

Date/Day	Session Name	Sub-Session	Session-1 (12-1pm) - Spacecraft Session	Presenting Author	Affiliation
			Opening Remarks by Chair		
Chair: Dr. Somya S Sarkar Co-Chair: Dr. M Durga Rao					
Day-1 (26 Feb 2024)	Spacecraft Systems and Technologies	S/C Session	Significant factors which affect the solar panels in interplanetary space explorations	Dr.Uma B R	URSC
			Solar Panel configuration for Various ISRO missions	Neha Jain	URSC
			Design of body mounted solar panel substrate and its support scheme for Chandrayaan-3 Lander Craft (Vikram).	Ankit Kumar Singh	URSC
			Spacecraft FIRE DETECTION AND SUPPRESSION SYSTEM BASED ON MICROGRAVITY FINDINGS	AKASH GUPTA	ISRO
			Trajectory Design to asteroid Apophis	Deepak negi	VSSC
			Under sampling based Frequency Estimation using Chinese Remainder Theorem and Distance Minimization	Dibyakanti Mahapatra	BEL
			Optimizing Spacecraft Radiation Shielding: A Multifaceted Approach with Advanced Composite Materials	Siddhi Amar Salokhe/ Priyanka HD	Dayananda Sagar Univ, Bangalore
Date/Day	Session Name		Session-2 (2-3 pm) - Spacecraft session	Presenting Author	Affiliation
Chair: Dr. Somya S Sarkar Co-Chair: Ms. Arpita Gajaria					
Day-1 (26 Feb 2024)	Spacecraft Systems and Technologies		Versatile Data Transmitter using Software Defined Radio Concepts for Space Applications	Rahul G Waghmare	URSC
			Aerothermal Studies for future Mars EDL Configurations	Mayank Kumar	VSSC

			Long-term orbital evolution of objects in inclined Geo-synchronous orbits	Sanidhya Vijaywat	ISTRAC
			Low Cost Attitude Determination system for LEO satellite	Prasanta Mula	URSC
			Design of 3D Printing Satellite with Self-Speed Changing System for Future Space Mission	Mr.C.Sathiyavel	Vivekanandha College of Tech for Women,Tiruchengode.
			Design of a Novel UWB miniaturized discone antenna for inter-satellite communication	Sreya Ghosh	IIT Indore
			Fracture Resistant and Higher Specific Strength Parts with Lattice	Srinivasa Prakash Regalla	BITS Pilani, Hyderabad
Date/Day	Session Name	Sub-Session	Session-3 (12-1pm) (Payload Session)	Presenting Author	Affiliation

Chair: Dr. Somya S Sarkar Co-Chair: Ms. Arpita Gajaria

Day-2 (27 Feb 2024)	Payload Systems and Sensors	Payload Systems and Sensors	Development of Low Cost 3x5 Pixels Colloidal Quantum Dot SWIR Detector to Enable Indigenization of Infrared Focal Plane Array for Future Space Missions	Abhijit Chatterjee	SAC
			A miniaturised multispectralpayload compatible to indian Nano Satellie (INS) bus	Moumita Dutta	SAC
			Compact Detector Proximity & Temperature Control Electronics for Thermal Imaging Camera On-board Indian Nano Satellite	U S H RAO	SAC
			Doppler Collision Prediction using ML Techniques for NavICSystem	Siri Paramesh et al	Chaitanya Bharathi Institute of Technology
			Optical Technology for Sensing Oxygen in Human Spaceflights	Jayesh Jayarajan et al	SAC
			Temperature Sensor Based on Whispering Gallery Mode Microring Resonator for Space Applications	Pranav George	Mahatma Gandhi University

