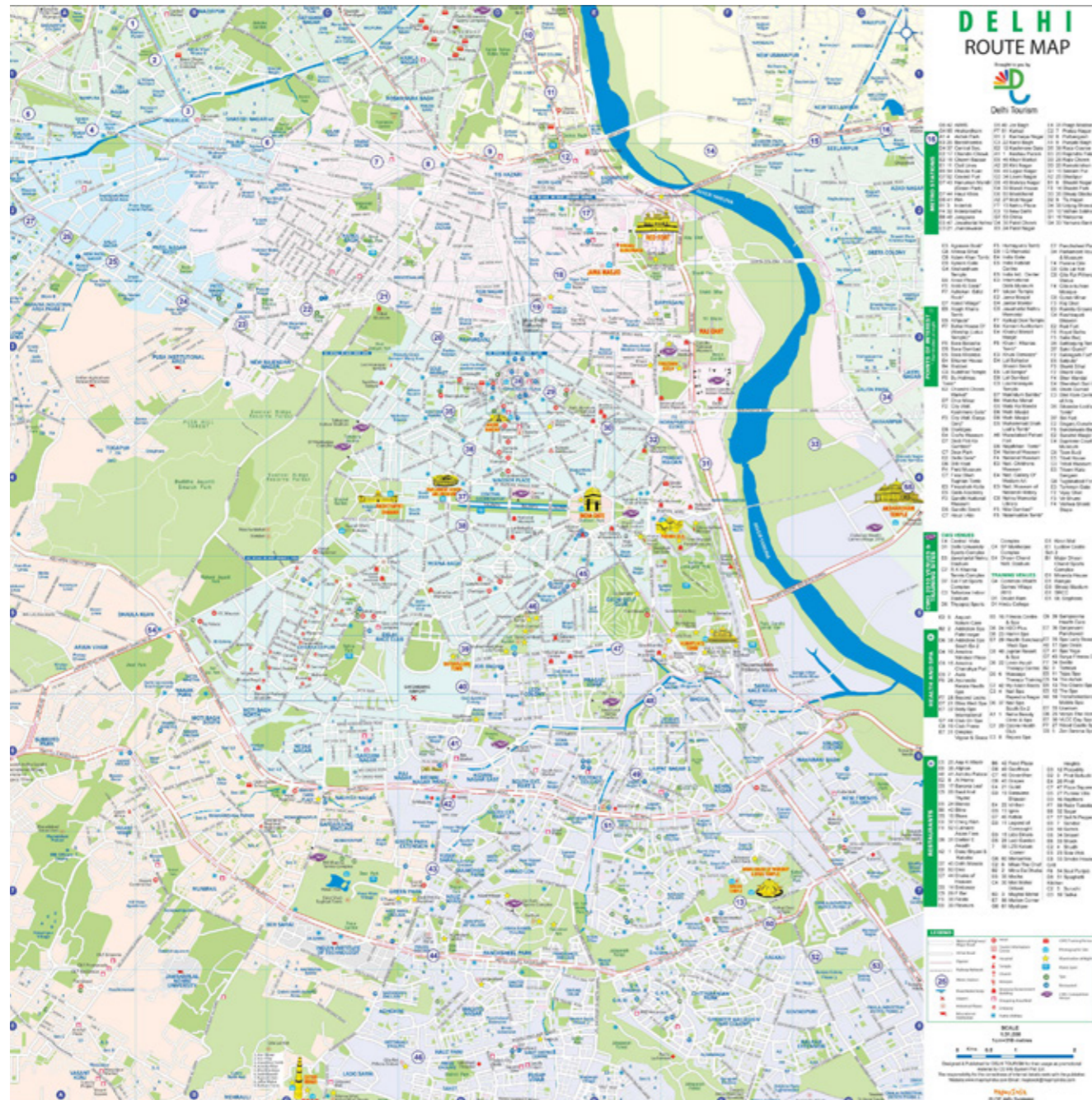


4.2 Floor Plan and Maps

Venue Floor Plan



Map of New Delhi, India



4.3 Registration

Opening Hours

Wednesday 7 May: 08:00 - 16:00
Thursday 8 May: 08:00 - 16:00
Thursday 9 May: 08:00 - 12:00

4.4 Useful information

About New Delhi

ARRIVAL TO NEW DELHI

Delhi's primary international gateway, Indira Gandhi International Airport (IGI), serves as the entry point for most delegates.

Transport Options from the Airport:

- App-Based & Prepaid Taxis: Services like Uber, Ola, and Meru Cabs operate from designated airport zones.
- Metro (Airport Express Line): Direct connection from the airport to Dwarka Sector 21 Metro Station.
- Hotel Transfers: Many conference-recommended hotels offer pre-arranged airport pickups.
- Car Rentals: Available at the airport for private transportation

WEATHER (FIRST WEEK OF MAY):

- Average Temperature: 30–40°C (86–104°F).
- Climate: Hot and dry, with strong sun exposure.

POWER PLUG & VOLTAGE INFORMATION

- Power Plug Type: India primarily uses Type D and Type M plugs.
- Voltage & Frequency: 230V, 50Hz.
- Adapters: International visitors may require a universal travel adapter.

LOCAL SIM CARDS & INTERNET CONNECTIVITY

For seamless communication, delegates may consider purchasing a local SIM card upon arrival.

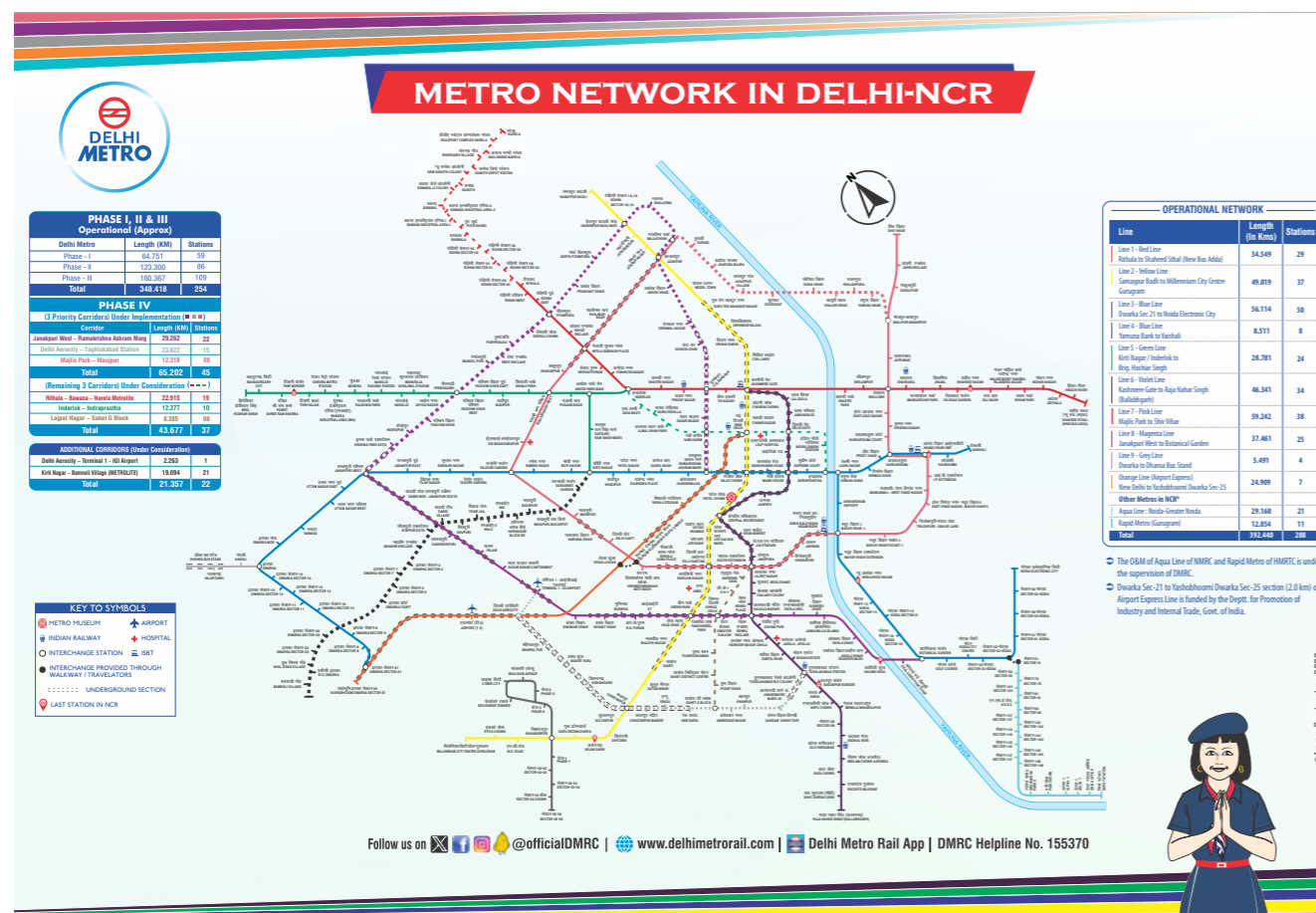
- Available Service Providers: Airtel, Jio, Vodafone-Idea (Vi).
- Requirements: Passport and visa copies required for activation.

LOCAL TRANSPORT

Recommended Transport Options:

- Free shuttle transportation will be arranged from the official GLEX 2025 hotels
- Delhi Metro: Efficient and economical; Airport Express Line and Blue Line connect to Yashobhoomi.
- App-Based Ride Services: Uber and Ola are widely available.
- Taxis & Auto-Rickshaws: Use metered taxis or agree on a fare beforehand.

*Special counters will be available in the official GLEX 2025 hotels providing information on free shuttle services to the conference venue



DINING AND FOOD SAFETY

- Dine at reputable restaurants with good hygiene standards.
- Avoid consuming raw or uncooked street food.
- Drink bottled water.

MEDICAL ASSISTANCE

Should any medical requirement arise during your stay, contact hotel or venue staff for assistance.

Emergency Contacts:

- Ambulance: 102/108
- Tourist Helpline: +91-1800-11-1363

CURRENCY & PAYMENT METHODS

- Currency: Indian Rupee (INR).
- Exchange Rate (approx.): 1 USD ≈ 85.6 INR (subject to fluctuation).
- Payment Methods: Credit/debit cards (Visa, Mastercard, AmEx) are widely accepted.
- Money exchange facility available at Delhi Airport arrival area and at the venue (Ebixcash, Thomascook, etc.)

CERTIFICATES OF ATTENDANCE AND PRESENTATION

All delegates attending the conference are entitled to a certificate of attendance or a certificate of presentation (for authors only).

The certificates will only be provided to each individual delegate and can be collected at the IAF Secretariat located in Room 301, LV2.





5 CONFERENCE PROGRAMME

5.1 Conference at a Glance

	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	
Wednesday 7 May	Registration		Opening Ceremony	VIP Exhibition Opening Chai Break	Inaugural Ceremony	Plenary 1a High-level Space Leaders	Lunch Break	Plenary 1b High-level Space Leaders	Plenary 1c High-level Space Leaders	Networ king Chai Break	GNF	Welcome Reception			
	Welcome Chai Break										Meeting with the Press				
Thursday 8 May	Registration	HLL 1	Plenary 2	Networ king Chai Break	Parallel Technical Sessions		Interactive Presentations		HLL 2	Plenary 3	Networ king Chai Break	Parallel Technical Sessions		Gala Dinner	
					GNF	GNF	Lunch Break					GNF			
Friday 9 May	Registration	HLL 3	Plenary 4	Networ king Chai Break	Parallel Technical Sessions		Interactive Presentations		Parallel Technical Sessions		Closing Ceremony				
					GNF		Lunch Break		GNF						
Saturday 10 May	Technical / Cultural Visits														
Sunday 11 May	Technical / Cultural Visits														





5.2 Plenary and IAF GNF at a glance

	08:00	09:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00
Wednesday 7 May		Registration	Opening Ceremony	VIP Exhibition Opening Chai Break	Inaugural Ceremony	Plenary 1a High-level Space Leaders - The Future of Space Exploration: The Agency Perspective	Lunch Break	Plenary 1b High-level Space Leaders - The Future of Space Exploration: The Agency Perspective	Plenary 1c High-level Space Leaders - The Future of Space Exploration: The Industry Perspective	Networking Chai Break	GNF Session: The global exploration roadmap: a shared exploration path from LEO to Moon to Mars Meeting with the Press	Welcome Reception		
Thursday 8 May	Registration	HLL 1 New Frontiers: The Democratization of Space	Plenary 2 - New Frontiers: Evolution of Space Stations	Networking Chai Break	Parallel Technical Sessions GNF Session: Axiom Mission 4: Building on the Legacy of Human Spaceflight GNF Session: Expanding Access to the Indian Space Sector: International Outlook	Interactive Presentations	Lunch Break	HLL 2 China's Deep Space Exploration and International Cooperation	Plenary 3 - Next Stop: The Moon and Beyond	Networking Chai Break	Parallel Technical Sessions GNF Session: India's space exploration endeavour; International Perspectives and opportunities		Gala Dinner	
Friday 9 May	Registration	HLL 3 Space Exploration to benefit Humanity on Earth	Plenary 4 - Outer Space: Exploration for All	Networking Chai Break	Parallel Technical Sessions GNF Session: IAF Astronauts Session Life - Between Worlds – The Astronauts' Experience GNF Session: ILOA-ILEWG Galaxy Forum "International NewSpace to the Moon"	Interactive Presentations	Lunch Break	Parallel Technical Sessions GNF Session: The Governance of Space Exploration GNF Session: Beyond Earth, Beyond Age: The Key Role of Youth for the Future of Space Exploration		Closing Ceremony				
Saturday 10 May		Technical / Cultural Visits												
Sunday 11 May		Technical / Cultural Visits												





5.3 Day-by-day Programme

Wednesday 7 May 2025

09:45 - 11:05 Opening & Inaugural Ceremony

Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Master of Ceremony:



Vimmi CHOUDHARY
Anchor,
India

Video Message:



Narendra MODI
Prime Minister of India,
India

Speakers:



Josef ASCHBACHER
Director General,
European Space Agency
(ESA),
France



Christian FEICHTINGER
Executive Director,
International Astronautical
Federation (IAF),
France



Pawan GOENKA
Chairman,
Indian National Space
Promotion and Authorization
Centre (IN-SPACe),
Department of Space,
Government of India,
India



Clay MOWRY
President,
International Astronautical
Federation (IAF),
United States



V. NARAYANAN
Chairman,
Indian Space Research
Organisation (ISRO),
India



Jitendra SINGH
Indian Ministry of Science
and Technology, Ministry
of Earth Sciences, Prime
Minister's Office, Ministry of
Personnel, Public Grievances
and Pensions, Department
of Atomic Energy and
Department of Space, Indian
Minister of State,
India

11:05 - 11:45 Exhibition Opening

Location: Exhibition Hall (1C)

11:05 - 11:45 Networking Chai Break

11:45 - 12:45 PLENARY 1A: High-Level Space Leaders - The Future of Space Exploration: The Agency Perspective



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Speakers:



Josef ASCHBACHER
Director General,
European Space Agency
(ESA),
France



Kazuyoshi KAWASAKI
Associate Director General
for Human Spaceflight and
Exploration,
Japan Aerospace Exploration
Agency (JAXA),
Japan



V. NARAYANAN
Chairman,
Indian Space Research
Organisation (ISRO),
India



WU Weiren
Director General of Deep
Space Exploration Laboratory
and Chief Designer of China's
Lunar Exploration Program,
China



Jill SMYTH
Director for Space Exploration
Planning, Coordination and
Advanced Concepts,
Canadian Space Agency (CSA),
Canada



MODERATOR
Christian FEICHTINGER
Executive Director,
International Astronautical
Federation (IAF),
France

12:30 - 14:00 Lunch Break

14:00 - 15:00 PLENARY 1B: High-Level Space Leaders - The Future of Space Exploration: The Agency Perspective



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Speakers:



Salem AL MARRI
Director General,
Mohammed Bin Rashid Space
Centre (MBRSC),
United Arab Emirates



Arif KARABEYOĞLU
Board Member,
KOÇ University,
CEO,
Delta V Space Technologies
Corporation
Türkiye



Caroline LAURENT
Director of Orbital Systems
and Applications,
Centre National d'Etudes
Spatiales (CNES),
France

**Maria Chiara NOTO**

Deputy Director of the
IV International Affairs
Directorate,
Italian Space Agency (ASI),
Italy

**Walther PELZER**

Director General,
German Space Agency,
Member of the Executive
Board,
Deutsches Zentrum für Luft-
und Raumfahrt e.V. (DLR),
Germany

**MODERATOR****Tanja MASSON-ZWAAN**

VP: Technical Activities,
IAF Bureau,
Assistant Professor and
Deputy Director of the
International Institute of Air
and Space Law (IIASL),
Leiden University,
Netherlands

15:00 - 16:00 PLENARY 1C: High-Level Space Leaders - The Future of Space Exploration: The Industry Perspective



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Speakers:**Vincenzo GIORGIO**

Vice President Institutional
Marketing & Sales,
Thales Alenia Space Italia,
CEO,
ALTEC,
Italy

**Jacki CORTESE**

Senior Director for Civil
Space,
Blue Origin,
Canada

**Jeremy HALLETT**

Executive Chair,
Space Industry Association
of Australia,
Australia

**Max HAOT**

CEO,
Vast,
United States

**Trent MARTIN**

Senior Vice President of
Space Systems,
Intuitive Machines,
United States

**Atsushi SAIKI**

Executive Fellow,
ispace, inc,
Japan

**MODERATOR****Hermann Ludwig MOELLER**

Director,
European Space Policy
Institute (ESPI),
Austria

16:00 - 16:30 Networking Chai Break

16:30 - 17:30 IAF GNF SESSION: The Global Exploration Roadmap: A Shared Exploration Path From Leo To Moon To Mars



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

International space exploration endeavours are the result of a multilevel interaction among countries and space agencies - merging a diverse set of national policy drivers, exploration priorities, timelines, experiences, and funding capabilities toward a common goal of discovery and long-term sustainable exploration.

Recently, ISECG, the International Space Exploration Coordination Group, a voluntary, non-binding coordination forum of currently 27 space agencies released the new Global Exploration Roadmap, GER2024.

This panel will discuss the GER2024 values and challenges, and highlight strategies towards a coordinated global space exploration effort. Special attention will be given to the diversity of space exploration opportunities, also allowing for the greater participation of emerging space agencies, fostering a broader resource base available for scientific, engineering and industrial capabilities while creating a more resilient space exploration community on Earth.

In addition to providing an overview of the GER2024, this panel will also present a summary of several other ISECG products that serve as tools to build consensus and serve to foster a strategic approach benefiting all participating agencies.

Keynotes:**Daniel NEUENSCHWANDER**

Director of Human and
Robotic Exploration
Programmes,
European Space Agency (ESA),
France

**Tirtha Pratim DAS**

Director, Science Programme
Office,
Indian Space Research
Organisation (ISRO),
India

Speakers:**Pierre W. BOUSQUET**

Deputy of the Associate
Director for Exploration and
Human Spaceflight,
Centre National d'Etudes
Spatiales (CNES),
France

**Bo BYLOOS**

Manager Exploration and
Science,
Luxembourg Space Agency,
Luxembourg

**Silvia CICCARELLI**

ASI Initiatives for the
Internationalisation and
Promotion of National Space
Industry,
Italian Space Agency (ASI),
Italy

**Jill SMYTH**

Director for Space Exploration
Planning, Coordination and
Advanced Concepts,
Canadian Space Agency (CSA),
Canada

**Kota TANABE**

Japan Aerospace Exploration
Agency (JAXA),
Japan

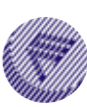
**MODERATOR****Stefaan DE MEY**

Senior Strategy Officer
for Human and Robotic
Exploration,
European Space Agency
(ESA),
Netherlands

16:30 - 18:00 Meeting with the Press

18:00-20:00 Welcome Reception

Location: Exhibition Hall 1D



Thursday 8 May 2023

09:00 - 09:30 HIGHLIGHT LECTURE 1: New Frontiers: The Democratization of Space

HLL

Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Keynote Speaker:



Sirisha BANDLA
Astronaut,
Virgin Galactic L.L.C.,
United States

09:30 - 10:30 PLENARY 2: New Frontiers: Evolution of Space Stations

PE

Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

From the iconic International Space Station (ISS) to China's Tiangong and the next generation of private orbital platforms, space stations have evolved from research outposts into dynamic hubs for space exploration and commerce. Today, they not only support scientific advancements but also enable commercial ventures such as zero-gravity manufacturing, pharmaceutical research, and space tourism.

With modular designs and private-sector collaboration, these stations are becoming more accessible, offering dedicated research slots, media studios, and even microgravity hotels for global clients. As low Earth orbit transforms into a thriving economic zone, sustainability and profitability remain key priorities. At the same time, these platforms serve as stepping stones for deep-space missions, fostering international cooperation and technological innovation.

Join us for an exemplary discussion on the evolution of space stations and the exciting future of orbital infrastructure.

Speakers:



Sébastien BARDE
Associate Director for
Exploration and Human
Spaceflight,
Centre National d'Etudes
Spatiales (CNES),
France



Max HAOT
CEO,
Vast,
United States



Michael LOPEZ-ALEGRIA
Chief of the Astronaut
Office and Ax-1 Mission
Commander,
Axiom Space, LLC,
United States



Thomas PESQUET
Astronaut,
European Space Agency (ESA),
CEO,
NOVESPACE,
France



Roberto PROVERA
Director of New Initiatives
and Customer Solutions
Development, Exploration and
Science,
Thales Alenia Space Italia,
Italy



Shri D.K. SINGH
Director, Human Space Flight
Centre,
Indian Space Research
Organisation (ISRO),
India



MODERATOR
Clay MOWRY
President,
International Astronautical
Federation (IAF),
United States

10:30 - 11:00 Networking Chai Break

11:00 - 11:30 IAF GNF SESSION: Axiom Mission 4: Building on the Legacy of Human Spaceflight



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Axiom Space has successfully conducted three commercial astronaut missions to the International Space Station (ISS), setting off a transformative effect on international collaboration in space. Now, with Axiom Mission 4 (Ax-4), Axiom Space ascends even higher, bringing even more nations to LEO and expanding humanity's reach among the stars.

The flight crew will include Commander Peggy Whitson of US, Pilot Shubhanshu Shukla of India, Mission Specialist Sławosz Uznański of ESA/Poland, and Mission Specialist Tibor Kapu of Hungary. The Ax-4 mission will "realize the return" to human spaceflight for India, Poland, and Hungary, with each nations first and only government-sponsored flight taking place more than 40 years ago. While Ax-4 marks their second human spaceflight mission in history, it will be the first time the three nations will execute a mission on board the ISS. The conversation will explore the evolution of human spaceflight by comparing and contrasting missions and crew members separated by a generation.

This historic mission underscores how Axiom Space is redefining the pathway to LEO and elevating national space programs globally. This session will present global efforts to build opportunity for countries to research, innovate, test, and engage with people around the world during the Ax-4 mission.

Keynote Speaker:



Michael LOPEZ-ALEGRIA
Chief of the Astronaut Office
and Ax-1 Mission Commander,
Axiom Space, LLC,
United States



11:00 - 13:00 Technical Sessions



No.	Title	Room
1.1	International Cooperation, Challenges, and New Horizons - Session 1	404B
2.1	Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 1	201
3.1	Space Vehicles for Exploration & Propulsion for Deep Space - Session 1	302
5.1	Space Bioastronautics, Space Medicine, Life Support Systems - Session 1	304
6.1	Microgravity Science and Experiments - Session 1	402
7.1	Space Resources Utilisation, Space Economy - Session 1	403
10.1	Space Finance, Investment and Insurance - Session 1	404A
11.1	Space Policy, Sustainability and Legal Aspects - Session 1	305
14.1	AI Impact & Autonomy on Space Exploration - Session 1	401
15.1	Empowering the Next Generation of Space Explorers - Session 1	405

12:00 - 12:50 IAF GNF SESSION: Expanding Access to the Indian Space Sector: International Outlook



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Post space sector reforms, unleashed by the Government of India in June 2020, a new era of space exploration and space-inspired industries has begun to unfold. There are ample opportunities for everyone from India, to take part in the global space economy and vice versa. An independent nodal agency under Department of Space - the Indian National Space Promotion and Authorization Centre (IN-SPACe) has been created in June 2020 "to promote, enable, authorise, and supervise Space Activities of Non-Governmental Entities (NGEs)." IN-SPACe is now enabling for the first time, national space infrastructure developed over the years, available for use by the private industry, creating a favourable regulatory environment for players within the Indian private sector, to allow them to become independent actors in the space sector instead of being solely vendors or suppliers to the government program. Led by Indian Space Research Organisation (ISRO) India's space program has impressively evolved for the past 50 years. In terms of technological capabilities India ranks among the top five space faring nations of the world. India is globally recognised for building low-cost satellites and launch vehicles. ISRO has developed three launch vehicles namely polar satellite launch vehicle (PSLV), geosynchronous satellite launch vehicle (GSLV) and GSLV MK-III. Even a small satellite launch vehicle (SSLV) has become operational. On satellite front, ISRO has developed communication, navigation, earth observations and scientific satellites.

