Interactive Presentation Session Final Schedule

SCREEN # 1	
13:15-13:25	**IAC-18.A1.IP.1** HI-SEAS (Hawaii Space Exploration Analog and Simulation): Overview Of Results From The Four-, Eight- And Twelve-Month Missions *Kim Binsted, University of Hawaii, United States*
13:25-13:35	**IAC-18.A1.IP.4** The EDEN ISS Antarctic Greenhouse Project – 9 Month Mission Status after Deployment in Antarctica *Daniel Schubert, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany*
13:35-13:45	**IAC-18.A1.IP.8** Automation of Biological Experiments in a Miniaturized Satellite *Simon Beaudry, Ecole Polytechnique de Montreal, Canada*
13:45-13:55	**IAC-18.A1.IP.9** SELF-PAYBACK MANNED EXPEDITION TO MARS AND ITS MOONS PHOBOS AND DEIMOS 2022 *Oleg Aleksandrov, Private individual www.oleg.space, United States*
13:55-14:05	**IAC-18.A1.IP.12** Constitutional Characteristics and Bone Mineral Content in Astronauts Before and After Flights *Kirill Gordienko, Institute of Biomedical Problems, Russian Academy of Sciences, Russian Federation*
14:05-14:15	**IAC-18.A1.IP.14** Imitation tasks of spacecraft manual control and cosmonaut's psychophysiological parameters in the space experiment "Pilot-T" *Daria Schastlivtseva, SSC RF Institute of Biomedical problems of RAS, Russian Federation*
14:15-14:25	**IAC-18.A1.IP.15** a novel wearable ecg-monitoring system for human space exploration *Natalia Glazkova, Skolkovo Institute of Science and Technology, Russian Federation*
14:25-14:35	**IAC-18.A1.IP.17** Myotonpro: a fast-track cots payload to enhance the human physiology research on iss and beyond. *Antonella Sgambati, OHB System AG-Bremen, Germany*
14:35-14:45	**IAC-18.A1.IP.18** Bone densitometry after long-time missions on ISS *Galina Vassilieva, IBMP, Russian Federation*

Interactive Presentation Session Final Schedule

SCREEN # 2	
13:15-13:25	**IAC-18.A1.IP.20** terraforming mars into a future human habitat- a four - phase process *Siddharth Ojha, University of Petroleum and Energy Studies, India*
13:25-13:35	**IAC-18.A1.IP.22** Reduction of health risks during long term space missions by personalized quantification of vitamin D production *Magdalena Wypukol, Charité Universitätsmedizin Berlin, Germany*
13:35-13:45	**IAC-18.A1.IP.23** Application of a self-sufficient learn program to control objects with six degrees of freedom *Bernd Johannes, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany*
13:45-13:55	**IAC-18.A1.IP.25** Ultrasound utilization training for applications in microgravity *Manuela Aguzzi, Space Applications Services N.V./S.A., Belgium*
13:55-14:05	**IAC-18.A1.IP.26** Effect of microgravity on breast cancer cells *Mohamed Zakaria Nassef, [unlisted], Germany*
14:05-14:15	**IAC-18.A1.IP.27** An epigenetic mechanism for decreased MHC Ⅱ expression in macrophages under simulated microgravity *Chongzhen WANG, Guilin Medical University, China*
14:15-14:25	**IAC-18.A1.IP.28** Proton and FE Ion-Induced Early and Late Chromosome Aberrations in Human Epithelial and Fibroblast Cells *Rosalin Goss, National Aeronautics and Space Administration (NASA), Johnson Space Center, United States*
14:25-14:35	**IAC-18.A1.IP.29** neural electrical dynamics during head down tilt and mental load *Hasan Birol Cotuk, , Turkey*
14:35-14:45	**IAC-18.A1.IP.34** Local sleep-like events in awake astronauts *Gaetan Petit, ESA - European Space Agency, Switzerland*

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SCREEN # 3	
13:15-13:25	**IAC-18.A2.IP.1** numerical study of detonation engines *Elena Mikhalchenko, Scientific Research Institute for System Analysis, Russian Academy of Sciences (RAS), Russian Federation*
13:25-13:35	**IAC-18.A2.IP.3** WEISS-SAT1:A Student Developed Microlab for Space Based Research *Rhonda Lyons, NYRAD Inc, United States*
13:35-13:45	**IAC-18.A2.IP.4** Numerical simulation of droplets capillary under microgravity with smoothed particle hydrodynamics *Fuzhen Chen, Northwestern Polytechnical University, China*
13:45-13:55	**IAC-18.A2.IP.5** Study of bacteria and fungi growth on different materials used on the ISS with portable gas sensor system E-Nose during the space flight *Sergey Kharin, SSC RF-Institute of Biomedical Problems RAS, Russian Federation*
13:55-14:05	**IAC-18.A2.IP.6** Important aspects of conducting aeroponic cultivation in microgravity *Joanna Kuźma, Wroclaw University of Science and Technology, Poland*
14:05-14:15	**IAC-18.A2.IP.7** On the Design of BECCAL - A Quantum Optics Experiment Aboard the ISS *Marvin Warner, ZARM University of Bremen, Germany*
14:15-14:25	**IAC-18.A2.IP.8** Microgravity experiments on thermal creep in Martian soil *Tobias Steinpilz, University Duisburg-Essen, Germany*
14:25-14:35	**IAC-18.A2.IP.9** The hardware development for the low-speed low-lewis-number counter flow flame experiment on ISS Kibo *Tatsuya Taguchi, Japan Aerospace Exploration Agency (JAXA), Japan*
14:35-14:45	**IAC-18.A2.IP.10** ARION 1 reusable sounding rocket: the new Microgravity Platform in Europe *Francisco Garcia, PLD Space, Spain*

Interactive Presentation Session Final Schedule

SCREEN # 4	
13:15-13:25	**IAC-18.A3.IP.4** Shape development and analysis for 3d-printed high-resolution multiple electrode harmonised kingdon trap *Anastasiia Fursova, Skolkovo Institute of Science and Technology, Russian Federation*
13:25-13:35	**IAC-18.A3.IP.5** Separation before Extraction – A Low-Tech Approach to Increasing the Yield of Lunar ISRU Extraction Processes *Juergen Schleppi, Heriot-Watt University, United Kingdom*
13:35-13:45	**IAC-18.A3.IP.7** Detection of the Redshifted 21-cm Radiation Line: A Mission Concept Study for the Establishment of a Lunar Radio Telescope Array in the Schrödinger Basin *Zaid Rana, Concordia University, Canada*
13:45-13:55	**IAC-18.A3.IP.8** Exploration of the lunar South Pole through autonomous navigation and mapping systems for maximising science return. *Philippe Ludivig, ispace, Inc, Luxemburg*
13:55-14:05	**IAC-18.A3.IP.9** System design of CubeSat Semi-hard Moon Impactor: OMOTENASHI *Tatsuaki Hashimoto, Japan Aerospace Exploration Agency (JAXA), Japan*
14:05-14:15	**IAC-18.A3.IP.13** The Moon Village, a Grand Project for the 21st Century *Olivier Boisard, Consulting engineer OB-Conseil, and professor at Ecole Centrale de Lille, France*
14:15-14:25	**IAC-18.A3.IP.16** MoonHopper: Conceptual design of an hopping robot for lunar exploration support *Rodrigo Ventura, Institute for Systems and Robotics, Portugal*
14:25-14:35	**IAC-18.A3.IP.21** Positioning Method of Chang'E-4 lander based on Multi-source Images *Xinyuan Lu, National Key Laboratory of Aerospace Flight Dynamics,Northwestern Polytechnical University,Xi'an, China*
14:35-14:45	**IAC-18.A3.IP.23** Finding the North on a Lunar Microrover: a Lunar Surface Environment Simulator for the Development of Vision-Based Navigation Pipelines *Fabian Dubois, ispace, Inc, Japan*

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SCREEN # 5	
13:15-13:25	**IAC-18.A3.IP.24** Validation campaign of Vision-Based Navigation algorithm for autonomous planetary landing *Luca Losi, Politecnico di Milano, Italy*
13:25-13:35	**IAC-18.A3.IP.26** Run, Camp, and Hike on the Moon *Antoine Faddoul, Tony Sky Designs Group, United States*
13:35-13:45	**IAC-18.A3.IP.27** A south pole solar energy infrastructure to power up the lunar economy *Adrian Stoica, NASA Jet Propulsion Laboratory, United States*
13:45-13:55	**IAC-18.A3.IP.30** Overview of the First ispace Private Lunar Lander Mission *Louis Burtz, ispace, Inc, Japan*
13:55-14:05	**IAC-18.A3.IP.31** 3D Printing of Moon Highlands Regolith Simulant *Lorenzo Abbondanti Sitta, Politecnico di Milano, Italy*
14:05-14:15	**IAC-18.A3.IP.33** adaptive in-situ resource utilisation (isru) for long term space exploration *Satinder Shergill, Cranfield University, United Kingdom*
14:15-14:25	**IAC-18.A3.IP.35** about orbit selection for lunar orbital station *Mariya Danilova, Central Research Institute of Machine Building (TSNIIMASH), Russian Federation*
14:25-14:35	**IAC-18.A3.IP.37** Prototype of a Hopter - a hopping scout robot for planetary exploration *Lukasz Wisniewski, Astronika, Poland*
14:35-14:45	**IAC-18.A3.IP.41** The wind sensor of the HABIT (HAbitability: Brines, Irradiation and Temperature) instrument on board the ExoMars 2020 mission *Álvaro Tomás Soria Salinas, Luleå University of Technology, Sweden*

