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للفضاء
MOHAMMED BIN RASHID SPACE CENTRE

72nd INTERNATIONAL ASTRONAUTICAL CONGRESS

IAC
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25–29 October 2021 | Dubai, United Arab Emirates

Other
Events

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for the Benefit of Humankind



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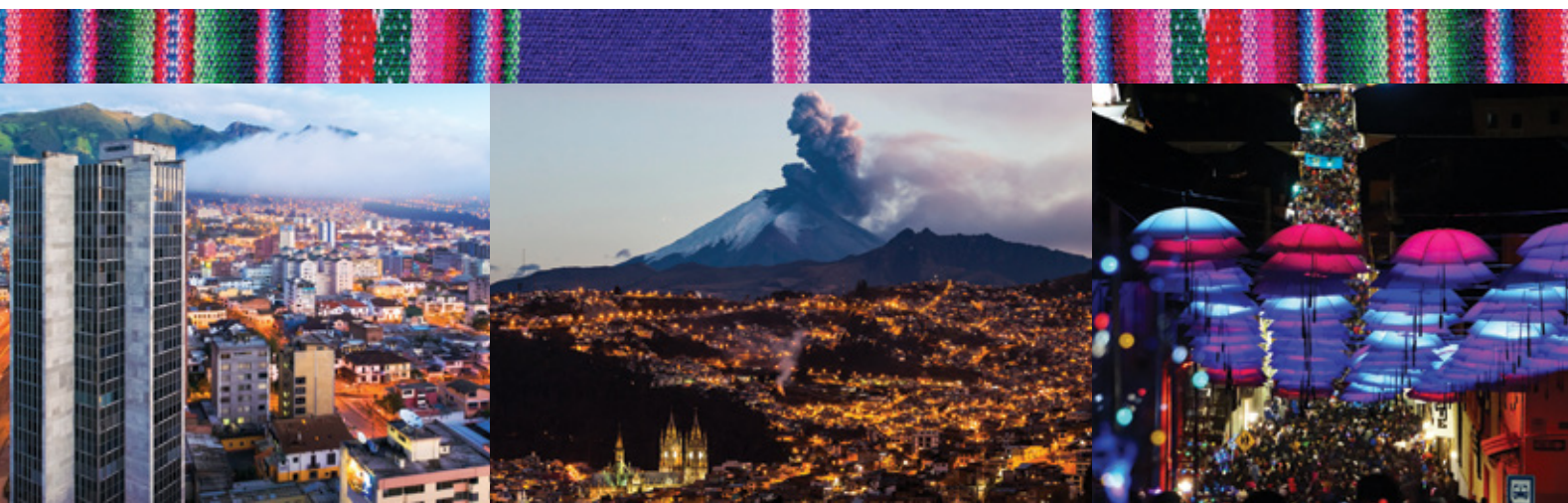
GLEC2022
GLOBAL CONFERENCE
ON SPACE FOR
EMERGING COUNTRIES

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GLEC 2022 will focus on:

- Creating awareness on the essential legislative and policy elements that must be considered in establishing a firm foundation for national or regional space ecosystems.
- Promoting the creation and development of a local/regional space ecosystem that is innovative, responsive, robust, and commercially viable.
- Highlighting the socio-economic benefits of space applications so that high-level citizen support can be secured for advancing national or regional space ecosystems.



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1 Students and Young Professionals Events

1.1 2021 IPMC Young Professional Workshop

Date: Sunday 24 October 2021
Time: 09:00 – 18:00
Venue: Sheikh Rashid Hall, Dubai World Trade Centre,
Room Umm Al Qwain



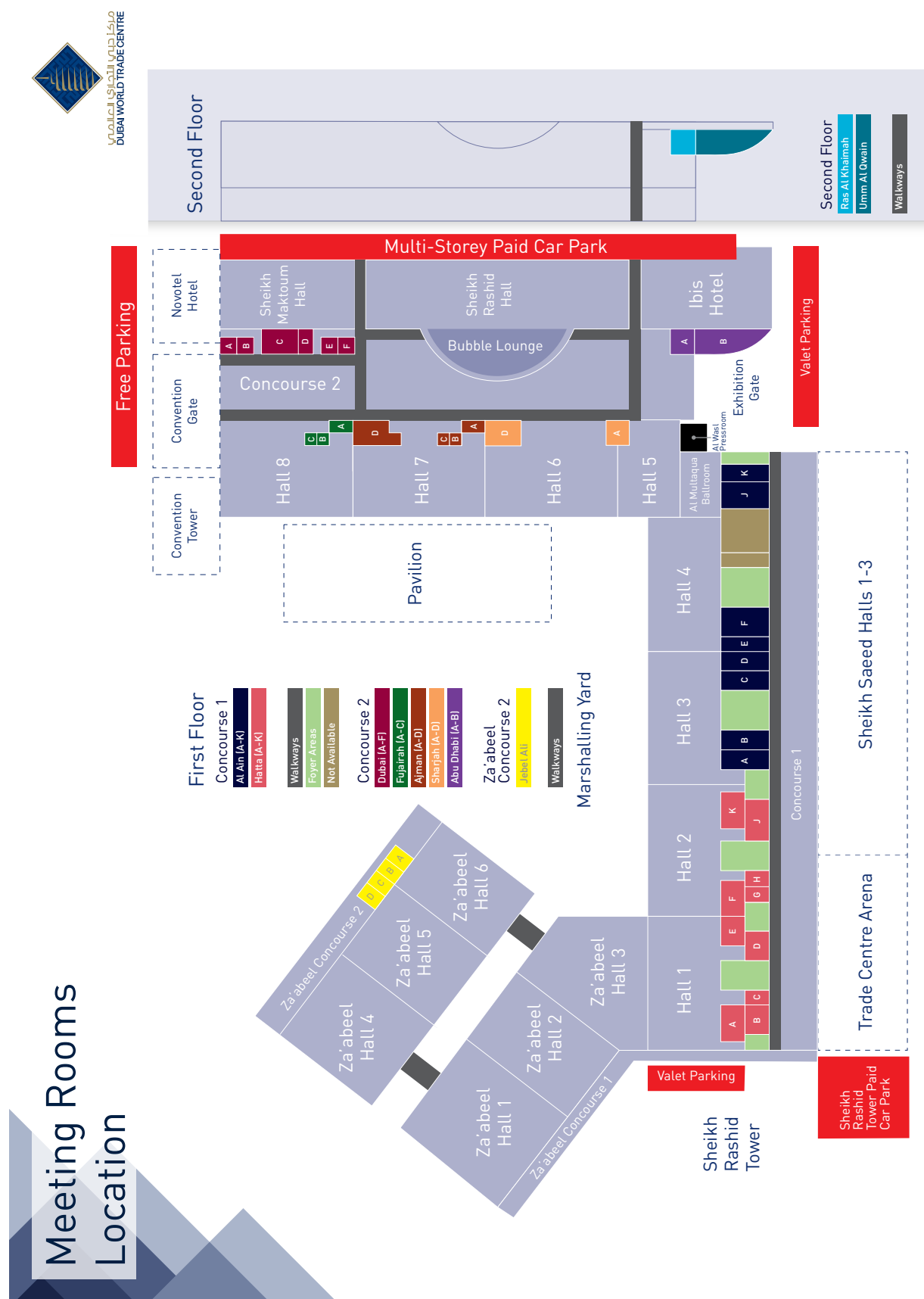
The Final Event of the 2021 IPMC Young Professionals Workshop will take place on Sunday 24 October.

All Delegates attending the IAC are welcome to join the event during topics pitches and debate.

The Workshop gathered inputs from young professionals in the international space community on how to bridge the generational gap in the workplace and on how to better develop and empower the next-generation workforce.

Each Session will cover results on all of the following topics:

- Topic 1: Management of remote collaboration in the space industry – How to collaborate remotely, either across teams in interdisciplinary projects or across different functions within an organization, without losing informal opportunities for information exchange?
- Topic 2: Attracting and managing diversity in order to create successfully inclusive teams – How to change the narrative of the space sector into a more inclusive one, with the goal of creating and managing meaningfully diverse teams?
- Topic 3: Knowledge management for the Generation Z: how, when, and what do Young Professionals choose to learn? – Which education and knowledge management strategies are best suited to motivate and empower the future workforce and ensure engagement?
- Topic 4: Project management practices for enabling short term and rapid turnaround activities for space projects – Why and how should Project Management embrace and encourage this dramatic change towards more rapid design timelines?
- Topic 5: Successful outreach practices in the space sector – How can outreach be improved by exploiting a combination of technical expertise and communication expertise in teams or organizations?



The observations and recommendations from the topic working groups will be presented and discussed on Sunday October 20th, in the afternoon.