A new Indian space policy in 2023 has been established to remove all the road blocks that existed in earlier policies. A lucrative Foreign Direct Investment (FDI) policy has been made functional and Space activities Bill are in the final phase. The liberalized FDI Policy brought out by Govt. of India for the space sector provides a clear and flexible investment framework and promote international investments, technology transfers, and collaborative research opportunities, making India an attractive destination for global investors. India's moon mission. India's recent lunar soft landing on the South Pole, a historic first, showcases its advanced space engineering capabilities and cost-effective approach. This achievement highlights the immense potential of Indian non-governmental entities (NGEs) in the space sector. India has developed capabilities in remote sensing, communication and navigation as well. Indian Government has laid down its vision for the next 25 years. We believe in cooperation and power of technology for the benefit of mankind. India is a leading information technology (IT) nation and has ambition to go digital in the areas of citizen centric services

viz. financial transactions, citizens database, resource mapping and planning etc. Space sector plays a vital role in all these services. Space sector has the potential to incubate a vibrant ecosystem of start-ups and private industries. By becoming a leading contributor to India's economic growth story, the space sector is replicating the success seen in the IT sector today. This would also increase India's share in the global space market significantly.

The growth of space sector in India will be aided by the vision and policies laid by the Government, to take space sector to next level. It shows aspiration of the country to grow. This can be achieved by developing space applications for the public needs. 80% of Indian population are rural inhabitants and there is a huge market in the services sector. Be it communication, remote sensing, navigation etc., the requirement is huge. This requires faster launch facilities and launches. Thus, requiring the need for robust supply chain management, strong global cooperation for space industry to grow. This provides new avenues for everyone to contribute and develop frugal technologies like India's Mars mission.

Indian space is no longer controlled by Institutional frame work or by Government, its available to all. With new policies, India is open for discussions in all the areas of space.

Keynote Speaker:



Vinod KUMAR
Director,
IN-SPACe,
India

13:00 - 14:00 IP Session



Location: IP Area, Lounge Area, Level 5, India International Convention & Expo Centre (IICC) - Yashoboomi

13:00 - 14:30 Lunch Break

14:30 - 14:55 HIGHLIGHT LECTURE 2: China's Deep Space Exploration and International Cooperation



Location: Grand Ballroom, India International Convention & Expo Centre (IICC) - Yashoboomi

China has made significant strides in deep space exploration since launching its lunar program in 2004. Successful missions include Chang'e-1 to Chang'e-6, achieving lunar orbiting, soft landings, and sample returns, as well as Tianwen-1 Mars mission. These efforts have advanced understanding of the Moon, Mars, and evolution of Solar System.

Future plans include Chang'e-7 (2026) and Chang'e-8 (2028) to explore lunar resources and verify technologies like 3D printing, aiming for crewed landing by 2030. Meanwhile the International Lunar Research Station (ILRS) initiative invites global collaboration.



For planetary missions, Tianwen-3 (2028) aim to return Mars samples, while Tianwen-4 (2030) targets Jupiter and Uranus. China also prioritizes Near-Earth Asteroid Defense, planning a kinetic impact test to protect Earth.

China actively promotes international cooperation for lunar, planetary and asteroid exploration. For ILRS, we partnered with over 20 countries and 50+ institutions, sharing data and fostering joint research. Cooperation will include joint concept study, joint development, facility co-construction, piggyback payloads, data sharing, and talent cultivation. Our target to invite more than 50 countries, 500 international academic institutions, and 5,000 international scientists to participate. The final goal is to build a shared future in outer-space, expanding human knowledge and civilization.

Speaker:



Zhongmin WANG
Director,
International Cooperation
Center, Deep Space
Exploration Laboratory
(DSEL),
China



Moderator
Pascale EHRENFREUND
Director for Earth Science,
President of Committee on
Space Research (COSPAR),
IAF Past President,
IAF Bureau,
France

16:00 - 16:30 Networking Chai Break

16:30 - 18:30 Technical Sessions

TS

No.	Title	Room
2.2	Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 2	201
3.2	Space Vehicles for Exploration & Propulsion for Deep Space - Session 2	302
4.1	System Engineering and Long-Term Space Travel - Session 1	404B
5.2	Space Bioastronautics, Space Medicine, Life Support Systems - Session 2	304
8.1	Sustainable Space Logistics & Key Technologies - Session 1	402
9.1	Navigation, Guidance and Control for Deep Space Missions - Session 1	403
11.2	Space Policy, Sustainability and Legal Aspects - Session 2	305
12.1	Space Stations & Challenges - Session 1	405
13.1	Ground-Based Preparatory Activities - Session 1	404A
14.2	AI Impact & Autonomy on Space Exploration - Session 2	401

16:35 - 17:15 IAF GNF SESSION: India's space exploration endeavour; International Perspectives and opportunities



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

During the last decades, the achievements by India as a space faring nation have been without precedence. From the early days of INCOSPAR in the 60's, then the establishment of ISRO in 1972 , India has excelled in all space domains ever since.

The exploration programmes such as the Chandrayaan missions have been hugely successful and the latest plans for building a space station, the Bharatiya Antariksh Station (BAS) and the Manned Lunar missions all included in the 2047 Space Vision clearly illustrate India's vision to be at the forefront of the world wide space exploration endeavours.

15:00 - 16:00 PLENARY 3: Next Stop: The Moon and Beyond

PE

Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

As humanity prepares for a new era of space exploration, the Moon is becoming a key stepping stone to Mars and beyond witnessed by very recent successful lunar missions from the US, India, China, Japan and commercial entities. This panel will explore the technologies, strategies, and collaborations shaping our journey, from future lunar habitats and resource utilization to advanced propulsion and life support systems. Experts from space agencies, industry, and academia will discuss how lunar missions are preparing us for the challenges of global cooperation in space. What policies will guide the sustainable development of extraterrestrial resources? How will lessons from the Moon shape the first human missions to Mars? Join us for a dynamic discussion on the next frontier—starting with the Moon and reaching beyond.

Speakers:



Vincenzo GIORGIO
Vice President Institutional
Marketing & Sales,
Thales Alenia Space Italia,
CEO,
ALTEC,
Italy



Pierre-Alexis JOURMEL
General Secretary,
EURO2MOON,
Director International & New
Business, Space Systems,
Airbus Defence and Space
GmbH ,
Germany



Kazuyoshi KAWASAKI
Associate Director General
for Human Spaceflight and
Exploration,
Japan Aerospace
Exploration Agency (JAXA),
Japan



Daniel NEUENSCHWANDER
Director of Human and
Robotic Exploration
Programmes,
European Space Agency (ESA),
France



Anatoli PETRUKOVICH
Director,
Space Research Institute,
Russia



Nigar SHAJI
Associate Director, U R Rao
Satellite Centre,
Indian Space Research
Organisation (ISRO),
India



Reaching out for cooperation with other Space Agencies on working together on major programs such as the Chandrayaan 5 program with JAXA and on the Venus Orbiter Mission with many international partners signify the major opportunities for other nations to work together with ISRO on space exploration projects.

India can be truly seen as an example for space-aspiring nations the experience of which will be addressed during the panel discussion. The panel discussion will be preceded by a key note address from one of the leading space agencies.

Keynote:



Dai ASOH
Project Manager, Lunar Polar Exploration (LUPEX) Project Team,
Japan Aerospace Exploration Agency (JAXA),
Japan

Speakers:



Michael LOPEZ-ALEGRIA
Chief of the Astronaut Office and Ax-1 Mission Commander,
Thales Alenia Space France,
United States



Daniel NEUENSCHWANDER
Director of Human and Robotic Exploration Programmes,
European Space Agency (ESA),
France



A. RAJARAJAN
Distinguished Scientist and Director of Satish Dhawan Space Centre,
Indian Space Research Organisation (ISRO),
India



Jill SMYTH
Director for Space Exploration Planning, Coordination and Advanced Concepts,
Canadian Space Agency (CSA),
Canada



MODERATOR
Pieter VAN BEEKHUIZEN
Chairman,
Netherlands Space Society (NVR),
Netherlands

Friday 9 May 2023

09:00 - 09:30 HIGHLIGHT LECTURE 3: Space Exploration to benefit Humanity on Earth

HLL

Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

The “outer space exploration” utilising the advanced space technologies and also generations of valuable space data provide excellent tools for finding the right solutions to many of the problems faced on earth. Today space has become an integral part of National development all over the globe by utilizing well-structured applications programmes in a variety of domains like earth observations, communications, disaster management, navigation, better understanding of atmospheric sciences and weather, interplanetary exploration and many more. Space exploration is largely governed by the Outer Space Treaty signed 58 years ago in October 1967. This international agreement mandates that outer space exploration has to be utilized for peaceful usage only and it must take into account the interests of all countries, regardless of their scientific or economic progress. The main objective of the treaty was to ensure that space derived benefits should not be used by only a few space faring countries, instead the emphasis is on space exploration on a shared endeavor. The purpose of the treaty is to serve as the foundational pillar for multilateral space governance and strictly stipulates that no nation can claim sovereignty over celestial bodies.

One of the important objectives of the space exploration is to ensure that the benefits of all scientific advancements made so far should reach gradually the entire humanity on earth. It should assist in creating and enhancing economic opportunities for improving the quality of life. The excitement of space exploration no doubt has been inspiring future generations to pursue careers in STEM areas and act as a catalyst to drive innovation particularly in advanced S&T fields. It is imperative that in future space exploration, most of the activities have to be undertaken by fostering active international cooperation not only to bring down the cost and but also to share the experience and expertise to achieve faster growth for the global good.

Space has made great inroads in every domain and space activities have progressed by leaps and bounds they are no longer carried out by just governments alone. With the growth of private Space entrepreneurship and innovation opportunities explorations are now open to Private companies, small teams and even a few individuals. Space tourism is attracting a lot of attention worldwide and serious efforts are on to bring down the cost. Virgin Galactic, Blue Origin, SpaceX, Boeing company and a few more are already have made tremendous progress in all exploration areas. Serious attention is being continued to offer cheaper suborbital flights, orbital hotels, moon trips, space tourism etc.,.

Space has made deep inroads in several vital domains to improve the lives of the common man such as space-based remote sensing for assessing natural resources, for monitoring environmental changes, for understanding climate patterns, for optimizing crop yields, for improving irrigation practices, for monitoring crop health, for assisting in disaster management and many more such vital areas thus making several crucial contributions, for meeting the sustainable development goals set by UN. More and more such space technologies are being more and more used in national governance too.

While the exploration activities have made phenomenal progress in almost all domains humans are still pondering over several fundamental questions like i. How did the universe form?
ii. What are the laws of nature at extreme scales?
iii. Are we alone and does life exist elsewhere in the universe? and iv. Answers to many more such unanswered questions.

All these aspects will be deliberated in the talk.

Keynote Speaker:



B.N. SURESH
Chancellor, Indian Institute of Space Science and Technology,
Indian Space Research Organisation (ISRO),
India



09:30 - 10:30 PLENARY 4: Outer Space: Exploration for All



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Space exploration is no longer limited to a few nations. Today we count more than 80 space agencies and offices worldwide. Space exploration is becoming a global and inclusive endeavor. This panel will explore how advancements in technology, international collaboration, and commercial innovation are making space accessible to all. Experts will discuss the role of emerging space nations, private industry, and policies ensuring equitable access to the benefits of space exploration. From scientific research to economic opportunities, how can we make space a shared frontier for humanity? Join us to discover how the future of space belongs to everyone.

Speakers:



Abdulla Ahmad ALSHEHHI
Head of Strategic Research Section,
UAE Space Agency,
United Arab Emirates



Henriette CYUZUZO
International Cooperation Analyst,
Rwanda Space Agency,
Rwanda



Eric MOREL DE WESTGAVER
Director of European, Legal and International Matters (D/ELI),
European Space Agency (ESA),
France



Bob LAMBORAY
Lead for Exploration and Space Resources,
Luxembourg Space Agency,
Strategic Advisor,
European Space Resources Innovation Centre (ESRIC),
Luxembourg



Eytan STIBBE
AX-1 Astronaut,
Rakia Mission,
Israel



S. UNNIKRISHNAN NAIR
Director, Vikram Sarabhai Space Centre,
Indian Space Research Organisation (ISRO),
India



Lisa VITARIS
Director, IAC Sydney 2025,
Space Industry Association of Australia,
Australia



MODERATOR
Rajeev JYOTHI
Director Technical,
Indian National Space Promotion and Authorization Centre (IN-SPACe)
India

11:00 - 12:00 IAF GNF SESSION: IAF International Astronauts Session: Life Between Worlds – The Astronauts' Experience



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Speakers:



Hazzaa ALMANSOORI
Astronaut,
Mohammed Bin Rashid Space Centre (MBRSC),
United Arab Emirates



Sirisha BANDLA
Astronaut,
Virgin Galactic L.L.C.,
United States



Alper GEZERAVCI
First Turkish Astronaut Turkish Space Agency Board Member
Turkish Space Command Coordination & Execution
Director F-16 & KC-135R Pilot,
Turkish Space Agency (TUA),
Türkiye



Ajit KRISHNAN
Indian Astronaut Group Captain,
Indian Space Research Organisation (ISRO),
India



Michael LOPEZ-ALEGRIA
Chief of the Astronaut Office and Ax-1 Mission Commander,
Axiom Space, LLC,
United States



Angad PRATHAP
Indian Astronaut Group Captain,
Indian Space Research Organisation (ISRO),
India



Rakesh SHARMA
First Indian Astronaut,
Indian Space Research Organisation (ISRO),
India



Eytan STIBBE
AX-1 Astronaut,
Rakia Mission,
Israel



Gopichand THOTAKURA
Astronaut,
Blue Origin New Shepard-25 Mission,
India



MODERATOR
Christian FEICHTINGER
Executive Director,
International Astronautical Federation (IAF),
France

11:00-13:00 Technical Sessions



No.	Title	Room
1.2	International Cooperation, Challenges, and New Horizons - Session 2	404B
2.3	Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 3	201
3.3	Space Vehicles for Exploration & Propulsion for Deep Space - Session 3	302
5.3	Space Bioastronautics, Space Medicine, Life Support Systems - Session 3	304
8.2	Sustainable Space Logistics & Key Technologies - Session 2	402
9.2	Navigation, Guidance and Control for Deep Space Missions - Session 2	403

10:30 - 11:00 Networking Chai Break



11.3	Space Policy, Sustainability and Legal Aspects - Session 3	305
13.2	Ground-Based Preparatory Activities - Session 2	404A
14.3	AI Impact & Autonomy on Space Exploration - Session 3	401
15.2	Empowering the Next Generation of Space Explorers - Session 2	405

12:00 - 13:00 IAF GNF SESSION: ILOA-ILEWG Galaxy Forum "International NewSpace to the Moon"



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

This panel will feature prominent international lunar and aerospace leaders Pascale Ehrenfreund (George Washington University, former IAF president), Bernard Foing (ILEWG LUNEX and Space Renaissance International), Tanja Masson-Zwaan (Leiden University, IISL and IAF VP), Steve Durst (International Lunar Observatory Association), Jatan Mehta (Moon Monday), and Guarav Seth (PierSight)

Being discussed will be the ways in which commercial companies and international policies have shaped the vision of present and future Moon missions, as well as upcoming lunar missions, payload opportunities, Moon Village principles, Artemis and ILRS, legal and policy aspects, first woman on the Moon, Space Renaissance for All, and Moon for All (cooperation, science, technology, resources and environment protection, economy, peace, governance, inspiration, education, humanities and arts).

Speakers:



Steve DURST
Director and Founder,
International Lunar
Observatory Association,
United States



Pascale EHRENFREUND
President
President of Committee on
Space Research (COSPAR),
France



Bernard FOING
Executive Director,
International Lunar
Exploration Working Group
(ILEWG),
EuroMoonMars,
Chair IAF ITACCUS
Committee,
Netherlands



Tanja MASSON-ZWAAN
Assistant Professor and
Deputy Director of the
International Institute of Air
and Space Law (IIASL),
Leiden University,
Netherlands



Gaurav SETH
Co-founder and Chief Executive
Officer,
Piersight Space,
India



MODERATOR
Jatan MEHTA
Space Writer and Author,
Moon Monday,
India

13:00 - 14:00 IP Session

Location: IP Area, Lounge Area, Level 5, India International Convention & Expo Centre (IICC) - Yashoboomi

13:00 - 14:30 Lunch Break

14:30 - 15:30 IAF GNF SESSION: The Governance of Space Exploration



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Join us for an insightful panel discussion on the governance of space exploration, where leading experts will delve into the multifaceted legal and policy dimensions of this field. This session will emphasize the necessity of international cooperation to address the global challenges and opportunities of space exploration.

Topics that our panellists will address include the governance of space resource utilization, in examining legal frameworks and policy measures that ensure responsible and sustainable use of space resources. The discussion will also cover planetary protection, highlighting strategies to prevent contamination and preserve the integrity of celestial bodies.

Equitable sharing of benefits from space exploration will be another key topic, focusing on the need to ensure that all nations, regardless of their space capabilities, can partake in the advantages of space activities. The growing role of private entities in space exploration will be addressed as well, showcasing their contributions and the need for regulatory measures to balance innovation with safety and fairness. The long-term sustainability of space activities will be a final point of discussion, with insights into how current practices can be adapted to safeguard the future of space exploration.

At the end of this high-level discussion, attendees will have gained an overall understanding of the challenges in ensuring the responsible and equitable governance of space exploration, taking into account the interests of all stakeholders, now and in the future.

Speakers:



Geetanjali KAMAT
Manager – Legal & Policy,
Digantara,
India



Ranjana KAUL
Partner,
Dua Associates,
India



Bob LAMBORAY
Lead for Exploration and
Space Resources,
Luxembourg Space Agency,
Strategic Advisor,
European Space Resources
Innovation Centre (ESRIC),
Luxembourg



Hermann Ludwig MOELLER
Director,
European Space Policy
Institute (ESPI),
Austria



Zhongmin WANG
Director,
International Cooperation
Center, Deep Space
Exploration Laboratory
(DSEL),
China



MODERATOR
Tanja MASSON-ZWAAN
Assistant Professor and
Deputy Director of the
International Institute of Air
and Space Law (IIASL),
Leiden University,
Netherlands

14:30 - 16:30 Technical Sessions



No.	Title	Room
2.4	Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 4	201
2.5	Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 5	405
3.4	Space Vehicles for Exploration & Propulsion for Deep Space - Session 4	302



4.2	System Engineering and Long-Term Space Travel - Session 2	404B
5.4	Space Bioastronautics, Space Medicine, Life Support Systems - Session 4	304
8.3	Sustainable Space Logistics & Key Technologies - Session 3	402
9.3	Navigation, Guidance and Control for Deep Space Missions - Session 3	403
11.4	Space Policy, Sustainability and Legal Aspects - Session 4	305
13.3	Ground-Based Preparatory Activities - Session 3	404A
14.4	AI Impact & Autonomy on Space Exploration - Session 4	401

15:30 - 16:30 IAF GNF SESSION: Beyond Earth, Beyond Age: The Key Role of Youth for the Future of Space Exploration



Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

As the global space sector enters a transformative era marked by ambitions to expand human presence beyond Earth, a thriving commercial ecosystem, and urgent calls for sustainability young professionals are emerging not just as future leaders, but as essential contributors today.

This panel will explore how empowering the next generation of space professionals is critical for building an inclusive, innovative, and sustainable future for space exploration.

Convened by the Space Generation Advisory Council (SGAC) the world's leading global network of students and young professionals in space this session brings together youth voices and senior experts in a dynamic, multi-generational exchange. Together, they will explore how cross-generational collaboration can enhance policy, shape future missions, and inspire long-term thinking for humanity's journey beyond Earth.

Speakers:



Sirisha BANDLA
Astronaut,
Virgin Galactic L.L.C.,
United States



Pascale EHRENFREUND
President,
President of Committee on
Space Research (COSPAR),
France



Shreya SANTRA
Assistant Professor,
Department of Aerospace
Engineering,
Tohoku University,
Japan



Gopichand THOTAKURA
Astronaut,
Blue Origin New Shepard-25
Mission,
India



Lisa VITARIS
Director, IAC Sydney 2025,
Space Industry Association
of Australia,
Australia



MODERATOR
Nikol KOLEVA
Deputy Executive Director,
Space Generation Advisory
Council (SGAC),
Austria

16:30 - 17:00 Closing Ceremony

Location: Grand Ballroom A&B, India International Convention & Expo Centre (IICC) - Yashoboomi

Master of Ceremony



Christian FEICHTINGER
Executive Director,
International Astronautical
Federation (IAF),
France

Speakers:



Pascale EHRENFREUND
President,
President of Committee on
Space Research (COSPAR),
France



Victor Joseph T
Outstanding Scientist,
Indian Space Research
Organisation (ISRO),
Project Director GSLV Mk
III & Mission Director of
HLVM3-G1 Gaganyaan
Mission,
India



Anil KUMAR
Director,
ISTRAC,
Fellow of Prestigious Indian
National Academy of
Engineering, INAE Fellow of
Aeronautical Society of India,
Indian Space Research
Organisation (ISRO),
India



Clay MOWRY
IAF President,
International Astronautical
Federation (IAF),
United States



V. NARAYANAN
Chairman,
Indian Space Research
Organisation (ISRO),
India



6 SOCIAL & CULTURAL PROGRAMME

Welcome Reception

Date: Wednesday 7 May 2025

Hour: 18:00

Location: Exhibition Hall 1D

The Indian Space Research Organisation (ISRO) is delighted to host a Welcome Reception for all participants of GLEX 2025 on May 7, 2025, at Exhibition Hall 1D, starting at 5:30 PM. This gathering offers a wonderful opportunity for delegates to connect, exchange ideas, and celebrate our shared passion for space exploration in a relaxed atmosphere. Enjoy a selection of fine wine and beer, accompanied by delectable finger foods. We look forward to welcoming you and fostering meaningful conversations as we embark on an inspiring week of discussions and collaboration.



Cultural Programme & Gala Dinner

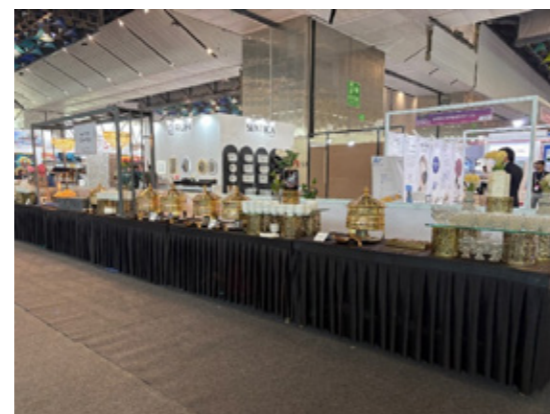
Date: Thursday 9 May 2025

Hour: 19:30-22:00

Location: Exhibition Hall 1D

The GLEX 2025 Gala Dinner will be held at the Exhibition Hall 1D on May 9, 2025. The evening will commence at 6:30 PM with a captivating cultural programme, **Colors of India**, showcasing the rich diversity of Indian art, dance, and traditions. Following this vibrant display, a short presentation by the Gala Dinner sponsor will set the stage for an elegant dining experience, beginning at 7:40 PM. Guests will enjoy a curated selection of drinks, complemented by delicious finger foods and an extensive **dinner buffet**. Thanks to the **Government of Gujarat** for hosting the gala dinner.