			MBSE Adoption in Development of Complex Space Systems	Suvigya Gupta/ Sandesh S Puranik	Blue-Kei Solutions Pvt Limited
Date/Day	Session Name		Session-4 (2-3.30pm) - Payload + spacecraft Session	Presenting Author	Affiliation
Chair: Dr. Somya S Sarkar Co-Chair: Dr. M Durga Rao					
Day-2 (27 Feb 2024)	Payload Systems and Sensors		Design and Realization of Hybrid Optics for Future Space Missions	Sukamal Kumar Paul	SAC
			Design,development and demonstration of Active optics correction chain(AOCC) for large aperture telescope	Hriday Patel	SAC
			Effect of Direct Sun Exposure on Uncooled Microbolometer based Thermal Imaging Camera for Spaceborne System	ANKUR JAIN	SAC
			MaceBerryCam: A low cost wide field of view star camera for MACE telescope.	Ghatul Shubham Jankiram	Indian Institute of Astrophysics
			Miniaturized Imaging Systems For Chandrayaan-3 Lander	Pradeep Soni	SAC
			Performance of Ocean Colour Monitor – 3 Payload for EOS-06 mission	Vishnukumar D Patel	SAC
	Spacecraft Systems and Technologies Contd-		Analysing the Impact of Dust Deposition on Martian Solar Arrays: Insights for Strategic Mission Planning	Prajwal Yash, Uma B.R.	URSC
			High Efficiency Space Power Systems Fuel Cells and Space Rated Lithium Fuel Cells	Sneha Muthukumar	CSIR CECRI

			EVOLUTION OF SPACECRAFT ASSEMBLY INTEGRATION & TESTING TECHNOLOGIES – ARYABHATA TO GAGANYAAN	Dr. V.K.Hariharan	ISRO
			From Bent pipe to Smart Eye: incorporating onboard intelligence in Remote Sensing Satellites	Gaurav Upadhyay	URSC
Date/Day	Session Name	Sub-Session	Session-5 (12-1pm) - Human Space session	Presenting Author	Affiliation

Chair: Dr. Somya S Sarkar Co-Chair: Dr. M Durga Rao

Day-3 (28 Feb 2024)	Human Space Technologies	Human Space Technologies	Living in Space: Aeromedical Aspects of Long-term Spaceflights	Group Capt (Dr) Punyashlok Biswal	Institute of Aerospace Medicine, IAF
			Food and Water Technologies in Human Space Mission: Aeromedical Considerations	Dr Stuti Mishra	Indian Air Force
			Leveraging Antarctica's Unique Environment to Enhance India's Human Space Program	CHINMAY KUMAR PATRA	SAC et al
			Impact of microgravity on bioconsolidation of regolith simulants	G Sai Santhosh Sivan	Indian Institute of Science
			Integrated Environmental Life Support System(ELSS) For Manned Missions To Mars	Panta Sasikanth	JNTU Anantapur
			Nature-inspired Architecture for an Extra-terrestrial Habitat	Mritunjay Baruah	Indian Institute of Science
Date/Day	Session Name		Session-6 (2-3.30pm) - Payload Technologies	Presenting Author	Affiliation

Chair: Dr. Somya S Sarkar Co-Chair: Ms. Arpita Gajaria

Day-3 (28 Feb 2024)	Remote Sensing Techniques and Systems		Multi spacecraft-based radio instrumentation for faraday rotation measurements	Anshu Kumari	NASA Goddard Space Flight
			Design and Development of Phased Array Precipitation Radar for future satellite missions	K M V Prasad	National Atmospheric
			Design of Ultraspectral Airglow Spectrometer for the Observation of Terrestrial Airglow	C. Vineeth	SPL VSSC eta al