Time	Session
08:00 – 09:00	Registration
09:00 – 09:10	IPMC YP Workshop opening and welcome to Session 1
09:10 – 09:40	Topic pitch + debate
09:40 – 10:10	Topic pitch + debate
10:10 – 10:40	Topic pitch + debate
10:40 – 10:50	Coffee Break
10:50 – 11:20	Topic pitch + debate
11:20 – 11:50	Topic pitch + debate
11:50 – 12:00	Synthesis discussion of morning session
12:00 – 12:45	Analysis of morning highlights (team discussion)
12:45 – 13:45	Lunch Break
13:45 – 14:00	Group photo
14:00 – 14:45	Analysis of morning highlights (plenary debate)
14:45 – 16:00	Keynote speaker
16:00 – 16:10	Welcome to Session 2
16:10 – 16:40	Topic pitch + debate
16:40 – 17:10	Topic pitch + debate
17:10 – 17:40	Topic pitch + debate
17:40 – 17:50	Coffee Break
17:50 – 18:20	Topic pitch + debate
18:20 – 18:50	Topic pitch + debate
18:50 – 19:00	Synthesis discussion of afternoon session
19:00 – 21:00	YPP Reception

1.2 2021 Young Professional Events

Sunday 24 October 2021

08:00 – 13:30 **Cross Cultural Communications and Presentation Workshop** – Room Sharjah D

09:00 – 18:00 **IPMC Young Professional Workshop** – Room Umm Al Qwain

19:00 – 21:00 **YP IAC Opening Reception** - Al Multaqua Ballroom

Get a head start on your IAC experience by joining other Young Professionals on Sunday evening to connect with colleagues old and new. We will be welcomed by IAF President Pascale Ehrenfreund and UAE Space Agency Chairwoman Sarah Al Amiri. The IAF WD-YPP Committee will offer an overview of YP activities throughout the week ahead, with a reception and networking time to follow.

Monday 25 October 2021

15:15 – 18:15 **Global Technical Session** – Room Dubai D GTS

Tuesday 26 October 2021

14:45 – 17:45 **Global Technical Session** – Room Dubai D GTS

19:30 – 21:30 **Making the Most of Earth Observations** – Al Multaqua Ballroom

The IAF WD-YPP and Earth Observation Committees have teamed up to bring you an event focused on the use of Earth observation data from different regions of the world. Following a discussion with Earth Observation applications experts, refreshments will be served.

Sponsored by Blue Origin



Wednesday 27 October 2021

14:45 – 17:45 **Global Technical Session** – Room Dubai D GTS

19:30 – 21:30 **WD-YPP Committee/SGAC/ISU Joint Networking Event** – Al Multaqua Ballroom

Those registered as Young Professionals at the IAC, along with alumni of the IAF WD-YPP Committee, SGAC, and ISU are welcome to join this event on Wednesday evening. We will have a short trivia game to start the evening, and then host a reception with plenty of time to reconnect with old friends and learn more about these three organizations and the many opportunities they offer to students and young professionals.

Sponsored by Northrop Grumman



Thursday 28 October 2021

08:30 – 09:30 **Next Generation Plenary – Next Generation Impact on Social Responsibility In Space** – Sheikh Rashid Hall E

Social responsibility in space ensures that the inspirations and innovations of today's space sector are implemented in equitable and sustainable ways. The unique environment of space creates challenges and benefits for working toward a more sustainable and equitable future for humankind and requires social responsibility among space sector actors to maximize the benefits of space. This plenary panel explores both social responsibility in conduct of space activities and space activity impact on social responsibility on Earth through a diverse panel of competitively selected young professionals and students whose work is advancing social responsibility in space and terrestrial activities across the globe.

14:45 – 17:45 **Global Technical Session** – Room Dubai D GTS

Friday 29 October 2021

13:30 – 16:30 **Global Technical Session** – room Dubai D GTS

1.3 IAF Grant and Recognition Programmes for Students and YPs

1.3.1 IAF Young Space Leaders (YSL) Recognition Programme

These awards are issued to students and young professionals who are in the course of their academic or professional activities, and have helped promote astronautics by enhancing outreach opportunities, expanding knowledge of space among the general public or fostering deeper engagement within the international space community. The six winners will be awarded their prizes during the Closing Ceremony of the 72nd IAC on 29 October. They will also be invited to the gala dinner as guests of honor of the IAF President, Pascale Ehrenfreund.



Elizabeth BARRIOS

Dr. Elizabeth Barrios is currently a Materials Research Engineer with the National Institute of Aerospace residing at NASA's Langley Research Center. Her work primarily focuses on the development of in-situ monitoring tools for the surface preparation of carbon fiber polymer composites for adhesive bonding using laser induced breakdown spectroscopy (LIBS). In addition, she supports the atomistic modeling efforts for the development of all solid-state lithium ion batteries. Previously, she was a Materials & Process Engineer trainee at NASA's Kennedy Space Center, where she focused on the carbon fiber composite material selection and development, as well as material failure analysis for the center. With a passion for advancing the technical capabilities of space exploration through material selection and development, she recently completed her PhD (December 2020) in Materials Science and Engineering at the University of Central Florida. With support from a NASA Space Technology Research Fellowship, Elizabeth focused her PhD studies on exploring the development and feasibility of utilizing polymer and ceramic composites for lightweight, non-toxic thermoelectric materials.

Elizabeth found the IAF and Space Generation Advisory Council (SGAC) in 2017 at the IAC in Adelaide, Australia. She currently serves as a Coordinator for the new IAF Launchpad Mentorship Programme and is a Regional Coordinator for SGAC. She is a member of the IAF YPP/WD Committee and has previously served as a member of the Workshop Organising Team for the IPMC Young Professionals Workshop (2018, 2019) and on the Space Generation Congress Organising Team (2019). Elizabeth has also spoken in the Next Generation Plenary (2020), where she spoke on public-private partnerships as they relate to the next generation of aerospace professionals. Beyond her involvement with the IAF, Elizabeth also serves on the Board of Advisors for SEDS-USA.

Elizabeth's work ethic and leadership skills have led her to receive many awards such as a NASA Space Flight Readiness Team Award (2018) for her work on the Advanced Plant Habitat (APH) and the Luigi G. Napolitano Award (2020) for her work on thermoelectric material development. In addition, Elizabeth was selected as a recipient of one of the IAF's Emerging Space Leaders grants in 2018.



Marco GÓMEZ-JENKINS

Marco Gómez-Jenkins is a graduate of the Daniel Guggenheim School of Aerospace Engineering at the Georgia Institute of Technology and the Faculty of Aerospace Engineering at the Delft University of Technology, where he completed a master's degree in space systems engineering. He also holds an MBA from Imperial College London. He was a Researcher and Lecturer at the Costa Rica Institute of Technology from 2015 to 2018, where he co-founded the SETEC Space Systems Laboratory. During this time, he was also the Project Manager of the Irazú Project, a space mission that consisted of launching the first Central American satellite in 2018 to monitor carbon fixation in Costa Rican rainforests.

He is currently a Royal Society of Edinburgh Enterprise Fellow at the University of Cambridge where he is commercializing unfolding space telescope technology developed at the Institute of Astronomy. Marco and his colleagues are spinning out a company (Super-Sharp Space Systems) that will use this technology to offer high-resolution thermal infrared images of the earth. He is a member of the Small Satellite Committee of the International Academy of Astronautics and of the Global Shapers community of the World Economic Forum.



Kathryn ROBISON HASANI

Kathryn Robison Hasani, PhD is a political scientist specialising in the role of political communication in the formation and dissemination of space policy at both the domestic and international level. Dr. Robison is also a science communication professional at Communicate Space Consulting where she works with STEM students and professionals to develop effective scicomm skills. She received her doctorate and masters in Political Science from the University of Alabama and also holds degrees in Anthropology, Near Eastern Studies, and American Studies from the University of Arizona and Youngstown State University. Dr. Robison's current research interests include public opinion on government spending on space, legislative processes which affect national and international space policies, and equitable and just access to space and space resources. In addition to her research, she has taught Political Science and Humanities courses at the University of Alabama and Wake Technical Community College.

Dr. Robison is passionate about mentoring and has served as a mentor in various programs at her universities and through other organisations and was selected to participate in the UNOOSA's Space4Women mentoring program this year. She was formerly the Project Groups Coordinator and the Recruitment Manager at the Space Generation Advisory Council (SGAC). Dr. Robison is currently a member of the International Astronautical Federations's Space Education and Outreach (SEOC) and Workforce Development-Young Professionals Programme Committees (WD-YPP) and serves as the coordinator for the Next Generation Plenary Steering Committee. She is the Vice Chair-Elect of Career Development for the WD-YPP Committee. Dr. Robison has traveled the world for research and language studies, is a poet, and a contributor to the Talking Space podcast. She is currently working on a collection of poetry inspired by her love of space.