Join us for a night of celebration, connection, and inspiration as we conclude GLEX 2025 with a memorable gathering. **All delegates are welcome!**



Tours

Enhance your GLEX 2025 experience with specially curated pre- and post-event social tours, organized by the official Professional Congress Organiser, M/s Alpcord. These tours are designed to cater to the diverse interests of our delegates, offering a unique opportunity to explore the rich cultural and historical heritage of the region. Whether you seek adventure, history, or relaxation, there's a tour tailored to your preferences.

To book your preferred tour and embark on an enriching journey, please visit:

GLEX 2025 Social Tours Booking (https://conferenceindia.in/glex2025/delegate_acmdlogin.aspx)

Tour of Old Delhi

Step back in time and immerse yourself in the rich history and vibrant culture of Old Delhi on this unforgettable tour. Begin at the magnificent Red Fort, a UNESCO World Heritage site that once served as the grand residence of Mughal emperors, showcasing stunning architecture from the 17th century. Pay homage at Raj Ghat, the serene memorial dedicated to Mahatma Gandhi, where India's revered leader was cremated in 1948. Then, experience the spiritual and architectural splendor of Jama Masjid, India's largest mosque, commissioned by Emperor Shah Jahan, the visionary behind the Taj Mahal. As you wander through the bustling streets, savor the essence of Old Delhi's timeless charm, where history, spirituality, and culture come together in an awe-inspiring journey.

Note: Red Fort is closed on Monday.

Timing: 08:30am to 05:00pm

Tour of Old Delhi		
Duration: 7-8 Hours		
		
Red Fort Red Fort in North Delhi is part of the historic city of Shahjahanabad, built by the Mughal Emperor Shah Jahan in the 17th Century. Now known as Old Delhi.	Raj Ghat Raj Ghat is a memorial in Delhi where Mahatma Gandhi, the Father of the Nation, was cremated following his assassination in 1948.	Jama Masjid Emperor Shah Jahan, who also built the Taj Mahal, commissioned this mosque in 1644. It remains the largest mosque in India.
Note: Red Fort is closed on Monday.		
• Tour Departure from Aerocity Hotels • Timing: 08:30am to 05:00pm		

Tour of New Delhi

Discover the rich history of Delhi on this fascinating tour. Begin with the towering **Qutub Minar**, a UNESCO World Heritage site and a testament to India's medieval architecture. This towering victory tower, standing at 73 meters, forms part of the Qutb complex, which marks the site of Delhi's oldest fortified city, Lal Kot. Continue to **Humayun's Tomb**, the first of the grand Mughal dynastic mausoleums, influencing the architecture of the Taj Mahal. Its stunning design

showcases the height of Mughal artistry. Finally, visit the iconic **India Gate**, a monumental sandstone arch dedicated to the soldiers of British India who perished in World War I. This majestic structure stands proudly in the heart of New Delhi, symbolizing bravery and sacrifice.

Timing: 08:30am to 05:00pm

TOUR OF NEW DELHI CITY		
Duration: 7-8 Hours		
 <p>Qutub Minar The Qutub Minar, also spelled Qutub Minar and Qutab Minar, is a minaret and "victory tower" that forms part of the Qutub complex, which lies at the site of Delhi's oldest fortified city, Lal Kot, founded by the Tomar Rajputs.</p>	 <p>Humayun's tomb Humayun's Tomb, Delhi is the first of the grand dynastic mausoleums that were to become synonyms of Mughal architecture with the architectural style reaching its zenith 80 years later at the later Taj Mahal.</p>	 <p>India Gate India Gate, monumental sandstone arch in New Delhi, dedicated to the troops of British India who died in wars fought between 1914 and 1919. India Gate, which is located at the eastern end of the Rajpath (formerly called the Kingsway), is about 138 feet (42 metres) in height.</p>

Tour to Agra and Taj Mahal

Embark on an enchanting journey to Agra, home to two of India's most iconic landmarks. Begin with a visit to the breathtaking **Taj Mahal**, the eternal symbol of love, built by Mughal Emperor Shah Jahan in memory of his beloved wife, Mumtaz Mahal. Marvel at its stunning white marble architecture and the poignant beauty of the mausoleum where both rest together for eternity. After a delightful lunch, explore the majestic **Agra Fort**, a UNESCO World Heritage site that once served as the powerful stronghold of the Mughal Empire. Enclosed by towering 70-foot-high walls, this grand fortress houses architectural masterpieces like the **Pearl Mosque**, **Jahangir Mahal**, **Diwan-i-Khas**, **Diwan-i-Am**, and **Moti Masjid**. Immerse yourself in the grandeur of Mughal history and culture before concluding this unforgettable experience.

Note: Taj Mahal is closed for the public on Friday.

Timing: 07:00am to 08:00pm

TOUR TO AGRA	
Duration: 12 Hours	
<p>Delhi Agra Delhi</p> <p>Morning Depart from Delhi at 7AM, for Agra. Reach Agra, visit "Taj Mahal" which was built by the Mughal Emperor Shahjahan as a memorial to his wife, Mumtaz Mahal. After her untimely death, Shah Jahan had her mortal remains buried in this mausoleum. And after his demise he was placed to rest next to his beloved queen in the same mausoleum. Under the dome, below the ground level, in a dimly lit chamber, lie the mortal remains of Shahjahan and his beloved queen Mumtaz, reminding the world of their undying love. After visiting Taj Mahal, proceed for Lunch around 2 pm, later visit to Agra fort, within a radius of 3 kilometers, on the banks of the river Yamuna, rises the crescent like Agra Fort. Designed and built by Akbar in 1565 A.D., the fort is surrounded by a 70 feet high wall. It houses the beautiful Pearl Mosque and numerous places including the Jahangir Mahal, Diwan-i-Khas, Diwan-i-Am and Moti Masjid.</p> <p>Return to Delhi around 7-8 pm</p> <p>Note: Taj Mahal is closed for the public on Friday.</p> <ul style="list-style-type: none"> • Tour Departure from Aerocity Hotels • Timing:- 07:00am to 08:00pm 	

For more details and to customise your tours, you may contact
Mr. Manjeet Singh Email : tours@alpcord.com Mob.: +91 9717626667

7 IAF INTERNATIONAL ASTRONAUTS CHAPTER

Meet Astronauts at GLEX 2025!











The IAF Global Space Exploration Conference (GLEX 2025) proudly features a special **IAF International Astronauts Chapter**, jointly organized by the International Astronautical Federation (IAF) and the Indian Space Research Organisation (ISRO), an esteemed IAF member since 1989 and proud host of GLEX 2025.

Inspired by the motto of GLEX 2025 - "Reaching New Worlds: A Space Exploration Renaissance", the IAF International Astronauts Chapter will spotlight the proactive and essential leadership of astronauts in shaping the future of responsible and inclusive space exploration. The programme will include impactful panel sessions, astronaut-driven discussions, and dynamic outreach activities aimed at engaging diverse audiences.

As part of the IAF Global Networking Forum (IAF GNF), do not miss the special Astronauts' **Panel on Friday, 9 May from 11:00 to 13:00**, where astronauts from around the world will come together to share their unique experiences, promote sustainable space exploration practices, and inspire the next generation of explorers.

Additionally, The Chapter programme also includes an **autograph session** with the astronauts on Public Day, 9 May - a rare and exciting opportunity for attendees to interact personally with the space heroes, hear their stories, and celebrate their contributions to humanity's quest beyond Earth.

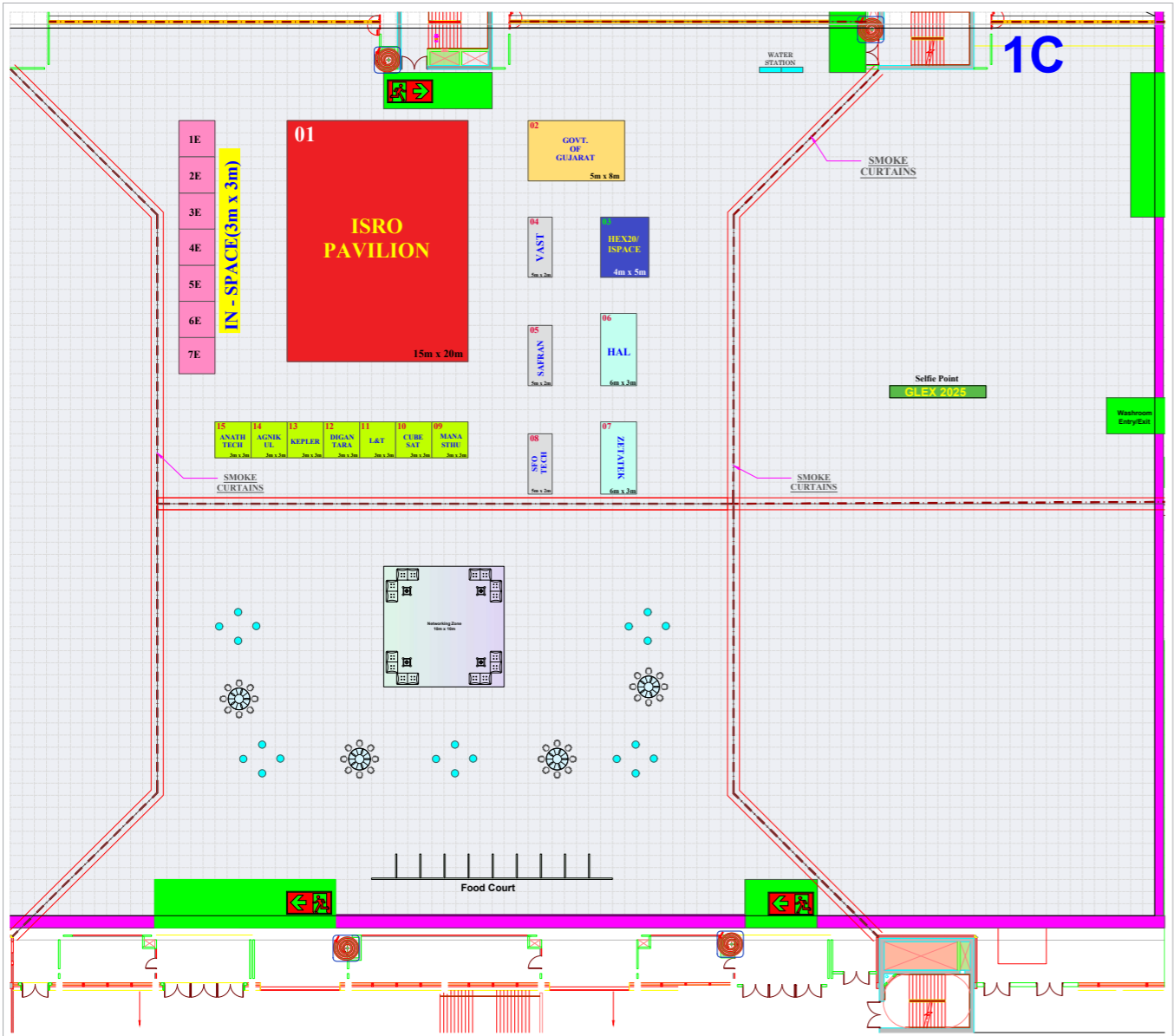
Join us in New Delhi to connect with global leaders in space and be a part of a vibrant community that is shaping the next era of space exploration.

 <p>Hazzaa ALMANSOORI Astronaut, Mohammed Bin Rashid Space Centre (MBRSC), United Arab Emirates</p>	 <p>Sirisha BANDLA Astronaut, Virgin Galactic L.L.C., United States</p>	 <p>Alper GEZERAVCI First Turkish Astronaut Turkish Space Agency Board Member Turkish Space Command Coordination & Execution Director F-16 & KC-135R Pilot, Turkish Space Agency (TUA), Türkiye</p>
 <p>Ajit KRISHNAN Indian Astronaut Group Captain, Indian Space Research Organisation (ISRO), India</p>	 <p>Michael LOPEZ-ALEGRIA Chief of the Astronaut Office and Ax-1 Mission Commander, Axiom Space, LLC, United States</p>	 <p>Thomas PESQUET Astronaut, European Space Agency (ESA), CEO, NOVESPACE, France</p>
 <p>Angad PRATHAP Indian Astronaut Group Captain, Indian Space Research Organisation (ISRO), India</p>	 <p>Rakesh SHARMA First Indian Astronaut, Indian Space Research Organisation (ISRO), India</p>	 <p>Eytan STIBBE AX-1 Astronaut, Rakia Mission, Israel</p>
 <p>Gopichand THOTAKURA Astronaut, Blue Origin New Shepard-25 Mission, India</p>		



8 EXHIBITORS

7.1 Exhibition Area Floorplan



7.2 List of Exhibitors by Booth number

S.No	Company	Booth No.
1	Indian Space Research Organisation (ISRO)	1
2	Government of Gujarat	2
3	HEX20 LABS India Private Limited	3
4	VAST	4
5	Safran Data Systems	5
6	Hindustan Aeronautics Ltd	6
7	Zetatek Technologies Private Limited	7
8	SFO Technologies Private Limited	8
9	Manastu Space Technologies	9
10	CubeSat Aerospace LLP	10
11	Larsen & Toubro Limited	11
12	Digantara Research and Technologies Private Limited	12
13	Kepler Aerospace Private Limited	13
14	Agnikul Cosmos Private Limited	14
15	Ananth Technologies Private Limited	15
16	IN-SPACE	1E, 2E, 3E, 4E, 5E, 6E, 7E



7.3 Alphabetical List of Exhibitors

Agnikul Cosmos

Booth: 14


Agnikul Cosmos is an Indian space technology startup, incubated by the IIT-Madras and is headquartered in Chennai. It has achieved a significant milestone by launching India's first semi-cryogenic Launch Vehicle Agnibaan SOrTeD with the world's first and only single-piece 3D-printed rocket engine, for which it holds a patent. The vision of Agnikul is to bring space within everyone's reach, aiming to enable launches from Anywhere, Anytime, Affordably. Agnikul is committed to developing launch vehicles that are both affordable and customizable according to customer needs. The Agnikul team consists of over 200 engineers and is associated with the National Centre for Combustion Research and Development (NCCRD) at the Indian Institute of Technology (IIT), Madras.

Ananth Technologies

Booth: 15


Ananth Technologies is an AS9100D and ISO 9001:2015 certified company established in year 1992 with Headquarters at Hyderabad and centres at Bangalore and Trivandrum. Ananth has been closely Associated with India's Space and Strategic sector for more than three decades in Design, Development and Manufacture of electronic, electro-mechanical systems for spacecrafts, launch vehicles, payloads, aircrafts, missiles etc. The systems include Digital, Power, Controls, Communications, Sensors, Laser, Solar panels, Deployment mechanisms and varieties of DC/DC converters. Ananth is in to Assembly, Integration and Testing (AIT) of spacecrafts and Launch Vehicle stages and so far contributed to 102 satellites and 82 Launch Vehicles of ISRO. Ananth has state-of-the-art manufacturing facilities in Hyderabad, Bangalore and Thiruvananthapuram which includes ISO class 7 cleanrooms, ISO class 8 cleanrooms, automated assembly lines, board level and system level functional test facilities, environmental test facilities etc. Ananth is also in to Geospatial services.

CubeSat Aerospace LLP

Booth: 10


CubeSat Aerospace LLP is a space startup dedicated to the design, development, and deployment of compact satellite systems. The company delivers flight-ready CubeSat platforms for educational, research, and commercial missions, with core expertise in power systems, avionics, and mission integration. It provides end-to-end solutions tailored to diverse orbital needs, bridging academia and industry through innovation, accessibility, and hands-on engineering. Its flagship product, the CAL01A 1U CubeSat, is a modular, scalable platform designed for real-world space applications.

Digantara Research and Technologies Private Limited

Booth: 12


Digantara is a leading space surveillance and intelligence company, specializing in Space-Domain Awareness. We're building critical infrastructure for Space Operations and Space Traffic Management. The company operates out of its Satellite AIT and Mission Control Centre in Bangalore HQ, with strategic offices in the United States and Singapore. We offer accurate space-object tracking data, intelligence and analysis to a host of commercial, civilian and military bodies through our patented Electro-Optical and LiDAR-based sensing solutions

Government of Gujarat

Booth: 2


Hindustan Aeronautics Limited (HAL)

Booth: 6

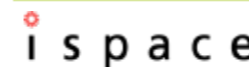

Hindustan Aeronautics Limited (HAL), headquartered in Bengaluru, is India's premier aerospace and defence company and a Maharatna Public Sector Undertaking under the Ministry of Defence. Established in 1940, HAL operates 21 production divisions and 11 R&D centres, employing over 24,000 personnel. HAL's core competencies include the design, manufacture, repair, overhaul, and upgrade of aircraft, helicopters, aero-engines, avionics, and systems. It is the largest defence PSU in India and ranks 29th among the world's top 100 defence companies. HAL is integral to India's military aviation, producing platforms like the Tejas fighter, Su-30 MKI, and various helicopters (both in utility and combat role), and is a key partner in ISRO's space missions such as PSLV, GSLV, Chandrayaan, and Gaganyaan.

HEX20 LABS India Private Limited

Booth: 3


HEX20 is a space technology company focused on the end-to-end solution of development, integration, testing & deployment of small satellites. We deliver innovative solutions for turnkey small satellite missions and hosted payload missions, catering to commercial, government, and research organizations around the globe. We aim to "bring space closer" and make it accessible to everyone. We're creating Space grade Lego Architecture, reliable hardware architecture built for the future, seamlessly supporting multiple applications, paired with a service-oriented software ecosystem that redefines scalability and adaptability.

ispace

Booth: 3


ispace, a global lunar resource development company with the vision, "Expand our planet. Expand our future.", specializes in designing and building lunar landers and rovers. ispace aims to extend the sphere of human life into space and create a sustainable world by providing high-frequency, low-cost transportation services to the Moon. The company has business entities in Japan, Luxembourg, and the United States with approximately 300 employees worldwide. For more information, visit: www.ispace-inc.com and follow us on X: @ispace_inc.

IN-SPACe

1E, 2E, 3E, 4E, 5E, 6E, 7E


Indian Space Research Organisation (ISRO)

Booth: 1


Indian Space Research Organisation (ISRO) is the space agency of India. The organisation is involved in science, engineering and technology to harvest the benefits of outer space for India and the mankind. ISRO is a major constituent of the Department of Space (DOS), Government of India. The department executes the Indian Space Programme primarily through various Centres or units within ISRO.

The prime objective of ISRO/DOS is the development and application of space technology for various national needs. To fulfil this objective, ISRO has established major space systems for communication, television broadcasting and meteorological services; resources monitoring and management; space-based navigation services. ISRO has developed satellite launch vehicles, PSLV, GSLV, LVM3 and SSLV to place the satellites in the required orbits.

Kepler Aerospace Private Limited

Booth: 13


Kepler Aerospace, incorporated in 2018, focuses on small satellite development, defense systems design, and advanced manufacturing. Its core areas include conceptualization of small satellite configurations, R&D of next-gen technologies in space, defense, and biomedical sectors, and manufacturing of space- and mil-grade systems. Kepler also develops SatCom transceivers, UHF communication systems, and provides ground station support for ISRO missions. The company offers consultancy through feedback-driven satellite operations, parallel hardware/software realization, and integration management for flexible smallsat systems. A comprehensive 24x7 contingency framework ensures reliable backend support for satellite communications and mission-critical operations across defense and commercial space applications.

Larsen & Toubro Limited

Booth: 11


Manastu Space

Booth: 9


Manastu Space is redefining satellite mobility and sustainability with its breakthrough green propulsion technology. Leveraging a high-performance hydrogen peroxide-based fuel and an ultrahigh temperature catalyst, Manastu offers a safer, more agile, and efficient alternative to traditional propulsion systems. Their technology is designed for easy handling on Earth and enhanced performance in space, making it ideal for a wide range of satellite missions. In addition to propulsion, Manastu is developing in-space refuelling and de-orbiting services to extend satellite lifespans and reduce orbital debris. Through innovation and reliability, Manastu is building a cleaner, more sustainable future for space operations and exploration.

Safran Data Systems India**Booth: 5**

Safran Data Systems India is a global leader in providing high-technology equipment and solutions for testing, telemetry, communications for space and mission data management. With a highly skilled international team, we contribute to the success of our customers by prioritizing innovation, reliability, sustainability, and value-driven performance. Drawing upon over 60 years of experience in the telemetry field and combining it with Indian innovation, our comprehensive COTS product portfolio delivers cutting-edge technology to address your most demanding challenges.

As a part of the Safran Space directorate, SDSI is at the forefront of space innovation. Our contributions to ISRO's flagship missions, including Chandrayaan-3, Aditya L1, and Gaganyaan, highlight our unmatched expertise in ground checkout systems, high-channel DAQs, and actuator testing.

We have successfully delivered 2100+ projects in more than 20 countries. We are powered by the expertise and experience of 200+ engineers seated across 5 sites – Bangalore (HQ), Pune, Trivandrum and Chennai. We are also an AS 9100(D) certified company ensuring that we meet the most stringent standards for our customers' uninterrupted successes.

SFO Technologies Private Limited**Booth:8**

SFO Technologies, the flagship company of NeST Group incorporated in 1990, has been catering to the aerospace & defence industry for over two decades and also accredited as design and development partner for a major commercial aerospace company. SFO has instituted an efficient ecosystem to mitigate the risk in supply chains, ensuring on-time delivery schedules, security of supplies, component management services, and adherence to compliance requirements.

Our solutions comply with RTCA DO-254 and DO-178 B/C standards. Besides, our services include verification and validation activities, LRU Simulation, Test bed development, Flight Data Analysis and Aircraft Performance Analysis

Vast**Booth: 4**

Founded in 2021 by Jed McCaleb, Vast is developing humanity's next-generation space stations and pioneering the path to long-term living and thriving in space. Haven-1, scheduled to be the world's first commercial space station, is currently in development and is expected to launch May 2026. Vast is also developing Haven-2, the proposed successor to the International Space Station (ISS), designed to serve NASA's Commercial LEO Destinations (CLD) program as a micro-gravity laboratory in space. Vast's long-term ambition is to create artificial gravity habitations that enable humans to live in space, reaffirming its commitment to ensuring a spacefaring future for all.

