

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
1	NSSS2026ABS017	NSSS2026REG0218	Technology Design And Simulation Of Mars Habitat For Human Settlement	Shubham Bagade, Shubham Hatolkar, Pushpak Thakare, Shubham Jadhav	Poster
2	NSSS2026ABS032	NSSS2026REG0428	SPACE BASED SOLAR POWER AND ITS OPPORTUNITIES, CHALLENGES, AND FUTURE PROSPECTS	Pratiksha Madiwalayya Gaddigimath	Poster
3	NSSS2026ABS035	NSSS2026REG0187	Development, assembly, calibration and testing of the payload NUTEx designed for UV transient sky studies	Shubham Ghatul, Rekhes Mohan, Jayant Murthy, Margarita Safonova, Shubhangi Jain, Praveen Kumar, Mahesh Babu S.	Oral
4	NSSS2026ABS039	NSSS2026REG0469	Indigenous Development of Integrated Detector Cooler Assembly for Infrared Focal Plane Arrays	Ankur Jain, Ashwani Kumar, Sami ur Rehman, Arti Sarkar, Somya S Sarkar	Oral
5	NSSS2026ABS056	NSSS2026REG0262	Fault Tolerant Server Tuning for Latency Sensitive Applications	KM Deepshikha, C Ramsenthil, V Latha	Poster
6	NSSS2026ABS062	NSSS2026REG0628	Design and Analysis of a Variable Pitch Propeller UAV for VTOL Applications	Pakhee Sinha	Oral
7	NSSS2026ABS065	NSSS2026REG0318	Smart Autonomous Health Monitoring Space Suit with predictive Safety System for Astronauts	Peddireddy Akhila	Oral
8	NSSS2026ABS066	NSSS2026REG0675	SPACE-BASED DEBRIS DETECTION, TRACKING, AND ORBIT DETERMINATION IN THE LEO ENVIRONMENT	SHUBHI TIWARI, HARI B. HABLANI, ABHIRUP DATTA	Poster

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
9	NSSS2026ABS068	NSSS2026REG0698	Ballistic shields for spacecraft protection against Micrometeoroids and Orbital Debris	Dr RAJEEV CHATURVEDI	Poster
10	NSSS2026ABS082	NSSS2026REG0073	Identifying Stable Elliptical Frozen Orbits for Lunar Exploration	Parthiban P, Kannan S	Poster
11	NSSS2026ABS086	NSSS2026REG0275	Radiation Testing and Characterization of Radiation Hardened Dual Port SRAM	Pramod Mishra, Avadhesh Kumar, Saraswati	Poster
12	NSSS2026ABS098	NSSS2026REG0138	Rover Mobility Simulation and Performance Evaluation for Lunar Exploration	Amit Kamboj, Gaurav Sharma, Nithin Menon, Shamrao, Arun Kumar Gupta, Abhishek Kumar, K Balaji	Poster
13	NSSS2026ABS101	NSSS2026REG0588	Signal Parameter Estimation for Detector Systems Using Machine Learning on FPGA	Bhumi Patel	Poster
14	NSSS2026ABS103	NSSS2026REG0848	Design of Crew Quarters Structure for Bharatiya Antariksha Station	Priyansh Jain and Bollineni Nagaraju	Oral
15	NSSS2026ABS104	NSSS2026REG0888	Unveiling On-Orbit Solar Panel Performance: Investigating Double Peaks in Photocurrent Dynamics	Prachi Bisht, Prajwal Yash, Sucheta KH, Krishna Priya G.	Poster
16	NSSS2026ABS105	NSSS2026REG0892	ARTIFICIAL INTELLIGENCE BASED RISK ASSESSMENT OF COMMERCIAL-OF-THE-SHELF PART FOR A SATELLITE MISSION	Sachin Barthwal Siva Kumar Ambati, Chandra Shekhar Prasad Madhusudhan YL Jagannath Das	Poster
17	NSSS2026ABS114	NSSS2026REG0908	Space Gravitational Wave Observatory Around Earth	Priyansh Jain	Poster

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
18	NSSS2026ABS115	NSSS2026REG0470	Dynamic UV sky simulation with transient M dwarf Flares	Akshank Tyagi, Prof. Rekshesh Mohan, Prof. Jayant Murthy	Oral
19	NSSS2026ABS122	NSSS2026REG0856	Biofilm or Melanin-Based Lightweight Radiation Shielding for CubeSats	Aastha singh, Bivanjit paul	Poster
20	NSSS2026ABS129	NSSS2026REG0900	Radiation Tolerant SWaP-C efficient SerDes-FPGA Interoperability for ISRO's Space Systems	Nirbhay Tyagi, Abhishek Kunal, Prateek, Ritesh Sharma, B Saravana Kumar	Poster
21	NSSS2026ABS132	NSSS2026REG0961	Real-time data broadcast system for dissemination of astronomical events detected by satellite to ground	Rahul G Waghmare, K R Yogesh Prasad, Senthil Kumar V	Oral