Danil IVANOV

Danil Ivanov is a Senior Researcher at Keldysh Institute of Applied Mathematics of Russian Academy of Sciences. Since 2009 he has been developing algorithms for satellite attitude determination and control systems. He is also studying new approaches for satellite formation flying control. He was involved in the development of attitude control system for a set of small satellite missions: Chibis-M (launched in 2012), TabletSat-Aurora (2014), TNS-0 #2 (2017), SiriusSat-1&2 (2018), OrbiCraft-Zorkiy (2021) and others. Danil Ivanov was involved and currently participates in a number of international projects with Bremen University, Berlin Technical University, Morehead State University, University of Beira Interior, National Space Organization, Beyond Atlas company and others. Danil Ivanov is an Associate Professor at the Analytical Mechanics Department and Mathematical Modelling and Applied Mathematics Department of the Moscow Institute of Physics and Technology (MIPT) since 2010. At MIPT he teaches Theoretical Mechanics and gives lectures for courses "Measurement Processing Methods" and "Systems with Elements of Artificial Intelligence". He is also the scientific supervisor of a number of bachelor, master and PhD students. Danil regularly participates in international conferences and forums to share his knowledge with space community. He was a co-chair for a set of IAC technical sessions of Symposium B4 on Small Satellites Missions. He is an author of about 50 papers published in peer-reviewed journals. Danil is also a recognized reviewer of the papers from Acta Astronautica and Advances in Space Research journals. His hobby is making ceramics with an image of satellites and space.



Pierre-Alexis JOURNAL

Pierre-Alexis joined the Airbus Group in 2011 after completing a Master's Degree in Aerospace Engineering and a Master's Degree in Business. He held several positions from Strategy Manager in France, R&T Manager in Canada, and Future Programs Manager in Germany. After an intrapreneurial experience, he joined the Sales & Marketing Department as a Director International & New Business for Space Systems and is now responsible for the Asian and North American regions. As part of this shift in focus, he completed an Executive MBA at ESCP Business School in 2019.

Since joining Airbus, Pierre-Alexis has lived and worked in several countries outside France, including Canada, Germany and Switzerland, and aims to explore and work in new countries. Outside of work, he has been spending much time and energy in international professional associations, including the International Astronautical Federation (IAF), the Space Generation Advisory Council (SGAC), and as a Mentor in the Techstars Starburst Space Accelerator and the network MyJobGlasses.



Ayami KOJIMA

Ms. Ayami Kojima is the Unit Chief of International Affairs within the Japanese Government's National Space Policy Secretariat (NSPS) Cabinet Office. Prior to joining NSPS, she served as an expert at the United Nations Office for Outer Space Affairs (UNOOSA) and contributed towards sending Kenya's first CubeSat to be deployed into the orbit in history. During her time at UNOOSA, she was also devoted to space education and youth engagement and led the launch of the Space for Youth programme at the office, amplifying voices of young people to space policy decision makers. She started her career at Japan Aerospace Exploration Agency (JAXA) after graduating from Keio University. Her responsibilities ranged from Public Affairs, Finance and Space Education, leading up to her recent special assignments to the United Nations and Japan Cabinet Office.

She loves yoga, dancing and travelling. She was born in Japan, and spent her junior high school days in Singapore.

1.3.2 IAF Emerging Space Leaders (ESL) Grant Programme

These 25 students and young professionals were chosen by the IAF Emerging Space Leaders Sub-Committee composed of nine highly experienced space stakeholders. They will travel to Dubai in October 2021 to participate in the IAC and have the opportunity to extend their network, gain knowledge and meet space experts!



Ahmed BARAKA

Ahmed is a clinical pharmacist from Egypt who is passionate about space neuroscience, space sciences, and deep space exploration. His childhood dream is to be part of the effort to make humans a multi-planetary species and to make deep space exploration a reality. Over the years, he has been working to include Egypt, Africa, and the Middle East in the next human spaceflights era.

Currently, Ahmed serves as the regional coordinator for the Middle East for the Space Generation Advisory Council (SGAC), a teaching associate at the ISU, a member of the IAF Space Life Sciences Committee, the chair of the International Outreach Committee for the Aerospace Medicine Student & Resident Organization (AMSRO), and the founder and president of the AMSRO regional chapter in Alexandria, Egypt.

Additionally, Ahmed is working on some great projects mostly dedicated to space medicine and human space exploration such as the space medicine program for Egypt in coordination with the Egyptian Space Agency, building the first Mars/Moon analog station in the Western Desert of Egypt, and a roadmap to enable Africa to have sustainable human spaceflights by 2030. In 2019, he received the African Space Leaders Award from SGAC, in recognition of these efforts, and this year has been selected as the recipient of the 2021 Space Medicine Association International Scholarship. Besides these activities, Ahmed is an active member of many space professional organizations like the Aerospace Medical Association (AsMA), the Space Medicine Association (SMA), the Planetary Society, SGAC, and the Moon Village Association.



Shankar BHATTARAI

Shankar is currently a postdoctoral researcher at Korea Astronomy and Space Science Institute (KASI), working as a member of KASI's team of NASA's satellite SPHEREx. The SPHEREx satellite is a NASA's Medium-Class Explorer (MIDEX) program for the all-sky spectral survey in the near-infrared (0.75-5 μm) wavelengths. In 2021, he has got his Ph.D. degree in Aerospace Engineering from Space Technology Synthesis Laboratory (STSL), Department of Aerospace Engineering, Chosun University, Republic of Korea. He was one of the system engineer of multispectral earth observation 6U CubeSat named "STEP Cube Lab-II" been developing at Chosun University as part of the 2019 cube satellite contest hosted by the Korea Aerospace Research Institute (KARI).

Shankar's early days were in Nepal, a country of Mount Everest where he did his M.Sc. in Physics from Tribhuvan University. He used to enjoy lying on a football ground at night and gazing the stars. He dreamed of stars and of travelling to distant planets, but he never ever thought that his life and passion would become one, and that he would have got chance to work on artificial satellites for understanding the history of the Universe, stars, galaxies, and even remote sensing of our own planet Earth.

The start of the New Space paradigm, the emergence of small satellite constellations has changed the development philosophy of the worldwide space-engineering field. He believes in international collaboration and technology transfer in satellite development for the socioeconomic benefit of humankind, and his ambition is to work for Nepal's Space Agency.



Fiorella Arias BONILLA

Biotechnology Engineering student named by the Allbiotech organization as 2021 Latin American Leader in Biotechnology for her talks and awards in the Space Mission Design field and gender equality. She is co-founder and Scientific Director of Orbital Space Technologies, the first Central American company to provide aerospace consulting, where she is currently working on their first mission related to fungi dual culturing under microgravity conditions. Also, she is part of the MUSA Project, winner of ICECubes category: first place and the IAA Award at the Tokyo 2019 Mission Idea Contest hosted by UNISEC. In addition, Fiorella is a recognized young activist for fighting against gender political violence and humanizing politics for actual change, she has been involved in the vindication of institutional policies such as Zero Tolerance to Discrimination and Harassment, and the formation of new autonomous student groups for social political activism, where she has also been involved in promoting solid actions for narrowing the gender pay gap, increasing representation of women in STEM and children access to early science inspiration workshops.



Edward BURGER

Edward Burger is passionate about all things related to space, from spaceflight history to following the current exploration missions and newest startups, and finally to staying current on the developments in the law and regulation of space activities and space telecommunications. The latter is his chosen field, and he earned a master in this subject matter from the Université Paris-Sud / Paris-Saclay in 2017. While earning this degree, Edward also interned at Euroconsult, where he followed the market of launch brokers, and later was employed at the European Space Policy Institute, where he contributed to multiple research publications. In 2019-2020 he was with Leaf Space Srl, a young Italian company providing global ground-segment-as-a-service solutions, where he managed the company's space communications regulatory compliance. Edward recently joined Astrocast SA, a Swiss provider of satellite-IoT services, where he works in the regulatory team managing the company's satellite filing and pursuing market access authorisations. Edward also regularly participates in research work connected to legal and regulatory aspects of space activity and is a member of the International Institute of Space Law. He is looking forward to meet others from different countries and research backgrounds at the IAC 2021 in Dubai and learn about their own work and interests.