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SCREEN # 6	
13:15-13:25	**IAC-18.A3.IP.43** The high efficient communication method of multiple spacecrafts based on Proximity-1 protocol for MARS exploration *Wei Wang, Beijing Institute of Technology, China*
13:25-13:35	**IAC-18.A3.IP.44** Design of a Reusable Crane System for Mars Surface Missions *Anne-Marlene Rüede, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland*
13:35-13:45	**IAC-18.A3.IP.48** Space Mining Corporation: The Pseudo-Economic and Technology Model *Aurthur Vimalachandran Thomas Jayachandran, Samara University, Russian Federation*
13:45-13:55	**IAC-18.A3.IP.51** MARSIS radar data interpretation to characterize the deeper layers in the North Polar cap on Mars. *Melissa Mirino, Open University, United Kingdom*
13:55-14:05	**IAC-18.A3.IP.53** Engineering Model of Polarimetric Camera for Korean Lunar Orbiter *Kyungin Kang, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of*
14:05-14:15	**IAC-18.A3.IP.57** Perturbation effects over a Mercury orbiter *Josué Cardoso dos Santos, São Paulo State University (FEG-UNESP), Brazil*
14:15-14:25	**IAC-18.A3.IP.59** analysis, test and simulation of landing system touchdown dynamics *Silvio Schröder, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany*
14:25-14:35	**IAC-18.A3.IP.62** Cislunar1000: Vision for 2018-2035 *Melissa Sampson, Ball Aerospace, United States*
14:35-14:45	**IAC-18.A3.IP.65** cubesat minimoon rendezvous mission synthesis and analysis *Niklas Anthony, Luleå University of Technology, Sweden*

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SCREEN # 7	
13:15-13:25	**IAC-18.A1.IP.35** Impact of the space flights in nutritional adaptations at back to earth. Review. *LUISA GARCIA ROJAS VAZQUEZ, [unlisted], Mexico*
13:25-13:35	**IAC-18.A1.IP.37** Construction of basic human habitats on planetary/lunar places without direct human involvement *ADITYA VEDANTHU, R.V.College of Engineering, India*
13:35-13:45	**IAC-18.A1.IP.39** development and testing of the cóndor space suit simulator *Oscar Ivan Ojeda Ramirez, Universidad Nacional de Colombia, Colombia*
13:45-13:55	**IAC-18.A1.IP.40** Space Food and Nutrition in a Long Term Manned Mission *Funmilola Adebisi Oluwafemi, National Space Research and Development Agency (NASRDA), Abuja, Nigeria*
13:55-14:05	**IAC-18.A2.IP.11** Burning of a single fuel droplet containing metallic particles in weightlessness *Nickolay N. Smirnov, Moscow Lomonosov State University, Russian Federation*
14:05-14:15	**IAC-18.A2.IP.12** Realistic 3D simulations of Bragg beam splitters for matter wave interferometry under microgravity *Antje Neumann, TU Darmstadt, Germany*
14:15-14:25	**IAC-18.A2.IP.13** Numerical simulation of wicking in porous media *Dawid Zimnik, ZARM, University of Bremen, Germany*
14:25-14:35	**IAC-18.A2.IP.14** Phase separation in capillary channel flow using porous media *Kamal Singh Bisht, ZARM, University of Bremen, Germany*
14:35-14:45	**IAC-18.A2.IP.15** PAPELL: Interaction Study of Ferrofluid with Electromagnets of an Experiment on the International Space Station *Adrian Causevic, KSat e.V., Germany*

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SCREEN # 8	
13:15-13:25	**IAC-18.A4.IP.3** Neuroscience in SETI : a contemporary case study from the arts and humanities. *Daniela de Paulis, , The Netherlands*
13:25-13:35	**IAC-18.A4.IP.4** SETI Search with Gas Core Nuclear Propelled Space Probes *Ugur Guven, UN CSSTEAP, United States*
13:35-13:45	**IAC-18.A4.IP.6** THE SEARCH FOR EXTRA-TERRESTRIAL INTELLIGENCE AT TRAPPIST-1 E: POSSIBILITIES FOR LIFE *Devarrishi Dixit, University of Petroleum and Energy Studies, India*
13:45-13:55	**IAC-18.A4.IP.7** Merits and demerits of performing experiments and exoplanet imaging outside the disk of our solar system and possible exit paths in the direction other than the plane or our solar system to exit the planetary plane *Aditya Mishra, University of Petroleum and Energy Studies, India*
13:55-14:05	**IAC-18.A3.IP.67** utilization of resources on titan and transitory base-camp for manned outer solar system exploration *Kaustav Dutta Choudhury, University of Petroleum and Energy Studies, India*
14:05-14:15	**IAC-18.A3.IP.68** Evaluation of the integrated helmet of the Autonomous Module of Sustainable Cooling – MARS *Julio Rezende, Brazilian Space Agency (AEB), Brazil*
14:15-14:25	**IAC-18.A3.IP.69** VIRTUAL REALITY FOR MULTI-USER EXPERIENCE IN SPACE MISSIONS *Antonio Del Mastro, Mars Planet, Italy*
14:25-14:35	**IAC-18.A3.IP.70** Measurement of the parameters of the gravitational field of deep space. *Sergei Matvienko, Yuzhnoye SDO European Representation, Ukraine*
14:35-14:45	**IAC-18.A3.IP.54** GNC AND FDIR DATA FUSION TECHNIQUES FOR THE ASTEROID IMPACT MISSION *Claudiu-Lucian Prioroc, G.M.V. Space and Defence, S.A., Romania*

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SCREEN # 9	
13:15-13:25	**IAC-18.A5.IP.2** Rendezvous in Lunar Near Rectilinear Halo orbits *Lorenzo Bucci, Politecnico di Milano, Italy*
13:25-13:35	***SLOT AVAILABLE – CONTACT ZARM IP TEAM TO UPLOAD YOUR PRESENTATION***
13:35-13:45	**IAC-18.A5.IP.6** Conceptual design of a permanent Lunar surface base *Marius Schwinning, Institute of Space Systems, University of Stuttgart, Germany*
13:45-13:55	**IAC-18.A5.IP.8** Trajectory Design for Phobos & Study Proposition of Geodetic Framework for an Automated Mechanical Transitory Base-camp on Phobos *Rohan Chandra, University of Petroleum and Energy Studies, India*
13:55-14:05	**IAC-18.A2.IP.16** Tianzhou's reusable cargo spaceship, a useful and powerful platform for microgravity science *Ming Li, China Academy of Space Technology (CAST), China*
14:05-14:15	**IAC-18.A6.IP.12** Collision risk prediction for constellation operators *Romain Lucken, , France*
14:15-14:25	**IAC-18.A6.IP.14** The development of an orbital risk assessment capability *Toby Harris, UK Space Agency, United Kingdom*
14:25-14:35	**IAC-18.A6.IP.18** Hypervelocity impact numerical simulations using material point method coupled with EOS calculated from molecular dynamics method *Yixiao Li, CASIC, China*
14:35-14:45	**IAC-18.A6.IP.19** Space debris risk assessment of spacecraft protected by 3D printed panels *Hedley Stokes, PHS Space Ltd, United Kingdom*

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SCREEN # 10	
13:15-13:25	**IAC-18.A6.IP.1** CastelGAUSS Project: Observations of NEOs and GSO objects at the ISON-Castelgrande Observatory *Filippo Graziani, G.A.U.S.S. Srl, Italy*
13:25-13:35	**IAC-18.A6.IP.4** Scheduling solution for space debris observations *Federico Curianò, Sapienza University of Rome, Italy*
13:35-13:45	**IAC-18.A6.IP.5** Secondary resonances due to solar radiation pressure in the vicinity of GLONASS and GPS regions *Eduard Kuznetsov, Ural Federal University, Russian Federation*
13:45-13:55	**IAC-18.A6.IP.6** Slovakian Optical Sensor for HAMR Objects Cataloguing and Research *Jiri Silha, Comenius University, Faculty of Mathematics, Physics and Informatics, Bratislava, Slovakia, Slovak Republic*
13:55-14:05	**IAC-18.A6.IP.7** SLR observation of Tiangong-1 *Hou-Yuan Lin, Purple Mountain Observatory, Chinese Academy of Sciences, China*
14:05-14:15	**IAC-18.A6.IP.8** Improved Space Object Observation Techniques in ISON project *Igor Molotov, Keldysh Institute of Applied Mathematics, RAS, Russian Federation*
14:15-14:25	**IAC-18.A6.IP.9** Tacking the association and tracking problems using directional statistics to model uncertainty *Shambo Bhattacharjee, University of Leeds, United Kingdom*
14:25-14:35	**IAC-18.A6.IP.10** the multibeam radar sensor birales: performance assessment for space surveillance and tracking *Matteo Losacco, Politecnico di Milano, Italy*
14:35-14:45	**IAC-18.A6.IP.11** The S5S online platform for image analysis and orbit determination *Marco Acernese, Sapienza University of Rome, Italy*