22	NSSS2026ABS133	NSSS2026REG0840	Design and Realization of Single ended Subharmonic Mixer at K Band	DOKI VENKATA VINAY KUMAR	Oral
23	NSSS2026ABS134	NSSS2026REG0974	High temperature crystal growth experiments under microgravity on board the International Space Station and Recoverable Satellite: A leap towards space manufacturing	Nirmal Kumar Velu1, Yasuhiro Hayakawa2, Yuko Inatomi3	Oral
24	NSSS2026ABS135	NSSS2026REG0885	Comparative Analysis of Adaptive Filtering Techniques for DVB OFDM Receivers in Satellite Communication Systems	Zarana Barot, Dr.Prashant Sachaniya	Poster
25	NSSS2026ABS139	NSSS2026REG1010	Development of Communication System Technologies for Deep Space Exploration	YOGESH PARTH	Poster
26	NSSS2026ABS147	NSSS2026REG0707	Microwave vacuum sintering of lunar mare regolith simulant LMS-1 for lunar construction	V. Levin Prabhu, D. Harries, K. Hadler	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
27	NSSS2026ABS170	NSSS2026REG0316	Vibrational-Structural Analysis using Nanomaterials for re-entry module	Geetanjali Sambhaji, Vishnu Shettiyar, Swagata Paul, Akshay Gharat	Poster
28	NSSS2026ABS173	NSSS2026REG0558	Computational Analysis of Fluidic Thrust Vector Control for Efficient Nozzle Design in Aerospace Propulsion	Samhitha V, Pradnya K, Swagata Paul, Akshay Gharat	Poster
29	NSSS2026ABS177	NSSS2026REG0798	Thermal Analysis of Propellant Storage in Orbital Environments Using ANSYS	Om karini Sarkar, Sai Susmitha Guddanti, Dr. Marcos Fernandez-Tous	Oral
30	NSSS2026ABS179	NSSS2026REG0806	A novel technique for interactive web-based visualization and analysis of GNSS-R Data	Chopda Mayur Dahyabhai, Puja Kakkar, Dr. Dinesh Kumar Jain, Devang M Mankad, V Manavala Ramanujam	Oral
31	NSSS2026ABS189	NSSS2026REG0355	Stability Analysis with Bode and Nyquist plot for DC DC converters	Rupali Sahu	Poster
32	NSSS2026ABS191	NSSS2026REG1111	Naarad: Secure On-Premise AI Assistant for Astronaut Support and Space Mission Autonomy	Shaik Mohammed Muzammil Ali, Deepan M, Amit Kumar Singh, Leo John Jackson, Nandini Harinath	Poster
33	NSSS2026ABS204	NSSS2026REG0688	Transcriptomic Profiling of C2C12 Cells Exposed to Microgravity and Radiation: Identifying Stress-Responsive Genes and Therapeutic Targets	Subhrajit Barua, Subhajit Hazra	Oral
34	NSSS2026ABS210	NSSS2026REG1193	AUTOMATING SPACECRAFT OPERATIONS THROUGH	Deepan M, Amit Kumar Singh, LEO JACKSON	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
			DISCRIMINATOR LOSS BASED ANOMALY DETECTION IN SPACECRAFT TELEMETRY	JOHN, Nandini Harinath, Anilkumar A K	
35	NSSS2026ABS219	NSSS2026REG1201	DUAL-GIMBAL-ANTENNA SYSTEM FOR INTERPLANETARY MISSIONS	DHRUTI RANJAN GAAN, MANOJ KUMAR	Oral
36	NSSS2026ABS220	NSSS2026REG0159	Space Saathi : Design and Simulation of an Autonomous Collision Prediction and Avoidance System for Space objects.	Sumedh S Bhat, Pratiksha M Gaddigimath	Poster
37	NSSS2026ABS238	NSSS2026REG0693	Integrated Self-Destruct Satellites: A Built-In End-of-Life Debris Mitigation Solution	Anmol Gandhi	Poster
38	NSSS2026ABS240	NSSS2026REG0669	Liquid Breathing G Protection for Human Piloted Hypersonic Entry: Perfluorocarbon Ventilation with One Atmosphere Suit	Allen John Darin J	Poster
39	NSSS2026ABS241	NSSS2026REG0670	Biomimetic Rotating Detonation Engine Shark Skin Textured Combustor for Pressure Gain Propulsion	TUMMA ANUSHA	Poster
40	NSSS2026ABS245	NSSS2026REG0942	Orbital Electrically-Pumped Laser System for Active Space Debris Remediation	Rajnandni Bharti	Oral
41	NSSS2026ABS246	NSSS2026REG1259	PHYSICS OF SPACE PHYSIOLOGY - 2: THE PRECARIOUS BIOSPHERE OF LIFE SUPPORT SYSTEMS	Gp Capt P Biswal, Sqn Ldr Gaurab Ghosh, Gp Capt YS Dahiya	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