Isidora (Isi) CASAS DEL VALLE PACHECO

Isidora (Isi) Casas del Valle Pacheco is a Chilean astropreneur. She holds a bachelor's in laws (suma cum laude) from Universidad de los Andes (Chile), where she specialized in comparative law and legal English, and minored in basic sciences. With a keen interest in air and space, she worked as an air attorney for a boutique law firm in Chile whilst undergoing a postgraduate degree in Air and Space Law in UDIMA & the Instituto Iberoamericano de Derecho Aeronáutico y del Espacio y de la Aviación Comercial in Spain. She was awarded the Secure World Foundation's Ray Williamson Future Fund Scholarship to attend the Southern Hemisphere Space Studies Program of the International Space University hosted in Adelaide, Australia; and presented the paper resulting from the program at the International Aeronautical Congress in Bremen, supported by Secure World Foundation's IAC Young Professionals Scholarship. Moreover, she later participated as CAPCOM for one of the Southern Hemisphere Space Studies Programs at the International Space University. Isi joined the Space Generation Advisory Council as Chile's National Point of Contact, was Event Manager of the 6th South America Space Generation Workshop, and now holds the title of Regional Coordinator for South America. She is now part of the team at Space Hero, a global movement seeking to democratize space, while completing her Master in Entrepreneurial Management at the ESE Business School. She is a prospective member of the International Institute of Space Law and guest lecturer of Air and Space Law in various universities in Chile.



Matias CAMPOS

Matias is an Ecuadorian engineer and space enthusiast. He graduated from Worcester Polytechnic Institute (USA), where he obtained both his Bachelor and Master of Science degrees in Aerospace Engineering and a Minor in Robotics Engineering. Additionally, Matias obtained a Physics teaching license from the state of Massachusetts. Matias started his career in Germany where we worked at the firm Silver Atena GmbH and then returned home to Ecuador to become a space entrepreneur. Matias is founder and CEO of Astralintu Space Technologies, a startup focused in providing in-orbit services that look to grant space access to new actors in Latin America and the world. Astralintu and Matias are members of the Ecuadorian Space Cluster where they collaborate with the Ecuadorian Civilian Space Agency (EXA), Sideralis Foundation, and Quantum Aerospace Research Institute in furthering technological efforts in the region. Additionally, Matias volunteers as the STEM Program Director for the Sideralis Foundation, acts as the SGAC's National Point of Contact for Ecuador, and is an active member of the IAF Administrative Committee for Developing Countries and Emerging Communities. Matias has been recognized as an Emerging Space Leader by the International Astronautical Federation. Matias looks to lead and promote the development of the New Space industry in Latin America so the region can attain all its benefits.



Chloé CARRIÈRE

Charlotte is a French and British trainee at the European Space Agency. She works in the Technology Transfer and Business Incubation Office of the European Space Research and Technology Centre (ESTEC), in the Netherlands.

She first obtained a double Bachelor in Law and European Studies. She then completed a Master's degree in Public International Law before obtaining her specialized Master's degree in Space and Telecommunications law from University Paris-Saclay. This program included an internship in the legal department of French Space Agency Headquarters, CNES.

Once qualified as a space lawyer, she ambitioned to develop her technical and scientific knowledge. With the support of a joint CNES and ESA scholarship, she is currently in the process of completing her Master in Space Studies at the International Space University. During this year, she has developed strong multi-disciplinary skills ranging from engineering and medicine to management and economics. Within her team, she developed a set of Lunar Sustainability Goals aiming to guide and support the future steps of humanity on the Moon. In addition, her personal research focused on identifying the origins of the Moon Village concept in order to propose further strategies for its development. Her work on both these subjects will be presented at the next International Astronautical Congress in Washington.

As a lawyer in a technical field, having lived in France, Spain, the UAE and the Netherlands, she not only supports but lives according to the international, intercultural and interdisciplinary nature of space.

Charlotte is an alumni and former student Vice-President of the International Cité of Paris.



Kawsihen ELANKUMARAN

Kawsihen Elankumaran is a PhD candidate at the Australian Centre for Space Engineering Research (ACSER) at the University of New South Wales (UNSW), Sydney, Australia. His research interests are in the domain of guidance, navigation and control of space systems with current research focused on the autonomous navigation of distributed spacecraft.

Kawsihen has a BSc Eng Hons in Electronic & Telecommunication Engineering from the University of Moratuwa, Sri Lanka. His research experience includes a research internship on Real-time systems at The University of Auckland, New Zealand and a R&D engineering career on Electronic design automation at a U.S.-based market leading company. Kawsihen was awarded the University International Postgraduate Award to pursue his PhD at UNSW, Australia where during his candidature participated in and helped organize several forums and conferences. Kawsihen is also a professional member of the American Institute of Aeronautics and Astronautics.

Kawsihen's perspective on international cooperation in the domain of space is about its potential for the reduction of the technological barriers to entry for the space industry through research and development that helps to promote market-driven innovation.



Sepideh FAGHIHI

Sepideh Faghihi is a Ph.D. Candidate, Graduate Research Assistant, and a member of the Ryerson Aerospace Control Systems research group (RACS) in the Department of Aerospace Engineering at Ryerson University in Toronto (Canada). She is currently performing research on the topics of spacecraft guidance, navigation, and control (GNC) in order to contribute to technologies and research required for space activities, particularly on-orbit proximity operations and exploration missions.

Sepideh holds a BSc. in Aerospace Engineering (2017) from the Sharif University of Technology. During her undergrad studies, she and her team were awarded 2nd Place in the AIAA 2015/2016 Graduate Team Aircraft Design Competition "Large Air Tanker for Wildfire Attack" for the submitted proposal entitled "Multi-Role Cost-Effective Aerial Firefighter (MCAF)".

She is presenting the result of her research for the second year at International Astronautical Conference (IAC), since she believes that future space exploration missions such as longer-duration missions, traveling to distant destinations and longer human presence in space will be achievable through international collaboration, where the expertise of the field come together, share their ideas and achievements and contribute towards the realization of space exploration goals.



Angel Arcia GIL

Angel Arcia Gil is from Panama, and the proud father of Alaia.

He is the Regional Coordinator of the Space Generation Advisory Council (SGAC) for the North America, Central America, and the Caribbean Region (NCAC), where he has mentored students in regional Space competitions, and established initiatives such as the Open-Course of Introduction to Space Engineering for students in Central America with the support of the National Point of Contacts of Nicaragua, El Salvador, Costa Rica, and Panama.

Angel holds a Master's degree in Electrical and Computer Engineering from The Georgia Institute of Technology, USA, and he is currently doing research for the University of Vigo in Spain, and the University of Nottingham, UK about the capabilities of small-satellites for Lunar communication and navigation. Angel has experience in several small-satellite projects developing the Telemetry, Tracking, and Command (TT&C) subsystem.

Angel is currently a Professor at the University Santa Maria la Antigua (USMA) in Panama, where he teaches engineering courses of Telecommunications and Space, with publications about applied technology in agriculture, renewable energy, and education, and with 3 technological patents.



Katherinne HERRERA-JORDAN

My interest in space science started with physics. In 2016, when I entered the University, physics opened my eyes to the study of celestial bodies, their composition, their behavior and how to better understand them. I enrolled in an Astronomy course and from there, I began to look for points of convergence between my passion for biology and my passion for space.

I started with space research in 2017, with a project for a University course. In this project, I explored the feasibility of using oregano oleate as an antifungal against Candida albicans under simulated microgravity1 conditions. For this project, it was necessary to design and start off the first handmade prototype of a clinostat2 in order to simulate the necessary conditions. This first prototype helped to create more projects and workshops related to Space Biology and Microbiology, thus improving the availability of research in the area, in Guatemala. In 2019 I traveled to Colorado, Boulder, to be part of two projects funded by NASA: Space Biofilms and Simulated Micro-, Lunar and Martian microbial research. Small works and workshops in space sciences have been carried out in a dispersed way by different organizations and entities in the country. However, finally, in the year 2021, I co-founded the Guatemalan Association of Engineering and Space Sciences (AGICE). With the creation of this association, we seek to become the leading Guatemalan entity for the development of biological, physical and technological sciences with a spatial approach, providing training and dissemination tools necessary for the community of leaders, professionals and students interested in the subject. Step by step, I want to get more doors open so more Guatemalans, children and adults, know that the sky is no longer the limit for Guatemala and that it is possible for us to work on projects such as the launch of the first Guatemalan satellite "Quetzal-1" or other projects like the development of biological methods or innovative technologies, for the creation of environments of interest for space research.