Zetatek Technologies Private Limited**Booth: 7**

9 TECHNICAL PROGRAMME

Download the IAF App to get the latest update



9.1 Technical Sessions

Technical Programme Chairs

- PK Abraham, Vikram Sarabhai Space Centre (VSSC), India
- Narayanan Appu, ISRO Propulsion Complex, Mahendragiri, India, India
- Dipankar Banerjee, Indian Institute of Space Science and Technology (IIST), India
- Anil Bhardwaj, Physical Research Laboratory, India
- Pierre W. Bousquet, Centre National d'Etudes Spatiales (CNES), France
- Shaijumon C.S, Indian Institute of Space Science and Technology (IIST), India
- David Caponio, Vast, United States
- Rajiv Ratan Chetwani, Indian Space Research Organization (ISRO), India
- Rina Choudhary, University of Delhi, India
- Upasana Dasgupta, OP Jindal Global University, India
- Nilesh Desai, Space Applications Centre (ISRO), India
- Steve Durst, International Lunar Observatory Association (ILOA), United States
- C. Geetha Krishnan, Indian Space Research Organization (ISRO), India
- Vincenzo Giorgio, Thales Alenia Space Italia, Italy
- Jeremy Hallett, Space Industry Association of Australia, Australia
- Prafulla Jain, Indian National Space Promotion Authorization Centre (IN-SPACe), India
- Pierre-Alexis Joumel, EURO2MOON, Luxembourg
- Arif Karabeyoglu, Koc University, Türkiye
- Ritu Karidhal, Indian Space Research Organization (ISRO), India
- Vinod Kumar, Vikram Sarabhai Space Centre (VSSC), India
- K Kumar, Indian Space Research Organization (ISRO), India
- Vinod Kumar N, Vikram Sarabhai Space Centre (VSSC), India
- Bob Lamboray, Luxembourg Space Agency, Luxembourg
- Raghavendra M R, ISTRAC/ISRO, India
- Tanja Masson-Zwaan, International Institute of Air and Space Law, Leiden University, The Netherlands
- Ganesh Mohan, Indian National Space Promotion Authorization Centre (IN-SPACe), India
- M Mohan, ISRO Liquid Propulsion Systems Centre (LPSC), India
- Manju S. Nair, LPSC, ISRO, India
- J. Asir Packiaraj, ISRO Propulsion Complex (IPRC), India
- ES Padma Kumar, Indian Space Research Organization (ISRO), India
- Hutton R, Indian Space Research Organization (ISRO), India
- D Radhakrishnan, Indian Space Research Organization (ISRO), India
- A. Rajarajan, Indian Space Research Organization (ISRO), India
- Nadagouda Ramanagouda, Indian Space Research Organization (ISRO), India
- Chinmoy Roy, Antrix Corporation Limited, India
- Sudhakar S, U R RAO SATELLITE CENTRE (URSC), India
- Sarkar S.S., Indian Space Research Organization (ISRO), India
- Giorgio Saccoccia, European Space Agency (ESA), France
- Ramkishor Sah, AIIMS - All India Institute Of Medical Science, India
- M. Sankaran, Indian Space Research Organization (ISRO), India
- W. Selvamurthy, Amity University Mumbai, India
- Sukhjit Singh, Space Generation Advisory Council (SGAC), India
- Amit Kumar Singh, Indian Space Research Organization (ISRO), India
- S Sivakumar, NGLV (India), India

- Jill Smyth, Canadian Space Agency, Canada
- Igor V. Sorokin, S.P. Korolev Rocket and Space Corporation Energia, Russian Federation
- Rajeev U.P., Vikram Sarabhai Space Centre (VSSC), India

1. International Cooperation, Challenges, and New Horizons

1.1. International Cooperation, Challenges, and New Horizons - Session 1

May 8 2025, 11:00 — Room 404B

Co-Chair(s): Jill Smyth, Canadian Space Agency, Canada; Steve Durst, International Lunar Observatory Association (ILOA), United States;

GLEX-2025.1.1.1

COLLABORATIVE MODAL TO EXPAND NAVIGATIONAL ACCESS IN THE GLOBAL SOUTH THROUGH INDIA'S ADVANCED NAVIC SYSTEM
Ms. Kaushiki Singh, New Delhi, India;

GLEX-2025.1.1.2

DIPLOMACY OF THE FUTURE: THE POLAND-RWANDA PARTNERSHIP AND NEW CHALLENGES IN INTERNATIONAL POLITICS
Mr. MIKOŁAJ MAZAN, Akademia Sztuki Wojennej (WSU), BĘDZIN, Poland;

GLEX-2025.1.1.3

INDIA-US SPACE COOPERATION: TIME TESTED FRIENDSHIP AND PARTNERSHIP FOR GLOBAL GOOD
Mr. KRUNAL JOSHI, Space Applications Centre (ISRO), AHMEDAABD, India;

GLEX-2025.1.1.4

THE GLOBAL EXPERT GROUP ON SUSTAINABLE LUNAR ACTIVITIES: THE OPERATIONAL PHASE RESULTS AND OUTLOOK
Dr. Ulpia Elena Botezatu, Romanian Space Agency (ROSA), Bucuresti, Romania;

GLEX-2025.1.1.5

SPACE EXPLORATION IN EMERGING SPACE AGENCIES: THE ROLE OF INTERNATIONAL COOPERATION
Mr. Julio Cesar Castillo-Urdapilleta, Agencia Espacial Mexicana (AEM), Mexico City, Mexico;

GLEX-2025.1.1.6

PROPOSAL FOR AN EXPORT STRATEGY FRAMEWORK FOR INDIAN SPACE SECTOR
Mr. Ganesh Mohan, Indian National Space Promotion Authorization Centre (IN-SPACe), Bengaluru, India;

GLEX-2025.1.1.7

BENEFITS STEMMING FROM SPACE EXPLORATION
Mrs. Anne-Marie Dallaire, Canadian Space Agency, Saint-Hubert, Canada;

1.2. International Cooperation, Challenges, and New Horizons - Session 2

May 9 2025, 11:00 — Room 404B

Co-Chair(s): Jill Smyth, Canadian Space Agency, Canada; Vinod Kumar, Vikram Sarabhai Space Centre (VSSC), India;
Rapporteur(s): Ganesh Mohan, Indian National Space Promotion Authorization Centre (IN-SPACe), India;

GLEX-2025.1.2.1

PRIVATIZATION OF SPACE SECTOR AND ITS IMPLICATIONS ON INTERNATIONAL COOPERATION
Ms. Prarthana P Kulkarni, R V College of Engineering, Bengaluru, Bengaluru, India;

GLEX-2025.1.2.2

STRATEGIES AND CHALLENGES FOR LUNAR ORBITAL SERVICES: COMMUNICATIONS AND PNT
Mr. KangSan Kim, ispace, inc., Incheon, Korea, Republic of;

GLEX-2025.1.2.3

GEOPOLITICAL AND GEO-ECONOMIC IMPLICATIONS OF RECENT ADVANCES IN SPACE PROPULSION AND HYPERSONIC TECHNOLOGIES
Ms. Sai Susmitha Guddanti, Department of Space Studies, University of North Dakota, Grand Forks, United States;

GLEX-2025.1.2.4

UNIFIED DISASTER ASSISTANCE AND INFORMATION (UDAI) PLATFORM FOR BRICS+ COUNTRIES
Mr. Anand Nagesh, Global Academy of Technology Hostel, Bengaluru, India;

GLEX-2025.1.2.5

SPACE AS A SOFT POWER – FOSTERING INTERNATIONAL COOPERATION FOR COLLECTIVE ADVANCEMENT IN SPACE
Ms. Ayushee Chaudhary, Bengaluru, India;

GLEX-2025.1.2.6

INTEGRATING USE OF SPACE TECHNOLOGY INTO SUSTAINABLE DEVELOPMENT EFFORTS: THROUGH THE MECHANISM OF SPACE AND SUSTAINABILITY COMPACT AGREEMENT INITIATIVE
Dr. Upasana Dasgupta, OP Jindal Global University, Sonipat, India;

GLEX-2025.1.2.7

JAPAN'S SCENARIO AND ROADMAP FOR INTERNATIONAL SPACE EXPLORATION
Mr. Kota Tanabe, Japan Aerospace Exploration Agency (JAXA), Tsukuba, Japan;

GLEX-2025.1.2.8

SPACE DIPLOMACY: LEGAL CHALLENGES AND COOPERATIVE FRAMEWORKS FOR SUSTAINABILITY IN OUTER SPACE
Ms. Shrawani Shagun, National Law University, Delhi, noida, India;

2. Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration

2.1. Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 1

May 8 2025, 11:00 — Room 201

Co-Chair(s): Vincenzo Giorgio, Thales Alenia Space Italia, Italy; Pierre W. Bousquet, Centre National d'Etudes Spatiales (CNES), France;

GLEX-2025.2.1.1

LUNAR POLAR EXPLORATION (LUPEX) PROJECT: DEVELOPMENT STATUS OF THE MISSION INSTRUMENTS
Dr. Yoshiaki Ishihara, Japan Aerospace Exploration Agency (JAXA), Tsukuba, Japan;

GLEX-2025.2.1.2

SPACE-GRADE MINIATURE ION SELECTIVE ELECTRODE SENSOR FOR EXTRA-TERRESTRIAL REGOLITH COMPOSITION ANALYSIS
Dr. Deepthi L Sivas, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, India;

GLEX-2025.2.1.3

TENACIOUS: ISPACE EUROPE'S CONTRIBUTION TO LUNAR EXPLORATION
Ms. Sophia Casanova, ispace, inc., Luxembourg, Luxembourg ;

GLEX-2025.2.1.4

MEASUREMENT OF TEMPERATURE AND THERMAL CONDUCTIVITY OF HIGH LATITUDE LUNAR REGOLITH BY CHASTE ONBOARD CHANDRAYAAN 3 VIKRAM LANDER
Dr. Nizy Mathew, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

GLEX-2025.2.1.5

BUILDING THE INFRASTRUCTURE FOR FUTURE SUSTAINED LUNAR HABITATION – OBSERVATION, COMMUNICATIONS AND NAVIGATION.
Mr. Alex da Silva Curiel, Surrey Satellite Technology Ltd (SSTL), Guildford, Surrey, United Kingdom;

GLEX-2025.2.1.6

LAUNCH OPPORTUNITY AND AEROBRACING STRATEGIES FOR VENUS MISSION
Mr. Gurpreet Singh, U R RAO SATELLITE CENTRE (URSC), Bangalore, India;

GLEX-2025.2.1.7

STRATEGY FOR THE SUSTAINABLE DEVELOPMENT OF LUNAR INFRASTRUCTURE BASED ON THE USE OF IN-SITU RESOURCES
Mr. Rogelio Morales, Bolivarian Agency for Space Activities (ABAE), Caracas, Venezuela;

GLEX-2025.2.1.8

CHARACTERIZING FLUX ROPES AT MARS AND VENUS DURING PERIODS OF COMPARABLE SOLAR INFLUENCE
Ms. Aarti Yadav, Physical Research Laboratory, Ahmedabad, India;

2.2. Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 2

May 8 2025, 16:30 — Room 201

Co-Chair(s): Pierre W. Bousquet, Centre National d'Etudes Spatiales (CNES), France; Steve Durst, International Lunar Observatory Association (ILOA), United States;

GLEX-2025.2.2.1

THE MISSION, SCIENCE AND TECHNOLOGY OBJECTIVES OF THE FIRST TURKISH LUNAR MISSION
Dr. Burak Yaglioglu, TUBITAK Uzay, Space Technologies Research Institute, Ankara, Türkiye;

GLEX-2025.2.2.2

SOIL PEBBLE SAMPLER (SPS1): VERSATILE SOIL AND PEBBLE SAMPLING WITH INTEGRATED DRILLING, VIBRATING, AND PRESERVING CAPABILITIES
Dr. Lutz Richter, Terra Nova Industries, Karlsfeld, Germany;

GLEX-2025.2.2.3

Overview of AROSE Lunar Trailblazer Rover Design
DR. SIDDHARTH PANDEY, FUGRO AUSTRALIA MARINE PTY LTD, PERTH, AUSTRALIA;

GLEX-2025.2.2.4

LEARNING BASED MODELING OF THROTTLEABLE ENGINE DYNAMICS FOR LUNAR LANDING MISSION
Mr. Suraj Kumar, U R RAO SATELLITE CENTRE (URSC), BENGALURU, India;

GLEX-2025.2.2.5

ASTRONOMY FROM THE MOON: ROLE OF LUT ONBOARD CE-3
Dr. Gaurav Singh, CAS-NAOC, Beijing, China;

GLEX-2025.2.2.6

IMPACT OF CME ON SOLAR WIND: FIRST RESULTS FROM PLASMA ANALYSER PACKAGE FOR ADITYA (PAPA) PAYLOAD ONBOARD ADITYA-L1 MISSION
Dr. R Satheesh Thampi, Vikram Sarabhai Space Centre, Thiruvananthapuram-695 022, INDIA, Thiruvananthapuram, India;

GLEX-2025.2.2.7

TRANSCENDING EARTHLY ARCHITECTURE: MODERNISM'S INFLUENCE ON SUSTAINABLE LUNAR HABITAT DESIGN
Ms. Aathira Peedikaparambil Somasundaran, TU Wien, CARDIFF, United Kingdom;

GLEX-2025.2.2.8

LUNAR POLAR EXPLORATION (LUPEX) PROJECT: SURFACE PLANNING OVERVIEW
Dr. Hiroka Inoue, Japan Aerospace Exploration Agency (JAXA), Sagami-hara, Japan;

2.3. Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 3

May 9 2025, 11:00 — Room 201

Co-Chair(s): Pierre W. Bousquet, Centre National d'Etudes Spatiales (CNES), France; Ritu Karidhal, Indian Space Research Organization (ISRO), India;



GLEX-2025.2.3.1 (unconfirmed)

MOONMARS DATA ANALYSIS, INSTRUMENTS, UPCOMING MISSIONS AND ASTRONAUTS PREPARATION: ILEWG LUNEX EUROMOONMARS RECENT HIGHLIGHTS

Prof. Bernard Foing, ILEWG “EuroMoonMars”, Wassenaar, The Netherlands;

GLEX-2025.2.3.2

RE-ORBITING CHANDRAYAAN-3 PROPULSION MODULE: AN EXPERIMENTAL JOURNEY FROM MOON TO EARTH’S ORBIT
Mr. Satyendra Singh, U R RAO SATELLITE CENTRE (URSC), Bangalore, India;

GLEX-2025.2.3.3

APPLICATION OF GRAVITY ASSIST MANEUVERS FOR TRANSFERRING AN ASTEROID INTO A MOON-RESONANT EARTH SATELLITE ORBIT
Ms. Olga Chernenko, Space Research Institute (IKI), RAS, Moscow, Russian Federation;

GLEX-2025.2.3.4 (unconfirmed)

SPECTRAL CLASSIFICATION OF LUNAR SURFACE USING CHANDRAYAAN-2 IIRS DATA FOR MINERAL IDENTIFICATION OF THE MOON
Ms. THANU SREE SENTHIL KUMAR, Chennai, India;

GLEX-2025.2.3.5

CONCEPTUAL DESIGN AND SCHEME OF WORK FOR NANOSATELLITES AND BALLOON PROBE FOR THE DEEP EXPLORATION OF VENUS
Mr. Michael Vincent Quispe Mendoza, Moscow Aviation Institute (National Research Institute, MAI), Moscow, Russian Federation;

GLEX-2025.2.3.6

LUNAR EXOSPHERIC COMPOSITION AS REVEALED BY CHACE-2 ABOARD CHANDRAYAAN-2 ORBITER
Dr. Dhanya M B, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, India;

GLEX-2025.2.3.7

BHARTIYA EXTRATERRESTRIAL EXPANDABLE MODULAR HABITAT: A MODULAR PANEL BASED ARCHITECTURE
Mr. Mritunjay Baruah, Indian Institute of Science, Bengaluru, India;

GLEX-2025.2.3.8

SOLAR OCCULTATION EXPERIMENTS (SOE) FOR EXPLORING THE VENUSIAN ATMOSPHERE: METHODOLOGY AND NEW INSIGHTS FROM SIMULATIONS
Dr. Sunil Kumar SV, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

2.4. Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 4

May 9 2025, 14:30 — Room 201

Co-Chair(s): Pierre W. Bousquet , Centre National d’Etudes Spatiales (CNES), France; Anil Bhardwaj , Physical Research Laboratory, India;

GLEX-2025.2.4.1

OPTIMIZING LUNAR CRATER DETECTION: A HYBRID STRATEGY WITH CHANDRAYAAN-2 OHRC DATA
Mr. SHYAM YADAV, Gandhinagar, India;

GLEX-2025.2.4.2

RASHID ROVER 2: ADVANCING SCIENTIFIC DISCOVERIES ON A NEW LUNAR LOCATION
Dr. Sara AlMaeni, Mohammed Bin Rashid Space Centre (MBRSC), Dubai, United Arab Emirates;

GLEX-2025.2.4.3

MINIATURISED FRENCH INSTRUMENTS FOR IN-SITU MISSIONS
Mr. Pierre W. Bousquet, Centre National d’Etudes Spatiales (CNES), Toulouse, France;

GLEX-2025.2.4.4

CHANDRAYAAN-3:LANDING SITE SELECTION NEAR SOUTH POLE REGION AND REACHING TO SHIVA-SHAKTI POINT
Ms. naga manjusha Jammula, Indian Space Research Organization (ISRO), BENGALURU, India;

GLEX-2025.2.4.5

RUSSIAN LUNAR SCIENCE PROGRAM: MISSIONS, EXPERIMENTS AND COOPERATION OPPORTUNITIES
Prof. Anatoli Petrukovich, Space Research Institute (IKI), Russian Academy of Sciences (RAS), Moscow, Russian Federation;

GLEX-2025.2.4.6

EXPLORATION OF LUNAR PLASMA ENVIRONMENT USING RAMBHA-LP ONBOARD CHANDRAYAAN-3 LANDER
Dr. G Manju, Indian Space Research Organization (ISRO), Trivandrum, India;

GLEX-2025.2.4.7

EUROHAB: A LUNAR SECONDARY HABITAT PLATFORM FOR SPACE ANALOGUE MISSION
Mr. Nisheet Singh, Spartan Space, Marseille, France;

GLEX-2025.2.4.8

SUPER RESOLUTION ON CHANDRAYAN-2 TMC DATA USING GENERATIVE ADVERSARIAL NETWORK APPROACH
Mr. Jai Singla, Space Applications Centre (ISRO), Ahmedabad, India;

2.5. Lunar, Mars, Near-Earth Asteroids, Deep Space Exploration - Session 5

May 9 2025, 14:30 — Room 405

Co-Chair: Dipankar Banerjee, Indian Institute of Space Science and Technology (IIST), India; Dr. Nadagouda Ramanagouda, Indian Space Research Organization (ISRO), India;

GLEX-2025.2.5.1

ASTRONAUT SELECTION AND POTENTIAL RISK MANAGEMENT: PSYCHOLOGICAL TRAUMA AND RESILIENCE FOR MARS SPACE MISSION
Prof.Dr. David William Kim, Australian National University (ANU), Kambah, Australia;

GLEX-2025.2.5.2

LUNAR POLAR EXPLORATION (LUPEX) PROJECT: DEVELOPMENT STATUS OF THE ROVER SYSTEM
Dr. Masataku Sutoh, Japan Aerospace Exploration Agency (JAXA), Tokyo, Japan;

GLEX-2025.2.5.3

RUTHERFORD’S EXTENDED FORMULA AND ITS APPLICATION IN THE INTERPLANETARY MISSION DESIGN USING MULTIPLE GRAVITY ASSIST MANEUVERS
Prof. Alexey Grushevskii, Keldysh Institute of Applied Mathematics of RAS, Moscow, Russian Federation;

GLEX-2025.2.5.4

MOON SAMPLE RETURN MISSION CONFIGURATION WITH BALLISTIC LAUNCH AND ORBITAL CAPTURE
Mr. YUDHISHTIR JAGADEESHA, Indian National Space Promotion Authorization Centre (IN-SPACe), Bengaluru, India;

GLEX-2025.2.5.5

LANDING SITE SELECTION AROUND SHACKLETON CRATER ON SOUTH POLE OF LUNAR SURFACE: OPPORTUNITIES AND CHALLENGES
Mr. Amitabh Amitabh, Space Applications Centre (ISRO), Ahmedabad, India;

GLEX-2025.2.5.6

DESIGN FEATURES OF THE VENUS EXPLORATION MISSION
Dr. Anastasia Kosenkova, Lavochkin Association, Moscow, Russian Federation; Dr. Oleg Sedykh, Lavochkin Association, Khimki, Moscow Region, Russian Federation;

GLEX-2025.2.5.7

ILOA 7 MOON MISSIONS -- 2025 UPDATE: FLAGSHIP / BACKUP, 3 PRECURSORS, HUMAN SERVICE MISSION, FIRST WOMEN ON THE MOON
Mr. Steve Durst, International Lunar Observatory Association (ILOA), Kamuela, United States;

3. Space Vehicles for Exploration & Propulsion for Deep Space

3.1. Space Vehicles for Exploration & Propulsion for Deep Space - Session 1

May 8 2025, 11:00 — Room 302

Co-Chair(s): Arif Karabeyoglu, Koc University, Türkiye; Manju S. Nair, LPSC, ISRO, India;

GLEX-2025.3.1.1

THE DEVELOPMENT OF ION THRUSTERS FOR DIFFERENT POWER CLASS SPACECRAFT
Dr. Alexander Lovtsov, SSC Keldysh Research Centre, Moscow, Russian Federation;

GLEX-2025.3.1.2

A DIGITAL TWIN OF MARS SCIENCE LABORATORY (MSL): REFINING DESIGN AND PERFORMANCE THROUGHOUT MULTIPHYSICS MODELLING AND VIRTUAL MOTION SIMULATION
Dr. Carlos Tapia, DASSAULT SYSTÈMES INC., Brisbane, Australia;

GLEX-2025.3.1.3

TECHNOLOGICAL ADVANCES FOR UNCREWED EXPLORATION OF VENUS AT LOW ALTITUDES: AEROSTATS, DRONES, AND EXTREME ENVIRONMENT ADAPTATIONS
Mr. Michael Vincent Quispe Mendoza, Moscow Aviation Institute (National Research Institute, MAI), Moscow, Russian Federation;

GLEX-2025.3.1.4

PROJECT AMRUT: WATER BASED PROPULSION SYSTEM FOR SMALL SATELLITES
Mr. Ayush Nigam, Vellore Institute of Technology, Indore, India; Ms. Aayushi Dwivedi, Vellore Institute of Technology, Haridwar, India;

GLEX-2025.3.1.5

SUSTAINABLE SPACECRAFT DESIGN FOR DEEP-SPACE EXPLORATION
Ms. Nuha Sami, Amity University, Dubai, Abu Dhabi, United Arab Emirates;

GLEX-2025.3.1.6

DESIGN AND DEVELOPMENT OF AN ELECTRIC ALL-TERRAIN VEHICLE FOR MOBILITY DURING LUNAR ANALOG MISSIONS.
Ms. Shravani Tembare, BRAC’s, Vishwakarma Institute of Information Technology, Pune, India;

GLEX-2025.3.1.7

ADVANCEMENTS IN PLASMA PROPULSION TECHNOLOGIES: VASIMR AND EMERGING SYSTEMS FOR INTERPLANETARY EXPLORATION
Dr. Sarath Raj Nadarajan Syamala, Amity University, Dubai, Dubai, United Arab Emirates;

GLEX-2025.3.1.8

PERFORMANCE ANALYSIS AND OPTIMIZATION OF TUNGSTEN CARBIDE ELECTRODE BASED MAGNETOPLASMA DYNAMIC THRUSTER: ENHANCING LONGEVITY, PLUME CHARACTERISTICS AND EFFICIENCY
Mr. D. Sai Prakash Navdeep, Hindustan University, vizianagaram, India;

3.2. Space Vehicles for Exploration & Propulsion for Deep Space - Session 2

May 8 2025, 16:30 — Room 302

Co-Chair(s): Arif Karabeyoglu , Koc University, Türkiye; S Sivakumar , NGLV (India), India;

GLEX-2025.3.2.1

STUDY OF THIN-FILM COATINGS FOR DEEP SPACE TELESCOPE MIRROR DEGRADATION
Ms. Daria Pasynkova, Bauman Moscow State Technical University, Moscow, Russian Federation;

GLEX-2025.3.2.2

THERMAL PROTECTION AND STRUCTURAL DESIGN FOR ENTRY AND RE-ENTRY IN DEEP-SPACE EXPLORATION VEHICLES
Mr. Atharva Sawant, BRAC’s, Vishwakarma Institute of Information Technology, Dattanagar chowk, India;

GLEX-2025.3.2.3

OPTIMIZING THERMAL PROTECTION FOR THE DRAGON CAPSULE’S HEAT SHIELD AT HYPERSONIC RE-ENTRY USING CFD SIMULATIONS AND ABLATION MODELING.
Mr. Pratham Chhallani, Bristol, United Kingdom;

GLEX-2025.3.2.4

TRANSIENT RESPONSE ANALYSIS OF A WATER-LANDING SPACE CAPSULE SUBJECTED TO A PRESSURE FIELD WITH SPATIAL AND TEMPORAL VARIATION
Mr. Nirmal Ramachandran, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, India;

GLEX-2025.3.2.5

ROVER’S AUTO-STABILIZER CONTROL SYSTEM
Mr. Abdulrahman Al-Essa, Jubail Industrial College, Royal Commission for Jubail and Yanbu, Dammam city, Saudi Arabia; Mr. Abdulaziz Alfahaid, Jubail Industrial College, Royal Commission for Jubail and Yanbu, kobar, Saudi Arabia;

**GLEX-2025.3.2.6**

EXPLORING BIOSIGNATURE POTENTIAL IN VENUSIAN CLOUDS: DESIGN AND SIMULATION OF AN AERIAL VEHICLE FOR ATMOSPHERIC ANALYSIS

Ms. Pari Verma, Ghaziabad, India;

GLEX-2025.3.2.7

BIO-BASED PROPELLANTS FOR UPPER-STAGE ROCKETS

Mr. Saumya Shekhar, TU Darmstadt, Dieburg, Germany;

GLEX-2025.3.2.8

DESIGN, DEVELOPMENT & QUALIFICATION OF HUMAN RATED SOLID ROCKET BOOSTER FOR GAGANYAAN MISSION

Mr. Arun Raj, Vikram Sarabhai Space Centre (VSSC), TRIVANDRUM, India;

3.3. Space Vehicles for Exploration & Propulsion for Deep Space - Session 3

May 9 2025, 11:00 — Room 302

Co-Chair(s): Arif Karabeyoglu , Koc University, Türkiye; Narayanan Appu , ISRO Propulsion Complex, Mahendragiri, India, India;

GLEX-2025.3.3.1

CONTROL SYSTEMS FOR NUCLEAR THERMAL PROPULSION: ANALYSIS OF PAST AND PRESENT TECHNIQUES FOR FUTURE SPACE MISSIONS

Ms. Sai Susmitha Guddanti, Department of Space Studies, University of North Dakota, Grand Forks, United States;

GLEX-2025.3.3.2

TOWARDS SUSTAINABLE PROPULSION: EXPERIMENTAL EVALUATION OF A 'GREEN' NON-TOXIC, HIGH PERFORMANCE AMMONIUM DINITRAMIDE (ADN) MONOPROPELLANT IN 10N THRUSTER

Dr. Santhosh Gopalakrishnan, Vikram Sarabhai Space Centre, Thiruvananthapuram-695 022, INDIA, Thiruvananthapuram, India;

GLEX-2025.3.3.3

GASEOUS CORE NUCLEAR PROPULSION AS A WAY FORWARD FOR DEEP SPACE MISSIONS

Dr. Gurunadh Velidi, University of Petroleum and Energy Studies, Dehradun, India;

GLEX-2025.3.3.4

A NOVEL RECONFIGURABLE INFLATABLE AERODYNAMIC DECELERATOR CONFIGURATION FOR A CREW MODULE

Mr. Pankaj Priyadarshi, Vikram Sarabhai Space Centre (VSSC), Trivandrum, India;

GLEX-2025.3.3.5 (unconfirmed)

TRANSPORT CRAFT FOR CISLUNAR SPACE

Mr. Pedro Luiz Kaled Da Cás, Ideia Space, Brasília, Brazil;

GLEX-2025.3.3.6

ORIGAMI-DRIVEN ADAPTIVE WHEELS FOR LUNAR ROVERS: INNOVATIONS IN EFFICIENCY AND LONGEVITY

Mr. Aaditya Singh Bhadoria, VIT Bhopal University, Sehore, India;

GLEX-2025.3.3.7

MODULAR SOLAR SAIL SYSTEM FOR ENHANCED DEEP SPACE EXPLORATION AND SUSTAINABILITY

Mr. Shivanandanan P, VIT Bhopal University, Ernakulam, India;

3.4. Space Vehicles for Exploration & Propulsion for Deep Space - Session 4

May 9 2025, 14:30 — Room 302

Co-Chair(s): Manju S. Nair , LPSC, ISRO, India; S Sivakumar , NGLV (India), India;

GLEX-2025.3.4.1

DESIGN AND ANALYSIS OF MARS ASCENT VEHICLE FOR SAMPLE RETRIEVAL

Mr. Anish Kumar, IIIT Delhi, New Delhi, India;

GLEX-2025.3.4.2

OPTIMISING SOLAR SAIL DESIGN FOR INTERPLANETARY MISSIONS: BALANCING MASS, AREA AND TRAJECTORY.