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SCREEN # 11	
13:15-13:25	**IAC-18.A6.IP.20** Study on performance of shielding configuration stuffed with Al-mesh and basalt fabric *Fa-wei Ke, China Aerodynamics Research and Development Center (CARDC) , China*
13:25-13:35	**IAC-18.A6.IP.20** Study on the Shielding performance of configuration stuffed with aramid and basalt fabric composite layer *Fa-wei Ke, China Aerodynamics Research and Development Center (CARDC) , China*
13:35-13:45	**IAC-18.A6.IP.21** Associating short-arc range and angle measurements of objects in LEO. *Alessandro Vananti, Astronomical Institute University of Bern (AIUB), Switzerland*
13:45-13:55	**IAC-18.A6.IP.22** Lightcurve inversion for Attitude determination *Fabio Santoni, Sapienza University of Rome, Italy*
13:55-14:05	**IAC-18.A6.IP.23** Mission Planning and Simulation System Study on Active Debris Removal with Space-based Laser System *Zizheng Gong, Beijing Institute of Spacecraft Environment Engineering, China Academy of Space Technology (CAST), China*
14:05-14:15	**IAC-18.A6.IP.25** Quantum enhanced ladar by squeezed light for space target detection *Jingting Ma, CASIC, China*
14:15-14:25	**IAC-18.A6.IP.27** autonomous space debris capturing using deep reinforcement learning method *Zhong Ma, Xi'an Microelectronics Technology Institute, China*
14:25-14:35	**IAC-18.A6.IP.28** De-orbiting large space debris objects from the Sun-synchronous orbit by aerodynamic braking *Vladislav Sidorenko, Keldysh Institute of Applied Mathematics, RAS, Russian Federation*
14:35-14:45	**IAC-18.A6.IP.29** exploration of the future application mode of laser propulsion for the space debris removal *Jia Zhang, CALT,CASC, China*

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SCREEN # 12	
13:15-13:25	**IAC-18.A6.IP.30** Preliminary Study on Deorbit of Large Debris using a Charged Sail in Low Earth Orbit *Takuma Nagata, Chukyo University, Japan*
13:25-13:35	**IAC-18.A6.IP.31** Prospects of Touchless Space Debris Detumbling Using an Electrostatic Pusher Configuration *Vladimir S. Aslanov, Samara National Research University, Russian Federation*
13:35-13:45	**IAC-18.A6.IP.34** Acquiring Observations for Test and Validation in the Space Surveillance and Tracking Segment of ESA's SSA Programme *Beatriz Jilete, ESA, Spain*
13:45-13:55	**IAC-18.A6.IP.35** GeoTracker - a worldwide optical network for Space Situational Awareness *Vourc'h Sébastien, ArianeGroup SAS, France*
13:55-14:05	**IAC-18.A6.IP.36** Sapienza Space Systems and Space Surveillance Network (S5N): a high coverage infrastructure for space debris monitoring. *Federico Curianò, Sapienza University of Rome, Italy*
14:05-14:15	**IAC-18.A6.IP.37** TRACKING ENVISAT: THE STRUCTURAL DEVELOPMENT OF E.INSPECTOR *Marlini Simoes, University of Cambridge, United Kingdom*
14:15-14:25	**IAC-18.A6.IP.39** investigation of aerodynamics heating of space debris object descending in earth atmosphere *Andrii Dreus, O. Honchar Dnipropetrovsk National University, Ukraine*
14:25-14:35	**IAC-18.A6.IP.40** Optical degradation and recovery of multilayer insulation in a simulated GEO environment *Daniel Engelhart, [unlisted], United States*
14:35-14:45	**IAC-18.A6.IP.41** poliMi optical sensor for space surveillance and tracking *Daniele Antonio Santeramo, Politecnico di Milano, Italy*

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SCREEN # 13	
13:15-13:25	**IAC-18.A7.IP.1** Dual Frequency Synthetic Aperture Radar Satellite *Monish Mathur, University of Petroleum and Energy Studies, India*
13:25-13:35	**IAC-18.A7.IP.3** Research progress of on-orbit servicing technology on space astronomy *Zhang Jiuxing, , China*
13:35-13:45	**IAC-18.A7.IP.4** FDIR Strategies on Missions with Highly Sensitive Optical Payloads *Bastian Burmann, OHB System AG-Bremen, Germany*
13:45-13:55	**IAC-18.A6.IP.42** two-finger caging-based grasping region determination of polygonal space debris with motion parameters uncertainty *Ma Chuan, College of Astronautics, Northwestern Polytechnical University (NPU), China*
13:55-14:05	**IAC-18.A6.IP.44** The UAE Space Debris Mitigation Instrument *Fatheya Al Shareji, UAE Space Agency, United Arab Emirates*
14:05-14:15	**IAC-18.A6.IP.45** service operations of spacecrafts as a solution for space debris problem *Vera Mayorova, Bauman Moscow State Technical University, Russian Federation*
14:15-14:25	**IAC-18.A6.IP.46** An Improved Synchronized Orbit Determination Method Based on Distributed Star Sensors *FEI FENG, Academy of Equipment, China*
14:25-14:35	**IAC-18.B1.IP.35** NEXT GENERATION RADAR SERVICES: ACTIONABLE INFORMATION FOR DECISION MAKING *Pierre-Alexis Joumel, Airbus Defence and Space, Germany*
14:35-14:45	**IAC-18.B2.IP.17** an antenna array-based radio navigation signal's differential carrier tracking algorithm *Shunxiao Wu, Tianjin communications and Broadcasting Group Co., Ltd, China*

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SCREEN # 14	
13:15-13:25	**IAC-18.B1.IP.1** reviews and prospect of international electromagnetic seismic satellite *ZHANG Xiaopeng, China Academy of Space Technology (CAST), China*
13:25-13:35	**IAC-18.B1.IP.3** EarthCARE processing facility and EarthCARE L2 testbed - A synergetic setup to support scientific algorithm development *Bernard Pruin, Werum Software & Systems AG, Germany*
13:35-13:45	**IAC-18.B1.IP.5** The Challenge of Integrating and Aligning a New Type of EO Instrument: the EnMAP Hyperspectral Imager *Aurelien GODENIR, OHB System AG - Oberpfaffenhofen, Germany*
13:45-13:55	**IAC-18.B1.IP.7** Assessment of Wind Shadows behind Offshore Wind Parks with Antenna Beam Pattern Compensated Sentinel-1 Data *Sven Jacobsen, DLR (German Aerospace Center), Germany*
13:55-14:05	**IAC-18.B1.IP.9** METEOSAT THIRD GENERATION – Development of the Common Satellite Platform *Andrea Jaime, OHB System AG - Munich, Germany*
14:05-14:15	**IAC-18.B1.IP.10** Assessing the maturity of EO activities at national level *Eleftherios Mamais, National Observatory Of Athens, Greece*
14:15-14:25	**IAC-18.B1.IP.13** Copernicus Climate Change Service (C3S) global satellite observations of atmospheric carbon dioxide and methane *Michael Buchwitz, University of Bremen, Germany*
14:25-14:35	**IAC-18.B1.IP.14** Satellite Remote Sensing in ASEAN : A Critical Review of National Data Policies *Quentin Verspieren, University of Tokyo, Japan*
14:35-14:45	**IAC-18.B1.IP.19** Machine learning approaches to classify maritime objects from space radar *Domenico Velotto, German Aerospace Center (DLR), Bremen, Germany, Germany*

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SCREEN # 15	
13:15-13:25	***IAC-18.B1.IP.21*** *earth inspector: reconciling space technologies and agricultural approaches to tackle climate change* *Sathesh Raj, World Space Week Association, Malaysia*
13:25-13:35	***IAC-18.B1.IP.22*** *Autonomous satellite data monitoring techniques applied to Delfi-C3 telemetry* *Alessandro Saetta, Politecnico di Milano, Italy*
13:35-13:45	***IAC-18.B1.IP.23*** *Spatial-temporal Epidemiology Study of the Chikungunya Disease in Bolivia* *Natalia Indira Vargas-Cuentas, Beihang University (BUAA), China*
13:45-13:55	***IAC-18.B1.IP.26*** *Change detection of the Sundarban part of Bangladesh using remote sensing and GIS techniques with machine learning algorithms* *Mitesh Chakma, BRAC University, Bangladesh*
13:55-14:05	***IAC-18.B1.IP.28*** *targets for satellite-based emerging disease surveillance: ecological change and zoonotic bat viruses* *Samuel Malloy, The Ohio State University, United States*
14:05-14:15	***IAC-18.B1.IP.29*** *Three-super platform for high-efficiency, high-value earth observation mission* *Ming Li, China Academy of Space Technology (CAST), China*
14:15-14:25	***IAC-18.B1.IP.31*** *Coupled Orbital and Radiometric Performance Simulation of the Formation Flight Interferometric Radiometer for Geostationary Atmospheric Sounding* *Ahmed Kiyoshi Sugihara El Maghraby, University of Southampton, United Kingdom*
14:25-14:35	***IAC-18.B1.IP.33*** *OHB Future Earth Observation Spaceborne Missions:* *Overview and current status* *Sebastien Tailhades, OHB System, Germany*
14:35-14:45	***IAC-18.B1.IP.34*** *Maximizing Data Throughput in Earth Observation Satellite to Ground Transmission by Employing a Flexible High Data Rate Transmitter Operating in X-Band and Ka-Band* *Philipp Wertz, Tesat-Spacecom GmbH & Co. KG, Germany*