Pooja LEPCHA

Pooja Lepcha is currently pursuing her doctorate degree in Electrical and Space Systems Engineering at Kyushu Institute of Technology. She received a UN/Japan Long term fellowship "Post Graduate Studies on Nano Satellites (PNST)" to pursue a master's degree and doctoral degree in Space Engineering at Kyushu Institute of Technology. She has a bachelor's degree in Electrical Engineering from the College of Science and Technology, Bhutan. Back home, she works in the Division of Telecom and Space under the Department of IT and Telcom, Ministry of Information and Communication of Bhutan. During her master's degree, she was part of the BIRDS-2 team and was involved in the development of the first satellite of Bhutan, BHUTAN-1. She was also part of BIRDS-3 team developed the first satellites of Nepal and Sri Lanka. She mainly works on the Electrical Power System (EPS) of the satellite. EPS is crucial for providing uninterrupted power to the satellite both during sunlight and eclipse. She is currently a member of a 6U satellite project called KITSUNE where she also handles the EPS of the satellite along with the Store and Forward mission. Her research is on the development of low-cost sensor stations for remote data collection using satellites, especially in developing countries. She is coordinating with 10 developing countries to build low-cost sensor stations and collect data from remote places in their own countries. After completion of her PhD, she aspires to engage in STEM education and more space activities in Bhutan.



Alan MATTOS

Alan Mattos obtained his bachelor's degree in Telecommunications Engineering at «Universidad Católica Boliviana» in 2010. He grew a profound interest in software developing and wireless communications during his undergraduate studies. In 2012, Alan applied to be part of the TKSAT-1 Satellite training programme in Beijing, which aimed to educate young engineers in satellite technology. Ultimately, a little over 60 engineers were selected among over 1.000 applicants, Alan being one of them. Upon completing the training programme, Alan joined the Bolivian Space Agency (ABE) to work as a Ground Segment Engineer, where he worked managing the payload of TKSAT-1, a telecommunications GEO satellite, as well as operating ground RF equipment.

In 2016, Alan was granted a scholarship to study a master's course abroad. He chose the «Wireless Communications and Signal Processing» MSc programme at the University of Bristol. He worked on the design of low-profile antennas for his final degree project.

Upon returning to Bolivia, Alan re-joined ABE to work as a Project Engineer in the Department of Engineering and Development. There, he worked on different projects, notably on the feasibility analysis of TKSAT-2, a high throughput communications satellite for Bolivia.

Since 2019, Alan has been working as a Project Manager at ABE. He has focused mainly on projects that provide connectivity, through satellite links, to the most remote locations in Bolivia. Alan's goal is to apply satellite technology on projects that can help in bridging the digital divide and help the socioeconomic development of the most rural population of Bolivia.



Fahd MOUMNI

MOUMNI Fahd, born the 14th of June 1997 in Casablanca, Morocco, has been pursuing a double Master's degree in Materials Sciences (EEIGM - Université de Lorraine) and Mechanical & Space Systems Engineering (Kyushu Institute of Technology) under the supervision of Prof. IWATA Minoru. Fahd speaks Arabic, French, English, Spanish, German, and Japanese.

Fahd is the structure team leader of the BIRDS-5 CubeSat Project. BIRDS Projects, led by Prof. CHO Mengu, are Multinational Projects aiming to build capacity for developing countries in space engineering. BIRDS-5 will launch Uganda and Zimbabwe's first ever satellites in addition to a Japanese payload developed with the Japan Aerospace Exploration Agency. As a fellow African, Fahd has been more than proud to take part in this adventure that will certainly catalyze the space sector of the continent.

Space is full of mysteries and International Cooperation is the only way to solve them: Solutions are found smarter and faster by bringing our diverse points of view together! Space Professionals must learn languages as communication is the essence of international cooperation! One might only have full faith in you if you speak his/her own language as it translates his/her mentality. In the BIRDS Project, using Japanese at times eliminated doubts and improved the project success rate. The future of space is in developing countries: Those countries have the envy to do great but they just need a small push! For Fahd, «Space is said to be for everyone, therefore, everyone should have access to it!»



Mariam NASEEM

Mariam is currently a Visiting Scholar at the Blue Marble Space Institute of Science working on science communication projects and is also collaborating on Ocean Worlds research with a scientist at NASA Goddard. She has a global and multi-disciplinary background, having worked as a commercial space consultant, as a technology strategist in the Enterprise Innovation team at one of the largest banks in Canada, as a field engineer on an oil rig in Russia, a manufacturing engineer in a Product Development center in Texas and as a business development manager for a Toronto-based Quantum computing startup. She serves as National Point of Contact for Canada at the Space Generation Advisory Council, as coordinator for the Next Generation Plenary at the International Astronautical Federation's Workforce Development and Young Professionals Programme Committee and as a SEDS-Canada Advisory Board member.



Gladys NGETICH

Dr Ngetich is a Rhodes Scholar and a Schmidt Science Fellow, currently working as a Postdoctoral Fellow at Space Enabled Research Group at MIT. Her postdoctoral research focuses on wax-based propellants for launch and in-space propulsion for small-satellite missions. Gladys obtained her PhD from the University of Oxford where she researched advanced techniques for cooling jet engines. Before the University of Oxford, she pursued BSc in Mechanical Engineering at Jomo Kenyatta University of Agriculture and Technology in Kenya. Gladys has a deep interest in the space sector - particularly the use of space to support sustainable development goals. She hopes to use her knowledge, network, and skills to enrich Kenya's space sector in the future.

Outside research, Gladys enjoys sports. She played soccer for the University of Oxford Women Soccer team. She was also an Oxford Blue athlete for 400 m Hurdles. Gladys is passionate about empowering women and girls - she heads Iluu; an organization headquartered in Kenya that empowers women.

Gladys has been a recipient of many other notable awards and recognitions including; being named among Kenya's Top 40 Under 40 Women, MIT's Rising Star in Aerospace, International Gas Turbine Institute Young Engineer Award, UK Rare Rising Star, Skoll World Forum Fellowship, and nominated twice for the McKinsey's Next Generation Women Leaders Award.

Recently, Gladys' research and her inspirational academic journey have been featured in Nature and twice in BBC Science News. Gladys is also a budding author; she recently published a book - The Bold Dream: Transcending the Impossible.



Nishanth PUSHPARAJ

Spain

Jorge is currently carrying out his PhD Thesis at the CommSensLab (Unidad de Excelencia María de Maeztu) of the Universitat Politècnica de Catalunya in Barcelona, Spain. Within the Remote Sensing line, his research is focused on the GEOSAR (Geosynchronous Synthetic Aperture Radar) concept. It is taking place in the context of G-CLASS, a space mission recently selected by ESA to compete as the tenth Earth Explorer. His work involves several fields of expertise: from the design and construction of the orbit observation hardware to the precise orbit determination and image processing procedures.

Born in 1994, he is originally from Banyeres del Penedès, a small town in the northern Mediterranean coast of Spain. He obtained the Aerospace Engineering degree in 2016, joined ESA's Advanced Concepts Team as a stagiaire researcher in the mission analysis discipline during 2017 and got the Master in Aerospace Science and Technology in 2018.

Jorge is strongly committed to science and technology education: he has worked as a teacher for the past three years, currently participates in several space-related dissemination activities and recently won a scientific communication contest at country level. His hobbies include playing guitar and bass, judo and biking.



Tania ROBLES

Tania Robles has a bachelor degree in Mechanical Engineering and is pursuing a Master degree in Economics, Policy and Management of Innovation while she works at the Mexican Space Agency, where she leads projects for the development of young national students and professionals.

She is co-founder and former director of the Aerospace Association of the Engineering School at UNAM. National Point of Contact of SGAC in Mexico from 2016 to 2018, and Regional Coordinator from the North, Central America and the Caribbean region from 2019 to 2021.

She has received academic scholarships to attend the International Space Summer School at Samara University, Russia and in 2017 to participate in the Southern Hemisphere Space Studies at International Space University and University of South Australia in Adelaide, Australia.

In September 2018, she was recognized with the Space Generation Leadership Award in Bremen, Germany. During that year, Tania was also part of Crew 187 LATAM-II as journalist and Commander of Crew 201 MEX-1 at the Mars Desert Research Station. For the last, she was awarded with the Emerging Space Leader Scholarship of The Mars Society. In 2020 she received the Pioneer Award of SGAC.

As of today Tania is involved in research projects related to mechanisms of cooperation within Latin American countries for capacity building and space activities, in the analysis of the industry and government ecosystem of Latin American Countries for the implementation of new space startups/companies, and in the Moon Village project for Mexico.



Carlos RODRIGUEZ

Carlos is a physics and electromechanical engineering student who started getting involved with space on 2016 when he participated in a UNOOSA workshop in Costa Rica and later that year was selected to participate in a high power rocketry certification in the black rock desert in Nevada, USA.