Ms. SUHANA ARSH, R V College of Engineering, Bengaluru, Bengaluru, India;

GLEX-2025.3.4.3

EFFECT OF NUMBER OF IMPELLER BLADES ON DOUBLE TONGUE VOLUTE CRYOGENIC PUMP PERFORMANCE AND BLADE PASSING FREQUENCY

Mr. Jeetendra Kumar, Indian Space Research Organization (ISRO), Liquid Propulsion Systems Centre (LPSC), Thiruvananthapuram, India;

GLEX-2025.3.4.4

ARKA-RATHA: A NOVEL HALL THRUSTER-POWERED, VERTICAL TAKEOFF AND LANDING SPACECRAFT DESIGNED FOR DEEP SPACE MISSION.

Mrs. Aishwaryaa Karthick, SRM Institute of Science and Technology, chennai, India;

GLEX-2025.3.4.5

A COMPREHENSIVE LANDING GEAR SOLUTION FOR REENTRY VEHICLES: STABILITY, CONFIGURATION, AND SYSTEM REALIZATION FOR SPACE APPLICATIONS.

Mr. Shreedhar Kuri, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

GLEX-2025.3.4.6

DESIGN AND OPTIMIZATION OF A CONCENTRIC ZONE ROTATING DETONATION ROCKET ENGINE FOR ENHANCED THRUST, STABILITY, AND WAVE SYNCHRONIZATION

Mr. Shivanandanan P, VIT Bhopal University, Ernakulam, India;

GLEX-2025.3.4.7

HUMAN-ROBOTIC COLLABORATION FOR EXPLORATION MISSIONS

Mr. Oluwatosin Kolade, Obafemi Awolowo University, Lagos, Nigeria;

GLEX-2025.3.4.8

AMALGAMATE: MULTI-ROVER SYSTEM FOR TITAN

Mr. Aaron Alva, VIT Bhopal University, Mumbai, India;

4. System Engineering and Long-Term Space Travel**4.1. System Engineering and Long-Term Space Travel - Session 1**

May 8 2025, 16:30 — Room 404B

Co-Chair(s): David Caponio , Vast, United States; M M Mohan , ISRO Liquid Propulsion Systems Centre (LPSC), India;

GLEX-2025.4.1.1

SYSTEM ENGINEERING FOR THE INTEGRATED TESTING OF SENSORS AND NGCE IN CHANDRAYAAN-3 MISSION.

Mr. Ankur Sharma, U R RAO SATELLITE CENTRE (URSC), Bengaluru, India; ;

GLEX-2025.4.1.2

INTEGRATED BATTERY MONITORING SYSTEM USING MULTI-CELL BATTERY MONITORING CHIP FOR DEEP SPACE MISSIONS

Ms. Priyadarshini S, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, India;

GLEX-2025.4.1.3 (unconfirmed)

RESILIENT MULTI-MISSION SYSTEMS: INTERCONNECTIVITY AND INTEROPERABILITY FOR LUNAR AND MARTIAN EXPLORATION

Mr. Siddhesh Naik, Bengaluru, India;

GLEX-2025.4.1.4

SOLAR SAIL PROPULSION IN DEEP SPACE: EVALUATING FAILURES, SUCCESSES, AND FUTURE OPPORTUNITIES

Ms. Rishika Awasthi, Collins Aerospace, Bengaluru, India;

GLEX-2025.4.1.5

CRYO-SLEEP IN SPACE EXPLORATION:A VIABLE SOLUTION FOR LONG-TERM SPACE TRAVEL.

Ms. Aarshia Verma, Manipal Institute of Technology, Bangalore, India;

GLEX-2025.4.1.6

CONCEPTUAL DESIGN OF ORIGAMI-INSPIRED DEPLOYABLE HABITATS FOR SUSTAINABLE LUNAR SETTLEMENT

Ms. Rishika Banerjee, R V College of Engineering, Bengaluru, Bangalore, India;

GLEX-2025.4.1.7

PRELIMINARY DESIGN FOR DRONE IN SPACE

Mr. Djamel Metmati, Toulouse, France;

GLEX-2025.4.1.8 (unconfirmed)

AERODYNAMIC INNOVATIONS: LESSONS FROM FORMULA 1 FOR SPACECRAFT DESIGN

Mrs. Ahmad Alrbaidi, University of Jordan, 26 street, Jordan;

4.2. System Engineering and Long-Term Space Travel - Session 2

May 9 2025, 14:30 — Room 404B

Co-Chair(s): Vinod Kumar N, Vikram Sarabhai Space Centre (VSSC), India;

GLEX-2025.4.2.1

FUTURE SPACE SUIT INTERFACE DESIGN FOR LONG-TERM TRAVEL, LUNAR, AND MARS HUMAN EXPLORATION

Mr. Thomas Cernev, The University of Adelaide, Adelaide, Australia;

GLEX-2025.4.2.2

ELECTRICAL AND ELECTRONICS PARTS REPAIR FOR LONG-TERM SPACE TRAVEL

Mr. Arun K, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, THIRUVANANTHAPURAM, India;

GLEX-2025.4.2.3

INTEGRATING VERTICAL FARMING IN SPACE HABITATS: FUNCTIONAL AND PSYCHOLOGICAL BENEFITS FOR LONG-TERM MISSIONS

Ms. Lara Alhares, Amman, Jordan;

GLEX-2025.4.2.4

CURRENT STATUS OF TECHNOLOGIES TO MONITOR AND MITIGATE THRUSTER PLASMA EFFECTS ON SPACECRAFT SYSTEMS

Ms. Tarushi Bhatnagar, VIT Bhopal University, Navi Mumbai, India;

GLEX-2025.4.2.5

EXPLORING THE INNOVATIVE USE OF NITINOL SHAPE MEMORY ALLOY FOR SATELLITE ANTENNA DEPLOYMENT: FEASIBILITY ANALYSIS AND FUTURE POTENTIAL

Mr. Aagam Jain, Indore madhya pradesh, India;

GLEX-2025.4.2.6

DESIGN EXPLORATION AND OPTIMIZATION OF INFLATABLE MULTI-AIRBAG SYSTEM FOR IMPACT ATTENUATION OF HUMAN SPACE CAPSULES

Mr. Prashant Iyer, Vikram Sarabhai Space Centre (VSSC), Thrissur, India;

GLEX-2025.4.2.7

SYSTEM ENGINEERING FOR UN-PRESSURIZED CREW MODULE

Mr. Sourabh Mishra, Indian Space Research Organization (ISRO), bengaluru, India;

GLEX-2025.4.2.8

CYCLE LIFE STUDIES ON LITHIUM ION CELLS FOR EXTENDED SPACE MISSIONS

Mr. Deepak Srivastava, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Trivandrum, India;

5. Space Bioastronautics, Space Medicine, Life Support Systems**5.1. Space Bioastronautics, Space Medicine, Life Support Systems - Session 1**

May 8 2025, 11:00 — Room 304

Co-Chair(s): Ramkishor Sah , AIIMS - All India Institute Of Medical Science, India; C. Geethaikrishnan , Indian Space Research Organization (ISRO), India; Hutton R , Indian Space Research Organization (ISRO), India;

GLEX-2025.5.1.1

NEUROECONOMICS FOR ASTRONAUT WELL-BEING: ENHANCING DECISION-MAKING AND SOCIAL INTERACTIONS IN MICROGRAVITY

Ms. Kavya Murali Parthasarathy, University of Stirling, Cardiff, United Kingdom;

GLEX-2025.5.1.2

CLOSED LOOP SIMULATION SOFTWARE FOR MODELLING ENVIRONMENTAL CONTROL AND LIFE SUPPORT SYSTEM FOR GAGANYAAN MISSIONS

Mr. Kuturu Anudeep, Indian Space Research Organization (ISRO), Bengaluru, India;

GLEX-2025.5.1.3

CHANGES IN CARDIAC ELECTRO-MECHANICAL ACTIVITY DURING A WINTEROVER STAY AT CONCORDIA STATION

Prof. ENRICO CAIANI, Politecnico di Milano, MILANO, Italy;

GLEX-2025.5.1.4

NEW APPROACHES TO COUNTERMEASURE THE NEGATIVE EFFECTS OF WEIGHTLESSNESS IN SHORT-TERM FLIGHTS

Prof. Elena Fomina, State Scientific Center of Russian Federation, Institute of Biomedical Problems, Russian Academy of Sciences, Moscow, Russian Federation;

**GLEX-2025.5.1.5**

GROUND-BASED CLINICAL STUDIES AND HEALTH INNOVATION PROJECTS OF MEDES, FRENCH INSTITUTE FOR SPACE PHYSIOLOGY AND MEDICINE FOR CURRENT AND FUTURE HUMAN EXPLORATION MISSIONS

Ms. Audrey Berthier, MEDES - IMPS, Toulouse, France;

GLEX-2025.5.1.6

DEVELOPMENT OF AIR REVITALISATION SYSTEM FOR GAGANYAAN CREW MODULE

Ms. Kriti Raj, Indian Space Research Organization (ISRO), Faridabad, Hararyana, India;

GLEX-2025.5.1.7

MODELLING AND SIMULATION OF CARBON DIOXIDE REMOVAL FOR HUMAN SPACE HABITATS

Dr. Ramachandra Rao, Vikram Sarabhai Space Centre (VSSC), DLF-NTH, Kakkannad, India;

GLEX-2025.5.1.8

INVESTIGATING REPRODUCTIVE FITNESS OF DROSOPHILA MELANOGASTER UNDER SIMULATED MICROGRAVITY CONDITIONS

Ms. Julsana Jalal, Indian Institute of Space Science and Technology (IIST), Nedumangad, India;

5.2. Space Bioastronautics, Space Medicine, Life Support Systems - Session 2

May 8 2025, 16:30 — Room 304

Co-Chair(s): Rina Choudhary , University of Delhi, India; Ramkishor Sah , AIIMS - All India Institute Of Medical Science, India; Hutton R , Indian Space Research Organization (ISRO), India;

GLEX-2025.5.2.1

THE AMS-SPRB COLLABORATION: ADVANCED COSMIC RAY MEASUREMENTS TO NEW APPROACHES FOR SPACE RADIATION HEALTH RISK ASSESSMENT

Dr. Alessandro Bartoloni, National Institute of Nuclear Physics - INFN, Roma, Italy;

GLEX-2025.5.2.2

SMALL EXTRACELLULAR VESICLE ANALYSIS FOR THE PREDICTION AND DIAGNOSIS OF ASTRONAUT'S RESPIRATORY AND CARDIOVASCULAR CONDITIONS

Mr. Sreekumar M G, Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, India;

GLEX-2025.5.2.3

ADAPTIVE TELEMEDICINE FOR COGNITIVE RESILIENCE IN SPACE

Ms. Krishna Bulchandani, University of Mumbai, Sanjan, India;

GLEX-2025.5.2.4

INTELLIGENT INTEGRATION OF MOXIE AND BIO REGENERATIVE LIFE SUPPORT SYSTEM FOR CLOSED-LOOP HABITAT SUSTAINABILITY ON MARS

Ms. DIVITA JAIN, VIT Bhopal University, SAGAR, India;

GLEX-2025.5.2.5

DESIGN AND DEVELOPMENT OF VOC SENSOR FOR CARDIO-PULMONARY BREATH MONITORING IN SPACEFLIGHT ASTRONAUTS

Dr. Akshaya M V, Indian Institute of Space Science and Technology (IIST), Trivandrum, India;

GLEX-2025.5.2.6

OTOACOUSTIC ESTIMATE OF THE INTRACRANIAL PRESSURE

Dr. Yoshita Sharma, University of Rome - Tor Vergata, Roma, Italy;

GLEX-2025.5.2.7

UDYAAN: CONCEPTUALIZATION OF A SPACE GARDEN ABOARD BHARTIYA ANTARIKSHA STATION (BAS)

Dr. Digendranath Swain, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, India;

5.3. Space Bioastronautics, Space Medicine, Life Support Systems - Session 3

May 9 2025, 11:00 — Room 304

Co-Chair(s): David Caponio , Vast, United States; Ramkishor Sah , AIIMS - All India Institute Of Medical Science, India; C. Geetha Krishnan , Indian Space Research Organization (ISRO), India;

GLEX-2025.5.3.1

MUSCULOSKELETAL HEALTH IN PROLONGED SPACE MISSIONS: CHALLENGES AND COUNTERMEASURES

Mr. Shreyansh Dubey, University of Petroleum and Energy Studies, Ayodhya, India;

GLEX-2025.5.3.2

WRIST-MOUNTED THERAPEUTIC HYPOTHERMIA BASED COOLING PATCH FOR TARGETED TEMPERATURE MANAGEMENT IN ASTRONAUTS DURING SPACE EXPLORATION MISSIONS

Ms. Deepika Hamav, Mumbai, India;

GLEX-2025.5.3.3

NON-INVASIVE ANALYSIS OF ASTRONAUT HEALTH: DETECTION OF EXOSOMES IN EXHALED BREATH

Ms. Nusrat Praween, Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, India;

GLEX-2025.5.3.4

EXHALED BREATH ANALYSIS AND AIR QUALITY MONITORING IN ECLSS: THE ROLE OF GAS SENSOR ARRAY FOR MONITORING ASTRONAUT HEALTH AND ENSURING SAFE HABITATS IN SPACE

Mrs. Amala Kannath, Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, India;

GLEX-2025.5.3.5

MAIDS: MEDICAL AI DOCTOR IN SPACE

Mr. Nitish Kumar, ISRO Satellite Centre (ISAC), bangalore, India;

GLEX-2025.5.3.6

PERSONALIZED COUNTERMEASURES FOR VESTIBULAR ADAPTATION DISORDERS: MINIMIZING SPACE MOTION SICKNESS AND ENHANCING SPATIAL ORIENTATION

Ms. Rina Choudhary, University of Delhi, Jaipur, India;

GLEX-2025.5.3.7

AUTONOMOUS LIFE SUPPORT SYSTEMS FOR EXTENDED SPACE MISSIONS

Mr. Oluwatosin Kolade, Obafemi Awolowo University, Lagos, Nigeria;

GLEX-2025.5.3.8

BIOETHICS RISK MANAGEMENT IN MEDICAL AND PHYSIOLOGICAL EXPERIMENTS ONBOARD THE INTERNATIONAL SPACE STATION

Mr. Yuriy Smirnov, Institute of Biomedical Problems (IBMP), Russian Academy of Sciences (RAS), Moscow, Russian Federation;

5.4. Space Bioastronautics, Space Medicine, Life Support Systems - Session 4

May 9 2025, 14:30 — Room 304

Co-Chair(s): Ramkishor Sah , AIIMS - All India Institute Of Medical Science, India; Hutton R , Indian Space Research Organization (ISRO), India; C. Geetha Krishnan , Indian Space Research Organization (ISRO), India;

GLEX-2025.5.4.1

BEYOND EARTH: REVOLUTIONIZING LIFE SUPPORT AND MEDICINE FOR HUMAN SURVIVAL IN DEEP SPACE

Ms. Raneem Alazzam, Jordan University of Science & Technology, Irbid, Jordan;

GLEX-2025.5.4.2

HUMAN THERMOREGULATION RESPONSES DURING EXERCISE IN MICROGRAVITY

Dr. SHINE SR, Indian Institute of Space Science and Technology (IIST), THIRUVANANTHAPURAM, India;

GLEX-2025.5.4.3

NAVIGATING MORTALITY IN THE EXTRATERRESTRIAL SPACE: CHALLENGES AND THE NEED FOR UNIFIED ETHICAL AND FORENSIC PROTOCOLS FOR DEATH INVESTIGATION.

Dr. SUNITA DAS, BHUBANESWAR, India;

GLEX-2025.5.4.4

OCCUPANT SAFETY ANALYSIS FOR EVALUATION OF INJURIES TO THE CREW ACROSS MISSION PHASES

Ms. VAISHNAVI PATIL, Indian Space Research Organization (ISRO), Bengaluru, India;

GLEX-2025.5.4.5

CONCEPTUAL DESIGN OF A 3D PRINTED EXOSKELETON FOR SUPPORTING ASTRONAUT OPERATIONS IN HUMAN SPACEFLIGHT MISSIONS

Mr. Abhishek Jha, Indian Space Research Organization (ISRO), Bengaluru, India;

GLEX-2025.5.4.6

ASSESSING DISRUPTIONS IN CIRCADIAN RHYTHMS UNDER SPACEFLIGHT LIGHTING CONDITIONS THROUGH A COMPREHENSIVE STATISTICAL ANALYSIS OF KEY PHYSIOLOGICAL AND PSYCHOLOGICAL PARAMETERS

Ms. Lavanuru Pravallika, Indian Space Research Organization (ISRO), Bangalore, India;

GLEX-2025.5.4.7

AUTOMATIC SPEECH EMOTION RECOGNITION USING MACHINE LEARNING ALGORITHM FOR HUMAN COMPUTER INTERACTION

Mr. Abhishek D, COIMBATORE, India; Mr. Brendon George D'couto, COIMBATORE, India;

GLEX-2025.5.4.8

QUALIFICATION OF COMPOSITES OVERWRAPPED OXYGEN STORAGE PRESSURE VESSELS FOR LIFE SUPPORT SYSTEM

Mr. SIMIL TS, Vikram Sarabhai Space Centre (VSSC), TRIVANDRUM, India;

6. Microgravity Science and Experiments**6.1. Microgravity Science and Experiments - Session 1**

May 8 2025, 11:00 — Room 402

Co-Chair(s): Rina Choudhary , University of Delhi, India; K Kumar , Indian Space Research Organization (ISRO), India;

GLEX-2025.6.1.1

INNOVATIONS FROM THE TECH LIFE FLIGHT MISSION, THE FIRST BRAZILIAN SPACE HACKATHON

Mr. José Emanuel Figueredo Lopes Lacerda, Geração de Marte Institute, São Luis, Brazil;

GLEX-2025.6.1.2

Microgravity-induced alterations in emulsion characteristics: Investigating its appearance, morphology, and stability

Mr. Subhajit Hazra, Life-To & Beyond, Asansol, India;

GLEX-2025.6.1.3

"SPACE" AND "EARTH FROM SPACE" RESEARCH ON SPACE STATIONS: IKI EXPERIMENTS AND PERSPECTIVES

Prof. Anatoli Petrukovich, Space Research Institute (IKI), Russian Academy of Sciences (RAS), Moscow, Russian Federation;

GLEX-2025.6.1.4

DEVELOPMENT OF A DEDICATED LEO RESEARCH FACILITY FOR AQUATIC BIOLOGY

Mr. Jacob Scoccimerra, District of Columbia, United States;

GLEX-2025.6.1.5

THERMAL CONTROL SYSTEM FOR SPACE BASED BIOLOGICAL PAYLOADS

Mr. Adityan Rajesh, Indian Institute of Science, Bengaluru, India;

GLEX-2025.6.1.6

CADAMOS: AN END-TO-END CNES CENTER DEDICATED TO HUMAN SPACEFLIGHT MICROGRAVITY SCIENCE AND EXPLORATION

Mr. Remi Canton, Centre National d'Etudes Spatiales (CNES), Toulouse, France;

GLEX-2025.6.1.7

DEVELOPMENT OF ECONOMICALLY FEASIBLE AND SUSTAINABLE DIAMOND MANUFACTURING TECHNOLOGY IN MICROGRAVITY CONDITIONS FOR SPACE COMMERCIALIZATION

7. Space Resources Utilisation and Space Economy**7.1. Space Resources Utilisation, Space Economy - Session 1**

May 8 2025, 11:00 — Room 403

Co-Chair(s): Bob Lamboray , Luxembourg Space Agency, Luxembourg ; Shaijuman C.S , Indian Institute of Space Science and Technology (IIST), India; Pierre-Alexis Joumel , EURO2MOON, Luxembourg ;



GLEX-2025.7.1.1
PICTURE: PYRITE-BASED ISRU CAMERA TECHNOLOGY USING REGOLITH. A CONCEPT TO CREATE SELF-POWERING PHOTOSENSORS USING LUNAR-SOURCED PYRITE
Mr. Marc Heemskerk, Tallinn University of Technology, Tallinn, Estonia;

GLEX-2025.7.1.2
SUSTAINABLE AND TECHNOLOGICAL ANALYSIS OF IN-SITU RESOURCE UTILIZATION FOR 3D PRINTING HABITATS ON MARS
Ms. Vatasta Koul, Space Generation Advisory Council (SGAC), New Delhi, India;

GLEX-2025.7.1.3
SATELLITE-BASED REFLECTORS: HARNESSING EXTRA-TERRESTRIAL SOLAR ENERGY FOR SOLAR POWER GENERATION OVER INDIA
Mr. V S Sai Krishna Sakuru, National Remote Sensing Center, Indian Space Research Organisation, Hyderabad, Hyderabad, India;

GLEX-2025.7.1.4
EXPERIMENTAL CHARACTERIZATION OF METHANE SYNTHESIS FROM CO₂ FOR MARS-ISRU TECHNOLOGY DEVELOPMENT
Dr. Ganesh Paramasivan, ISRO Propulsion Complex, Mahendragiri, India, Tirunelveli, India;

GLEX-2025.7.1.5
SPACE RESOURCES UTILISATION AND SPACE ECONOMY
Mr. Majd Alsadi, paris, Jordan;

GLEX-2025.7.1.6
ECONOMICS OF LUNAR RESOURCE EXTRACTION AND ITS IMPACT ON LUNAR ECONOMY
Mr. Nandhakumar KS, Indian Space Research Organization (ISRO), Thiruvananthapuram, India;