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SCREEN # 16	
13:15-13:25	**IAC-18.B1.IP.21** earth inspector: reconciling space technologies and agricultural approaches to tackle climate change *Sathesh Raj, World Space Week Association, Malaysia*
13:25-13:35	**IAC-18.B1.IP.22** Autonomous satellite data monitoring techniques applied to Delfi-C3 telemetry *Alessandro Saetta, Politecnico di Milano, Italy*
13:35-13:45	**IAC-18.B1.IP.23** Spatial-temporal Epidemiology Study of the Chikungunya Disease in Bolivia *Natalia Indira Vargas-Cuentas, Beihang University (BUAA), China*
13:45-13:55	**IAC-18.B1.IP.26** Change detection of the Sundarban part of Bangladesh using remote sensing and GIS techniques with machine learning algorithms *Mitesh Chakma, BRAC University, Bangladesh*
13:55-14:05	**IAC-18.B1.IP.28** targets for satellite-based emerging disease surveillance: ecological change and zoonotic bat viruses *Samuel Malloy, The Ohio State University, United States*
14:05-14:15	**IAC-18.B1.IP.29** Three-super platform for high-efficiency, high-value earth observation mission *Ming Li, China Academy of Space Technology (CAST), China*
14:15-14:25	**IAC-18.B1.IP.31** Coupled Orbital and Radiometric Performance Simulation of the Formation Flight Interferometric Radiometer for Geostationary Atmospheric Sounding *Ahmed Kiyoshi Sugihara El Maghraby, University of Southampton, United Kingdom*
14:25-14:35	**IAC-18.B1.IP.33** OHB Future Earth Observation Spaceborne Missions: Overview and current status *Sebastien Tailhades, OHB System, Germany*
14:35-14:45	**IAC-18.B1.IP.34** Maximizing Data Throughput in Earth Observation Satellite to Ground Transmission by Employing a Flexible High Data Rate Transmitter Operating in X-Band and Ka-Band *Philipp Wertz, Tesat-Spacecom GmbH & Co. KG, Germany*

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SCREEN # 17	
13:15-13:25	**IAC-18.B3.IP.2** Multisensory garments for optimal body-mind awareness in space travel *Kristin Neidlinger, SENSOREE Therapeutic Biomedia, United States*
13:25-13:35	**IAC-18.B3.IP.3** Bake In Space: To boldly bake where nobody has baked before *Ryan Laird, Bake in Space, United Kingdom*
13:35-13:45	**IAC-18.B3.IP.5** HabitatOS - Open Source Operating System for Extraterrestrial Habitats *Matt Harasymczuk, ESA / Polish Air Force Academy, Poland*
13:45-13:55	**IAC-18.B3.IP.6** CIMON: A visual navigation system for flying through the International Space Station *Ralf Regele, Airbus DS GmbH, Germany*
13:55-14:05	**IAC-18.B3.IP.9** The RVS3000 and RVS3000-3D LIDAR Sensors for Rendezvous and Docking Missions *Sebastian Dochow, Jena-Optronik GmbH, Germany*
14:05-14:15	**IAC-18.B3.IP.11** Brain Computer Interface - an emerging technology towards future spaceflight missions *Sonal Baberwal, International Space University (ISU), France*
14:15-14:25	**IAC-18.B3.IP.13** A redefined astronaut selection process for low cost commercial space flight missions *Carolina Gomez Rodriguez, University of Bremen, Germany*
14:25-14:35	**IAC-18.B3.IP.14** Proposal for a Floating Habitat Design for Manned Missions to Venus *James Lai, McMaster University, Canada*
14:35-14:45	***SLOT AVAILABLE – CONTACT ZARM IP TEAM TO UPLOAD YOUR PRESENTATION***

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SCREEN # 18	
13:15-13:25	**IAC-18.B6.IP.1** Breakthroughs in the Automated Testing using Man-Machine Interface of Ground Segment Software *Mário Pinto, Etamax Space GmbH, Germany*
13:25-13:35	**IAC-18.B6.IP.2** SpaceCentre-2018: An Advanced PWA-based Ground Station Application from FlatSat Testing to Mission Operation *DAN FENG, National University of Singapore, Singapore, Republic of*
13:35-13:45	**IAC-18.B6.IP.5** Optimizing Launch Preparations of a Suborbital Rocket *Hamed Gamal, SpaceForest Ltd., Poland*
13:45-13:55	**IAC-18.B6.IP.3** Human predictive simulation for Earth and Space exploration *Tatiana Volkova, Ecole Polytechnique Fédérale de Lausanne (EPFL), Swiss Space Center (SSC), Switzerland*
13:55-14:05	**IAC-18.B6.IP.4** Secure Model-Based Systems Engineering for CubeSats *Umesh Anilchandra Bhat, Estonian Student Satellite Foundation (ESTCube), Estonia*
14:05-14:15	**IAC-18.C1.IP.36** The mission's design of a solar sail spacecraft to the nearest circumsolar space, based on a locally-optimal control laws *Olga Starinova, Samara National Research University, Russian Federation*
14:15-14:25	**IAC-18.C1.IP.37** How to Send a Signal to Fixed Ground Antennas from a Non-Geostationary Satellite *Dominik Quantius, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Germany*
14:25-14:35	**IAC-18.C1.IP.38** Proba-3 Mission: In orbit demonstration of a high performance relative position and attitude control *Daniel Serrano, SENER Ingenieria y Sistemas, S.A., Spain*
14:35-14:45	**IAC-18.C1.IP.39** Coordinated Capture of a Passive Space Object Using Augmented State Estimation and Neural Networks *Emily Gleeson, Ryerson University, Canada*

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SCREEN # 19	
13:15-13:25	**IAC-18.C1.IP.1** Wave-based motion control of flexible space systems *Prof.William O'Connor, University College Dublin (UCD), Ireland*
13:25-13:35	**IAC-18.C1.IP.3** Multispectral Image Processing for Navigation Using Low Performance Computing *Duarte Rondao, Cranfield University, United Kingdom*
13:35-13:45	**IAC-18.C1.IP.5** Vision based state estimation using a graph-SLAM approach for proximity operations near an asteroid *Arunkumar Rathinam, University of New South Wales, Australia*
13:45-13:55	**IAC-18.C1.IP.8** Evaluation of a camera-based pose and shape reconstruction technique for an unknown tumbling target *Renato Volpe, Sapienza University of Rome, Italy*
13:55-14:05	**IAC-18.C1.IP.9** highly accurate guidance algorism for landing on a planet with gravity *Toyonori Kobayakawa, Mitsubishi Heavy Industries, Ltd., Japan*
14:05-14:15	**IAC-18.C1.IP.10** The Aldrin Cycler Improved by the Lorentz Force *Florence Duveiller, Georgia Institute of Technology, Atlanta, United States*
14:15-14:25	**IAC-18.C1.IP.11** GRACE accelerometer calibration by high precision non-gravitational force modelling and its validation *Florian Wöske, Center of Applied Space Technology and Microgravity, Germany*
14:25-14:35	**IAC-18.C1.IP.13** Control of 6DOF Spacecraft Hovering about Asteroids without Velocity Measurements *Haichao Gui, Beihang University, China*
14:35-14:45	**IAC-18.C1.IP.14** Relative State Measurement of A Non-Cooperative Spacecraft for Final Approaching Stage of On-Orbit Servicing Using Contour Features *Yunhua Wu, Nanjing University of Aeronautics and Astronautics, China*

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SCREEN # 20	
13:15-13:25	**IAC-18.C1.IP.15** Chaotic motions of tethered tug-debris system with fuel residuals *Vladimir S. Aslanov, Samara National Research University, Russian Federation*
13:25-13:35	**IAC-18.C1.IP.17** Distributed Coordination Control for Multiple Spacecraft with Coupled Attitude and Orbit Dynamics under the Directed Graph *Ma Weihua, National Key Laboratory of Aerospace Flight Dynamic, Northwestern Polytechnical University, China*
13:35-13:45	**IAC-18.C1.IP.18** dual quaternion based relative navigation for spacecraft proximity operation *Yunju Na, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of*
13:45-13:55	**IAC-18.C1.IP.19** Inverse-dynamics Particle Swarm Optimization for Real Time Optimal Control: Challenges and Opportunities *Dario Spiller, Sapienza University of Rome, Italy*
13:55-14:05	**IAC-18.C1.IP.20** Space-oriented navigation solutions with integrated sensor-suite: the I3DS H2020 project *Antonio Fulvio Scannapieco, Cranfield University, United Kingdom*
14:05-14:15	**IAC-18.C1.IP.21** Investigation into the Controllability of Underactuated Magnetically Stabilized Spacecraft *Mike Alger, Ryerson University, Canada*
14:15-14:25	**IAC-18.C1.IP.22** End-of-life disposal design for spacecraft at Libration Points Orbits and an interpretation of their probability of Earth return *Greta De Marco, Politecnico di Milano, Italy*
14:25-14:35	**IAC-18.C1.IP.23** HIGHER-ORDER CAYLEY TRANSFORM FOR RELATIVE POSE PARAMETERIZATION OF SPACECRAFT *Daniel Condurache, Technical University of Iasi, Romania*
14:35-14:45	**IAC-18.C1.IP.25** sentinel-3 tandem: from concept to implementation *Berthyl Duesmann, ESA - European Space Agency, The Netherlands*