After that he kept finding ways to make space more accessible for students in Costa Rica, in 2018 he cofounded TECSpace the largest aerospace engineering student group in Costa Rica where he is president. TECSpace provides hands on experience and learning opportunities for students in a country where aerospace engineering does not exist as a career. On 2019 he participated on his first IAC in Washington as a presenter, also on 2019 he got selected as the youngest member ever to be part of the board of directives of ACAE (Central American Aeronautics and Space Association) where he has been a director since and recently got reelected as a directive until 2022. He also participated on the Mission Idea Contest by UNISEC in Tokyo and his project won the first prize in the ICECubes category. In 2021 he cofounded Orbital Space Technologies in Costa Rica the first Central American company seeking to provide access to space for experiments in microgravity and is currently working on making their first mission a reality.



Marco ROJAS

“I’m a Mexican student currently finishing a Masters’s Degree in Aerospace Engineering at ISAE SUPAERO in Toulouse, specializing in Space Systems Engineering.

During my studies, I’ve participated in multiple student-led space-related projects in various areas such as high-powered rocketry, payload design, rocket propulsion, and Human Spaceflight.

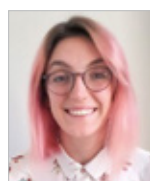
Alongside my team at the University of Texas Rio Grande Valley (UTRGV), we participated in an International Rocketry Competition (Spaceport America Cup), where we won second place at the national level in 2016.

In my last year of bachelor studies, I led a team that attempted to design and build a small liquid rocket engine, finishing the theoretical design. As a graduate student, thanks to the support of ISAE SUPAERO, I’ve been able to work at the French Space Agency (CNES) as a member of the Spaceship FR team.

Spaceship FR started as an initiative by the European Space Agency (ESA), which aims to support the development of critical technologies needed for future missions to the Moon and Mars.

Acting as a Systems Engineer, my job is to implement Model-Based System Engineering methods to support the different System Engineering activities carried out in the multiple projects we work on, such as Inflatable Habitats, In-situ Resource Utilization Systems, Power Subsystems, and Robotics.

I believe that the Space sector can lead the increase of cultural diversity in the workplace. It’s the perfect place to demonstrate that collaboration can lead to outstanding results and extraordinary accomplishments.”



Giuliana ROTOLA

Giuliana Rotola is a space law and policy researcher. She recently concluded an internship at the European Southern Observatory in External Relations and Science Policy Affairs on the impact of satellite constellations on astronomy and a summer research fellowship with the Legal Priorities Project. She holds a joint bachelor’s and master’s degree from the University of Trento in Comparative, European, and Transnational Law and a Master of Space Studies from the International Space University (ISU). Before joining ISU, she conducted research at the European Centre for Space Law (ECSL - ESA) and in the Institut du Droit de l’Espace et des Télécommunications (IDEST), and worked at the Leuven Center for Global Governance Studies. Giuliana is also a research fellow at the Open Lunar Foundation, a 2020 Fellow in Space Studies at the Foresight Institute, and a member of the Legal Council of For All Moonkind. Within Space Generation Advisory Council (SGAC), she serves as Space Law and Policy Project Group Co-Lead, as an advisor to the Task Force on U.S. Space Legislation, as Co-lead of the Satellite Constellations team for the Space Safety and Sustainability Project Group, and she is a member of the SGAC E.A.G.L.E. Action Team on effective and adaptive governance for a lunar ecosystem.



Ruvimbo SAMANGA

Ruvimbo Samanga is an attorney, legal scholar, and policy analyst with a master’s degree in International Trade and Investment Law. Originally from and currently based in Bulawayo, Zimbabwe, the country’s second- largest city. She has been recognised internationally for her leadership in the emerging African space economy. She is a Mandela-Rhodes Scholar, a Ban Ki-Moon Global Citizen Scholar, and a Robert Bosh Fellowship holder for the European Forum Alpbach. She has been recognised as an African Emerging Space Leader by the Space Generation Advisory Council, a Top 10 Under 30 in the African space industry by Space in Africa, and a Top Talent Under 25 in the World by the German Magazine GenZEO. She was also a part of the inaugural cohort of the American Institute of Aeronautics & Astronautics’ ASCEND, Space Traffic management Diverse Dozen. Most recently, she was recognised as one of 25 emerging young leaders by the International Astronautical Federation. She has completed research fellowships with the Open Lunar Foundation as well as the United Nations Economic Commission for Africa, and has also worked as a policy analyst for Space in Africa. In her free-time she also co-hosts the podcast and blog newmoon, while focusing her creative talents on the development of a children’s comic book series to teach space science and technology to the youth. She volunteers at IAF’s Space Traffic Management Committee and Subcommittee of New Technical Regulations, The Space Court Foundation’s legal methodology team, and the Tod’Aers Sustainable Space Studies Research Organisation. Ruvimbo was part of the first African team and winner of the 2018 International Manfred Lachs Space Law Moot Competition, which dealt with planetary defense issues and liability for damages caused in outer space. She was also instrumental in launching the first space education E-curriculum in Zimbabwe, Astro Zimba, and now manages her time between her research and her early stage geospatial startup AgriSpace, while supporting a number of initiatives in Africa and beyond.



Hari Ram SHRESTHA

Hari Ram Shrestha is a Nepalese Ph.D. student under the Laboratory of Lean Satellite Enterprises and In-Orbit Experiments (LaSEINE) at Kyushu Institute of Technology (Kyutech). He is taking Electrical and Space Engineering with the Japanese Government’s (MEXT) scholarship through the United Nations/Japan long term Fellowship Programme (PNST). He has a Master’s degree in Applied Science for Integrated Systems Engineering (SEIC) at Kyushu Institute of Technology. He has been part of different satellite projects in Kyutech such as BIRDS-41U CubeSats, 6U CubeSat, and a 3U CubeSat project. His work focuses in satellite’s electrical power subsystem and backplane interface board design, development, test, and verification. Furthermore, he has been involved in the planning and operation of the ground stations for the BIRDS 3 and BIRDS 4 satellites. He is a staff member of the Nepal Academy of Science and Technology (NAST). He worked in renewable energy, experimental training for science teachers, and operating the X-Ray Diffraction (XRD) system at the material science and nanotechnology unit. Following the 2015 big earthquake in Nepal, he worked for Nepal’s GPS/GNSS station installation and data collection. With his contributions as one of the two developers of Nepal’s first satellite, NepaliSat-1, he was awarded with the «Kirtimaya Rashtradeep Fourth Class 2076» medal from Nepal’s Right Honorable President, Mrs. Bidya Devi Bhandari, on April 9, 2021.



Jiten THAPA

Jiten Thapa is working as Research and Development Engineer at ORION Space which has been working on providing education and opportunities in Space Sector in Nepal. He graduated in Electrical and Electronics Engineering from Kathmandu University, Nepal in 2018. He has worked in the design and development of SanoSat-1 which is Nepal’s first PocketQube. Currently he is working on the development of NEPAL-PQ1 which is educational kit which provides practical hands-on experience on building PocketQube. The kit has already been used for educational purpose in Nepal and outside Nepal as well.



Atipat WATTANUNTACHAI

Atipat Wattanuntachai is working on the THEOS-2 SmallSAT which is Thailand's Earth observation satellite co-developed by Geo-Informatics & Space Technology Development Agency (GISTDA) Thailand and Surrey Satellite Technology Limited (SSTL), United Kingdom.

He leads the mechanical design and supports assembly, integration, and tests of the satellite. Moreover, he also leads the development of the space industry and space parts manufacturing supply chain in Thailand. The progress of the activity will be presented at the IAC2021.

Mr. Atipat has a multidiscipline background. His first impression in space happened when he got selected to join the CSSTEAP's GNSS training hosted by ISRO, India, along with a multinational classmate. He then continued his study in master's degree in aerospace engineering at Georgia Institute of Technology, USA, where he researched fleet optimization and system design. During his study, he participated in NASA DEVELOP internship program where he worked with an international team to tackle the agricultural difficulty in Thailand using geospatial data from satellites.

Along with his production engineering and industrial management degree, Mr. Atipat is combining his modest knowledge to help to create space awareness in his home country little by little. Not only working with manufacturing companies to produce space parts, but Mr. Atipat also teaching about space technology to university students as well as regularly writing and reviewing space news articles on the social media platform.

1.3.3 Future Space Leaders (FSL) Grant Programme

The Future Space Leaders Foundation (FSLF) is pleased to announce the 2021 Future Space Leaders Grant Program. Intended for U.S. graduate students and young professionals who are pursuing space- and satellite-related careers, the program will provide grants for participation in the 71st International Astronautical Congress (IAC) to be held in Dubai, United Arab Emirates, USA, October 25 – October 29, 2021. In addition to attending the IAC, Grant Recipients will also be involved in supplementary career development activities in Dubai. These IAC-associated events include the Cross-Cultural Presentation Workshop, the United Nations/International Astronautical Federation (IAF) Workshop, the Space Generation Congress hosted by the Space Generation Advisory Council (SGAC) and the Young Professionals Workshop. These additional activities will necessitate Grantees' presence in Dubai, United Arab Emirates, beginning on October 20, 2021.



