

National Space Science Symposium-2026, Umiam, Meghalaya

PS-6 (Student Session)

Details and type of presentation for the accepted abstracts

SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
1	NSSS2026ABS890	NA	भारतीय अंतरिक्ष स्टेशन	Naval Joshi	Poster
2	NSSS2026ABS891	NA	Lunar Crater Detection from Chandrayaan-2 OHRC Data using Deep Learning	Twarita Kasabe	Oral
3	NSSS2026ABS892	NA	SMART EMBEDDED LIFE SUPPORT SYSTEM (SELSA) FOR HUMAN SPACE EXPLORATION AND LUNAR SUIT ENVIRONMENTS	Peddireddy Akhila	Oral
4	NSSS2026ABS893	NA	SPACE STATION AND HUMAN HABITAT BEYOND EARTH	Hritik Rana	Poster
5	NSSS2026ABS894	NA	Advancements and future challenges in human space exploration	Suman Gurjar	Poster
6	NSSS2026ABS895	NA	SPACE JUNK AND ITS EFFECTS ON RE-ENTRY INTO THE EARTH	Nishanth M	Poster
7	NSSS2026ABS896	NA	OPTIMIZED HABITAT DESIGN FOR LONG-DURATION HUMAN STAYS ON THE LUNAR SURFACE USING AI-BASED ENVIRONMENT SIMULATION	Prakhar Singh	Oral
8	NSSS2026ABS897	NA	AI – OPTIMIZED HYBRID CHEMICAL – ELECTRIC PROPULSION FOR FASTER MARS TRANSIT MISSIONS	Raahul Badri	Oral
9	NSSS2026ABS898	NA	SITING A SUSTAINABLE LUNAR HABITAT AT THE SHACKLETON CRATER RIM	Vivek Yadav	Oral
10	NSSS2026ABS899	NA	LOW-COST INFRARED OPTICAL WIRELESS COMMUNICATION SYSTEM FOR REAL-TIME EMG SIGNAL TRANSMISSION	Bodireddy Jaswanth	Poster
11	NSSS2026ABS900	NA	A Polarimetric SAR–Thermal Infrared Fusion Framework for Predicting Lunar Surface Stability	Rathinam Ramasamy	Oral

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			and Mobility Hazards for Future Exploration Missions		
12	NSSS2026ABS901	NA	Nambi Hybrid Rocket Engine	Shivam Yadav	Poster
13	NSSS2026ABS902	NA	A FEASIBILITY STUDY OF X-RAY PULSAR NAVIGATION (XNAV) FOR AUTONOMOUS CRUISE-PHASE NAVIGATION ON ISRO'S FUTURE INTERPLANETARY MISSIONS	Suresh Kumar M	Poster
14	NSSS2026ABS903	NA	DESIGN AND ANALYSIS OF A CUBESAT PLATFORM WITH SINTERED NdFeB MAGNETS FOR ACTIVE DECAY MANAGEMENT	Sathiyavel C	Oral
15	NSSS2026ABS904	NA	CATALYST-ENHANCED COMBUSTION DYNAMICS AND PERFORMANCE OPTIMIZATION IN KNSB SOLID ROCKET PROPELLANTS	Sanjay Ganesh	Oral
16	NSSS2026ABS905	NA	Hybrid Chemical-Electric Propulsion: Optimizing Interplanetary Trajectories for Next-Generation Mars Missions	Mohit Mahapatra	Oral
17	NSSS2026ABS906	NA	Optical Design and Analysis of Miniaturized Zoom Lenses for Remote Sensing Applications	Siba Prasad Pattnaik	Oral
18	NSSS2026ABS907	NA	AI AND DRONE-BASED DISASTER MONITORING USING LIDAR AND EARTH OBSERVATION DATA	Subhojit Kar	Oral
19	NSSS2026ABS908	NA	KALKA With AeroX	Prakhar Vishwakarma	Oral
20	NSSS2026ABS909	NA	CRYOGENIC-LASER-BASED SPACE DEBRIS MITIGATION AND ACTIVE REMOVAL SYSTEM (CLDDS)	N T Keerrthana	Oral