42	NSSS2026ABS247	NSSS2026REG1260	PHYSICS OF SPACE PHYSIOLOGY - 1: HUMAN EFFECTS OF THE PHYSICAL FORCES OF SPACEFLIGHT	Squadron Leader Gaurab Ghosh, Group Captain P Biswal, Group Captain YS Dahiya	Oral
43	NSSS2026ABS249	NSSS2026REG1146	A Low-Cost Satellite Testing Apparatus for ADCS	Abhirup Datta, Souradeep Hazra, Abhijeet Dutta, Harsha Avinash Tanti	Poster
44	NSSS2026ABS257	NSSS2026REG1284	Ergonomic Evaluation of Space Station Crew Quarters Using Virtual Fit Mapping and Indian Anthropometric Data	Hitesh Arvindan R, S S Ravi Shankar, Mathew George	Oral
45	NSSS2026ABS258	NSSS2026REG0980	Evaluation of quantized deep learning models on edge hardware towards automated rover navigation on planetary bodies	Jai Singla, Amitabh, Nitant Dube	Oral
46	NSSS2026ABS259	NSSS2026REG1288	SEAMS: A space mission dedicated to ultra-low frequency radio observations	Abhirup Datta, Harsha A. Tanti, Aditee Joshi, Damayanti Gharpure, Subramaniam Ananthakrishnan, Narendranath Patra, Suman Majumdar, and Janardhan Padmanabhan	Oral
47	NSSS2026ABS260	NSSS2026REG0953	Automatic Parameterization of Ionospheric Plasma Structures from All-sky Airglow Images using Computer Vision and Deep Learning Techniques	Jeevan Upadhyaya, Satarupa Chakrabarti, Rahul Rathi, Virendra Yadav, Dipjyoti Patgiri, Gaurav Dixit, M.V. Sunil Krishna, Sumanta Sarkhel	Poster

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
48	NSSS2026ABS267	NSSS2026REG0183	Novel Cost Effective Indigenous Design Approach for Ku band Waveguide Circulator and Termination for Space Applications	Rahul Gupta, Tushar Gajjar	Oral
49	NSSS2026ABS278	NSSS2026REG1314	An FPGA-SDR Platform for Real-Time Spectrum Sensing and Dynamic Modulation Recognition in Satellite Communication Links	Anismita Biswas , Harsha Avinash Tanti, Abhirup Datta	Oral
50	NSSS2026ABS279	NSSS2026REG0886	Optimization and Development of an Electron Cyclotron Resonance Plasma Thruster for Orbital and Space Missions	Shubhankur Suvansh; Shail Pandey	Poster
51	NSSS2026ABS282	NSSS2026REG1292	A Step Toward Lunar In-Situ Resource Utilization: Fabrication and Validation of Iridium-Coated Inert Anode for Oxygen Production	Venkatesan J, Gayathri J S, Revathy Sreekumar, Venkatesan J, Ganesh P, Sreejakumari S S, K Jayasankar,	Oral
52	NSSS2026ABS290	NSSS2026REG1326	Spacecraft configuration systems based on electric Propulsion systems with robotic arms	Vinod Kumar Gupta, Prashanth Raghu	Poster
53	NSSS2026ABS291	NSSS2026REG0396	Polarization study of Platinum coated mirrors in EUV for Spectropolarimeter	Savitha M S, K. Nagaraju, Raveena Khan, Praveen Kumar Yadav, R.K. Gupta, M.H. Modi.	Oral
54	NSSS2026ABS292	NSSS2026REG0894	Geant4-based application to calculate dosimetric parameters of Galactic Cosmic Rays	Vivek Kaushik Sabyasachi Paul Sunder Sahayanathan and S Anand	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
55	NSSS2026ABS293	NSSS2026REG1266	First Light Results of the DMD based Multi Object Spectrograph	Vineeth Valsan, S Sriram, Remya B S, Annapurni Subramaniam, Maheswar Gopinathan	Poster
56	NSSS2026ABS300	NSSS2026REG1302	Elevating India's Cosmic Odyssey : AI Driven Sustainable Communication Architectures for Deep Space Exploration	Devanshi Verma	Poster
57	NSSS2026ABS304	NSSS2026REG0873	Reference Attitude design and analysis for Chandrayaan-3 Spacecraft	Manish Gupta, Madhav Haridas MK, Piyush Kumar Gaurav, Kavita, M Srikanth, Kannan S	Poster
58	NSSS2026ABS307	NSSS2026REG0854	Optimization of spacecraft mmwave shield mass through critical diameter predictions from ESA and NASA BLE equations	Umesh Singh	Poster