Shayna HUME is a Ph.D. student studying Martian Entry, Descent, and Landing at the University of Colorado Boulder. In 2020, she completed her M.S. in Aerospace Engineering and M.E. in Engineering Management from CU. Previously, she interned as a Matthew Isakowitz Fellow at the Aerospace Corporation, and before that, at NASA Goddard, Lockheed Martin Space, and Lockheed Martin Aeronautics. On the side, she supports the Matthew Isakowitz Fellowship Program, volunteers with the Space Generation Advisory Council studying the logistics of lunar settlement and running the SGAC Mentorship Program, and works to understand space exploration from the perspective of human settlement through her work as an Analog Astronaut.



Josh INGERSOLL is currently serving as a Satellite Regulatory Engineer for Amazon's Project Kuiper where his focus is on space safety and spectrum allocation. In the evenings, Josh conducts research for The George Washington University's Space Policy Institute under the advisement of Dr. Scott Pace. This work will culminate in a Master of Arts in International Science and Technology Policy and a Master of Business Administration in STEM Management. His research is focused on developing regulatory frameworks for Non-Geostationary Operators (NGSO's) that allow for commercial development while also protecting the commons that is Low-Earth Orbit. Outside of his professional and academic endeavors, Josh serves as the Matthew Isakowitz Fellowship Program's Recruitment Chair and as a member of Georgia Tech Aerospace's "Mentor in Residence" program. He also enjoys giving space lessons to elementary school students through the Skype a Scientist platform. Josh received his Master of Science and Bachelor of Science in Aerospace Engineering from the Georgia Institute of Technology.



Molly MACEACHEN is a research associate for the Space & Sustainability Initiative (SSI) at the University of Colorado (CU) Boulder where she performs project management, coordinates RA and volunteer work, and plays a crucial role in the operations of the core research team. She recently graduated magna cum laude from CU Boulder with a dual degree in business and sociology. During her time at CU, Molly's research on sustainable innovation, corporate social responsibility, and interactions between industry and society was funded by multiple grants & scholarships and showcased at conferences around the globe. In addition to her research, Molly is a consultant for the United Nations Global Compact where she focuses more broadly on the topic of corporate sustainability reporting. Ultimately, her work is centered around the private sector's impact on the world, focusing specifically on training the next generation of leaders to be responsible and sustainable. Molly will be sharing her perspective as panelist for the Plenary Session, "Social Responsibility in Space: How the Next Generation is Leading the Charge" at the 2021 International Astronautical Congress (IAC).



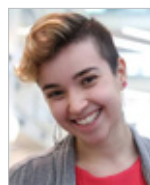
Ufuoma OVIENMHADA is an Aeronautics and Astronautics PhD student in the Space Enabled Research Group at the MIT Media Lab. In her research, Ufuoma studies applications of Earth Observation (EO) technologies for sustainable management of socio-ecological systems. Her paper at the IAC discusses the creation of EO-powered data tools for the management of an invasive plant species in West Africa. Ufuoma has interned at Planet Labs and NASA's Jet Propulsion Laboratory where she researched EO applications for the study of urbanization and methane detection, respectively. Prior to arriving at MIT, she graduated from Stanford University with a B.S. in Mechanical Engineering. She also holds an M.S. from MIT in Media Arts and Sciences.



Simon SHUHAM is a Senior Sales Engineer at Ursa Major Technologies, a Colorado-based rocket engine manufacturer. Prior to joining Ursa Major, Simon was a propulsion engineer at Blue Origin working on the design, integration, assembly, and test of the BE-3U and BE-4 engines. Before Blue Origin, Simon worked at United Launch Alliance as a propulsion engineer, developing fluid systems and components for the Atlas, Delta, and Vulcan launch vehicles. Simon is an Aviation Week 20 Twenties recipient and remains involved in a variety of young professional development organizations including SGAC, SEDS, AIAA, the Zed Factor Fellowship and Seattle's Museum of Flight. Simon graduated from Harvard College with a Bachelor of Science in Mechanical Engineering and from the University of Colorado Boulder with a Master of Science in Aerospace Engineering.



Andrew SWACKHAMER is a Research Assistant at the Space and Sustainability Initiative at CU Boulder, where he is investigating how the recent rise in commercial space actors has affected the space environment, how taking safe and sustainable actions will affect space business models, and whether there exists the potential for self-governance among commercial actors in lieu of or in addition to legally binding regulation. Currently a student in the Aerospace Engineering department at CU, Andrew organizes and facilitates two of SSI's four Working Groups, focusing on Orbital Debris and Right of Way scenarios involving conjunctions between two active satellites. In addition to his work with SSI, he was the project lead for CU Boulder's team that finished second place in the 2020 SEDS-SSPI Competition: Taking Out the Trash, where they researched and detailed the multitude of policy, business, and technological elements involved in adequately addressing the growing congestion of near-Earth space. At IAC 2021, Andrew will be sharing his experiences working in the space sustainability field on the Next Generation Social Responsibility Plenary.



Anna VOELKER (they/them) joined the Aspen Science Center as its new Executive Director in June 2021. Anna is also the founder and Executive Director of the SciAccess Initiative, an international program dedicated to advancing disability inclusion in STEM. Through SciAccess, they lead numerous science inclusion initiatives, including an annual conference launched by their receipt of the \$100,000 Ohio State University (OSU) President's Prize in 2018. Anna is currently organizing the SciAccess 2021 Conference, which will take place virtually on November 12 and 13, 2021. Along with George Whitesides, former CEO of Virgin Galactic, Anna serves as the Project Lead of Mission: AstroAccess, a new SciAccess project that aims to pave the way for disabled space explorers. Mission: AstroAccess, in partnership with numerous nonprofit organizations, will send a crew of disabled researchers on a parabolic ZERO-G flight later this year. Anna specializes in accessible science outreach for diverse learners and has worked extensively with blind and low vision students using 3D printing and data sonification. Anna is passionate about making STEAM (science, technology, engineering, arts, and mathematics) accessible to all, as detailed in their 2017 TEDx Talk. As a student at OSU, Anna designed their own major to pursue this passion and graduated with a Bachelor of Science in Science Communication and Accessibility, with a minor in Astronomy and Astrophysics. In May 2021, Anna hosted a live NASA event where astronauts on the International Space Station (ISS) answered questions from students with disabilities. This was the first ISS event to feature American Sign Language in over a decade. Anna was named a 2018 Brooke Owens Fellow and previously worked at NASA Kennedy, NASA Goddard, the OSU Department of Astronomy, the OSU Center for Cosmology and AstroParticle Physics, the Space Telescope Science Institute, the International Astronomical Union's Office of Astronomy for Development, and the Aerospace Corporation.

1.4 IAF/ISEB Educators Professional Development Workshop

Date: Saturday 23 October 2021

Time: 09:00 - 16:00

Venue: Dubai World Trade Centre, Abu Dhabi B, Abu Dhabi A & Ajman D

Saturday 23 October 2021

Time:	Programme:		
9:00 - 9:15	Welcome/Opening Remarks/ Agenda Review Alana Bartolini, Lead, ISEB RWG		
9:15 - 10:45	Session 1: Group 1	Session 2: Group 3	Session 3: Group 2
10:45 - 11:00	Coffee		
11:00 - 12:30	Session 1: Group 2	Session 2: Group 1	Session 3: Group 3
12:30 - 13:30	Lunch		
13:30 - 15:00	Session 1: Group 3	Session 2: Group 2	Session 3: Group 1
15:00 - 15:10	Application of Innovative Tools for the 21st Century Classroom Mohammed Bin Rashid Space Centre		
15:10 - 15:40	Presentation of the Dubai Astronomy Group		
15:40 - 16:00	Closing/Presentation of Certificates		

Session 1: "Radio Astronomy - The invisible Universe", Victorian Space Science Education Centre

Session 2: "Wireless Coding - Simulate a Mission to Mars", European Space Agency Education Office

Session 3: "EO Browser - Do It Yourself Earth Observation", European Space Agency Education Office

Organized by:

International Space Education Board (ISEB) and ISEB Representatives Working Group (RWG)

1.5 Cross-Cultural Communications and Presentation Workshop

Date: Sunday 24 October

Time: 08:00 - 13:30

Venue: Room Sharjah D

The Cross-Cultural Communications and Presentation Workshop is organized for Emerging Space Leader grant recipients and Next Generation Plenary speakers to provide them with the opportunity to improve their oral skills for their presentations and to sensitize them to the issues of speaking at large multi-cultural events.