GLEX-2025.7.1.7
LEVERAGING NEAR-EARTH ASTEROIDS AND SPACE TUGS FOR THE INTERNATIONAL PLANETARY SUNSHADE SYSTEM
Mr. Tharshan Maheswaran, Institute of Space Systems, University of Stuttgart, Stuttgart, Germany;

8. Sustainable Space Logistics & Key Technologies

8.1. Sustainable Space Logistics & Key Technologies - Session 1

May 8 2025, 16:30 — Room 402
Co-Chair(s): J. Asir Packiaraj, ISRO Propulsion Complex (IPRC), India; K Kumar, Indian Space Research Organization (ISRO), India;

GLEX-2025.8.1.1
HIGHLY COMPACT NON-FLOW-THROUGH FUEL CELLS FOR SPACE EXPLORATION
Mr. vinay mohan Bhardwaj, Vikram Sarabhai Space Centre (VSSC), thiruvananthapuram, India;

GLEX-2025.8.1.2
ENABLING ROBUST, REAL-TIME VERIFICATION OF VISION-BASED NAVIGATION USING VIEW SYNTHESIS
Mr. Marius Neuhaufen, European Space Agency (ESA), Erfurt, Germany;

GLEX-2025.8.1.3
A REINFORCEMENT LEARNING APPROACH TO SATELLITE DEBRIS AVOIDANCE AND COST-EFFECTIVE DEBRIS REMOVAL RECOMMENDATION
Ms. Tavishi Kaushik, Bangalore, India;

GLEX-2025.8.1.4 (unconfirmed)
BRINGING NON-SPACE COMPANIES INTO THE SPACE INDUSTRY: THE ROLE OF MRO IN SEAMLESS INTEGRATION BETWEEN AVIATION AND SPACE.
Mr. Camilo Andres Reyes Mantilla, Space Generation Advisory Council (SGAC), Kent, WA, United States;

GLEX-2025.8.1.5 (unconfirmed)
AN EMERGING ECOSYSTEM: HOW REFUELING CHANGES SPACE
Mr. Sean Lewis, Air Force Research Laboratory (AFRL), Albuquerque, United States;

GLEX-2025.8.1.6 (unconfirmed)
INTEGRATED NET CAPTURE AND TETHER GRIPPER SYSTEM FOR EFFICIENT SPACE DEBRIS REMEDIATION IN LOWER EARTH ORBIT
Mr. Gautam Kumar, SRM University, kattankulathur,chennai,INDIA, Chennai, India;

GLEX-2025.8.1.7
DESIGN OF A REUSABLE SPACE DEBRIS CLEANUP SATELLITE
Ms. Chris Gurjao, Astronautical Society of India, Goa, India;

8.2. Sustainable Space Logistics & Key Technologies - Session 2

May 9 2025, 11:00 — Room 402
Co-Chair(s): Pierre-Alexis Joumel, EURO2MOON, Luxembourg ; J. Asir Packiaraj, ISRO Propulsion Complex (IPRC), India;

GLEX-2025.8.2.1
A CIRCULAR ECO-DESIGN FRAMEWORK FOR SUSTAINABLE SPACE OBJECTS DESIGN
Ms. Vatasta Koul, Space Generation Advisory Council (SGAC), New Delhi, India;

GLEX-2025.8.2.2
DUST-TOLERANT KIRIGAMI SOFT GRIPPER FOR LUNAR REGOLITH SAMPLING AND EXCAVATION
Mr. Filip Wylęgała, AGH University of Science and Technology, Kraków, Poland;

GLEX-2025.8.2.3
VISION-BASED NAVIGATION FOR PROXIMAL RANGE DOCKING OF CUBESATS
Mr. Rishabh Shetty, Indian Institute of Technology, Bombay, Mumbai, India;

GLEX-2025.8.2.4
REVOLUTIONIZING SPACE: ADDITIVE MANUFACTURING FOR SUSTAINABLE LOGISTICS IN INDIAN SPACE PROGRAMME
Dr. ANILKUMAR V, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Trivandrum, India;

GLEX-2025.8.2.5
SDR BASED RECONFIGURABLE PAYLOADS FOR ROBUST NAVCOM APPLICATIONS
Mr. Purushotham Tammali, Space Applications Centre (ISRO), Ahmedabad, India;

GLEX-2025.8.2.6
FEASIBILITY AND BUSINESS PERSPECTIVES TOWARDS A KINETIC LAUNCH SYSTEM FOR MARTIAN SURFACE OPERATIONS
Ms. Shachi Agnihotri, Nanyang Technological University (NTU), Singapore, Singapore, Republic of;

GLEX-2025.8.2.7
MANAGING SMALL SATELLITES IN A CROWDED SPACE: EXPLORING THE IMPACT OF SMALL SATELLITES ON THE SPACE DEBRIS ENVIRONMENT AND THE NEED FOR NEW ORBITAL MANAGEMENT TECHNOLOGIES
Ms. Dasuni Hewawasam, Space Generation Advisory Council (SGAC), Nittambuwa, Sri Lanka;

GLEX-2025.8.2.8
ASTROPHYSICAL TECHNIQUES FOR SPACE DEBRIS MITIGATION THROUGH ORBITAL RESONANCE
Ms. RIDIMA SUR, Space Generation Advisory Council (SGAC), Sharjah, United Arab Emirates;

8.3. Sustainable Space Logistics & Key Technologies - Session 3

May 9 2025, 14:30 — Room 402
Co-Chair(s): Giorgio Saccoccia, European Space Agency (ESA), France; K Kumar, Indian Space Research Organization (ISRO), India;

GLEX-2025.8.3.2
ADDRESSING SPACE SUSTAINABILITY: ON-ORBIT SERVICING USING AUTONOMOUS DOCKING
Mr. Yogapriya Y E, Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, India;

GLEX-2025.8.3.3
TRANSITION WAVE-INDUCED DEPLOYMENT OF A MULTISTABLE SPACE STRUCTURE
Mr. Anshuman Anshuman, Indian Institute of Science, Bangalore, India;

GLEX-2025.8.3.4
REAL-TIME SPACE DEBRIS TRACKING USING MULTI-SATELLITE CONSTELLATIONS AND ADVANCED IMAGE PROCESSING
Ms. Madhu Swapnika Chundru, ISRO Propulsion Complex, Mahendragiri, India, Kanyakumari, India;

GLEX-2025.8.3.5 (unconfirmed)
OPTIMIZING SPACECRAFT ELECTRONICS: OVERCOMING PCB THERMAL MODELING CHALLENGES
Ms. Prapty Majumder Golpa, BRAC University, Dhaka, Bangladesh;

GLEX-2025.8.3.6
A NOVEL CUBESAT DESIGN WITH WOOD AND INNOVATIVE JOINING MECHANISMS
Mrs. Nuria Hernández Alás, Instituto Tecnológico Autónomo de México, Mexico City, Mexico;

GLEX-2025.8.3.7
SOLID ROCKET PROPELLANTS FOR SUSTAINABLE CUBESAT DEORBITING SYSTEM
Mr. Zainalabidin Parkar, SRM Institute of Science and Technology, Mumbai, India;

GLEX-2025.8.3.8
INNOVATION IN SUSTAINABLE SPACE LOGISTICS: 3D PRINTING AND IN-SITU RESOURCE UTILIZATION TO SUPPORT SPACE EXPLORATION
Ms. Raneem Alazzam, Jordan University of Science & Technology, Irbid, Jordan;

9. Navigation, Guidance and Control for Deep Space Missions

9.1. Navigation, Guidance and Control for Deep Space Missions - Session 1

May 8 2025, 16:30 — Room 403
Co-Chair(s): Sukhjot Singh, Space Generation Advisory Council (SGAC), India; ES Padma Kumar, Indian Space Research Organization (ISRO), India;

GLEX-2025.9.1.1
EVOLUTIONARY OPTIMIZATION BASED AUGMENTATION OF LUNAR POWERED DESCENT GUIDANCE LAW
Mr. Nikhil Anand, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

GLEX-2025.9.1.2
ROBUST 6DOF SATELLITE POSE ESTIMATION FOR AUTONOMOUS SPACE OPERATIONS USING DEEP LEARNING AND GEOMETRIC OPTIMIZATION
Mr. Kripesh Singh, Indian Institute of Technology Kanpur, Prayagraj, India;

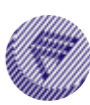
GLEX-2025.9.1.4
VISUAL NAVIGATION USING NEUROMORPHIC CAMERA
Mr. Mijaz Mukundan, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

GLEX-2025.9.1.5
POWERED DESCENT TRAJECTORY DESIGN AND GUIDANCE STRATEGY OF CHANDRAYAAN-3 LUNAR LANDER MISSION
Mr. RIJESH M P, Indian Space Research Organization (ISRO), BANGALORE, India;

GLEX-2025.9.1.6
ANALYSIS OF OPTIMAL THRUST TO MASS RATIO REQUIREMENT FOR MAXIMIZING PAYLOAD MASS OF LUNAR LANDING MISSION
Mr. Aditya Rallapalli, U R RAO SATELLITE CENTRE (URSC), Bengaluru, India;

GLEX-2025.9.1.7
COLLISION-FREE NAVIGATION AND CONTROL OF SATELLITE USING A NOVEL ARTIFICIAL CURRENT-MAGNETISM (ACM) GUIDANCE LAW AND MODEL PREDICTIVE CONTROLLER
Ms. Paridhi Choudhary, Indian Institute of Technology Kharagpur, Faridabad, India;

GLEX-2025.9.1.8
ROBUST MANUAL GUIDANCE LAW FOR MANNED SPACECRAFT RE-ENTRY APPLICATIONS
MR. ANGAD PRATAP, INDIAN SPACE RESEARCH ORGANIZATION (ISRO), BANGALORE, INDIA;



9.2. Navigation, Guidance and Control for Deep Space Missions - Session 2

May 9 2025, 11:00 — Room 403

Co-Chair(s): Sukhjot Singh , Space Generation Advisory Council (SGAC), India; ES Padma Kumar , Indian Space Research Organization (ISRO), India; Sudhakar S , U R RAO SATELLITE CENTRE (URSC), India;

GLEX-2025.9.2.1
DETERMINATION OF ERRORS IN BARO-ALTIMETER SYSTEM DEVELOPED FOR GAGANYAAN-CM

Mr. Harshit Kumar Gupta, Indian Space Research Organization (ISRO), Thiruvananthapuram, India;

GLEX-2025.9.2.2
DEVELOPMENT OF A DUAL-MODE ATTITUDE DETERMINATION AND CONTROL SYSTEM (ADCS) FOR SMALL SATELLITES
Ms. SRIJA BATHULA, Anurag University, Medchal, India;

GLEX-2025.9.2.3
DYNAMICS OF A DUAL CUBESAT FORMATION AROUND ENCELADUS
Mr. Raj Kedia, Space Generation Advisory Council (SGAC), Louisville, United States;

GLEX-2025.9.2.4
DESIGN OF HIGH-RELIABILITY HERMITICALLY SEALED QUAD POWER AMPLIFIER WITH GAIN AND PHASE CONTROL
Mr. Pranav Prakash Singh, Indian Space Research Organisation, Ahmedabad, India;

GLEX-2025.9.2.5
ANALYSIS AND CONTROL OF ORBITAL MOTION OF CHARGED SATELLITES UNDER THE INFLUENCE OF LORENTZ FORCE AND J2 PERTURBATION
Ms. Keziah Elizabeth George, Indian Institute of Technology, Kanpur, Kanpur, India;

GLEX-2025.9.2.6
OPTIMIZING ORBITAL STABILITY FOR VENUSIAN MISSIONS: MANAGING THIRD-BODY PERTURBATIONS IN HIGHLY ELLIPTICAL ORBITS
Mr. Sriram S Kumar, Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, India;

GLEX-2025.9.2.7
DESIGN OF A SALVAGE GUIDANCE SCHEME FOR CHANDRAYAAN-3 LUNAR LANDER MISSION
Mr. RIJESH M P, Indian Space Research Organization (ISRO), BANGALORE, India;

GLEX-2025.9.2.8
AUTONOMOUS NAVIGATION, GUIDANCE, AND CONTROL SOLUTIONS FOR NEXT-GENERATION DEEP SPACE MISSIONS
Ms. Harshita Gaur, Larsen & Toubro Ltd., Coimbatore, India;

9.3. Navigation, Guidance and Control for Deep Space Missions - Session 3

May 9 2025, 14:30 — Room 403

Co-Chair(s): Ritu Karidhal, Indian Space Research Organization (ISRO), India; S. Sudhakar, Indian Space Research Organization (ISRO)

GLEX-2025.9.3.1
FUEL OPTIMAL, EXPLICIT GUIDANCE LAW FOR POWERED DESCENT GUIDANCE ON MARS
Mrs. Sunanda Lona, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

GLEX-2025.9.3.2
THE DEVELOPMENT OF AN ENERGY AND INFORMATION TRANSMISSION SYSTEM UTILIZING THE CONDUCTIVE ELEMENTS OF TRANSFORMABLE SPACE ANTENNAS
Mr. Fedor Mitin, Baltic State Technical University VOENMEH, St. Petersburg, Russian Federation;

GLEX-2025.9.3.3
REAL-TIME DEM REFINEMENT FOR AUTONOMOUS SPACE EXPLORATION
Mr. KRISHNAN LAKSHMI NARAYANA, Kakinada, India;

GLEX-2025.9.3.4
A NOVEL LOCATION AND ATTITUDE DETERMINATION SYSTEM FOR A SWARM OF HIGH-SPEED MARTIAN TUMBLEWEED ROVERS
Dr. Tolga Ors, Team Tumbleweed, London, United Kingdom;

GLEX-2025.9.3.5
QUANTUM-ENHANCED AUTONOMOUS NAVIGATION FOR DEEP SPACE: A FEASIBILITY STUDY ON ENTANGLEMENT-BASED POSITIONING AND ULTRA-PRECISION ORIENTATION SYSTEMS
Mr. Anubhab Debnath, AgniKul Cosmos, Kolkata, India;

GLEX-2025.9.3.6
ADITYA-L1: ISRO'S FIRST SOLAR MISSION — FLIGHT DYNAMICS OPERATIONS UNTIL HALO ORBIT INSERTION
Mrs. Litty Jose, ISRO, BANGALORE, India;

GLEX-2025.9.3.7
DEVELOPMENT OF AN INTEGRATED FRAMEWORK FOR PERCEPTION, PLANNING AND CONTROL OF SPACE MISSIONS
Mr. Karthik R, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, India;

GLEX-2025.9.3.8
TRAJECTORY DESIGN FOR L2 HALO ORBITS IN THE SUN-EARTH SYSTEM: UTILIZING INVARIANT MANIFOLDS WITH RADIATION PRESSURE AND OBLATENESS EFFECTS
Ms. Abhitha Singh, SRM Institute of Science and Technology, Ghaziabad, India;

10. Space Finance, Investment and Insurance

10.1. Space Finance, Investment and Insurance - Session 1

May 8 2025, 11:00 — Room 404A

Co-Chair(s): Jeremy Hallett, Space Industry Association of Australia, Australia; D Radhakrishnan, Indian Space Research Organization (ISRO), India; Prafulla Jain, Indian National Space Promotion Authorization Centre (IN-SPACe), India;

GLEX-2025.10.1.1
THE ECONOMIC IMPERATIVES OF LABOR RIGHTS IN SPACE EXPLORATION
Ms. Margarita Herrera, Rancagua, Chile;

GLEX-2025.10.1.2
TRANSFORMING SPACE EXPLORATION THROUGH INNOVATIVE FINANCE AND PUBLIC-PRIVATE PARTNERSHIPS
Mr. Piyush Gupta, Centre for the Fourth Industrial Revolution India, Navi Mumbai, India;

GLEX-2025.10.1.3
OVERCOMING FUNDING OBSTACLES IN THE SPACE INDUSTRY: A STRATEGIC FRAMEWORK FOR INVESTMENT
Mr. Logan Philbrick, Upton, United States;

GLEX-2025.10.1.4
A NEW RISK SHARING APPROACH FOR SPACE TECH VENTURE INVESTMENTS
Mr. Ganesh Mohan, Indian National Space Promotion Authorization Centre (IN-SPACe), Bengaluru, India;

GLEX-2025.10.1.5
HYBRID STOCHASTIC NEURAL ORDINARY DIFFERENTIAL EQUATION (HS-NODES) MODEL FOR FORECASTING SPACE COMPANY STOCK PRICES AND CONTINUOUS LOG RETURNS
Mr. Ajithkumar K, SASTRA University, THANJAVUR, India;

GLEX-2025.10.1.6
SOCIALIZED LIQUIDATION, HYBRID OFFERINGS, AND CENTRAL COUNTERPARTIES: A PROPOSAL TO KICKSTART THE LUNAR ECONOMY THROUGH COMMODITY FUTURES
Mr. Ian McJohn, New York, United States;

GLEX-2025.10.1.7
RESILIENCE, INNOVATION AND ADAPTABILITY IN THE SPACE INSURANCE INDUSTRY
Mr. Nishith Mishra, Institute of Air and Space Law, McGill University, Montréal, Canada;

GLEX-2025.10.1.8
BUILDING INDIA'S SPACE CAPABILITIES: A FRAMEWORK FOR LOCAL SUPPLY CHAIN DEVELOPMENT AND INNOVATION
Mr. Ayush Nigam, Vellore Institute of Technology, Indore, India;

11. Space Policy, Sustainability and Legal Aspects

11.1. Space Policy, Sustainability and Legal Aspects - Session 1

May 8 2025, 11:00 — Room 305

Co-Chair(s): Tanja Masson-Zwaan , International Institute of Air and Space Law, Leiden University, The Netherlands; Chinmoy Roy , Antrix Corporation Limited, India;

GLEX-2025.11.1.1
Patenting in the Final Frontier
Mr. VIVEK DOULATANI, Blu Halo, AHMEDNAGAR, India;

GLEX-2025.11.1.2
"IS BLOCKING ACCESS TO RESOURCES AND COMPONENTS USED IN THE SPACE INDUSTRY AN ACT OF UNFAIR COMPETITION?"
Mr. Karol Pechcin, Akademia Sztuki Wojennej (WSU), Zamienie, Poland;

GLEX-2025.11.1.3
IMPACT OF SPACE REFORMS AND REGULATORY POLICIES ON THE PRIVATE SPACE ECOSYSTEM IN INDIA
Mr. Jagathi Priya, Indian National Space Promotion Authorization Centre (IN-SPACe), Bangalore, India;

GLEX-2025.11.1.4
DEMOCRATIZING ACCESS TO SPACE: A GLOBAL SOUTH PERSPECTIVE
Mr. Sibsanakar Palit, LIFE-To & Beyond Foundation®, Barasat, West Bengal, India;

GLEX-2025.11.1.5
INTERPLANETARY INVESTIGATIONS: FORENSICS IN THE EXPANDING UNIVERSE
Dr. Heena Goswami, Gujarat National Law University, GANDHINAGAR, India;

GLEX-2025.11.1.6
THE ROLE OF LUNAR EXPLORATION AND UTILIZATION FOR THE EARTH ENVIRONMENT
Dr. Ulpia Elena Botezatu, Romanian Space Agency (ROSA), Bucuresti, Romania;

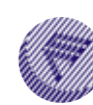
GLEX-2025.11.1.7
IN ORBIT SERVICING - AN EVOLVING LANDSCAPE OF LEGAL AND REGULATORY FRAMEWORK
Mr. Naresh Kannan, OrbitAID Aerospace Private Limited, Bangalore, India;

GLEX-2025.11.1.8
PIONEERING THE FINAL FRONTIER: ETHICS AND LEGALITIES OF HUMAN EXPANSION INTO DEEP SPACE
Ms. Riddhi Malhotra, Collins Aerospace, Benagaluru, India;

11.2. Space Policy, Sustainability and Legal Aspects - Session 2

May 8 2025, 16:30 — Room 305

Co-Chair(s): Tanja Masson-Zwaan , International Institute of Air and Space Law, Leiden University, The Netherlands; Chinmoy Roy , Antrix Corporation Limited, India;

**GLEX-2025.11.2.1**

EXPLORING THE APPLICABILITY OF THE LAW OF NEUTRALITY IN THE OUTER SPACE

Mr. Livingston Karikari, Beijing Institute of Technology, Beijing, China;

GLEX-2025.11.2.2

MILITARIZATION OF SPACE: A LEGAL AND STRATEGIC ANALYSIS

Dr. Swaim Prakash Singh, Indian Air Force, Secunderabad, India;

GLEX-2025.11.2.3

SPACE INVESTMENTS IN INDIA: NEED FOR A LEGISLATIVE RESPONSE

Prof. Sandeepa Bhat, National University of Juridical Sciences, Kolkata, India;

GLEX-2025.11.2.4

INDIA'S SPACE POLICY FOR THE PRIVATE SECTOR: OPPORTUNITIES AND GLOBAL COMPARISONS

Ms. Madhu Swapnika Chundru, ISRO Propulsion Complex, Mahendragiri, India, Kanyakumari, India;

GLEX-2025.11.2.5

RETHINKING INTERNATIONAL RESPONSIBILITY FOR CYBERATTACKS IN OUTER SPACE

Mr. Manzoor Hassan, Beijing Institute of Technology, Institute of Space Law, Beijing, China;

GLEX-2025.11.2.6

THE CHALLENGES OF DEVELOPING A LEGAL FRAMEWORK FOR THE IN-SITU UTILISATION OF LUNAR RESOURCES: A COMPARATIVE STUDY OF THE ARTEMIS ACCORDS AND THE ILRS

Mr. Sajal Sharma, University of Petroleum and Energy Studies, Dehradun, India;

GLEX-2025.11.2.7

POLICY PERSPECTIVES ON OUTER SPACE RESOURCES ACTIVITIES

Mr. Sandeep Garg, Indian Space Research Organization (ISRO), New Delhi, India;

11.3. Space Policy, Sustainability and Legal Aspects - Session 3

May 9 2025, 11:00 — Room 305

Co-Chair(s): Chinmoy Roy, Antrix Corporation Limited, India; Prafulla Jain, Indian National Space Promotion Authorization Centre (IN-SPACe), India;

GLEX-2025.11.3.1

PROTECTING DARK AND QUIET SKIES: MITIGATING SATELLITE-INDUCED POLLUTION FOR SPACE SUSTAINABILITY

Dr. Shruti Kakkar, Mahindra University, Hyderabad, India;

GLEX-2025.11.3.2

BOLSTERING PRIVATE SECTOR INVESTMENT IN THE INDIAN SPACE ECONOMY: THE CASE FOR POLITICAL AND LEGAL REFORM

Ms. Janki Kadakia, London, United Kingdom;

GLEX-2025.11.3.3

INTEGRATING PRIVATE HUMAN SPACEFLIGHT INTO INTERNATIONAL SPACE LAW: INDIA'S ROLE AND EMERGING FRAMEWORKS

Mr. Arun Subramanian Venkataraman, Chennai, India;

GLEX-2025.11.3.4

COMPREHENSIVE APPROACHES TO SPACE TRAFFIC CONTROL: ENSURING SUSTAINABILITY AND SAFETY IN AN ERA OF RAPID SPACE TRAFFIC EXPANSION

Ms. Srushti Sidaraddi, R V College of Engineering, Bengaluru, Bengaluru, India;

GLEX-2025.11.3.5

'VISHWA GURU BHARAT' TO BE 'VIKSIT BHARAT' BY 2047: LAUNCH AND PLACE THE INDIAN SPACE LEGISLATION IN APPROPRIATE ORBIT

Dr. Divya Tyagi, Gujarat National Law University, Gandhinagar, India;

GLEX-2025.11.3.6

THE NORMATIVE CHALLENGES OF PRIVATISING THE SPACE SECTOR

Mr. Akash Barua, University of Delhi, Guwahati, India;

GLEX-2025.11.3.7

GIST ON THE "RESPONSIBILITY OF STATES UNDER THE OUTER SPACE TREATY" - ARTICLE VI

Mr. Uday Kumar, Indian Space Research Organization (ISRO), Bengaluru, India;

GLEX-2025.11.3.8

MITIGATING CLOSE-APPROACH RISKS IN LUNAR ORBITS FOR CHANDRAYAAN MISSIONS

Dr. Bulbul Mukherjee, ISRO, Bangalore, India;

11.4. Space Policy, Sustainability and Legal Aspects - Session 4

May 9 2025, 14:30 — Room 305

Co-Chair(s): Chinmoy Roy, Antrix Corporation Limited, India; Upasana Dasgupta, OP Jindal Global University, India;

GLEX-2025.11.4.1

LEGAL FRAMEWORK FOR EMERGENCY RESPONSE IN SPACE TRAFFIC MANAGEMENT UNDER THE EMPOWERMENT OF ARTIFICIAL INTELLIGENCE

Ms. Yunping Liu, Alma Mater Studiorum - University of Bologna, Bologna, China;

GLEX-2025.11.4.2

THE NECESSITY OF DELINEATING THE BOUNDARY BETWEEN OUTER SPACE AND AIRSPACE IN THE CONTEXT OF OPENING UP THE SPACE SECTOR TO PRIVATE PLAYERS

Dr. Arun DI, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Trivandram, India;

GLEX-2025.11.4.3

EMBEDDING EQUITY IN THE NORMATIVE FRAMEWORK OF SPACE GOVERNANCE: A FOUNDATIONAL APPROACH TO SUSTAINABLE POLICY DEVELOPMENT

Mr. Jose Augusto Pio Jurado, International Institute of Space Law (IISL), Paris, France;

GLEX-2025.11.4.4

TOWARDS A SUSTAINABLE COSMOS: INTEGRATING INDIGENOUS KNOWLEDGE IN SPACE SUSTAINABILITY POLICIES TO COMBAT SPACE DEBRIS.