			Development of an Air sampling System for High Altitude Aerosol Measurements	Ajeeshkumar P S	SPL VSSC et al
			Effect of spacecraft orbital parameters on the spatiotemporal distribution of Solar Occultation	Jayadev Pradeep	SPL VSSC et al
			AuroraMag: Twin Explorer Mission to Investigate Asymmetries in Aurora and Solar	Ankush Bhaskar	SPL VSSC et al
			Real-Time Crater Detection and Area Calculation Using YOLO Segmentation and SAM	Kumar Sheshank Shekhar	IIT Indore
			Tomography for Forest Height Retrieval using Spaceborne PolSAR Data	Dr. Shashi Kumar	IIRS-ISRO
			Extracting oxygen from lunar soil: an experiment for In-Situ Resource Utilisation	Murthy Dharmapura	Manipal Institute of Technology,
			Space Energy Saving using Multi output Electronic Power Conditioner for Microwave	Rajendra Singh	ISRO
Date/Day	Session Name	Sub-Session	Session-7 (12-1pm) - AI session	Presenting Author	Affiliation
Chair: Mr. N Raghu Meetei Co-Chair: Ms. Arpita Gajaria					
Day-4 (29 Feb 2024)	AI/ML & Quantum Technologies	AI/ML Technologies	A Comprehensive Framework for a Geospatial	Dr Jaya Saxena	NRSC-ISRO
			Automated Lunar Crater Detection using Deep Learning:A step towards indigenous lunar mapping	Hemant Dattaji Mane	Savitibai Phule Pune University, Pune
			Climate Resilient Water Security by AI WATCHIT for Bengaluru, India	Jagannatha Venkataramaiah	Ex ISTRAC, ISRO
			Edge Computing in Space: Effect of Quantization on Speed and Accuracy of Convolution Neural Network	C Siva Prasad	Cambridge Institute of Tech + URSC
			Enhancing Hyperspectral Image Clarity For Lunar Surface Mineralogy Through a Multi-Attention Equipped Self-Regulating Convolutional Neural Network	Urvashi Mesariya	NIRMA University, Ahmadabad + SAC

			Optimizing a Deep Learning Framework for Accurate Detection of the Earth's Ionospheric Plasma Structures from All-sky Airglow Images	Dr. Satarupa Chakrabarti	IIT Roorkee
Date/Day	Session Name		Session-8 (2-3.30pm) - AI Session Contd + Quantum + SSA	Presenting Author	Affiliation
Chair: Mr. N Raghu Meetei Co-Chair: Dr. M Durga Rao					
Day-4 (29 Feb 2024)	AI/ML Technologies		Satellite Health Detection using Machine Learning	Shivtej Ghosalkar	SAC-ISRO
			Single Band NIR-to-RGB Image Colorization Using Deep Learning	Moordhan Songade	Malaviya National Institute of Technology
			Transformative Frontiers: A Comprehensive Review of Artificial Intelligence and Machine Learning Applications in Space Science and Technology	Dr. Somashekar V	JAIN (DEEMED-TO-BE UNIVERSITY)
	Quantum Technologies		Exploring Quantum Computing Across Diverse Platforms: Challenges and Solutions	HARI PRABHAT GUPTA	IIT (BHU) Varanasi
			Quantum Encryption for Airborne and Space-borne Quantum Communication	C PRADEEP	Not available
	Sustainable Space and Robotics		Experimental Study of a 3D Printing Satellite with Self-De-orbiting Capability Using Neodymium Magnets	sathiyavel.C	Vivekananda college of Tech for women, Tiruchengode.
			Mitigating the Threat of Space Debris: A Novel Approach for Sustainable Space Exploration	Gourav Mohanan	Dayananda Sagar University & Vellore Institute
			Nano-Magnetic Particles: A Controlled Approach to Mitigating Space Debris Impact through Attraction and Aggregation	Prem A	Dayananda Sagar University, Bangalore, Karnataka

			Quantifying Global Impact: Analysing Statistical Data of LEO Satellite Collision Rates and Proposing Eco-Friendly Solutions for a Sustainable Space Environment	Ravi Kumar	ISTRAC
			Table-top RPM for optimizing space biology experiments: Design, fabrication and validation through seed germination experiments	K G Sreejalekshmi	IIST, Thiruvananthapuram
Date/Day	Session Name	Sub-Session	Session-9 (12-1pm) - SSA session	Presenting Author	Affiliation
Chair: Mr. N Raghu Meetei Co-Chair: Ms. Arpita Gajaria					
Day-5 (1 March 2024)	Sustainable Space and Robotics	Robotics, Rockets and Propulsion	Design and Development of Under actuated Soft Robotic Gripper for Space Applications	Ankit Sharma	SAC-ISRO + VIT Bhopal
			DESIGN OF ROBOTIC ARM FOR ACTIVE SPACE DEBRIS TRACKING AND COLLECTION	Neha K M	MVJ College of Engineering
			Sounding Rockets as a test bed for emerging technologies for Space Exploration and system engineering challenges	Saju S	VSSC-ISRO
			Xenon cryo pumping system for Electric Propulsion Thruster	Vara Prasad Kella	LPSC-ISRO
			Sessions Closing Remark by Chair		