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SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
21	NSSS2026ABS910	NA	EXPLORING THE SURFACE OF MARS: ADVANCEMENTS IN ROVER TECHNOLOGY	Ritesh Kumar Sharma	Oral
22	NSSS2026ABS911	NA	Determination of Electron Energy Distribution Function (EEDF) and Magnetic Confinement in Low-Temperature Plasmas using Single Langmuir probe	Pallab Gogoi	Oral
23	NSSS2026ABS912	NA	Physics-informed Neural Network Framework for Piezoelectric-based Structural Health Monitoring in Spacecraft and Lunar Habitats	Abel George Abraham	Oral
24	NSSS2026ABS913	NA	Nuclear Thermal Rocket: Design Considerations and Efficiency Optimization for Deep-Space Explorations	Mahak	Oral
25	NSSS2026ABS914	NA	Space reproduction	Sudip Mahato	Oral
26	NSSS2026ABS915	NA	OPTICAL DESIGN AND ANALYSIS OF A WIDEFIELD REFLECTIVE IMAGER FOR REMOTE SENSING APPLICATIONS	Ankit Kumar Pandey	Oral
27	NSSS2026ABS916	NA	R.E.Y.N.A.: RADIATION-RESISTANT ENGINEERED YEAST FOR NUTRITION FROM ASTRONAUT WASTE	Hemang Deepak Khandagale	Oral
28	NSSS2026ABS917	NA	HUMAN ADAPTABILITY IN SPACE THROUGH SYMBIOTIC MICRO-ORGANISMS	Shreya Pandey	Oral
29	NSSS2026ABS918	NA	EFFECT OF GEOMAGNETIC STORMS ON LUNAR EXOSPHERE	Soumyasree Guin	Oral
30	NSSS2026ABS919	NA	Machine learning based early prediction of solar flares using multi-payload data from Aditya-L1	Mrigna Narain	Oral

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31	NSSS2026ABS920	NA	THE L5 PERSPECTIVE	Ankita Biswas	Oral
32	NSSS2026ABS921	NA	TWO-DIMENSIONAL ANALYSIS, COMPARISON, AND IMPROVEMENT OF THE AERODYNAMIC PERFORMANCE OF HIGH-CAMBER AEROFOILS UNDER MARTIAN ATMOSPHERIC CONDITIONS	Girishankar Kanagaraj	Oral
33	NSSS2026ABS922	NA	CONCEPTUAL FRAMEWORK FOR INTEGRATING SUSTAINABLE TECHNOLOGIES INTO INDIAN HUMAN SPACEFLIGHT PROGRAMME	Vijay Raghavan	Poster
34	NSSS2026ABS923	NA	Mechanisms Shaping Space Missions for Tomorrow: An In-Depth Analysis of Future Technologies & Bio-Adaptations	Harsh Matlani	Oral
35	NSSS2026ABS924	NA	Human Space Exploration - RADIATION SHIELDING FOR DEEP SPACE HABITATS USING REGOLITH-BASED MATERIALS AND SMART POLYMERS	Ashish Yadav	Oral
36	NSSS2026ABS925	NA	Search for Extraterrestrial Life Through the Cosmic Life Viability Metric	Telikicherla V R R S Sritodbhav	Oral
37	NSSS2026ABS926	NA	InSight India	Sai Sidharth Parcha	Oral
38	NSSS2026ABS927	NA	MODELING OF AEROBRAKING FOR MARS ORBIT INSERTION USING REALISTIC ATMOSPHERIC MODEL	Sumati Suhas Kulkarni	Oral
39	NSSS2026ABS928	NA	A CONCEPTUAL FRAMEWORK FOR AUTONOMOUS LUNAR NAVIGATION AND LANDING SITE ANALYSIS USING CHANDRAYAAN IMAGERY	B Kiran	Oral

