

**United Nations Expert Meeting on Human Space Technology**  
- Providing Access to Space

**Detailed programme and presentations**

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**Tuesday, 4 December 2018**

<b>Time</b>	<b>Activity</b>
	Master of ceremony: Mr. Aimin Niu
0900-1000	Registration of participants
	<b>Welcome address</b>
1000-1005	Mr. Luc St-Pierre Chief, Space Applications Section, United Nations Office for Outer Space Affairs
	<b>Plenary session 1: National and international space activities</b>
	Moderator: Mr. Luc St-Pierre, Rapporteur: Mr. Jorge Del Rio Vera
1005-1025	1. <a href="#">UNOOSA: Human Space Technology Initiative</a> Mr. Luc St-Pierre, United Nations Office for Outer Space Affairs
1025-1040	2. <a href="#">Fly with China Space Station for human's common benefits</a> Mr. Yuanzhen Wang, China Manned Space Agency (CMSA)
1040-1055	3. <a href="#">International contribution through the utilization of Japanese Experimental Module on ISS</a> Mr. Shigeki Kamigaichi, Japan Aerospace Exploration Agency (JAXA)
1055-1140	Group photo (15') & Coffee break (30')
1140-1155	4. <a href="#">The impacts Colombia will face with the upraise of their first astronaut</a> Ms. Natally Mendez, Asociación Astronáutica Colombiana
1155-1210	5. <a href="#">UNICEF innovation's approach to involve youth and start-ups from developing countries in space technology development</a> Mr. Do-Hyung KIM, United Nations Children's Fund (UNICEF)
1210-1240	<b>Plenary session 1 discussion (30')</b>
	Lunch
	<b>Plenary session 2: Space-/ground-based facilities and their utilization</b>
	Moderator: Mr. Takao Doi, Mr. Jack Van Loon Rapporteur: Mr. Aimin Niu, Mr. Hui Du
1430-1445	1. Utilization resources and cooperation opportunities for China Space Station

	Mr. Yang Yang, Chinese Academy of Sciences (CAS)
1445-1500	2. <a href="#">Internationalization and win-win development plan of space medical platform facilities</a> Mr. Ji Xu, Space Institute of Southern China
1500-1515	3. <a href="#">Space mission opportunities on the Airbus Bartolomeo platform</a> Mr. Per Christian Steimle, Airbus Defence and Space GmbH
1515-1530	4. <a href="#">Research activities at ZARM</a> Mr. Claus Kurt O. Laemmerzahl, ZARM, University of Bremen
1530-1545	5. <a href="#">The use of centrifuges in space related research</a> Mr. Jack Van Loon VU Medical Center Amsterdam & ESA-ESTEC
1545-1600	6. <a href="#">United Nations/Sierra Nevada Corporation on the Utilization of Dream Chaser</a> Mr. Jorge Del Rio Vera, United Nations Office for Outer Space Affairs
1600-1630	Coffee break & Poster session (30')
1630-1645	7. <a href="#">Ground-based microgravity simulators in gravitational biology: potential and limitations</a> Mr. Ralf Anken, Institute of Aerospace Medicine, German Aerospace Center (DLR)
1645-1700	8. <a href="#">Mexican participation in the first Latin American suborbital mission ESAA-01 carrying out on-board experiments that help in the cure of cancer and mellitus diabetes in the Latin population</a> Mr. Jose Alberto Ramirez Aguilar, High Technology Unit (UAT) - Faculty of Engineering, Universidad Nacional Autónoma de México (UNAM)
1700-1715	9. <a href="#">Synergistic effects on gene expression changes in microgravity: bioinformatics analysis for the model organism Oryzias latipes and propagation toward astrobiological, simulated microgravity experiments.</a> Ms. Jonna Kim Amato-Ocampo University of South Florida, Morsani College of Medicine
1715-1730	10. <a href="#">UNOOSA ZGIP experience in Spain: from the primary school to the research centre level</a> Mr. Raul Herranz, Centro de Investigaciones Biologicas (CSIC)
1730-1745	11. <a href="#">Enhancing space education and research in microgravity among school children in Africa: ARCSSTEE 's UN-ZGIP experience, lessons learnt and potential improvements</a> Mr. Ganiyu Ishola Agbaje,

	African Regional Centre for Space Science and Technology Education, Affiliated to the United Nations - English (ARCSSTEE)
	End of day 1