Ms. SIA DAS, Delhi, India;

GLEX-2025.11.4.5

LEGAL ASPECTS OF 'SPASHDOWN' OF SPACE DEBRIS ON THE HIGH SEAS

Ms. Denitza Petrounova, University of Vienna, Vienna, Austria;

GLEX-2025.11.4.6

INDIA'S SPACE POLICY: POLICY ASPECTS FOR ACHIEVING SPACE SUSTAINABILITY

Ms. Kriti Khatri, Indian National Space Promotion Authorization Centre (IN-SPACe), Ahmedabad, India;

GLEX-2025.11.4.7

HARNESSING THE TRUE POWER OF THE LTS GUIDELINES: A CRITICAL LEGAL PERSPECTIVE

Ms. Ishita Das, NALSAR University of Law, Kolkata, India;

GLEX-2025.11.4.8

EVOLVING LEGAL, ECONOMIC, AND COMMERCIAL PARADIGMS IN SPACE DEBRIS MANAGEMENT A COMPREHENSIVE APPROACH FOR THE ASIA-PACIFIC REGION

Ms. Dasuni Hewawasam, Space Generation Advisory Council (SGAC), Nittambuwa, Sri Lanka;

12. Space Stations & Challenges**12.1. Space Stations & Challenges - Session 1**

May 8 2025, 16:30 — Room 405

Co-Chair(s): Igor V. Sorokin, S.P. Korolev Rocket and Space Corporation Energia, Russian Federation; M. Sankaran, Indian Space Research Organization (ISRO), India;

GLEX-2025.12.1.1

REDUCED ORDER MODELLING FOR INTEGRATED THERMAL ANALYSIS OF SPACE STATION

Mr. Atharva Kulkarni, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

GLEX-2025.12.1.2

RUSSIAN ORBITAL STATION: DESIGNING, DEVELOPMENT, AND UTILIZATION STRATEGY

Mr. Andrey Lobykin, RSC Energia, Korolev, Russian Federation;

GLEX-2025.12.1.3

BEYOND EARTH: A COMPREHENSIVE REVIEW OF SPACE STATIONS AND THEIR CHALLENGES

Mr. Lokesh Rishabh, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, India;

GLEX-2025.12.1.4

SYSTEM ENGINEERING CHALLENGES FOR A SPACE STATION DESIGN – INDIAN CASE STUDY

Mr. Vibhu Unnikrishnan, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

GLEX-2025.12.1.5

SPACE STATIONS AND CHALLENGES

Mr. Vaibhav Ubhadiya, Rajkot, India;

GLEX-2025.12.1.6

SPACESUIT AUGMENTATION FOR CAPACITIVE TOUCH DISPLAY INTERACTION: ENHANCING HUMAN-COMPUTER INTERFACE FOR SPACE MISSIONS

Mr. Dinesh Khairnar, Space Applications Centre (ISRO), AHMEDABAD, India;

GLEX-2025.12.1.7

MATERIAL ALTERNATIVES FOR TENSEGRITY STRUCTURE OF LUNAR HABITATION

Ms. K.P.S.S. PRANATHI, HYDERABAD, India;

13. Ground-Based Preparatory Activities**13.1. Ground-Based Preparatory Activities - Session 1**

May 8 2025, 16:30 — Room 404A

Co-Chair(s): Vincenzo Giorgio, Thales Alenia Space Italia, Italy; Ritu Karidhal, Indian Space Research Organization (ISRO), India;

GLEX-2025.13.1.1

SATELLITE COMMUNICATION NETWORK FOR GAGANYAAN MISSION: ARCHITECTURE, CHALLENGES, AND PERFORMANCE

Mr. BHIMESWARA RAO MALISETTI, ISTRAC/ISRO, BANGALORE, India;

GLEX-2025.13.1.2

INTERNATIONAL COLLABORATIONS AND ANALOGUE ASTRONAUT FIELD CAMPAIGNS TO TEST THE WORLDS FIRST MODULAR ANALOGUE ASTRONAUT KIT

Mr. Marc Heemskerck, Tallinn University of Technology, Tallinn, Estonia;

GLEX-2025.13.1.3

EGSE-GROUND BASED PREPARATION CHALLENGES FOR GAGANYAAN MISSION

Mrs. MUTHUSELVI KRISHNAN, Indian Space Research Organization (ISRO), Liquid Propulsion Systems Centre (LPSC), Bangalore, India;

GLEX-2025.13.1.4

A NOVEL SPACE ANALOG: MARTIAN OPERATION SIMULATION STUDIES (MOSS)

Mr. Togita Rahul Goud, Indian Space Research Organization (ISRO), BENGALURU, India;

GLEX-2025.13.1.5

DEVELOPMENT AND TESTING OF A COMPUTER VISION BASED INDOOR POSITIONING SYSTEM FOR AN UPCOMING SPACECRAFT CLOSE-PROXIMITY OPERATIONS TEST FACILITY

Ms. Nitika Jaggi, Indian Institute of Technology Kanpur, Kanpur, Uttar Pradesh, In..., India;

GLEX-2025.13.1.6

NOVEL MOBILE GRAVITY OFF-LOADING SYSTEM (MOGOS) FOR ASTRONAUTS AND ROVERS

Mr. Tom Hoppenbrouwers, Space Applications Services N.V./S.A., Zaventem, Belgium;

GLEX-2025.13.1.7

GROUND TEST SETUP REQUIREMENTS FOR LUNAR EXPLORATION MISSIONS

Mr. SIDDHARTH ARORA, U R RAO SATELLITE CENTRE (URSC), BENGALURU, India;

GLEX-2025.13.1.8

ROLE OF TERRESTRIAL ANALOGUE ENVIRONMENTS FOR DESIGN AND DEVELOPMENT OF ROBOTIC AND HUMAN EXPLORATION SYSTEMS FOR THE INDIAN SPACE PROGRAM

Dr. Siddharth Pandey, Fugro Australia Marine Pty Ltd, Perth, Australia;



13.2. Ground-Based Preparatory Activities - Session 2

May 9 2025, 11:00 — Room 404A

Co-Chair(s): Amit Kumar Singh , Indian Space Research Organization (ISRO), India; W. Selvamurthy , Amity University Mumbai, India; A. Rajarajan, Indian Space Research Organization (ISRO), India; Raghavendra M R , ISTRAC/ISRO, India;

GLEX-2025.13.2.1
ENSURING MISSION-CRITICAL RELIABILITY : THE ROLE OF SOFTWARE TESTING AND METRICS IN PROPELLANT FILLING AUTOMATION FOR ROCKET LAUNCHES
Mrs. PESALA MANASA, SDSC SHAR, SULLURUPETA, India;

GLEX-2025.13.2.2
DATA, ETHICS AND INNOVATION: RETHINKING ANALOG MISSIONS WITH VR AND AR
Ms. Ekaterina Faber, Moscow Institute of Electronics and Mathematics of National Research University Higher School of Economics (MIEM NRU HSE), Moscow, Russian Federation;

GLEX-2025.13.2.3
ARTIFICIAL INTELLIGENCE AND HAPTIC TECHNOLOGY FOR FUTURE ANALOG MISSIONS AND SPACE EXPLORATION
Ms. Tapaswini Sharma, Indore, India;

GLEX-2025.13.2.4
ENHANCING ANALOG SPACE MISSIONS WITH NEUTRAL POSITION BODY ANGLES: A NOVEL APPROACH TO SIMULATING MICROGRAVITY CONDITIONS ON EARTH
Ms. Wendy Lucia Sanchez Delgado, University of Leeds, Leeds, United Kingdom;

GLEX-2025.13.2.5
CHALLENGES FACED IN MECHANICAL INTEGRATION DURING CHANDRAYAAN-3 SPECIAL TESTS
Mr. RAVI T, U R RAO SATELLITE CENTRE (URSC), BENGALURU, India;

GLEX-2025.13.2.6
Ground-Based Preparatory Activities
Mr. Majd Alsadi, paris, Jordan;

GLEX-2025.13.2.7
EXPLOSIVE-DRIVEN FLYER LAUNCHER FOR MMOD SHIELD DESIGN : ENABLING SAFE AND SUSTAINABLE SPACE LOGISTICS
Mrs. Priyanka Chaudhary, Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, India;

GLEX-2025.13.2.8
GROUND EVALUATION OF MAGNETIC CLEANLINESS OF ADITYA-L1 SPACECRAFT
Mr. PUNEET MISHRA, U R RAO SATELLITE CENTRE (URSC), BANGALORE, India;

13.3. Ground-Based Preparatory Activities - Session 3

May 9 2025, 14:30 — Room 404A

Co-Chair(s): Amit Kumar Singh , Indian Space Research Organization (ISRO), India; W. Selvamurthy, Amity University Mumbai, India; A. Rajarajan, Indian Space Research Organization (ISRO), India; Raghavendra M R, ISTRAC/ISRO,

India;

GLEX-2025.13.3.1
DESIGN AND DEVELOPMENT OF A LOW-COST FRICTIONLESS AIR-BEARING TESTBED FOR ON-GROUND DOCKING AND BERTHING TESTING
Mr. Jay Panchal, Birla Institute of Technology and Science(BITS), Surat, India;

GLEX-2025.13.3.2
EXPERIMENTAL STUDY ON SIMILARITY PARAMETERS
Mr. Kuldeep Naruka, LPSC, ISRO, Trivendrum, India;

GLEX-2025.13.3.3
METHODICAL ANALYSIS OF VARIOUS CONTROL ARCHITECTURES FOR ATTITUDE STABILIZATION IN A 3U CUBESAT EQUIPPED WITH A 3-AXIS REACTION WHEEL SYSTEM
Mr. Aditya Nath Roy, Indian Institute of Technology Kanpur, Kanpur, India;

GLEX-2025.13.3.4
MISSION DESIGN AND SIMULATIONS FOR HUMAN SPACEFLIGHT ABORT SYSTEM QUALIFICATION
Ms. Surabhi Shivhare, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Thiruvananthapuram, India;

GLEX-2025.13.3.5
WEB BASED ISCADA FOR GROUND TESTING OF CRYOGENIC ROCKET ENGINES
Mr. Kanthan N, ISRO Propulsion Complex, Mahendragiri, India, Tirunelveli, India;

GLEX-2025.13.3.6
LEVERAGING AUTOMATION FOR SAFER AND EFFICIENT CRYOGENIC CHILLING IN ROCKET ENGINE TESTING
Mr. VINOD P, Indian Space Research Organization (ISRO), hyderabad, India;

GLEX-2025.13.3.7
SIMULATE AND TEST ON THE GROUND THE SPACE SYSTEM BY THE SOFTWARE METHODOLOGY : THE OPS SAT MODEL
Mr. Djamel Metmati, Toulouse, France;

14. AI Impact & Autonomy on Space Exploration

14.1. AI Impact & Autonomy on Space Exploration - Session 1

May 8 2025, 11:00 — Room 401

Co-Chair(s): Giorgio Saccoccia , European Space Agency (ESA), France; Nilesh Desai, Space Applications Centre (ISRO), India; PK Abraham, Vikram Sarabhai Space Centre (VSSC), India;

GLEX-2025.14.1.1
KEYNOTE: TOWARDS AUTONOMOUS MARTIAN EXPLORATION: AI-DRIVEN DUST DEPOSITION PREDICTION FOR MARTIAN MISSION PLANNING
Mr. Prajwal Yash, Indian Space Research Organization (ISRO), Bengaluru, India;

GLEX-2025.14.1.2
A NOVEL TECHNIQUE FOR HEALTH ASSESSMENT OF LIQUID PROPULSION SYSTEM USING NEURAL NETWORKS

Ms. P Aziya Nizin, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Trivandrum, India;

GLEX-2025.14.1.3
A COLLABORATIVE EXPLORATION OF UNCERTAIN ENVIRONMENTS USING A MULTI-AGENT ROBOTIC SYSTEM WITH EMERGENT BEHAVIOR
Mr. Rogelio Morales, Bolivarian Agency for Space Activities (ABAE), Caracas, Venezuela;

GLEX-2025.14.1.4
APPLICATION OF ARTIFICIAL INTELLIGENCE FOR REAL-TIME ANALYSIS
Mr. Sumedh Deshpande, Private, Kharghar, Navi Mumbai, India;

GLEX-2025.14.1.5
REVOLUTIONIZING SPACE EXPLORATION: AI-ENHANCED AUTONOMY ROVER FOR NEXT-GENERATION MARS MISSIONS
Ms. Akanksha Bhagat, University of Mumbai, Mumbai, India;

GLEX-2025.14.1.6
ENHANCED AUTONOMY FOR NEXT-GENERATION ROVER MISSIONS USING ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (AI/ML)
Ms. Chris Gurjao, Astronautical Society of India, Goa, India;

GLEX-2025.14.1.7
THE ROLE OF AI IN SPACE WEATHER PREDICTION
Mr. Abhyuday Singh, dubai, United Arab Emirates;

GLEX-2025.14.1.8
SWARM INTELLIGENCE OPTIMIZATION: REINFORCEMENT-LEARNED DYNAMIC CONTROL WITH UWB FOR LARGE-SCALE SPACE EXPLORATION AND SEARCH PROCESSES
Mr. Pranav Balaji, Delhi, India;

14.2. AI Impact & Autonomy on Space Exploration - Session 2

May 8 2025, 16:30 — Room 401

Co-Chair(s): Manju S. Nair , LPSC, ISRO, India; Sarkar S.S., Indian Space Research Organization (ISRO), India; PK Abraham, Vikram Sarabhai Space Centre (VSSC), India;

GLEX-2025.14.2.1
THE ROLE OF VIRTUAL AND AUGMENTED REALITY IN SUPPORTING ASTRONAUTS ON LONG-DURATION MISSIONS
Mr. Zaid Alqudah, Ajloun, Jordan;

GLEX-2025.14.2.2
SPACECRAFT AUTONOMY FOR INTER-PLANETARY MISSIONS – OPPORTUNITIES AND CHALLENGES
Mrs. Chaitra Rao, U R RAO SATELLITE CENTRE (URSC), Bangalore, India;

GLEX-2025.14.2.3
MAPPING THE UNKNOWN: THE ROLE OF AI, GIS, AND REMOTE SENSING IN DEEP-SPACE DISCOVERY
Ms. Aune Kamosho, Windhoek, Namibia;

GLEX-2025.14.2.4
MISSING DATA IMPUTATION ON CHANDRAYAN-2 IIRS PAYLOAD
Mr. Sajith Menon, Indian Space Research Organization (ISRO), BANGALORE, India;

GLEX-2025.14.2.5
PREDICTIVE MAINTENANCE ANALYTICS AND IMPLEMENTATION FOR SPACECRAFTS

Mrs. Aygun Zeynalova, National Aviation Academy - Azerbaijan, Baku, Azerbaijan;

GLEX-2025.14.2.6
A CONCEPTUAL MODEL OF THE AI DATA PROCESSING SYSTEM FOR LUNAR SCIENCE
Mr. Vladimir Nazarov, Space Research Institute (IKI), Russian Academy of Sciences (RAS), Moscow, Russian Federation;

GLEX-2025.14.2.7
AUTOMATED DETECTION AND SEGMENTATION OF CRATERS AND BOULDERS IN CHANDRAYAAN-2 ORBITER HIGH-RESOLUTION CAMERA (OHRC) IMAGES
Dr. Shreya Santra, Tohoku University, Sendai, Japan;

GLEX-2025.14.2.8
ADAPTIVE SATELLITE STATE ESTIMATION USING LIQUID NEURAL NETWORKS
Mr. Isaac Alejandro Pimentel Morales, Instituto Tecnológico Autónomo de México, Ciudad de México, Mexico;

14.3. AI Impact & Autonomy on Space Exploration - Session 3

May 9 2025, 11:00 — Room 401

Co-Chair(s): Manju S. Nair, LPSC, ISRO, India; Rajeev U.P., Vikram Sarabhai Space Centre (VSSC), India;

GLEX-2025.14.3.1
BLOCKCHAIN-ENHANCED SOLUTIONS TO COUNTER AI DEEPFAKE THREATS IN EARTH OBSERVATION
Mr. Ashley Reeves, London, United Kingdom;

GLEX-2025.14.3.2
A DEEP LEARNING APPROACH TO ESTIMATE NATURAL FREQUENCIES OF SMALL-DIAMETER FLUID LINES IN LAUNCH VEHICLES
Mr. Vivek S, Indian Space Research Organization (ISRO), Liquid Propulsion Systems Centre (LPSC), Ottappalam, India;

GLEX-2025.14.3.3 (unconfirmed)
EXPLORING THE IMPACT OF AI TEAMMATES ON TRUST, MENTAL WORKLOAD, AND SYSTEM USABILITY IN CULTURALLY DIVERSE MARTIAN SURFACE EXPLORATION SIMULATIONS
Ms. Alita Regi, Florida Institute of Technology, Dubai, United Arab Emirates;

GLEX-2025.14.3.4
CELESTIAL CARTOGRAPHY: A DATA SCIENCE APPROACH TO GALACTIC ANALYSIS
Ms. Chinmayee Gade, National Space Society (USA) -Mumbai chapter, Pune, India;

GLEX-2025.14.3.5
QUANTUM MARVIN: EXPLORING ARTIFICIAL INTELLIGENCE AND QUANTUM COMPUTING FOR MOON SURFACE NAVIGATION
Mrs. Nicole Rosi, European Space Agency (ESA/EAC), Koeln, Germany;

GLEX-2025.14.3.6
ADAPTIVE FPGA-ENHANCED RICE ALGORITHM FOR HIGH-EFFICIENCY, LOSSLESS DATA COMPRESSION IN SPACEBORNE TELEMETRY AND IMAGING SYSTEMS
Mr. Anubhab Debnath, AgniKul Cosmos, Kolkata, India;

**GLEX-2025.14.3.7**

ADVANCED WAVELET-MACHINE LEARNING HYBRID METHODOLOGY FOR FEATURE EXTRACTION OF LUNAR SEISMIC EVENTS: INSIGHTS FROM CHANDRAYAAN-3 DATA

Ms. Akshaya BS, Nitte Meenakshi Institute of Technology, Anantapur, India;

GLEX-2025.14.3.8 (unconfirmed)

NLP-BASED HUMAN COMPANION AND EMOTIONAL SUPPORT SYSTEM FOR SPACE TRAVEL

Ms. Priyanka C Nair, Amrita Vishwa Vidyapeetham University, Bengaluru, India;

14.4. AI Impact & Autonomy on Space Exploration - Session 4

May 9 2025, 14:30 — Room 401

Co-Chair(s): Sarkar S.S., Indian Space Research Organization (ISRO), India; Rajeev U.P., Vikram Sarabhai Space Centre (VSSC), India; Rajiv Ratan Chetwani, Indian Space Research Organization (ISRO), India;

GLEX-2025.14.4.1

TETHERED DEBRIS CAPTURE EXPERIMENT ON POEM PLATFORM USING SPACE ROBOTIC ARM

Mr. Abhijith Prakash, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, India;

GLEX-2025.14.4.2

RISK-AWARE MULTI-ROBOT SYSTEMS WITH FOUNDATIONAL ARTIFICIAL INTELLIGENCE FOR LUNAR SURFACE EXPLORATION

Mr. Pradyumna Nanda Vyshnav, Bangalore, India;

GLEX-2025.14.4.3

THE USE OF PROMPT ENGINEERING APPLIED FOR DATA IN SPACE : METHODOLOGY AND REQUIREMENTS

Mr. Djamel Metmati, Toulouse, France;

GLEX-2025.14.4.4

THE ROLE OF ARTIFICIAL INTELLIGENCE AND AUTONOMY IN THE FUTURE OF SPACE EXPLORATION: OPPORTUNITIES, CHALLENGES, AND IMPLICATIONS

Ms. Sai Prashant Bhosale, MIT Art, Design and Technology University, latur, India;

GLEX-2025.14.4.5

PRE-FLIGHT ONBOARD ALGORITHM VALIDATION THROUGH SIMULATION OPTIMIZATION AND DEEP METRIC LEARNING

Mr. Harris V John, Vikram Sarabhai Space Centre, ISRO, Thiruvananthapuram, Trivandrum, India;

GLEX-2025.14.4.6

IMPLEMENTATION OF AI ADAPTIVE PRESSURE CONTROL SYSTEM IN SPACE SUITS

Mr. Abdulrahman Al-Essa, Jubail Industrial College, Royal Commission for Jubail and Yanbu, Dammam city, Saudi Arabia;

GLEX-2025.14.4.7

ADAPTIVE CONTROL SYSTEM FOR ROVER STABILITY IN LOW-GRAVITY AND UNEVEN TERRAIN EXPLORATION

Mr. Raúl Gianmarco Chávez Chávez, Universidad Nacional de Ingeniería (Lima, Perú), Lima, Peru;

GLEX-2025.14.4.8

ARTIFICIAL INTELLIGENCE IN SPACE EXPLORATION: ADVANCING AUTONOMOUS ROBOTICS FOR NAVIGATION AND LANDING IN EXTREME ENVIRONMENTS

Mr. Nawras Bin tareef, Amaan, Jordan;

15. Empowering the Next Generation of Space Explorers**15.1. Empowering the Next Generation of Space Explorers - Session 1**

May 8 2025, 11:00 — Room 405

Co-Chair(s): Sukhjot Singh, Space Generation Advisory Council (SGAC), India; M. Sankaran, Indian Space Research Organization (ISRO), India;

GLEX-2025.15.1.1

ANUBRAHMAN: CULTIVATING AN ACCESSIBLE AEROSPACE RESEARCH COMMUNITY FOR BRIDGING ACADEMIA AND INDUSTRY, EMPOWERING THE NEXT GENERATION IN SPACE SCIENCE AND ENGINEERING

Ms. Kavya Dichwalkar, VIT Bhopal University, Mumbai, India;

GLEX-2025.15.1.2

EMPOWERING THE NEXT GENERATION OF SPACE EXPLORERS THROUGH A STEAM-FOCUSED CURRICULUM

Ms. Ayushee Chaudhary, Bengaluru, India;

GLEX-2025.15.1.3

AEROSPACE DEVELOPMENT INITIATIVES AT THE NATIONAL UNIVERSITY OF SAN MARCOS (UNMSM), PERU

Ms. Wendy Lucia Sanchez Delgado, University of Leeds, Leeds, United Kingdom;

GLEX-2025.15.1.4

JOURNEY FROM CLASSROOM TO BHARATIYA ANTARIKSHA STATION: EMPOWERING THE NEXT GENERATION OF SPACE EXPLORERS

Mr. Sudhanshu Kandpal, Indian Space Research Organization (ISRO), Sriharikota, India;

GLEX-2025.15.1.5

SCIENCE FICTION ENABLED SEQUENTIAL LEARNING FRAMEWORK FOR STEM EDUCATION

Ms. Anjali Amarkumar, International Space University, strasbourg, France;