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SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
40	NSSS2026ABS929	NA	SUPPLEMENTATION OF CONTROLLED VITAMIN D THROUGH BIODEGRADABLE ORAL DISSOLVING STRIP USING CARBOXYMETHYL NANOCELLULOSE	Adithya S R	Poster
41	NSSS2026ABS930	NA	ASTROEDGE AI: AN OFFLINE WEARABLE SYSTEM FOR ASTRONAUT ASSISTANCE IN LONG-DURATION SPACE MISSIONS	Adithyan S	Oral
42	NSSS2026ABS931	NA	DARK MATTER DENSITY PROFILES IN GALAXIES: CONSTRAINTS FROM NEUTRON STAR MERGER RATES	Shri Hari B.G	Oral
43	NSSS2026ABS932	NA	STELLAR ENGINE	Radhakrishnan Vadivel	Poster
44	NSSS2026ABS933	NA	TRANSCRIPTOMIC PROFILING OF C2C12 CELLS EXPOSED TO MICROGRAVITY AND RADIATION: IDENTIFYING STRESS-RESPONSIVE GENES AND THERAPEUTIC TARGETS	Subhajit Hazra	Poster
45	NSSS2026ABS934	NA	MODELLING THE LOWER EARTH ORBIT (LEO) SPACE DEBRIS USING PYTHON: IMPLICATIONS FOR FUTURE	Ahamika Pattnaik	Poster
46	NSSS2026ABS935	NA	PLANETARY DATA EXPLORER: A WEB PLATFORM WITH A CONVERSATIONAL INTERFACE	Harshal Paliwal	Poster
47	NSSS2026ABS936	NA	INTEGRATED TEXTILE-BASED DUAL ECG/EMG SENSORS FOR ASTRONAUT HEALTH MONITORING	Sreenivason A V	Oral

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SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
48	NSSS2026ABS937	NA	IDENTIFYING HALO STARS IN THE MILKY WAY USING APOGEE-DR17 STELLAR PARAMETERS: AN EXPLORATORY AND FEATURE SELECTION ANALYSIS	Swasti Mathur	Oral
49	NSSS2026ABS938	NA	Human space exploration	Shubham Satyawali	Poster
50	NSSS2026ABS939	NA	A Study of Stars with Extragalactic Origin in the Stellar Halo of the Milky Way	Kshitij Chandrakar	Oral
51	NSSS2026ABS940	NA	REAL-TIME FPGA-BASED SIGNAL ACQUISITION AND CLASSIFICATION FRAMEWORK FOR EARTH OBSERVATION AND INTERPLANETARY COMMUNICATION SYSTEMS	Anismita Biswas	Oral
52	NSSS2026ABS941	NA	MARS ANALOG MISSIONS: NASA'S CHAPEA AND ISRO'S HOPE	Avishi Gunjan Bidasaria	Oral
53	NSSS2026ABS942	NA	Impact resilience evaluation of modular Martian habitat panels under micrometeoroid strikes	Sivanantham C	Oral
54	NSSS2026ABS943	NA	ELECTRICITY GENERATION USING RADIATIVE COOLING (DARK ENERGY HARVESTING)	D S Albin	Oral
55	NSSS2026ABS944	NA	Lightweight Nano-Thrusters for Deep Space Navigation	Dharshini R	Poster
56	NSSS2026ABS945	NA	DESIGN OF A MULTI-ROBOT COORDINATION SYSTEM FOR SATELLITE ASSEMBLY, REFUELING, AND REPAIR IN ORBIT	Keshva Pradeep T	Oral
57	NSSS2026ABS946	NA	Closed loop Bio-regenerative systems	Kamikkya K	Oral