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SCREEN # 21	
13:15-13:25	**IAC-18.C1.IP.26** The Borea project: a quadrotor UAV cradle-to-grave design for space GNC prototyping and testing *Luigi Colangelo, Politecnico di Torino, Italy*
13:25-13:35	**IAC-18.C1.IP.28** Orbital and Formation Optimization for Space Gravitational Waves Observatory Mission *Mingtao Li, 1: National Space Science Center, Chinese Academy of Sciences; 2:University of Chinese Academy of Sciences, China*
13:35-13:45	**IAC-18.C1.IP.29** Next steps for the CryoSat-2 mission: Improving sea-ice estimates in joint operations with the ICESat-2 spacecraft. *Javier Sanchez, ESA - European Space Agency, Germany*
13:45-13:55	**IAC-18.C1.IP.30** Missions for Asteroid Insertion into Earth-Mars Cycler *Francesco Simeoni, , Italy*
13:55-14:05	**IAC-18.C1.IP.31** Mission Design and Analysis for Mars and Phobos Missions via Lunar and Mars-Phobos Distant Retrograde Orbits *Davide Conte, The Pennsylvania State University, United States*
14:05-14:15	**IAC-18.C1.IP.32** Fuel-optimal trajectories near Lagrange points *Florent Bréhard, LAAS-CNRS, France*
14:15-14:25	**IAC-18.C1.IP.33** Advanced In-Flight Results from the GPS Receiver on SmallGEO *Nils Neumann, OHB System AG-Bremen, Germany*
14:25-14:35	**IAC-18.C1.IP.34** advanced approach based on convex programming for mars powered descent guidance *Kazuya Echigo, Department of Engineering ,The University of Tokyo , Japan*
14:35-14:45	**IAC-18.C1.IP.35** Extended reactionless workspace manipulator through reaction wheels *Alessandro Tringali, Space Mechatronic Systems Technology Laboratory, University of Strathclyde, United Kingdom*

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SCREEN # 22	
13:15-13:25	**IAC-18.C2.IP.1** Experimental Studies on Aerothermal Fluid-Structure Interaction with Plastic Deformation *Dennis Daub, DLR (German Aerospace Center), Germany*
13:25-13:35	**IAC-18.C2.IP.2** Space systems structural analyses from modal parameters using a Python developed toolset, and additional pre/post-processing features *José Luis Gasent-Blesa, University of Valencia, Spain*
13:35-13:45	**IAC-18.C2.IP.3** Graphene Functionalization using Transition Metal Oxide for Enhancing the Bifunctional Catalytic Ability of Nanoparticles *Simranjit Grewal, The National AeroSpace Training And Research Center (THE NASTAR CENTER), United States*
13:45-13:55	**IAC-18.C2.IP.5** Free vibrations of ultrathin deployable booms fabricated with nano-modified epoxy matrix *Susanna Laurenzi, Sapienza University of Rome, Italy*
13:55-14:05	**IAC-18.C2.IP.6** Challenges in the design of ultralight mechanisms for deep space exploration - based on RPWI instruments for ESA JUICE mission *Ewelina Ryszawa, Astronika, Poland*
14:05-14:15	**IAC-18.C2.IP.7** DEFIANT: A small mass-producible microsatellite platform for demanding applications under extreme cost and size constraints *Benoit Larouche, Space Flight Laboratory, University of Toronto, Canada*
14:15-14:25	**IAC-18.C2.IP.12** Carbon fiber reinforced benzoxazine featuring shape memory behavior for temperature-dependent self-deploying spacecraft structures *Hannes Schäfer, University of Bremen, Germany*
14:25-14:35	**IAC-18.C2.IP.13** Bio-mimicry: A possible natural solution to design sustainable habitat on Mars *Avishek Ghosh, Loughborough University, United Kingdom*
14:35-14:45	**IAC-18.C2.IP.16** Developmental Verification of the Launch of Cubesat Format Satellites from Small Spacecrafts *Victor Leonov, Bauman Moscow State Technical University, Russian Federation*

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SCREEN # 23	
13:15-13:25	**IAC-18.C2.IP.18** Combining Additive Manufacturing and Biomimetics for the Optimization of Satellite Structures *Daniel Vogel, Technische Universität München, Germany*
13:25-13:35	**IAC-18.C2.IP.19** Corrosion chemical kinetics and erosion effects due to Atomic Oxygen exposure of solar arrays for nano-satellites applications. *Andrea Delfini, Sapienza University of Rome, Italy*
13:35-13:45	**IAC-18.C2.IP.20** fabrication and characteristic of black body system with nano-structured needle for on-board calibration of image sensor *Seolhui Hwang, Hanbat National University, Korea, Republic of*
13:45-13:55	**IAC-18.C2.IP.21** Moisture induced combustion and fire safety *Anirudh Nautiyal, SRM University, kattankulathur, chennai, INDIA, India*
13:55-14:05	**IAC-18.C2.IP.25** Design Structure, Dynamic Structure Simulation and Thermal Simulation of Surya Satellite-1 *Hery Steven Mindarno, , Indonesia*
14:05-14:15	**IAC-18.C2.IP.26** a multi-scale method of mechanical and thermal coupling analysis for thermal protection structure *Jin Yin, China Academy of Launch Vehicle Technology (CALT), China*
14:15-14:25	**IAC-18.C2.IP.31** Active vibration control of flexible appendages of spacecraft in during attitude maneuver *Zelin Wang, Dalian University of Technology, China*
14:25-14:35	**IAC-18.C2.IP.32** Simulation calculation method and test verification of the axial connection stiffness of the clamp band device *Shipeng KANG, Aerospace System Engineering Shanghai, China, China*
14:35-14:45	**IAC-18.C2.IP.33** Thermo structural Analysis of Solid Rocket scarfed Nozzle with composite Ablative Liners for Crew Escape Solid Motor *Paul Murugan J, Indian Space Research Organization (ISRO), India*

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SCREEN # 24	
13:15-13:25	**IAC-18.C3.IP.2** Advanced power system architecture for future spacecraft: concept and high-level design *Christian Demitri, , Germany*
13:25-13:35	**IAC-18.C3.IP.3** Lunar based Solar energy production and transfer through Laser medium *Alev Soenmez, LunarVis, Germany*
13:35-13:45	**IAC-18.C3.IP.5** Towards to Larger Capacity of EPS for CubeSat: Experience from Star of Aoxiang and Issues for Future Development *Peng Li, Shaanxi Engineering Laboratory for Microsatellites, Northwestern Polytechnical University, China*
13:45-13:55	**IAC-18.C3.IP.6** Using Artificial Neural Networks to Model Diffusion in Solid State Electrolytes *Karun Kumar Rao, University of Houston, United States*
13:55-14:05	**IAC-18.C3.IP.10** Reseach on Hybrid Peak Power Tracking Toplogy and Strategy for Satellite Power System *Longlong Zhang, Shandong Aerospace Electro-technology Institute, China Academy of Space Technology, China*
14:05-14:15	**IAC-18.C2.IP.34** A study on impacts of high enthalpy effect in designing arc jet wind tunnel experiments for High Temperature Thermal Protection Material *Xun Wang, CALT,CASC, China*
14:15-14:25	**IAC-18.C2.IP.35** Dynamic Modeling and Robust Control for a Free-flying Flexible-link and Flexible-joint Space Manipulator with an Elastic Base *xiaoyan yu, Fuzhou University, China*
14:25-14:35	**IAC-18.C2.IP.37** ultralight PBO composite overwrapped pressure vessels for lunar probes *Fei Yan, Shanghai Institute of Space Propulsion, China*
14:35-14:45	**IAC-18.C4.IP.53** A NEW SEMI-ANALYTICAL MODEL FOR PRELIMINARY ESTIMATION OF ION NUMBER DENSITY IN ELECTRIC THRUSTER PLUME Andrea Binci, Sapienza University of Rome, Italy

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SCREEN # 25	
13:15-13:25	**IAC-18.C4.IP.1** Aquasonic II – Hybrid Propulsion analysis for 3D-printed fuel grains *Christian Dierken, Hochschule Bremen, Germany*
13:25-13:35	**IAC-18.C4.IP.2** Conceptual design of a hybrid sounding rocket to reach a target altitude *Jeongmoo Huh, Queen Mary University of London, United Kingdom*
13:35-13:45	**IAC-18.C4.IP.6** Design and Experimental Analysis of Hybrid Rocket Engine Additively Manufactured Complex Port Geometries *Alec Yenawine, University of Miami, United States*
13:45-13:55	**IAC-18.C4.IP.7** EFFECT OF PYROLYSIS AND OXIDATION OF N-DECANE ON THE HEAT AND MASS TRANSFER CHARACTERISTICS OF HYDROCARBON FUELED SUPERSONIC FILM COOLING *Jingying Zuo, Harbin Institute of Technology, China*
13:55-14:05	**IAC-18.C4.IP.8** Control System of LE-9 Engine using Electric Drive Valves *Yusuke Funakoshi, Japan Aerospace Exploration Agency (JAXA), Japan*
14:05-14:15	**IAC-18.C4.IP.12** Laser Ablation Propulsion Launch System (LAPLaS) as a basis for New Access-to-Space Paradigm. *IOURI PIGULEVSKI, , Switzerland*
14:15-14:25	**IAC-18.C4.IP.13** Effect of Prestrain on Uniaxial Tensile Behavior of HTPB Composite Propellant *Jiming CHENG, Northwestern Polytechnical University, China*
14:25-14:35	**IAC-18.C4.IP.14** A simplified chemical reaction mechanism for two-component RP-3 kerosene surrogate fuel and its verification *Yingwen YAN, Nanjing University of Aeronautics and Astronautics, China*
14:35-14:45	**IAC-18.C4.IP.17** Experimental Investigation of Injectors Design and their Effects on 1kN Performance Hybrid Rocket Motor *Mohammed Bouziane, Royal Military Academy, Belgium*