GLEX-2025.15.1.6

EMPOWERING THE NEXT GENERATION OF SPACE EXPLORERS

Mr. Majd Alsadi, paris, Jordan;

GLEX-2025.15.1.7

CULTIVATING SPACE SCIENCE TALENT IN LATIN AMERICA THROUGH HANDS-ON EDUCATION

Prof.Dr. Madelaine Rojas, Panama, Panama;

GLEX-2025.15.1.8

ESTABLISHING LOW COST MICRO SPACE INCUBATION/RESEARCH CENTERS IN RURAL INDIA: INTEGRATING INDIGENOUS WISDOM WITH SPACE EXPLORATION

Mr. Abhishek Kanodia, Jaipur, India;

15.2. Empowering the Next Generation of Space Explorers - Session 2

May 9 2025, 11:00 — Room 405

Co-Chair: Mr. Jeremy Hallett, Space Industry Association of Australia, Australia; Prof. Anil Bhardwaj, Physical Research Laboratory, India;

GLEX-2025.15.2.1

EMPOWERING LESOTHO'S FUTURE: SPACE TECHNOLOGY AND SUSTAINABLE GROWTH

Mrs. Mamonaheng (Nkentso Catherine) Koenane (nee Ledimo), Maseru, Lesotho;

GLEX-2025.15.2.2

TRANSFORMING SPACE EDUCATION: EMPOWERING FUTURE AEROSPACE ENGINEERS THROUGH REAL-TIME SATELLITE COMMUNICATION TRAINING AT AMITY UNIVERSITY DUBAI

Dr. Sarath Raj Nadarajan Syamala, Amity University, Dubai, Dubai, United Arab Emirates;

GLEX-2025.15.2.3

TOWARDS THE MOON VILLAGE GENERATION: THE MVA ITALY SPACE SUMMER SCHOOLS EXPERIENCE AND BEYOND

Dr. Alessandro Bartoloni, National Institute of Nuclear Physics - INFN, Roma, Italy;

GLEX-2025.15.2.4

Nepal's Journey to Stars: Inspiring Marginalized Youth to Explore Space

Ms. Kriti Dahal, Nepal Space Foundation, Kathmandu, Nepal;

GLEX-2025.15.2.5

INTRODUCING A HIGH SCHOOL CURRICULUM ON SPACE ACTIVITIES AND SUSTAINABILITY FOR THE SPACE AGE

Ms. Ena Goel, New Delhi, India;

GLEX-2025.15.2.6

UNIVERSITY STUDENT SATELLITE PROGRAMS FOR HANDS-ON EDUCATION IN SPACE TECHNOLOGY

Mr. Ameya Marakarkandy, Indian Institute of Technology, Bombay, Mumbai, India;

GLEX-2025.15.2.7

EMPOWERING FUTURE SPACE EXPLORES FROM THE PERSPECTIVES OF EDUCATION, TECHNOLOGY AND MECHANISMS

Mrs. Yinyan He, China Academy of Aerospace Systems Science and Engineering, Beijing, China;

GLEX-2025.15.2.8

SOLAR SAILS ASTEROID GRAND TOUR COOPETITION

Mr. Esteban Decline, U3P (Union pour la Promotion de la Propulsion Photonique), Ecqueville, France;

GLEX-2025.15.2.9

EMPOWERING THE NEXT GENERATION OF SPACE EXPLORERS THROUGH CLASSICAL EDUCATION

Ms. Isabella Cervantes, Palm Beach Gardens, United States;

9.2 Interactive Presentations

8 MAY 2025 IP Sessions

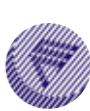


Time	Screen	Title	Speaker name
13:00-13:10	#1	Orbital Cleanup Rover (OCR)	Mohamed Jassar
13:10-13:20	#1	System Level Ground Experimental Simulation Tests on MOM Propulsion System	Venkata REDDY
13:20-13:30	#1	Incredible, Independent India: Galaxy, Moon and 21st Century Solar System Complete	Steve Durst
13:30-13:40	#1	AI-Driven Detection of Resident Space Objects (RSOs) Using Monochromatic Wide-Field Imaging for Space Situational Awareness (SSA)	Vithurshan Suthakar
13:40-13:50	#1	Re-Entry Vehicle Antenna Systems: Overcoming Design, Development and Challenges	Satya Bhushan Shukla
13:00-13:10	#2	Structural Dynamics Design and Validation through testing of PSLV Payload Fairing	SALIL KANJ JALAN
13:10-13:20	#2	Lunar Polar Exploration (LUPEX) Project: Latest Status of the Project	Dai Asoh
13:20-13:30	#2	Hybrid Solar Sail and Electric Propulsion System for Deep-Space Exploration	Amogh Wagh
13:30-13:40	#2	Autonomous Swarm Robotics in Planetary Missions: Design, Applications, and Challenges	Priyanka Ghatole
13:40-13:50	#2	Supply Chain Challenges and Solutions for EEE Parts in Space Applications	Avirag Sharma
13:50-14:00	#2	Challenges of scheduling Ground Infrastructure for Lunar Communication	Martin Krynitz
13:00-13:10	#3	Evaluation of microstructure of multicoated substrate for additive manufacturing of dissimilar materials	HARSH VERMA
13:10-13:20	#3	Multi-faceted AI model for Comprehensive Spacecraft Operations	Deepan M
13:20-13:30	#3	MICRO REACTOR PROCESS DESIGN FOR HYDROXYL AMMONIUM NITRATE (HAN) – A VERSATILE GREEN PROPELLANT FOR SPACECRAFTS	Praveen Kumar Solasa
13:30-13:40	#3	Relevance and the scope of the development of physics based models for the Planetary atmosphere/ionosphere.	Ambili Kailasam Madathil
13:40-13:50	#3	Design of a Modular Docking Adaptor for an Autonomous CubeSat Rendezvous and Docking Mission	Ameya Marakarkandy
13:50-14:00	#3	A CubeSat-based On-Orbit Additive Manufacturing Experiment in LEO	Priyanshu Kumar
13:00-13:10	#4	Generalized Guidance Scheme for De-boost of Launch Vehicle Terminal Stage Using Attitude Control Thruster	Dhiraj Kumar Jha

13:10-13:20	#4	Brain Artery in Microgravity (BRAIM): Design and Development	SHINE SR
13:20-13:30	#4	The future of space infrastructure: orbital fuel stations for extended mission lifespan	Sakthikumar Ramachandran
13:30-13:40	#4	Design and Implementation of a Soft Gripper Robotic Arm for Advanced Autonomous Operations in Space Exploration	Aayushi Dwivedi
13:40-13:50	#4	Mission Operation management challenges and mitigation strategy for Aditya-L1 Mission	Amit Kumar Singh
13:50-14:00	#4	Autonomous In-Situ Resource Utilization on the Moon: A Feasibility Study of 3D Printing with Lunar Regolith	Akanksha Bhagat
13:00-13:10	#5	A Miniaturized Laser Firing Unit with Tunable Power Output	Arundev V
13:10-13:20	#5	Cosmonaut-scientist onboard the Russian Orbital Station	Igor V. Sorokin
13:20-13:30	#5	A Hybrid Hardware In-Loop Approach to Fault Prediction Simulation in satellite ADCS architecture based on 3-Axis Reaction Wheel: Integrating Probabilistic and Statistical ML Models with Traditional Control Systems	Aman Bhavsar
13:30-13:40	#5	Development of In-House Variable Speed Control Moment Gyroscope based Satellite Attitude System Tabletop Test Bench.	Mridul Sengupta
13:40-13:50	#5	A Dual-Mode Pose Estimation Framework Using Monocular Vision and ArUco Markers for close proximity operation with cooperative targets.	Pavan Varma
13:50-14:00	#5	Exploring India's optical surveillance strategy in the context of upcoming large constellations	BIKRAM PRADHAN
13:00-13:10	#6	Life Support System in a Space Settlement	Surya Vaibhav DVR
13:10-13:20	#6	Building an Extra-Vehicular Activity (EVA) baseline motor behavior reference system as a tool to detect stress behavior	Giuseppe Scavo
13:20-13:30	#6	Zephyr: Sustainable LEO Vehicle for Supplying Space Stations and Enabling Space Tourism	Martina Chiacchiaro
13:30-13:40	#6	Investigating potential applications of Lorentz force for spacecraft formation flying with reduced fuel consumption	Shalini Suresh
13:40-13:50	#6	COGNITIVE BEHAVIORAL THERAPY FOR LONELINESS AND ISOLATION OF ASTRONAUTS IN SPACE MISSION	Alizada Ravan
13:50-14:00	#6	Gallium Nitride based Phase Shifted Full Bridge Electronic Power Conditioner with Energy Recovery Snubber for Life Support System Actuators	YOGA RAVI TEJA KOTAMSETTY
13:00-13:10	#7	Cultural Imaginaries of Contemporary Space Exploration Missions in India, United States, New Zealand and Antarctica: A Comparative Analysis	Anna Szolucha
13:10-13:20	#7	Exploring the Moon with Hopping Robots: Enabling Efficient, Dynamic Mobility for Lunar Surface Exploration	Nidhi Nidhi
13:20-13:30	#7	Real Time Powered Descent Guidance for Mars using a Multi-Level Optimization Algorithm	Shriram Swaminathan

13:30-13:40	#7	Thermal Effects of Air Gaps and Sweat Layers on Wearable Health Sensors: A Comparative Study of Earth and Space Environments	Rabhya Gupta
13:40-13:50	#7	Building a Global Framework for International Collaboration Through Sandbox, Science Communication and Policy Generation	Tapaswini Sharma
13:50-14:00	#7	Challenges in Spacecraft Mission Operations of Next Generation Oceanographic Satellite: EOS-06	SOMESH S
13:00-13:10	#8	Augmenting an S band Telemetry Reception Terminal for C Band Satellite Telemetry Reception During Launch Phase	VIDYA K A
13:10-13:20	#8	Numerical and experimental evaluation of effect of propellant acquisition system in propellant tanks of a lunar lander mission on its slosh behaviour for control stability studies for lunar exploration	Sarath Chandran Nair S
13:20-13:30	#8	The concept of ballistic missions to redirect spacecraft from libration points to near-Earth asteroids	Maxim Pupkov
13:30-13:40	#8	Intellectual property protection in space technology: Global perspectives	SHREEJITH TV
13:40-13:50	#8	International collaboration for an innovative electro-optical payload for EO	Yamin Noor
13:50-14:00	#8	Open Loop Trajectory Analysis for Lunar Soft Landing for Chandrayaan-3 Lander Mission	Anand Raj Raju
13:00-13:10	#9	dynamics of attenuation mechanism for crew injury mitigation during water landing of space habitat modules	Saiteja Rudroju
13:10-13:20	#9	Theoretical Models for Peaceful Space Coordination: A Restorative Justice Approach	Alberto Báez Jiménez
13:20-13:30	#9	AI based Crater Detection on Moon and Planetary Surfaces	Sai Venkata Lakshmi A
13:30-13:40	#9	PRITHVI (POEM RT Interface for TM/TC, Health and Visibility Integrated System)	Rishabh Mishra
13:40-13:50	#9	Development of Hydroxyl-Catalysis Bonding for Hemispherical Resonator Gyroscope	Krishna ENNI
13:50-14:00	#9	Computer Vision aided Absolute Navigation and Hazard Avoidance for Pinpoint Landing near Lunar South Pole	Suresh Suresh K
13:00-13:10	#10	Phthalonitrile -Cyanate Ester Interpenetrating Network (IPN) as Matrix for Light weight TPS Composites; Thermal and Ablative Characteristics	Satheesh Chandran
13:10-13:20	#10	Financial Frameworks and Intellectual Property Evaluation for Successful Technology Transfers in the Space Sector – Indian Case Study	Mustafa Shahid
13:20-13:30	#10	Developing a Robust Supply Chain for the Indian Space Sector through Effective Technology Transfers	Mustafa Shahid
13:30-13:40	#10	A Study on the Exploration of the Solar System Beyond Jupiter's Orbit by Using Small Satellites	Vladislav Zubko
13:40-13:50	#10	Dynamical Characteristics of the Venusian Atmosphere: Insights for Future In situ Exploratory Missions to Venus	Jayadev Pradeep
13:50-14:00	#10	Antenna Network planning for a Deep Space Mission	ANSHUMAN SHARMA

13:00-13:10	#11	A detrimental relationship of Silicon biomineralization on calcium biomineralization: a vital issue in future terraforming	Satadal Das
13:10-13:20	#11	Experimental Investigation and Development of Novel Flame-retardant Composites for Microgravity Environment	Shravani Tembare
13:20-13:30	#11	Advancing Mars Ariel Exploration: Preliminary Design, Analysis and Optimization of a Bio-Inspired Martian UAV	Prisha Asher
13:30-13:40	#11	Decentralised Swarm for Planetary surface Exploration	Rujul Rumale
13:40-13:50	#11	Biocompatible Menstrual Hygiene Solutions for Microgravity	Krishna Bulchandani
13:50-14:00	#11	India's Future Collaborations in Space: Prospects	Amit Mukherjee
13:00-13:10	#12	Gaganyaan and The Haven Program: Opportunities for Collaboration	Nicholas Zajciw
13:10-13:20	#12	Advancing Sustainable Martian Habitat Construction: In-Situ Resource Utilization and Basalt-Vinyl Composites for Enhanced Durability	Aagam Jain
13:20-13:30	#12	The Impact of Microgravity on Thyroid Dysfunctions and Their Physiological Challenges	José Emanuel Figueredo Lopes Lacerda
13:50-14:00	#12	Enabling Swarm Bots Sustainability: Wireless Charging for Exploring Lunar Lava Tubes	Gagana Y
13:00-13:10	#13	Reentry flow features study using Method of characteristics	Sukran Ochani
13:10-13:20	#13	Establishing a Moon Village Using In-Situ Resources and Nuclear Energy	Ugur Guven
13:20-13:30	#13	an investigation of the effect of dust particles on the plasma thruster	Vidhi Panchal
13:40-13:50	#13	Dynamic Design for Rovers: Enhancing Mobility and Stability in Uneven Terrains	Riddhi Malhotra
13:50-14:00	#13	Robotic constructions in space: advancements, applications, and Implications for future space missions	Dasuni Hewawasam
13:00-13:10	#14	Space science and technology education in Indian universities	HARIHARAN V K
13:10-13:20	#14	Weld defect detection and classification using Deep Learning	SMITHA K K
13:50-14:00	#14	Thermal Protection System Architecture and Developmental Challenges for Human Space Flight Mission - A Perspective	Dileep R
13:00-13:10	#15	Automated Spacecraft Health Anomaly Detection Using YOLO Based Deep Learning Models	Bijoy Kumar Dai
13:10-13:20	#15	Design of a Collapsible Testbed for Fatigue Study in Humans	Mritunjay Baruah
13:30-13:40	#15	Helical Antenna Control System: An Indigenous Solution for Tracking Reusable Launch Vehicles and Re-entry Missions	Prashanth Gantla
13:00-13:10	#16	Enhancing UNOOSA's Mandate: A Mission-Oriented Approach to Balancing Innovation and Regulation in Space Governance OR	Maharshi Bhattacharya
13:20-13:30	#16	Thruster plume and regolith impingement effects on lander bottom deck, and consequent thrust requirement reduction during lunar soft-landing using DSMC	Susheel Kumar Sekhar
13:30-13:40	#16	Adaptive Control and Time-Delay Compensation in Teleoperation of Free-Flying Space Manipulators in Low Earth Orbit	Sudhansu Sahu



13:50-14:00	#16	Ground-Based AI Simulations for Asteroid Resource Mapping and Extraction: A Preparatory Framework for Space Missions	Samrat Chakraborty
13:00-13:10	#17	Application of computer vision technologies for envisioning prospective deep space propulsion	Denis Egoshin
13:50-14:00	#17	Autonomous Space Missions: Revolutionizing Accuracy and Risk Mitigation in Extraterrestrial Exploration	ABDALRAHMAN Ghazal
13:00-13:10	#18	Relativistic Effects on Spacecraft in Interstellar Travel: Examining Time Dilation and Relativistic Energy in Deep Space Missions.	Aayusha Singh
13:10-13:20	#18	Investigating the Behavior of Dark Matter-Analogous Particles in Micro-gravity Environments: A Hypothetical Study	Amrit Roy
13:40-13:50	#18	AI-Enhanced Bio-Inspired Design for Aerospace Structures to Improve Fuel Efficiency and Reduce Environmental Impact	Tavishi Kaushik
13:00-13:10	#19	Exploring the Efficacy of Landing Experiments	Chilla Sumana
13:30-13:40	#19	The first biological experiment on the moon and study on the construction of a habitational station base on planet cave	Gengxin Xie
13:00-13:10	#20	Numerical Investigation of Dust Dispersion during Lunar Landing using a Two-way Coupled DSMC-DEM Approach	Rakesh Kumar
13:30-13:40	#20	Mapping the Stars Together: The Added Value of Gamification	Harsh Kumar

13:00-13:10	#3	Neuroeconomic Optimisation of In-Situ Resource Utilisation for Sustainable Long-Duration Space Missions	Kavya Murali Parthasarathy
13:10-13:20	#3	Lower dimensional Modeling of Water Impact on Crew Module	Sanjay Joseph Chacko
13:20-13:30	#3	A study on the effect of Oncolytic viruses on Tumor cell-line under Microgravity	Ananda Padmanabhan
13:30-13:40	#3	Applicability of the ENMOD Convention to Outer Space	Denitza Petrounova
13:40-13:50	#3	Legal Aspects of Space Traffic Management: Ensuring Safe and Sustainable Operations in Orbit	PESALA MANASA
13:50-14:00	#3	Ascendence on Ares: An Integrated Dual-Lander System for Fuel Transfer and Crew Operations on Mars	Aagam Jain
13:00-13:10	#4	In-situ Scouting for Water-ice at Lunar Poles using PRATHIMA experiment onboard ISRO-JAXA LuPEX Rover	DURGA PRASAD KARANAM
13:10-13:20	#4	High Accuracy Relative Navigation on HAPS/LEO platforms	Puneet Kumar Agrawal
13:30-13:40	#4	Orbit determination system for Aditya-L1 Mission	Tintu Chacko
13:40-13:50	#4	Reusing Usable Instruments From Defunct Satellites	SUBARNA BAISHNAB
13:50-14:00	#4	Virtual Planetarium: A dynamic immersive tool for the exploration of possible exoplanet surfaces and atmospheres.	Lucia Nicotera
13:00-13:10	#5	Ethical considerations in implementing AI systems in Space Activities	Nishith Mishra
13:10-13:20	#5	Design of a Self-Checking Processor Pair Based Radiation-Tolerant On-Board Computer Using COTS Components for Deep Space Missions	Neha Binny
13:20-13:30	#5	Analysis and Forecast of Direct-to-Cellular Satellite Communication in the Space Economy	Nicole Lee
13:40-13:50	#5	Novel guidance and navigation suite for enabling autonomous landing and hazard avoidance	Rachit Bhatia
13:50-14:00	#5	The Ecologisation Of Space Law And The Intercultural Governance Of The Moon	Flávia Alvim de Carvalho
13:00-13:10	#6	Robotic Ambassadors: Legal and Policy Challenges in AI-Driven Space Exploration	Chinmoy Roy
13:00-13:10	#7	Approach to Spacecraft Mission Assurance through Pre-Launch Preparatory Activities	ARINDAM CHAKRABORTY
13:30-13:40	#7	Theoretical Analysis of Zipline system for Crew Emergency Egress at Launchpad	Bharathvajan K
13:40-13:50	#7	Indian Launch Vehicle Options for Building Bhartiya Antariksha Station (BAS) and Beyond	Digendranath Swain
13:50-14:00	#7	Autonomous Path Planning For Rovers Using Pseudospectral Collocation	Subrahmanya Bhide
13:00-13:10	#8	Fault Handling Schemes in the Embedded Software for Sequencing Systems in Orbital Missions	Ranjani K

9 MAY 2025 IP Sessions



Time	Screen	Title	Speaker name
13:00-13:10	#1	Optimizing Solar Sail Deployment for Space Exploration Using Nitinol Shape Memory Alloys	Aagam Jain
13:10-13:20	#1	Telecommand(TC) Encoder and Telemetry(TM) Acquisition System for ISRO NanoSatellite-2 (INS-2) Series Spacecrafts	Devendra Kumar Jangir
13:20-13:30	#1	Propelling Without Expelling Fuel: Examining the Potential of Reactionless Propulsion in Deep Space Exploration Missions	Rishika Awasthi
13:30-13:40	#1	Multi-Objective Model Predictive Control (MO-MPC) for debris mitigation from the Low Earth Orbit	Vatasta Koul
13:40-13:50	#1	Sustainable Practices For Ensuring Labor Rights In Outer Space	Margarita Herrera
13:50-14:00	#1	Simulation study of end on end motion of serial robotic manipulator for spatial manoeuvrability	Sangeetha Geetha Rajasekharan
13:00-13:10	#2	Comparison of crew control mode for spacecraft docking operations	Vishal Shukla
13:30-13:40	#2	Does Microgravity Impact Membrane Potentials and Neuronal Excitability? - A Hypothesis	Subhajit Hazra
13:50-14:00	#2	Alternative Funding Models for Advancing the Space Industry in Developing Countries: The Role of International Development Cooperation	Camila Erazo Gonzalez

13:30-13:40	#8	High Peak Power Solid-state Transponder for Critical Applications	Anju Mathew
13:00-13:10	#9	Survey Of Challenges And Technologies For Navigation, Communication And Autonomous Operations On The Far Side Of The Moon	Hoda Elmegharbel
13:10-13:20	#9	Empowering the Next Generation of Space Explorers : A multidimensional approach followed by SDSC-SHAR, ISRO	RALLABHANDI SREEDHAR
13:20-13:30	#9	Single-Step High Pressure Electrochemical Oxygen and Hydrogen Generation System for Sustainable Space Habitation	SURAJEET MOHANTY
13:40-13:50	#9	Design and Analysis of a Vacuum Rocket Launch System for High-Altitude Orbital Insertion	Geovian Stower
13:50-14:00	#9	Stereovision Image Processing for Planetary Navigation Maps with Semi-Global Matching and Superpixel Segmentation	Saurabh Upadhyay
13:00-13:10	#10	Optimizing Deep-Space Operations: The Impact of LuzIA on Crew Communication and Productivity	Diego Pérez Reyes
13:10-13:20	#10	Integrating Space Science And Stem Education: Preparing The Next Generation Of Space Explorers	B M Manohara
13:20-13:30	#10	Enhancing Spacecraft Autonomy With Transfer Learning And Generative Ai	B M Manohara
13:30-13:40	#10	Application of Machine Learning for Real-Time Fault Detection and Predictive Maintenance during Structural Testing of Cryogenic Launch Vehicle Hardware	Chippy V
13:40-13:50	#10	Multidisciplinary applied microbiology research to improve human health and enable longer stays in space: of microbes and modeling	Shireesh Srivastava
13:50-14:00	#10	Bigdata Analytical Framework For Launch Vehicle Avionics System Automated Clearance Using Advanced ML Algorithms	SAJU S
13:00-13:10	#11	SUVIDHA – A Comprehensive Data Analysis Software	VIVEK PANDEY
13:20-13:30	#11	Dhrishya - Software for real time display of images captured onboard at mission control center	Priya haridasan
13:30-13:40	#11	Defect detection in mechanical hardware using AI and vision technology	Kumar K
13:40-13:50	#11	Robust wide temperature range Cavity Filter for C band transponders	Sabin S Babu
13:00-13:10	#12	Explore2040: a refined European exploration strategy guiding ESA's Terrae Novae programme	Avirag Sharma
13:10-13:20	#12	Benefits Management in ESA's Directorate of Human and Robotic Exploration: Implementation, Challenges, and Insights	Avirag Sharma
13:20-13:30	#13	Market Analysis and Strategies for High-Performance Lunar Observation Data	KangSan Kim
13:30-13:40	#13	Lunar Surface Space Traffic Management: Considerations for Future Regulations	KangSan Kim
13:40-13:50	#13	Robotics Systems Requirements Across Lunar Geography: Polar Regions, Far Side, and Caves	KangSan Kim

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75015 Paris, France

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HOST:



Indian Space Research Organisation (ISRO)

ISRO Headquarters
Antariksh Bhavan, New BEL Road
Bengaluru - 560 094

Phone: +91 80 22172294 / 96

Email: isropr@isro.gov.in

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