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SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
58	NSSS2026ABS947	NA	ADVANCED COMPOSITE MATERIALS IN NASA'S PARKER SOLAR PROBE: ENGINEERING EXCELLENCE IN EXTREME SOLAR ENVIRONMENTS	Gopi Krishna P	Poster
59	NSSS2026ABS948	NA	OPTIMIZATION OF SPACE-SUIT COOLING SYSTEMS USING PHASE-CHANGE MATERIALS	Jeevitha	Poster
60	NSSS2026ABS949	NA	AUTONOMOUS AI-DRIVEN NAVIGATION SYSTEM FOR INTERPLANETARY ROVERS: A UNIFIED FRAMEWORK FOR MOON AND MARS EXPLORATION	Florence Solomon	Oral
61	NSSS2026ABS950	NA	DEPLOYABLE UWB-BASED AUTONOMOUS NAVIGATION SYSTEM FOR GPS-DENIED PLANETARY EXPLORATION USING INTEGRATED DRONE-ROVER ARCHITECTURE	Atharva Sunil Chavan	Oral
62	NSSS2026ABS951	NA	LANDSLIDE SPATIAL PREDICTION USING AI AND GEOSPATIAL TECHNOLOGY FOR THE NILGIRIS DISTRICT OF TAMIL NADU, INDIA	Amlan Pal	Oral
63	NSSS2026ABS952	NA	Antrikshsutra – the unbreakable communication thread	Sankalp Pandey	Oral
64	NSSS2026ABS953	NA	Hydrated Minerals and Clay Minerals of Meridiani Planum, Mars: An Integrated Geomorphological and Spectral Analysis Using Multi-Resolution Orbital Datasets	Rozi Baishya	Oral
65	NSSS2026ABS954	NA	Mineralogical Characterisation and Geomorphological Insights of Wapowski Crater	Sakthi Saravanan S	Oral

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SN	Abstract ID	Registration ID	Abstract Title	Authors	Type of Presentation
66	NSSS2026ABS955	NA	SWARMNET-X: A DECENTRALIZED INTELLIGENT DRONE NETWORK FOR AUTONOMOUS PLANETARY EXPLORATION AND INFRASTRUCTURE DEVELOPMENT ON THE MOON AND MARS	Arendala Umesh	Oral
67	NSSS2026ABS956	NA	PHOTONICS-ASSISTED GENOMIC MONITORING OF INDIAN CROP–MICROBE SYSTEMS UNDER SIMULATED MICROGRAVITY AND ALTERED ATMOSPHERIC CONDITIONS	Chakrala B N Siddhartha	Oral
68	NSSS2026ABS957	NA	Unveiling Polar Ionospheric Dynamics During the May 2024 Superstorm: Insights from High-Latitude GNSS Observations (with an addendum on the 10–11 October 2024 geomagnetic storm)	Vishal Sarkar	Poster
69	NSSS2026ABS958	NA	AI-Driven Assessment of Liquefaction Probability in Shillong City Using Remote Sensing Data Inputs	Sananda MONDAL	Oral
70	NSSS2026ABS959	NA	THE SILENT SENTINELS: USING EARTH'S ENDOLITHIC MICROBIOMES AS A PREDICTIVE MODEL FOR BIOSIGNATURE DETECTION ON MARS	Niva Sharma	Oral
71	NSSS2026ABS960	NA	Designing the Future on the Moon: Challenges and Opportunities for Permanent Human Habitation	Sure Bala Saran	Poster
72	NSSS2026ABS961	NA	HYBRID DUST MITIGATION SYSTEM FOR ENHANCED SOLAR ARRAY PERFORMANCE ON LUNAR AND MARTIAN SURFACES	Yashasvi Chandrakant Patil	Oral