59	NSSS2026ABS315	NSSS2026REG1352	Reconfigurable multimode digital modem for spacecraft TTC applications employing a highly reliable reprogrammable flash based FPGA	Shravani Y, Hussien Basha K, Mohan Babu K, Intiyas Pasha M	Oral
60	NSSS2026ABS328	NSSS2026REG0783	Design and development of a Waypoint guidance system for a sounding rocket	Anish Kumar, Manaswi Singh, Chiranthan K, Sanat K Biswas	Poster
61	NSSS2026ABS331	NSSS2026REG1214	Design of integrated waveguide to microstrip filter transition for mm-wave space applications	Rahul Menon	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
62	NSSS2026ABS332	NSSS2026REG1366	Bhaskaracharya Observatory for Search of Exoplanets A futuristic space mission for the search of Earth Twins	Abhijit Chakraborty, Prasad Neelam, Kapil Bharadwaj, Kevi Kuma Lad, Rishikesh Sharma, Vishal Joshi, Arvind Rajpurohit	Oral
63	NSSS2026ABS335	NSSS2026REG1310	Cost effective TMTC system for nanosatellite missions in Low Earth Orbit	Mohanbabu K, Shankadip Mandal, Hareesh N K, Jyoti Akay Kumar Basuthkar, Dr. Mahammad Intiyas Pasha, Dr. Senthil Kumar V	Oral
64	NSSS2026ABS337	NSSS2026REG1339	High precision multi laser tracker measurement system for ground docking simulation experiments	Sudhanshu Tiwari, Ravi T, Rudra Gowda, Gurram Ravikanth, Sairam Jayanthi, Pathak Swapnil Vitthal, Arun Kumar S, Shree Niwas Sahu	Oral
65	NSSS2026ABS346	NSSS2026REG0775	High Precision Indigenous Hybrid Optical Encoder for Satellite Applications	Ponmalar M, Abhilash M, Regia M, Ravichandran MH, Gireesh Sharma N, Haridas TR	Poster
66	NSSS2026ABS349	NSSS2026REG0723	Sustainable software development practices for mission critical space software	Savitha A , Pushpavathi T P, Arindam Chakraborty , Partha Bandyopadhyay	Oral
67	NSSS2026ABS353	NSSS2026REG0590	Optical Design of Compact Off Axis Three Mirror Anastigmat Telescope for Earth Observations	Madhavi Thakre, Amit Vikram Kurulkar	Oral
68	NSSS2026ABS360	NSSS2026REG0392	Formulation and Simulation of Multi-Orbit Transfer Dynamics for Efficient	Archana Menon	Poster

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
			Orbital Transfer Vehicles		
69	NSSS2026ABS361	NSSS2026REG1238	In-Situ Resource Utilization for sustained human presence on Mars	Arun Nyamagoudar, Ateet Roy, Aravinda Shenoy	Poster
70	NSSS2026ABS362	NSSS2026REG1407	Removal of Space Debris Using a DRM: A Hypothesis	Subhomoy Dutta, Dr. Bidrohi Bhattacharjee, Baibhab Ghosh	Poster
71	NSSS2026ABS364	NSSS2026REG1396	Compact Fabry Perot Cavity Based Planar Antenna array for S-Band Space Applications	Neha Agrawal	Oral
72	NSSS2026ABS372	NSSS2026REG1264	AI-enabled Autonomous Rover Navigation and a Case Study on Chandrayaan-3 Pragyan	K. Suresh, Kannan V. Iyer, Rohit Mishra, Amitabh and Nitant Dube	Oral
73	NSSS2026ABS387	NSSS2026REG1298	A comparative study of Deep learning based feature correspondence for Chandrayaan mission optical payload image fine registration	Rohit Mishra, K Suresh, Abdullah Suhail, Shweta and Amitabh	Oral
74	NSSS2026ABS398	NSSS2026REG1482	Mineral Diversity mapping in Nidar region, Ladakh using Hyperspectral Imaging Spectroscopy	Saptarshi Lohia , Hrishikesh Kumar	Oral
75	NSSS2026ABS406	NSSS2026REG0979	Thermal Actuation and Capacitive Feedback Sensor Based Refocusing Mechanism for Optical Payloads	Tanishka Chauhan, Nirmay Gajjar, Eeshan Beohar, Vaibhav Dixit	Oral
76	NSSS2026ABS408	NSSS2026REG1395	Space Refuelling Stations: A Comprehensive Review for Deep Space Exploration	Ateet Roy, Arun Nyamagoudar	Poster

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
77	NSSS2026ABS426	NSSS2026REG1547	Development of Ultra high temperature Ceramics ZrB ₂ -SiC from Zircon mineral by Thermal Plasma Process	K Jayasankar L Kumaresan S Christan Sam J Venkatesan SGK Manikandan Sivakumar K	Oral