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SCREEN # 26	
13:15-13:25	***IAC-18.C4.IP.18*** *Additive Manufacturing Technologies applied to Space Propulsion* *David Ritz, Sitael Spa, United States*
13:25-13:35	***IAC-18.C4.IP.19*** *Experimental Studies of the 150N HAN-based Monopropellant Attitude Control thruster* *Guo Manli, Shanghai Institute of Space Propulsion, China*
13:35-13:45	***IAC-18.C4.IP.22*** *Design and fabrication of MEMS thrust measurement system for performance evaluation of MEMS thruster* *Youngsuk Ryu, Hanbat National University, Korea, Republic of*
13:45-13:55	***IAC-18.C4.IP.26*** *Gelled propellant rocket motor and gas generator technology in Germany - an overview -* *Karl Wieland Naumann, Bayern Chemie, Germany*
13:55-14:05	***IAC-18.C4.IP.28*** *ARCLIGHT - A low cost plug-and-play RIT electric propulsion system* *Philipp Bauer, ArianeGroup, Germany*
14:05-14:15	***IAC-18.C4.IP.31*** *Results of Field-Emission Cathode Operation on the H-II Transfer Vehicle* *Yasushi Ohkawa, JAXA, Japan*
14:15-14:25	***SLOT AVAILABLE – CONTACT ZARM IP TEAM TO UPLOAD YOUR PRESENTATION***
14:25-14:35	***IAC-18.C4.IP.34*** *Electric propulsion system based on the air-breathing radio-frequency ion thruster using the upper atmosphere gases as propellant* *Svyatoslav Gordeev, Research Institute of Applied Mechanics and Electrodynamics (RIAME), MAI, Russian Federation*
14:35-14:45	***IAC-18.C4.IP.35*** *Status of Orion European Service Module Propulsion Subsystem Qualification Testing* *Benedikt Determann, ArianeGroup, Germany*

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SCREEN # 27	
13:15-13:25	***IAC-18.C4.IP.39*** *Development of an Electro Thermal CubeSat Pulsed Plasma Thruster* *James Bultitude, International Space University (ISU), United States*
13:25-13:35	***SLOT AVAILABLE – CONTACT ZARM IP TEAM TO UPLOAD YOUR PRESENTATION***
13:35-13:45	***IAC-18.C4.IP.42*** *Experimental Investigations of Plume Characteristics of the HET-40 Hall Thruster by Langmuir Probe* *JIA LIU, Shanghai Institute of Space Propulsion, China*
13:45-13:55	***IAC-18.C4.IP.43*** *Effect of Nozzle Geometry on Counterflow Jets for Drag Reduction of a High Speed Vehicle* *Jaecheong Lee, Chungnam National University, Korea, Republic of*
13:55-14:05	***IAC-18.C4.IP.44*** *3D imaging of burning aluminum particles in solid propellant using digital inline holography* *BingBingning JIN, Northwestern Polytechnical University, China*
14:05-14:15	***IAC-18.C4.IP.45*** *LOx/LH2 engine demo platform* *Sébastien PRIOTTO, ArianeGroup, France*
14:15-14:25	***IAC-18.C4.IP.48*** *DEVELOPMENT AND TESTING OF AN ADDITIVE LAYERED MANUFACTURED NOZZLE FOR A COLD GAS MICRO THRUSTER* *Abdelfattah Mostafa, Omnidea-RTG GmbH, Germany*
14:25-14:35	***IAC-18.C4.IP.50*** *development of the mems-based nozzle using drie of tapered hole technology for cube satellite* *GIWON LA, Hanbat National University, Korea, Republic of*
14:35-14:45	***IAC-18.C4.IP.52*** *Prediction and Validation of the Catalytic Decomposition of Hydrogen Peroxide in Dual-Catalytic Bed* *Sangwoo Jung, Korea Advanced Institute of Science and Technology (KAIST), Korea, Republic of*

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SCREEN # 28	
13:15-13:25	***IAC-18.D1.IP.1*** *Multi-Asset System Design Methodology for Earth Observation* *Simone Flavio Rafano Carnà, OHB System AG-Bremen, Germany*
13:25-13:35	***IAC-18.D1.IP.2*** *Study on multiply-level model for solid rocket motor: construction and data structure* *Dong Yao, The 41st Institute of the Fourth Academy, China Aerospace Science and Technology Corporation (CASC), China*
13:35-13:45	***IAC-18.D1.IP.3*** *Software Package Design for Partial Automatization of the Design Process of Re-entry Interplanetary Modules* *Victor Leonov, Bauman Moscow State Technical University, Russian Federation*
13:45-13:55	***IAC-18.D1.IP.5*** *A Preliminary Design of a Mission to Triton: a Concurrent Engineering Approach* *Luciano Pollice, Sapienza University of Rome, Italy*
13:55-14:05	***IAC-18.D1.IP.6*** *The Virtual Testbed Approach towards Modular Satellite Systems* *Tobias Osterloh, RWTH Aachen University, Germany*
14:05-14:15	***IAC-18.D1.IP.8*** *Data Exchange between Space Environment Analysis Tools using the Neutral STEP Protocol* *Jewel Pervez, Etamax Space GmbH, Germany*
14:15-14:25	***IAC-18.D1.IP.9*** *Conceptual Design of Space Mechanism based on Model Based Engineering and Model Based Systems Engineering – A Set of concise Methods to increase Engineering Efficiency* *Manolo Omiciuolo, OHB System AG - Oberpfaffenhofen, Germany*
14:25-14:35	***IAC-18.D1.IP.12*** *system concurrent engineering of a people tracking satellite, a case study* *Elisa Itogawa, National Institute for Space Research - INPE , Brazil*
14:35-14:45	***IAC-18.D1.IP.17*** *SCRUM methodology in aerospace projects* *Daria Stepanova, German Orbital Systems GmbH, Germany*

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SCREEN # 29	
13:15-13:25	***IAC-18.D1.IP.19*** *An improved multidisciplinary optimization approach for satellite design* *Shuai Li, National Key Laboratory of Aerospace Flight Dynamics, Northwestern Polytechnical University, China*
13:25-13:35	***IAC-18.D1.IP.20*** *Innovative Architecture Optimization Approach for Highly Reliable Satellite Attitude Control* *Kai Höfner, Technische Universität Braunschweig, Institute of Space Systems, Germany*
13:35-13:45	***IAC-18.D1.IP.24*** *System Design of Upper Stage in KSLV-II used in Korean Lunar Exploration Program* *Sung Wook Yoon, Moscow Aviation Institute, Russian Federation*
13:45-13:55	***IAC-18.D1.IP.25*** *Multi-fidelity design under uncertainty for the James Webb Space Telescope* *Giuseppe Cataldo, National Aeronautics and Space Administration (NASA), Goddard Space Flight Center, United States*
13:55-14:05	***IAC-18.D1.IP.26*** *Predictive control of a space manipulator through error expectation* *Alessandro Tringali, Space Mechatronic Systems Technology Laboratory, University of Strathclyde, United Kingdom*
14:05-14:15	***IAC-18.D1.IP.27*** *FACILITATORS – Facilities for testing orbital and surface robotics building blocks* *Matteo Suatoni, G.M.V. Space and Defence, S.A., Spain*
14:15-14:25	***IAC-18.D1.IP.29*** *An Automatic Model-based Requirement Decomposition and Verification Tool for Space Mission Concept Design* *Yuzhu Zhang, National Space Science Center, Chinese Academy of Sciences, China*
14:25-14:35	***IAC-18.D1.IP.30*** *Parallel, Remotely-Controlled Robotic Manipulation* *Martin Ristov, Ryerson University, Canada*
14:35-14:45	***IAC-18.D1.IP.31*** *Integrating hardware data into simulations for attitude control design* *Srikara Cherukuri, Delft University of Technology (TU Delft), The Netherlands, The Netherlands*

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SCREEN # 30	
13:15-13:25	***IAC-18.D2.IP.1*** *A new three-stage-to-orbit vehicle concept utilizing rocket-based combined cycle propulsion* *Cong Zhou, School of Astronautics,Northwestern Polytechnical University, China*
13:25-13:35	***IAC-18.D2.IP.3*** *Maturity Assessment Process for USAF New Entrant Launch Systems* *Jeffrey Michlitsch, The Aerospace Corporation, United States*
13:35-13:45	***IAC-18.D2.IP.5*** *Trajectory Optimization for Powered Descent and Landing of Reusable Rockets with Restartable Engines* *Lin Ma, Zhejiang University, China*
13:45-13:55	***IAC-18.D2.IP.8*** *Atmospheric Powered Descent Guidance for Rockets Precision Landing on Earth* *Qingzhong Gan, Shanghai Aerospace Control Technology Institute (SACTI), Shanghai Academy of Spaceflight Technology (SAST), China*
13:55-14:05	***IAC-18.D2.IP.9*** *Development of a Suborbital Inexpensive Rocket for Affordable Space Access* *Hamed Gamal, SpaceForest Ltd., Poland*
14:05-14:15	***IAC-18.D2.IP.11*** *cfd based method for modeling convection within thermal system analysis tools for launchers* *Christian Wendt, ArianeGroup, Germany*
14:15-14:25	***IAC-18.D2.IP.12*** *Launch Environment Measurement CubeSat and Lessons Learned* *Arielle Cohen, Cal Poly, SLO, United States*
14:25-14:35	***IAC-18.D2.IP.15*** *Performance Optimization of the Methanol/LOX Sounding Rocket Systems* *Naser Ashknani, Kuwait University, Kuwait*
14:35-14:45	***IAC-18.D2.IP.16*** *Low-Cost Prototype Development of a Lunar Massdriver* *Manfred Ehresmann, Institute of Space Systems, Universität Stuttgart, Germany*