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73	NSSS2026ABS962	NA	information centric networking (ICN) paradigm in satellite	Abi	Oral
74	NSSS2026ABS963	NA	COUPLED SRP–THIRD-BODY–RELATIVISTIC PERTURBATIONS IN EARTH–MARS TRANSFERS: ROBUST TARGETING, ESTIMATION, AND GUIDANCE	Sidhartha AJ	Oral
75	NSSS2026ABS964	NA	Bridging Ancient Aeronautics and Modern Space Science: A Study of Vimanika Shastra in the Context of Interplanetary Exploration	Kolachalam Sai Charan	Oral
76	NSSS2026ABS965	NA	Evaporation-driven self-assembly for humidity and CO ₂ management in space life-support systems	Mohit Sisodiya	Oral
77	NSSS2026ABS966	NA	Edge-AI enabled semantic compression for satellite image transmission	Hitesh Sunkari	Oral
78	NSSS2026ABS967	NA	Project Sudarshan: AI based trajectory optimization for spacecrafts and rockets	Parineeta	Oral
79	NSSS2026ABS968	NA	Transforming Space Debris into Space Assets through Robotic Orbital Recycling	Meghalina Chakraborty	Oral
80	NSSS2026ABS969	NA	Hybrid Electronic Module: Paving the Way for Long- Duration Spacecraft	Madhumita Deb	Oral
81	NSSS2026ABS970	NA	HfO ₂ Based Memristors as Potential Candidate towards Radiation-Tolerant and Thermally Stable Electronics for Deep Space Environments	Utsav Neogi	Poster
82	NSSS2026ABS971	NA	Development of a compact S band UAV-Borne Synthetic Aperture Radar (SAR) using a custom build drone platform for all weather probe and surface monitoring	Anup Jyoti Sharma	Oral

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83	NSSS2026ABS972	NA	Impact of Gravity Waves on the Martian Atmosphere as Observed from the Mars Climate Sounder Data on board Mars Reconnaissance Orbiter	Zishan Anower	Oral
84	NSSS2026ABS973	NA	Probing the Hubble Tension: Supernovae Ia Constraints on Cosmic Expansion and the Age of the Universe	Bhaswat Sundar Das	Poster
85	NSSS2026ABS974	NA	A study of potential for life in the subsurface oceans of icy moon: Europa	Nameirakpam Dhanapriya Devi	Oral
86	NSSS2026ABS975	NA	Influence of electric field on cloud micro physics.	Isha Srivastava	Oral
87	NSSS2026ABS976	NA	Daily Variability of Ionospheric TEC Over North Eastern Region of India : Insights of the IRI Model	Vedika Sharma	Poster
88	NSSS2026ABS977	NA	AI+Satellite System for Preventing Air Crashes	Happyiona Lyngdoh Mawphlang	Poster
89	NSSS2026ABS978	NA	A Data Assimilation Framework for Quantifying Martian Atmospheric Escape Uncertainty	Ishan Narayan Shukla	Oral
90	NSSS2026ABS979	NA	Pineapple-Based Slope Reinforcement with Satellite-Sensor Early Warning for Multi-Hazard Disaster Prevention in Manipur Hills	Arpita Kumari & Aabhash Mukherjee	Oral
91	NSSS2026ABS980	NA	CLIMATE CHANGE ,ROCKET LAUNCH AND ITS EFFECT IN THE ATMOSPHERE	Thouchum Payal Chanu	Poster
92	NSSS2026ABS981	NA	Timing Analysis of the Neutron Star 4U 1728-34 Using AstroSat Observations	Lalchhuanawmi Jinhlawng	Oral

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93	NSSS2026ABS982	NA	The Celestial Hunter: A Comparative Analysis of the Mizo Chhohhrevung and the Western Orion Constellation	Biakthansanga Ralte	Oral
94	NSSS2026ABS983	NA	Adaptive Machine Learning-Driven Perovskite Solar Arrays for Resilient Spacecraft Power Systems	Tiya Jaman	Poster
95	NSSS2026ABS984	NA	Analysis of solar irradiance pattern in India using Python based ML technique	Nidhi Mishra	Oral
96	NSSS2026ABS985	NA	Machine learning algorithm to predict and improve the crop yield using the satellite data	Ritovas Bhattacharya	Oral
97	NSSS2026ABS986	NA	Context -Aware computer vision enhancements for illegal mining detection	Prashant Kauthekar	Poster
98	NSSS2026ABS987	NA	Atomic recombination and the formation of Cosmic Microwave Background spectrum	Sone Tayeng	Poster

- 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.
- **Discrepancies, if any may be brought to our notice for correction.**