78	NSSS2026ABS434	NSSS2026REG0751	Generalized On-Board SAA Algorithm	Thameemunnisha	Oral
79	NSSS2026ABS436	NSSS2026REG0880	Iono Delay of Super Storm, 10th May, 2024-A Comparison of Equator and Pole	Shubhadeep Biswas, Swastika Chakraborty	Poster
80	NSSS2026ABS446	NSSS2026REG1602	Mission Design for MARS orbiter Mission with Aerobraking	Vikram Vishwanath	Oral
81	NSSS2026ABS449	NSSS2026REG1590	An Analytical Review of Different Spacecraft Docking Techniques	Ashish Kumar Sharma, Girdhari Bansal	Poster
82	NSSS2026ABS450	NSSS2026REG1258	HUMAN RATING IN SPACE OPERATIONS	Dr YS Dahiya, Dr P Biswal, Dr G Ghosh	Oral
83	NSSS2026ABS453	NSSS2026REG0926	A Novel Refueling Mechanism with Self Hold Feature for Future Docking Systems	Nirmit Nitin Mestry	Oral
84	NSSS2026ABS472	NSSS2026REG0347	Renewable and Hybrid Power Architectures for Human Deep Space Exploration	Manoj Kumar Singh, Dr Pradeep K Peter, Baiju Payyappilly, Asha Anand	Poster
85	NSSS2026ABS477	NSSS2026REG1660	A Feedback-Controlled Underactuated Soft Robotic Gripper for Space Applications	Ankit Sharma, Bhoomika Tamrakar, and Hemant Arora	Oral
86	NSSS2026ABS487	NSSS2026REG1635	Real-Time Anomaly Detection in Satellite Engineering Sensors	Sayantana Ghosh, Santanu Bera, Samaresh Ghorami, Soumankar Basu	Poster

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
87	NSSS2026ABS512	NSSS2026REG1701	Waste Management during an Analogue Mission: Implications for Human Spaceflight Missions	Dr Stuti Mishra, Dr Polash Sannigrahi, Dr Divya N, Dr Ch N Sowgandhi, Dr Jeya Karthik, Mr Anirudh	Oral
88	NSSS2026ABS513	NSSS2026REG1553	Head-Down Tilt Bed Rest as a Microgravity Analogue: Quantifying Physiological Responses Over Seven Days	Dr Divya N, Dr Ch N Sowgandhi, Dr Stuti Mishra, Dr Polash S , Dr Rahul Dev, Ms Nishma Banu	Oral
89	NSSS2026ABS514	NSSS2026REG1702	Medical Emergency Simulation in Space Analogue Experiment: Implication for Human Spaceflight Missions	Dr Polash Sannigrahi, Dr Stuti Mishra, Dr Gaurab Ghosh, Dr Avinash BK, Dr Anubhav Upadhyay, Dr Divya N, Dr B Bhowmick, Dr Ch N Sowgandhi, Miss Pooja	Oral
90	NSSS2026ABS515	NSSS2026REG0444	Liner Erosion Profile Measurements and Estimation for a High Power Stationary Plasma Thruster	Panuganti Shekhar	Oral
91	NSSS2026ABS526	NSSS2026REG0967	Dynamic launch environment simulation for solar array used in Human Space Flight mission of ISRO	Shilpi Sharma, Raghavendra Kulkarni	Poster
92	NSSS2026ABS541	NSSS2026REG0940	Chip-scale Rubidium Vapour Cell based Atomic Magnetometer	Ishan Gunjal, M. S. Giridhar, S. P. Karanth	Oral
93	NSSS2026ABS545	NSSS2026REG1703	ECHO Capsule: A Narrative Mental Systems Check-Up	Dr Ch N Sowgandhi, Mr Tejendra Singh, Mr Anirudh, Dr Stuti Mishra, Dr YS Dahiya	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
94	NSSS2026ABS551	NSSS2026REG0098	Design and Optimization of a Three-Stage Planetary Gearbox for Space-Grade Gear Rotary Actuators.	Jyotirmoy Haloi and Dr. Tanmay Dutt Mathur	Oral
95	NSSS2026ABS553	NSSS2026REG1733	ARUN-SSW: An Upcoming Solar Radio Imaging Facility	Anshu Kumari	Poster
96	NSSS2026ABS556	NSSS2026REG1735	Development of X-ray Optics for Future Indian Astronomy Missions at PRL	Neeraj K. Tiwari, Santosh V. Vadawale, N. P. S. Mithun, C. S. Vaishnava, Hitesh L. Adalja, Bharath Saiguhana	Poster
97	NSSS2026ABS575	NSSS2026REG1741	Simulation-Based Analysis of Inter-Satellite Link Requirements for Satellite Constellations	PVB Shilpa	Oral
98	NSSS2026ABS583	NSSS2026REG0053	Self-Supervised Deep Learning based Approach for Change Detection using High-Resolution SAR Imagery	Vatsalya Gupta, Thamballa Karthikeya Veera Gowtham, Jalpa Modi	Oral