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SCREEN # 31	
13:15-13:25	***IAC-18.D3.IP.1*** *Initial design characteristics, testing and performance optimisation for a lunar exploration micro-rover prototype.* *Mickaël LAÎNÉ, Tohoku University, Japan*
13:25-13:35	***IAC-18.D3.IP.2*** *Multi-functional interface for payload interconnection of robotic systems in space* *Gonzalo Guerra, SENER Ingenieria y Sistemas, S.A., Spain*
13:35-13:45	***IAC-18.D3.IP.3*** *The Novel Docking Mechanism Design of Modular Space Robot* *Dong Yang, Northwestern Polytechnical University;National Key Laboratory of Aerospace Flight Dynamics, China*
13:45-13:55	***IAC-18.D3.IP.4*** *Fused Filament Fabrication of Polycarbonate Components in a Simulated On-Orbit Environment* *Marshall Quinn, Delft University of Technology (TU Delft), The Netherlands*
13:55-14:05	***IAC-18.D3.IP.7*** *h.o.m.e. lab* *Alessandro Martucci, Università degli Studi di Napoli "Federico II", Italy*
14:05-14:15	***IAC-18.C4.IP.56*** *structural integrity analysis of srm grain at low temperature ignition* *YAO Dong, The 41st Institute of the Fourth Academy, China Aerospace Science and Technology Corporation (CASC), China*
14:15-14:25	***IAC-18.D1.IP.32*** *High-precision surface force modelling approach for space-based fundamental physics mission* *Takahiro Kato, ZARM, University of Bremen, Germany*
14:25-14:35	***IAC-18.D2.IP.17*** *orbital transfer performance analysis for momentum exchange tether based spacecraft system* *Feng Zhang, China Academy of Launch Vehicle Technology(CALT), China*
14:35-14:45	***IAC-18.D2.IP.18*** *Space "filling station* *Sergiy Matviyenko, JSC "RPC "KURS", Ukraine*

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SCREEN # 32	
13:15-13:25	***IAC-18.D4.IP.1*** *Space Sustainability: Overcoming future space challenges* *Vishwani Aggarwal, University of Petroleum and Energy Studies, India*
13:25-13:35	***IAC-18.D4.IP.4*** *space internetworking service based on DTN for interplanetary Internet* *Longfei Li, Xi'an Microelectronics Technology Institute, China Aerospace Science and Technology Corporation (CASC), China*
13:35-13:45	***IAC-18.D4.IP.5*** *Technologies for the First Interstellar Explorer: Beyond Propulsion* *Anthony Freeman, JPL, United States*
13:45-13:55	***IAC-18.D4.IP.6*** *TETHERED SLINGSHOT MANEUVER IN THE THREE-DIMENSIONAL SPACE* *Antonio Prado, National Institute for Space Research - INPE , Brazil*
13:55-14:05	***IAC-18.D4.IP.7*** *SCIENTIFIC-SPORTS COMMERCIAL PILOTED EXPEDITION TO VENUS* *Oleg Aleksandrov, Private individual www.oleg.space, United States*
14:05-14:15	***IAC-18.D4.IP.8*** *Multi-stage space elevator – the benefits of scaling* *John Knapman, , United Kingdom*
14:15-14:25	***IAC-18.D4.IP.9*** *Cosmic Radiation Protection System for Lunar Habitation* *Vikrant Sharma, University of Petroleum and Energy Studies, India*
14:25-14:35	***IAC-18.D4.IP.10*** *CubeSat Sundiver for Interstellar Precursor Missions* *Martin Lades, [unlisted], Germany*
14:35-14:45	***IAC-18.D4.IP.11*** *Study on a small-scale and high-performance space elevator* *Xiaowei WANG, China Academy of Launch Vehicle Technology (CALT), China*

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SCREEN # 33	
13:15-13:25	***IAC-18.E1.IP.1*** *Human Resources Procedures for the Advancement of Gender Parity in Student Space Mission Projects* *Callie Lissinna, University of Alberta, Canada*
13:25-13:35	***IAC-18.E1.IP.3*** *Exploring the possibilities to create space studies in a country which lacks of it* *Daniel Szendrei, Hungarian Astronautical Society (MANT), Hungary*
13:35-13:45	***IAC-18.E1.IP.4*** *Using access to space to bring the 'why' back to education and STEM efforts in the classroom* *Carie Lemack, DreamUp, PBC, United States*
13:45-13:55	***IAC-18.E1.IP.5*** *European Rover Challenge – a giant leap to the space sector career* *Lukasz Wilczynski, European Space Foundation, Poland*
13:55-14:05	***IAC-18.E1.IP.12*** *Two Decades of ARCSSTE-E'S Postgraduate Diploma Programme: What Next?* *Oladosu Olakunle, African Regional Center for Space Science and Technology Education in English (ARCSSTE-E), Nigeria*
14:05-14:15	***IAC-18.E1.IP.14*** *the importance of design and build test-bed platform for cubeSat missions in the uae* *Fatema Al Hameli, UAE Space Agency, United Arab Emirates*
14:15-14:25	***IAC-18.E1.IP.15*** *Introducing concurrent engineering to space and satellite technology undergraduate course* *Adam Dąbrowski, Blue Dot Solutions, Poland*
14:25-14:35	***IAC-18.E1.IP.18*** *On the road!* *Space rock tour with a meteorite hunter* *By Cintia Durán* *Cintia Durán, , Mexico*
14:35-14:45	***IAC-18.E1.IP.20*** *small meteorological rocket launch for student project payload with bio-material* *Nikolay Mullin, Skolkovo Institute of Science and Technology, Russian Federation*

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SCREEN # 34	
13:15-13:25	***IAC-18.D5.IP.2*** *"Hoopoe Nano-Satellites Constellation (Israel 70)" – a Potential Test-Bed for Dealing with Space Big Data* *Yevgeny Tsodikovich, The Open University of Israel, Israel*
13:25-13:35	***IAC-18.E1.IP.21*** *Educational picosatellite telemetry and data download station* *Sebastian Tepper, Pontifical Catholic University of Chile, Chile*
13:35-13:45	***IAC-18.E1.IP.22*** *BlackBox: Locatable Crash Safety Data Storage Device for Sounding Rockets* *Marcel Vornholt, Hochschule Bremen, Germany*
13:45-13:55	***IAC-18.E1.IP.23*** *antenna design with measuring tapes workshop* *Chloe Mireault-Lecourt, Université de Sherbrooke, Canada*
13:55-14:05	***IAC-18.E1.IP.25*** *LOW COST OPEN SOURCE HARDWARE AND SOFTWARE TECHNOLOGIES, INTEGRATED AS A PAYLOAD IN A HIGH ALTITUDE BALLOON, A TOOL FOR STEAM EDUCATION IN PARAGUAY, A CASE STUDY.* *Jorge Kurita, , Paraguay*
14:05-14:15	***IAC-18.E1.IP.26*** *Approaching latin american teenagers into space* *Federico Arturo Martinez Espinoza, Space Generation Advisory Council (SGAC), Mexico*
14:15-14:25	***IAC-18.E1.IP.27*** *Hands-on space education with REXUS/BEXUS - Rocket and Balloon Experiments for University Students* *Kristine Dannenberg, Swedish National Space Board (SNSB), Sweden*
14:25-14:35	***IAC-18.E1.IP.28*** *Paving Young Minds: An Enabler to Reach Out* *Zaid Shakil, TU Berlin, Germany*
14:35-14:45	***IAC-18.E1.IP.31*** *Astronomy textbook's course outline of high schools for least developed countries* *Nebiyu Mohammed, , Ethiopia*

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SCREEN # 35	
13:15-13:25	***IAC-18.E3.IP.1*** *The status of the Operational Debris Mitigation Systems regulatory policy: current issues and future perspectives* *Annamaria Nassisi, Thales Alenia Space Italia, Italy*
13:25-13:35	***IAC-18.E3.IP.5*** *PAROS:A technological view of the problem* *Angel Cuellar, Eurospace, France*
13:35-13:45	***IAC-18.E3.IP.7*** *Current developments in Polish space law* *Otylia Trzaskalska-Stroinska, ESA, Belgium*
13:45-13:55	***IAC-18.E3.IP.8*** *Potential Contributions of Commercial Actors to Space Exploration* *Clelia Iacomino, European Space Policy Institute (ESPI), Austria*
13:55-14:05	***SLOT AVAILABLE – CONTACT ZARM IP TEAM TO UPLOAD YOUR PRESENTATION***
14:05-14:15	**IAC-18.E3.IP.10** Terrorism and Space Security *Nikki Coleman, UNSW Australia, Australia*
14:15-14:25	**IAC-18.E3.IP.12** THE IGA AND THE INTERNATIONAL SPACE STATION: A MODEL OF COOPERATION FOR MARS ? *Alessio Rossi, Sapienza University of Rome, Italy*
14:25-14:35	**IAC-18.E3.IP.13** international cooperation and general public involvement for future lunar missions *Laura Miquel Parra, Politecnico di Torino, Spain*
14:35-14:45	**IAC-18.E3.IP.14** Undercutting international cooperation in space exploration through domestic legislation *Vinay Narayan, , India*