**Wednesday, 5 December 2018**

Time	Activity
	<b>Session 2: Space-/ground-based facilities and their utilization (cont'd)</b> Moderator: Mr. Jack Van Loon, Mr. Takao Doi Rapporteur: Mr. Hui Du, Mr. Aimin Niu
0900-0915	12. <a href="#">Innovation Initiative at the American University of Madaba</a> Mr. Nabil Yousef Habib Ayoub, American University of Madaba
0915-0930	13. <a href="#">ASTRILIS remote asteroid acquisition mission, the most efficient sourcing of materials from space for mankind</a> Mr. Giulio Manzoni, Microspace Rapid Pte Ltd, a Member of Astrilis Working Group
0930-0945	14. <a href="#">Autonomous intelligent space robotic manipulator design and simulation for CSS</a> Mr. Xiaofeng Wu, University of Sydney
0945-1000	15. Understanding socio-technical issues affecting the future microgravity research marketplace Ms. Christine Joseph, Massachusetts Institute of Technology
1000-1030	<b>Plenary session 2 discussion (30')</b>
1030-1100	Coffee break & Poster session (30')
	<b>Plenary session 3: Small satellite related capacity building activities</b> Moderator: Mr. Per Christian Steimle, Rapporteur: Ms. Ayami Kojima
1100-1115	1. <a href="#">1KUNS-PF: 1st Kenyan university satellite development, launch deployment and operation</a> Mr. Mwangi Mbuthia, University of Nairobi
1115-1130	2. <a href="#">Development of the first Mauritian infrared cube-satellite</a> Mr. Arjoon Suddhoo, Mauritius Research Council
1130-1145	3. <a href="#">PROJECT IRAZU: the first central America satellite, benefits and challenges of Costa Rica having entered the space race</a> Mr. Luis Diego Monge Solano, Central America Society for Aeronautics and Space ACAE

1145-1200	4. <a href="#">Myanmar Earth observation micro-satellite programme</a> Mr. Win Aung, Ministry of Transport and Communications, Myanmar
1200-1215	5. <a href="#">Development of satellite communication labs using low cost embedded devices for the improvement of education standard of satellite communication concepts in Pakistani universities</a> Mr. Hassan Bin Ahmad, University of Management and Technology (UMT), Pakistan
1215-1230	6. <a href="#">The Lego-Star low-earth orbit backbone satellite system for wideband access of the cube-sats</a> Mr. Sergii Vladimirovich Kapshtyk The National Space Facilities Control and Test Center, Ukraine
1230-1245	7. <a href="#">Introducing space technology and aerospace engineering in Guatemala</a> Mr. Victor Hugo Ayerdi Bardales, Universidad del Valle de Guatemala
1245-1300	<b>Plenary session 3 discussion (15')</b>
	Lunch
1430-1630	<b>Breakout session 1: HSTI-Lessons learnt, benefits and improvements</b> Moderator: Mr. Aimin Niu, Rapporteur: Ms. Ayami Kojima  This breakout session will have an interactive discussion among the current and past participants on HSTI activities. The objective is to gather lessons learnt that could help other participants and the Office, benefits that the HSTI programmes generated, and suggestions and new proposals for improvements both at participant and Office level.
1430-1630	<b>Breakout session 2: Current and future needs on access to space</b> Moderator: Mr. Jorge Del Rio Vera, Rapporteur: Mr. Hui Du  The objective of this breakout session is to brainstorm on the needs on access to space from the perspective of current and future applicants, related to HSTI activities. This is linked to institutional or country priorities that could be supported by these types of activities. Participants will also be asked the question about which (HSTI-related) capabilities should be developed and how.
1630-1700	Coffee Break (30')
	<b>Plenary session 4: Human space and other capacity building activities</b> Moderator: Mr. William Carey, Rapporteur: Ms. Maruska Strah
1700-1715	1. <a href="#">Europe's experience in the utilisation of the ISS and China's space programme in support of global progress</a> Mr. William Carey, Five Owls Technology Limited
1715-1730	2. <a href="#">Science education programme on human space activities</a>

	Mr. Takao Doi, Kyoto University, Unit of Synergetic Studies for Space, Japan
1730-1745	3. <a href="#">Framework for multi-level education &amp; training-curriculum development and methodology</a> Ms. Anjana Narendra Vyas, CEPT University, India
1745-1800	4. <a href="#">Prospects and ways of commercial cooperation based on low earth orbit space station</a> Mr. Shaohua Wang, China Aerospace Science & Technology Consulting Co., Ltd.
	End of Day 2