99	NSSS2026ABS587	NSSS2026REG1756	Evolution of a unique method for thermal conductivity measurement of Lunar Regolith using ChaSTE probe in Chandrayaan 3 mission.	Fazil Mohammad, Nizy Mathew, K P Subhajayan, K Kannan, Samik Jash, Lakshmi VM	Oral
100	NSSS2026ABS594	NSSS2026REG0963	Quantum Secure Military CanSat	Milan Bhat	Oral
101	NSSS2026ABS600	NSSS2026REG1772	REALISATION OF ORBITAL PLATFORM IN UPPER STAGE FOR SPACE EXPLORATION	K V Krishna Kumar, M Mohammed Arif, V Kalimuthan	Oral
102	NSSS2026ABS605	NSSS2026REG1593	Advancing Space Life Sciences: Policy, Research, and Commercial Perspectives for India	Priti J Mehta, Manali Patel, Anvi Naphade	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
103	NSSS2026ABS611	NSSS2026REG1471	Cognova: A Novel Task-based Approach for Real-Time Cognitive Training and Stress Assessment Framework for Human Spaceflight Missions	Jyoti, Anurag Kumar Sinha	Poster
104	NSSS2026ABS615	NSSS2026REG1683	Compressed Sensing Framework for ECG Signal Processing in Space Exploration Missions	Anmol Jain, Vishal Shukla	Oral
105	NSSS2026ABS618	NSSS2026REG0438	Diagnostic systems for electric thruster characterization at Large Vacuum Test Facility	Vara Prasad K, Shibu Mathew, Raji George, Snethilkumar , Umesh R Kadhane	Poster
106	NSSS2026ABS636	NSSS2026REG1769	Miniature programmable High voltage DC DC converter for Space application	Manan Shah	Oral
107	NSSS2026ABS641	NSSS2026REG1796	Design of a neutron spectrometer to study neutron emission from solar flares	P. Sreekumar, Ashwini U. , and Ahmet Ilker Topuz	Oral
108	NSSS2026ABS642	NSSS2026REG1405	HybridFusionLog: A Unified Template–Parameter–Context Framework for Space System Anomaly Detection	Swayam Kalburgi, Ayushi Joddha, Himani Trivedi	Poster
109	NSSS2026ABS662	NSSS2026REG1027	Incoherent Polarization Beam Combining and its application in active optical remote sensing systems	Abhishek A, Urvashi Jinwal, K Raghunath	Oral
110	NSSS2026ABS667	NSSS2026REG0671	Enhancement of an Antecedent Lunar Landing Pad Fabrication System via Material Optimization and Advanced Device Integration	Atharva Deshmukh, Rajesh V. J., Sooraj V. S.	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
111	NSSS2026ABS677	NSSS2026REG1462	Hot Stage Separation Contact Dynamics: A Simplified Rigid Body Approach	Jiljo K Moncy, Jinu Krishnan, Mansoor K S, Sheethal Antony	Oral
112	NSSS2026ABS679	NSSS2026REG1611	Enhancing Reliability of Space-based Plasma Science Data through Designed Electronic Calibration for future space missions	Pankaj Kumar Kushwaha, Mohit Soni, Shiv Kumar Goyal, Shashank Urmalia, Chithra Raghavan, and Duggirala Pallamraju	Poster
113	NSSS2026ABS680	NSSS2026REG1611	Design and Development of RF drive electronics for m/q scanning in the mass spectrometer	Pankaj Kushwaha, Shiv Kumar Goyal, Mohit Soni, Deepak Painkra, Piyush Sharma, Abhishek J. Verma, Chithra, Jacob Sebastian, Nirbhay Upadhyay, Prashant Kumar, M. Shanmugam, Pranav R. Adhyaru, Manan, S. Shah and Arpit R	Poster
114	NSSS2026ABS697	NSSS2026REG1391	Distance-Based Localization and Vision-Guided Landing for Autonomous Planetary Rotorcraft	Atharva Sunil Chavan, Harsha Avinash Tanti, Abhirup Datta	Poster
115	NSSS2026ABS709	NSSS2026REG1778	Development of a hard X-ray Compton polarimeter for small satellite mission	Adalja Hiteshkumar, N. P. S. Mithun, Arpit R. Patel, Deepak Kumar Painkra, Shivam A., Bhavesh Raj Singh Nehra, Ajay Rateesh, B. S. Bharath Saiguhan, C. S. Vaishnava, M. Shanmugam,, S. V.	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
				Vadawale	