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SCREEN # 36	
13:15-13:25	***IAC-18.E5.IP.3*** *Construction of a Martian Habitat Using In-Situ Materials For Radiation Shielding* *Nihat Mert Ogut, Technical University of Delft, The Netherlands*
13:25-13:35	***IAC-18.E5.IP.4*** *analogue habitation experiment and euromoonmars2018 campaign* *Germaine van der Sanden, ESA - European Space Agency, The Netherlands*
13:35-13:45	***IAC-18.E5.IP.6*** *Integrating Three Disciplinary Perspectives in an Iterative Design Process for the Surface Habitat of the First Human Mission to Mars* *Carlijn van der Werf, Delft University of Technology (TU Delft), The Netherlands, The Netherlands*
13:45-13:55	***IAC-18.E5.IP.14*** *photobioreactor façade system for self-sustainable Moon surface habitat* *Kyunghwan KIM, , France*
13:55-14:05	***IAC-18.E1.IP.32*** *Space Medicine Opportunities for Undergraduate Medical Education in Canada: Past, Present, and Future* *Adam Sirek, Western University, Canada*
14:05-14:15	***IAC-18.E1.IP.33*** *SAMI: High Resolution 3D Visualisation of ESA Earth Observation Satellite Missions* *Montserrat Pinol Sole, ESA - European Space Agency, The Netherlands*
14:15-14:25	***IAC-18.E1.IP.35*** *Methodology and Tooling of The Process of Solving Interdisciplinary Problems with Aim at Enhancing the Efficiency of Skills in Multiple Criteria Analysis for Future Engineers* *Victor Leonov, Bauman Moscow State Technical University, Russian Federation*
14:25-14:35	***IAC-18.B2.IP.21*** *ASTROgyro – IRU qualification and test results* *Florian Schuh, Jena-Optronik GmbH, Germany*
14:35-14:45	***SLOT AVAILABLE – CONTACT ZARM IP TEAM TO UPLOAD YOUR PRESENTATION***

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SCREEN # 37	
13:15-13:25	***IAC-18.E6.IP.4*** *The Entrepreneurial Vision with a Massive Transformative Purpose: Creating fully-immersive experiential simulation-based edutainment with "Lets get S.T.E.A.M.E.D" workshops and simulation EVAs using exponential technologies.* *Susan Ip-Jewell, Mars Academy USA, United States*
13:25-13:35	***IAC-18.E6.IP.6*** *CubeRover: An Enabling Technology for Planetary Exploration* *Michael Provenzano, , United States*
13:35-13:45	***IAC-18.E7.IP.4*** *The Proposed Public Procurement for Projects to Enhance Industrial Capabilities through Japanese Lessons Learned* *Mizuki Tani Hatakenaka, Leiden University, The Netherlands*
13:45-13:55	***IAC-18.E7.IP.5*** *Which future for the "global commons"?* *Kai-Uwe Schrogl, European Space Agency (ESA), France*
13:55-14:05	***IAC-18.E7.IP.7*** *Public Investment Law – a tool to secure NewSpace financing?* *Erik Pellander, BHO Legal , Germany*
14:05-14:15	***IAC-18.E7.IP.8*** *Developing and Adapting Space Law to Govern Long Term and Permanent Human Settlement of Outer Space, the Moon and Other Celestial Bodes* *Thomas Cheney, Northumbria University, United Kingdom*
14:15-14:25	***IAC-18.E7.IP.9*** *Space 4.0: creating incentives for states to clarify and coordinate interpretations of what activities constitutes responsibility and liability under international space law* *Mari Amanda Eldholm, ECSL, Norway*
14:25-14:35	***IAC-18.E7.IP.10*** *'The Danger of Space Debris: Legal Issues and Solutions Associated with Active Debris Removal'* *Joanna Langlade, International Institute of Air and Space Law, Leiden University, Belgium*
14:35-14:45	***IAC-18.E7.IP.11*** *Legislating Space - India's 2021 Space Odyssey* *Jai Sanyal, Other, India*

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SCREEN # 38	
13:15-13:25	***IAC-18.E7.IP.13*** *Fledgling Polish space industry ready for lift -off* *Katarzyna Malinowska, Kozminski University, Poland*
13:25-13:35	***IAC-18.E7.IP.14*** *Global Space Governance: the need to adopt de-institutionalized cooperation models* *Jonathan Andrade, , Brazil*
13:35-13:45	***IAC-18.E7.IP.15*** *Owning the Hosted Payload and international space law* *Akiko Watanabe, , Japan*
13:45-13:55	***IAC-18.E7.IP.16*** *Quantum Bits of Light: The future of Satellite Quantum Key Distribution Under Export Administration Regulations and the First Amendment of the United States Constitution* *Marshall Mckellar, , United States*
13:55-14:05	***IAC-18.E7.IP.17*** *Ratifying the Moon Agreement with a Reservation for (Article 11.1)* *zeina ahmad, University of Leiden, Netherlands Antilles*
14:05-14:15	***IAC-18.E7.IP.18*** *Real-time challenges for the registration regime: where to?* *Georgia-Eleni Exarchou, National and Kapodistrian University Of Athens, Greece*
14:15-14:25	***IAC-18.E7.IP.19*** *The application of the principles of Community law and Public International law in the proposal of a Central American Space Policy: ad hoc the Central American Court of Justice and COCESNA.* *Brenda Ulate Gamboa, University of Costa Rica, Costa Rica*
14:25-14:35	***IAC-18.E7.IP.20*** *Analysis of the Intellectual Property protection instruments in the Italian space sector* *Michael Urso, Italian Space Agency (ASI), Italy*
14:35-14:45	***IAC-18.E7.IP.21*** *Establishing Universal Jurisdiction on Space Debris* *Qing Zhao, CHINA UNIVERSITY OF POLITICAL SCIENCE AND LAW, China*

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SCREEN # 39	
13:15-13:25	***IAC-18.A7.IP.2*** *Benefits of Reuse for Future Science Missions at OHB System* *Alison Gibbings, , Germany*
13:25-13:35	***IAC-18.C4.IP.33*** *Development of a 25kN Hybrid Rocket Engine for the Stratos III sounding rocketPeter Martijn van den Berg, Delft University of Technology (TU Delft), The Netherlands*
13:35-13:45	IAC-18.E5.IP.5 Bubbles on Mars: 360° play and performance on EVA. *Sarah Jane Pell, ESA Topical Team Arts & Science, Australia*
13:45-13:55	IAC-18.B1.IP. 4 Trace atmospheric gases, retrieved from the measurements of GOME, SCIAMACHY and GOME-2 and follow ons. *John P.*
13:55-14:05	IAC-18.A1.IP.13 REDUCTION OF BONE AND MUSCLE LOSS IN LONG-DURATION SPACE FLIGHTS BY RESISTIVE EXERCISES WITH DIFFERENT WEIGHT *Tatyana Kukoba, FSC RF-IMBP, Russian Federation*
14:05-14:15	IAC-18.B3.IP.8 Research on the Scheme of On Orbit Deploying CubeSats from China' s Space Station *Suquan Ding, Beijing Space Quest Ltd., China*
14:15-14:25	IAC-18.E5.IP.10 Artronauts, astronauts, alchemnauts and play: highlighting the importance of art and human interactions in Space missions *Susan Ip-Jewell, ,United States*
14:25-14:35	IAC-18.A3.IP.29 High operability Graphical User Interface for SORATO based on robotics mission experience of ISS *Kazuya Imaki, Japan Manned Space Systems Corporation (JAMSS), Japan*
14:35-14:45	IAC-18.A1.IP.3 The :envihab – Linking biomedical research and technological innovation for Astronaut health *Melanie von der Wiesche, Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR), Institute of Aerospace Medicine, Germany*

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SCREEN # 40	
13:15-13:25	IAC-18.E1.IP.9 Promoting Productive Cooperation between Space Lawyers and Engineers *Anja Nakarada Pecujlic, Cologne University, Germany*
13:25-13:35	IAC-18.A3.IP.46 High-Accuracy Determination of the Upper Atmosphere Temperatures of the Sun *Xi Chen, International Space University(ISU), France*
13:35-13:45	IAC-18.A6.IP.38 debris falling forecast method for spacecraft disintegration separation *Dun Li, China Academy of Aerospace Aerodynamics (CAAA), China*
13:45-13:55	IAC-18.A1.IP.6 habitat design considerations for promoting crew health and interactions *Brian Ramos, , United States*
13:55-14:05	IAC-18.E1.IP.36 Comparative Paleontology and Terraforming as 21st Century High School Curriculum *Monica Ebert, SGT Inc. / NASA Ames Research Center, United States*
14:05-14:15	IAC-18.E1.IP.34 “Satellite Technology” and “SpaceMaster”: Two International, Interdisciplinary Master Programs Emphasizing Data Processing Aspects *Klaus Schilling, University Wuerzburg, Germany*
14:15-14:25	IAC-18.D1.IP.14 SYSTEM ENGINEERING CHALLENGES AND TOOLS IN MULTI-PROJECT ENVIRONMENT *FARHANA TABASSUM, ISRO Satellite Centre (ISAC), ISRO, India*
14:25-14:35	IAC-18.D1.IP.23 Innovative System Design Synthesis and Optimization of Re-entry Vehicles Conceptual Design *Sweety Pate, , Belgium*
14:35-14:45	IAC-18.A3.IP.15 On the feasibility of LTE for high speed mobile communications on the Moon. *Florian Pivit, Nokia, Ireland*