**Thursday, 6 December 2018**

Time	Activity
	<b>Keynote speech</b>
0900-0915	UNOOSA: Access to space for all Mr. Ian Freeman, United Nations Office for Outer Space Affairs
	<b>Plenary session 4: Human space and other capacity building activities (cont'd)</b> Moderator: Mr. William Carey, Rapporteur: Ms. Maruska Strah
0915-0930	5. <a href="#">Analysis of the psychosocial situation of people living in space habitats using electroencephalographic signals</a> Mr. Avid Roman-Gonzalez, Universidad de Ciencias y Humanidades (UCH), Peru
0930-0945	6. <a href="#">Space nutrition: The key role of nutrition in human space flight</a> Mr. Enrico Catalano, University of Oslo
0945-1000	7. Online STEM education and aerospace micro-lesson in Nigeria: A panacea to African development (Participant was not present) Mr. Abiodun Ogunbiyi, Aerospace Palace International
1000-1015	8. A novel spacecraft with an innovative payload for radiation measurements between Venus and Mars orbits (Participant was not present) Mr. Premkumar Babu Saganti Prairie View A & M University
1015-1030	9. <a href="#">Preparing human exploration on Moon and Mars: towards a functional base</a> Ms. Christiane Heinicke ZARM, University of Bremen

1030-1045	10. <a href="#">Human mars mission concept design with global collaboration</a> Mr. Ozan Kara, KOC University - Space Generation Advisory Council
1045-1115	Coffee Break (30')
	<b>Announcement on call for interest</b>
1115-1130	<b>Call for interest in utilizing “Bartolomeo” on ISS</b> <b>Speakers:</b> 1) Mr. Luc St-Pierre Chief, Space Applications Section United Nations Office for Outer Space Affairs 2) Mr. Akos Hegyi Head of ISS Services Airbus Defence and Space Bremen
1130-1145	11. <a href="#">Is the present rescue and return regime sufficient to govern private spacecrafts and persons?</a> Ms. Upasana Dasgupta, Institute of Air and Space Law and Faculty of Law, McGill University
1145-1200	12. <a href="#">Multi-planetary human rights protection</a> Ms. Barikatul Hikmah Albar Salim, The Human Catalysts
1200-1215	13. <a href="#">How to take advantage of biodiversity for human spaceflight: The Costa Rica case</a> Mr. Adolfo Chaves Jimenez, Space Systems Engineering Laboratory (SETEC Lab), Costa Rica Institute of Technology
1215-1245	<b>Plenary session 4 discussion (30')</b>
	Lunch
1430-1600	<b>Breakout session 1 (cont'd): Finalizing outcomes</b> Moderator: Mr. Aimin Niu, Rapporteur: Ms. Ayami Kojima
1430-1600	<b>Breakout session 2 (cont'd): Finalizing outcomes</b> Moderator: Mr. Jorge Del Rio Vera, Rapporteur: Mr. Hui Du
1600-1630	Coffee break (30')
1630-1700	<b>Plenary session 5: Presenting outcomes from Breakout Sessions</b> Moderator: Mr. Luc St-Pierre, Presenters: Ms. Ayami Kojima (for Breakout session 1) Mr. Hui Du (for Breakout session 2)

1700-1710	<b>Closing remark</b> Mr. Luc St-Pierre Chief Space Applications Section, United Nations Office for Outer Space Affairs
	End of the Expert Meeting

### Posters

Poster title	Author / Presenter
1. Thermal modelling and analysis of planetary landers for lunar exploration missions.	Ms. Hannah Rana, University of Oxford/ ESA/ SGAC
2. Galvanic vestibular stimulation as an aid for space adaptation through vagal response activation	Ms. Adriana Cristina Pliego Carrillo, Universidad Autonoma del Estado de Mexico (UAEM)
3. Neural differentiation of stem cells in simulated microgravity environment	Ms. Zahra Hajebrahimi, Aerospace Research Institute, Ministry of Science Research and Technology, Iran
4. Qualification of standing instability caused by Zero-G environments.	Mr. Lars Heiko Mehnen, University of Applied Sciences FH-Technikum Wien, Austria
5. Bartolomeo & Earth observation	Ms. Simone Valeska Sasse, Airbus Defence and Space GmbH
6. UNOOSA ZGIP experience in Spain: from the primary school to the research centre level	Mr. Raul Herranz, Centro de Investigaciones Biologicas (CSIC)
7. Myanmar Earth observation micro-satellite programme	Mr. Win Aung, Ministry of Transport and Communications, Myanmar