116	NSSS2026ABS711	NSSS2026REG1380	Design of S band RF Diplexers for Spacecraft Testing applications	Raja Sharma, Abhilasha Agarwal, Viswanadha Srivani, Md. Tosicul Wara, Sama Sowbhagya Lakshmi, Anjani Srilaxmi	Oral
117	NSSS2026ABS729	NSSS2026REG1805	Development of an Active Scatterer Detector for a hard X-ray Compton Polarimeter: Plastic scintillator coupled with a photo-multiplier tube (PMT)	Deepak Kumar Painkra, N. P. S. Mithun, Arpit Patel, Hitesh Adalja, B.S. Bharath Saiguhan, Shivam A., Bhavesh R. S. Nehra, Ajay Rateesh, C.S. Vaishnava, M. Shanmugam, S. V. Vadawale	Poster
118	NSSS2026ABS733	NSSS2026REG1782	Venus Solar Soft X-ray Spectrometer (VS3) on-board Venus Orbiter Mission	Nishant Singh, M. Shanmugam, S. V. Vadawale, Arpit Patel, Deepak Kumar Painkra, P Kalyana S Reddy, Tinkal Ladiya, Hitesh Adalja, N. P. S. Mithun, Bhuwan Joshi, Varun Sheel, and Anil Bhardwaj	Oral
119	NSSS2026ABS739	NSSS2026REG1558	The Fusion of Generative and Agentic AI Next Generation Atmospheric and Space Science Research	Pinaki Ranjan Sarkar	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
120	NSSS2026ABS743	NSSS2026REG1676	Advancements in the Airglow Photometry/Imaging Experiment for upcoming Space Missions: Transition from CCD to High-Speed CMOS Detectors and Prototype Development	R. Pathak, T. Tamrakar, M. Shah, S. Urmalia, D. Khonde, A. Yadav, P. Suryawanshi, A. Kumar, M. Bhavsar, M. Shanmugam, D. Chakrabarty, R. P. Singh, D. Pallamraju	Oral
121	NSSS2026ABS747	NSSS2026REG1859	Self-cleaning strategy for solar panels in the dusty Lunar/Martian environment	Nazeer Ahmad, Akash Aditya, Sharathchandra Nellutla and M N M Patnaik	Oral
122	NSSS2026ABS750	NSSS2026REG0328	Operations-aware Tisserand Graphs for Arbitrary Multi-Planet Flyby Chains	Sourav Ghosh, Subhasmita Prusty, Yosuke Kawabata, and Ryu Funase	Oral
123	NSSS2026ABS755	NSSS2026REG1308	Next-Generation Satellite Communication Networks for Crewed Space Missions: Architecture, Challenges and Enabling Technologies	BHIMESWARA RAO M and SAHAL MOHAMMED MN	Poster
124	NSSS2026ABS765	NSSS2026REG1866	Quick prediction of spacecraft dynamics using AI/ML	Akash Aditya, Nazeer Ahmad, M N M Patnaik	Poster
125	NSSS2026ABS772	NSSS2026REG1880	regenerative mechanical energy	Yogesh verma	Poster
126	NSSS2026ABS780	NSSS2026REG1640	Assessment of Structural Integrity of Propellant Tanks using Acoustic Emission Technique	Amzad Amin Rahul, Velmurugan K	Oral
127	NSSS2026ABS782	NSSS2026REG0864	SolForge - Harnessing the Solar Energy Architecturally	Mr. Adwitiya Mr. Harshit Jain Ms. Isha Banga	Poster

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
128	NSSS2026ABS786	NSSS2026REG1881	Microgravity Assisted Crystallization of Macro and small Pharmaceutical Molecules	Dhavalkumar Solanki, Priti Mehta	Oral
129	NSSS2026ABS789	NSSS2026REG0913	High Performance Burn Rate Modifier for Sugar Rocket Propellant	Sanjay Ganesh Aditya Santosh Ashish Alex Sam	Oral
130	NSSS2026ABS790	NSSS2026REG0803	Machine Learning Models for Solar-Terrestrial Disturbance Prediction in Satellite Operations	Aadya Maheshwari	Oral
131	NSSS2026ABS796	NSSS2026REG1829	Redundant Spatial Orientation Estimation Using IMU Sensors and EKF	Vedant Kothari, Abhirup Datta, Harsha Avinash Tanti, Abhijeet Dutta	Oral
132	NSSS2026ABS800	NSSS2026REG1873	Solar Occultation Experiments (SOE) for Probing Venusian Atmosphere: A Simulation Framework	Sunil kumar S.V, Jayadev Pradeepand Varun Nikam	Oral
133	NSSS2026ABS805	NSSS2026REG1865	Development of an ICN-based autonomous satellite swarm communication system for efficient inter-satellite data relay and ground transmission.	Abi . R	Poster
134	NSSS2026ABS809	NSSS2026REG1318	Dynamic Reinforcement Learning for effective Sensor Tasking in Space Situational Awareness	Harsha M, Arun Balaji Buduru, Sanat K Biswas	Oral
135	NSSS2026ABS816	NSSS2026REG1318	Space Situational Awareness tool backed artificial intelligent agent	Harsha M, Arun Balaji Buduru, Sanat K Biswas	Poster
136	NSSS2026ABS818	NSSS2026REG1957	Space Weather RADio (SWARA) Polarimeter - A radio and plasma wave payload for future Indian Space	Mugundhan Vijayaraghavan, Anshu Kumari	Poster

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
			missions		
137	NSSS2026ABS820	NSSS2026REG1959	Autonomous Rover and Swarm-Assisted Sample Return with Dust-Resistant and Soft Robotic Arm Mechanisms for Next-Generation Planetary Exploration	Ananta	Poster
138	NSSS2026ABS822	NSSS2026REG1791	ROTATING DETONATION ENGINE	Om Unnithan, Dhruv Murarka	Oral
139	NSSS2026ABS823	NSSS2026REG0602	Vacuum Pyrolysis Characterisation of Lunar Regolith Simulant	Dr. Ganesh P, Vignesh G	Oral
140	NSSS2026ABS828	NSSS2026REG1679	Quantifying the Impact of Perturbations on Earth–Mars Transfer Trajectory	Sidhartha AJ, Yashasvi Chandrakant Patil	Oral
141	NSSS2026ABS837	NSSS2026REG1965	Hybrid Dust Mitigation System For Solar Panels On Lunar And Martian Surfaces.	Yashasvi C Patil	Oral
142	NSSS2026ABS838	NSSS2026REG1708	High Density Power Supply for Cooler Driver Electronics in IDDCA Systems	Himanshu Gupta, Vishnukumar D Patel, Ashish B Mishra	Oral
143	NSSS2026ABS843	NSSS2026REG1392	Self-Healing Lunar Concrete Using Microbial Biopolymers	Devansh Bhatia and Preksha Choudhury	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
144	NSSS2026ABS844	NSSS2026REG1392	Quantum-Entangled Navigation System for Deep-Space Applications	Devansh Bhatia and Preksha Choudhury	Poster
145	NSSS2026ABS845	NSSS2026REG1392	Electromagnetic Dust Shielding for Lunar Surface Applications	Devansh Bhatia and Preksha Choudhury	Poster
146	NSSS2026ABS847	NSSS2026REG1392	Origami-Inspired Expandable Habitats for Lunar Surface Missions	Devansh Bhatia and Preksha Choudhury	Poster
147	NSSS2026ABS849	NSSS2026REG1845	Achieving Centimeter-Level Accuracy in Autonomous UAV Navigation	Dhruv Bhardwaj, Dr. Harsha Avanish Tanti, Prof. Abhirup Datta	Oral
148	NSSS2026ABS850	NSSS2026REG1341	Attitude design for Instrument calibration of Aditya-L1 using celestial X-ray beacons	Madhav Haridas M.K., Manish Gupta, M. Srikanth, Nagamani T. and Kannan S.	Oral
149	NSSS2026ABS855	NSSS2026REG1726	A Brief Review, Challenges and Development Trends in Quantum Key Distribution Protocols	Venugopal S, Yogesh Prasad K R	Poster
150	NSSS2026ABS857	NSSS2026REG1340	Configuration Design of External Robotic Arm – An Enabling technology for sustainable Space Station	V. Sri Pavan RaviChand, Abhinandan Kapoor, Abhishek Kumar, K. Balaji, A Shankara	Oral
151	NSSS2026ABS862	NSSS2026REG0148	Material Compatibility and performance Optimization of Iodine-Fed Hall effect Thrusters for Small Satellite Constellations	Urjita S., D.Sai Prakash Navdeep	Oral

National Space Science Symposium-2026, Umiam, Meghalaya

PS-5 (Enabling Technologies for Space Exploration)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
152	NSSS2026ABS864	NSSS2026REG1991	Optimizing booster location of a bulbous payload configuration for alleviation of acoustic load over payload fairing region	M Prasath	Oral

- All lead authors have been communicated about the decision as per the table above. In case the acceptance letter is not received, please inform us.
- The authors of the abstracts that were rejected, has already been communicated about the decision.
- The poster presentations that will be given the opportunity for Lightning Oral Talk shall be communicated separately.
- **Discrepancies, if any may be brought to our notice for correction.**