Session presenters:



Scott MADRY

Scott Madry is a research associate professor at the University of North Carolina at Chapel Hill and a member of the faculty of the International Space University in Strasbourg, France. He has been doing international teaching and research for some 30 years and is interested in effective international communications and presentation skills.



Carol CARNETT

Carol Carnett is an attorney and a teacher of English to Speakers of Other Languages. She is Director of English Programs for the International Space University Summer Space Studies Program and Southern Hemisphere Space Studies Program, where she teaches English language skills, including writing and presentation workshops focused on effective English communication in international meetings and conferences.

2 Associated Events

2.1 Pre-Congress Schedule

Friday 22 October

08:00 - 18:00 28th UN/IAF Workshop

08:00 - 19:00 Space Generation Congress

Saturday 23 October

09:00 - 18:00 28th UN/IAF Workshop

09:00 - 16:00 IAF/ISEB Educators' Workshop

08:00 - 19:00 Space Generation Congress

Sunday 24 October

09:00 - 13:00 28th UN/IAF Workshop

10:30 - 13:00 IAC Hosts Summit

08:30 - 14:30 IAF International Meeting for Members of Parliaments

13:00 - 20:00 IAA Academy Day

08:00 - 13:30 Cross-Cultural Workshop

09:00 - 18:00 YP IPMC Workshop

15:00 - 17:00 IAF PS Lab

19:00 - 21:00 YP Event ans Reception

2.2 IAF IDEA “3G” DIVERSITY PROGRAMME



With the aim of promoting and advancing the principles of “3-G” (Geography, Generation, and Gender) Diversity amongst a global space community the IAF has established an International Platform for Diversity and Equality in Astronautics (IDEA). The IAF welcomes delegates to participate in the IAC Diversity Activities and benefit from an intensive and open exchange on diversity and equality aspects within the IAF, amongst IAF member organizations as well as other organizations promoting diversity.

2.2.1 IAF IDEA “3G” Diversity Breakfast

Date: Wednesday 27 October 2021

Time: 07:00 - 08:30

Venue: Pavilion A, Exhibition Area

As an important element of the IAF “3G” Diversity Day the IAF welcomes all delegates to the IAF IDEA “3G” Diversity Breakfast sponsored by Jet Propulsion Laboratory (JPL). The event will be opened with a welcome by the IAF President, Pascale Ehrenfreund, followed by an introduction from Moderator Deganit Paikowsky, IAF VP for Diversity Initiatives and Science & Academic Relations.

Larry D. James, Interim Director of JPL, will present on behalf of JPL on the topic “*Inclusion Drives Innovation*” and will present an exciting video to the audience. To further deepen the topic questions from the public are welcomed.

Sponsored by:

Jet Propulsion Laboratory



Programme:

07:00 - 07:05 **Welcome**
Pascale Ehrenfreund, , *President, International Astronautical Federation (IAF), France*



07:05 - 07:10 **Moderation and Introduction to IAF “3G” Diversity Breakfast**
Deganit Paikowsky, *IAF VP for Diversity Initiatives and Science & Academic Relations, International Astronautical Federation (IAF), Israel*



- 07:10 - 07:30 **Presentation by Sponsor**
Larry D. James, *Interim Director, Jet Propulsion Laboratory (JPL), United States*
- JPL Video
 - Question time



- 07:30 - 07:35 **Concluding Remarks**
Deganit Paikowsky, *IAF VP for Diversity Initiatives and Science & Academic Relations, International Astronautical Federation (IAF), Israel*



- 07:35 - 08:30 **Networking**

2.2.2 IAF IDEA Excellence in “3G” Diversity Award Luncheon (Upon invitation only)

Date: Wednesday 27 October 2021

Time: 12:30 - 13:30

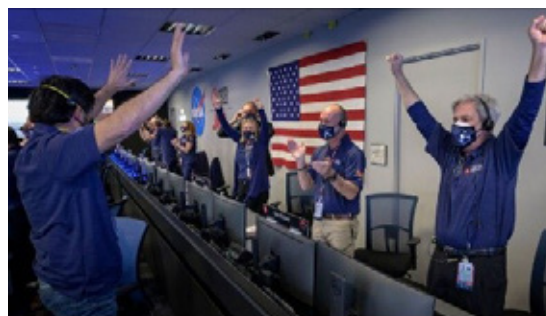
Venue: Pavilion A, Exhibition Area

The IAF Excellence in “3G” Diversity Awards recognize IAF member organizations (industry, government, academia) worldwide for outstanding contributions to the fostering of “3G” (Geography, Generation, Gender) Diversity within the space sector.

The highest standards in “3G” Diversity can be achieved both by organizations and within teams’ activities. To correctly represent this the IAF Honours and Awards Committee (HAC) decided to divide the IAF Excellence in “3G” Diversity Awards in two corresponding categories.

This Luncheon is dedicated to the award ceremony for the 2021 IAF Excellence in “3G” Diversity Awards, bestowed to **Jet Propulsion Laboratory (JPL)** and the **Earth and Planetary Image Facility (EPiF)** Academic Team.

Jet Propulsion Laboratory (JPL)



“JPL has been on a focused journey over the last five years to build and execute on strategies to support diversity, equity and inclusion at the Laboratory and in the communities, we engage with. These strategies focus on evolving our culture, ensuring leadership understanding and accountability to the concepts of diversity, equity, and inclusion, and building our future through a diverse and inclusive workforce.”

Earth and Planetary Image Facility (EPiF) Academic Team



“The Earth and Planetary Image Facility (EPiF) academic team from Ben-Gurion University of the Negev has been awarded the IAF IDEA “3G” Diversity Award for their work on the She-Space initiative; a hands-on science outreach program to encourage high school-age girls to pursue science research and careers in fields related to space and space science”

Sponsored by:
Jacobs

Jacobs

Programme:

- | | | |
|---------------|---|---|
| 12:30 - 12:35 | Welcome
Pascale Ehrenfreund , <i>President, International Astronautical Federation (IAF), France</i> |  |
| 12:35 - 12:40 | Presentation by Sponsor
Jayne Dale , <i>Space Campaign Lead for the EMEA Region, Jacobs, United Kingdom</i> |  |
| 12:40 - 12:45 | Introduction of the IAF Excellence in “3G” Diversity Award
Anthony Tsougranis , <i>IAF VP for Honours and Awards, International Astronautical Federation (IAF), United States</i> |  |
| 12:45 - 12:50 | Award Ceremony and Photo | |
| 12:45 - 13:10 | Presentation by the Award winner
Jet Propulsion Laboratory (JPL) represented by:
Larry D. James , <i>Interim Director, Jet Propulsion Laboratory (JPL), United States</i> |  |
| | Earth and Planetary Image Facility (EPiF) Team represented by:
Shimrit Maman - Tirosh , <i>Research Associate and Laboratory Director, Earth and Planetary Image Facility (EPiF), Israel</i> |  |
| 13:10 - 13:30 | Networking | |

2.3 11th IAF International Meeting for Members of Parliaments
(Closed Meeting)

Date: Sunday 24 October 2020
Venue: Dubai World Trade Centre (DWTC)



Space Solutions for the Benefit of Civil Society

Saturday 23 October 2021

All day: Arrival of Participants

18:30 Joint MoP/IPC Welcome Reception
Bubble Lounge - Dubai World Trade Centre (DWTC)

Sunday 24 October 2021

The Meeting will take place in **Al Multaqua Ballroom** of the Dubai World Trade Centre (DWTC)

08:30 Welcome Coffee

09:00 Welcome

- **Pascale Ehrenfreund**, President, International Astronautical Federation (IAF)
- **Saqr Ghobash**, Speaker of UAE Federal National Council and Co-Chair of the 11th IAF MOP Meeting
- **Dominique Tilmans**, IAF VP for Parliamentary and Ministerial Relations and User Communities and Co-Chair of the 11th IAF MOP Meeting
- **Sarah bint Yousif Al Amiri**, Minister of State for Advanced Technology and Chairwoman of the UAE Space Agency, IAC 2021 Host Country
- **Yousef Al Shaibani**, Director General, Mohammed Bin Rashid Space Centre, IAC 2021 Host
- **Sophie Primas**, President of the Economic Affairs Commission of the French Senate, IAC 2022 Host Country

09:45 Session 1: **Space Solutions for Health & Emergency**

Presentation and Moderation by **Josef Aschbacher**, Director General of the European Space Agency.

Intervention by Members of Parliaments

Roundtable Discussion

10:45 Session 2: **Space Solutions for Mobility**

Presentation and Moderation by **Mohammed Bin Rashid Space Centre**, Speaker TBD.

Intervention by Members of Parliaments

Roundtable Discussion

11:45 Session 3: **Space Solutions for Public Services**

Presentation and Moderation by **Giorgio Saccoccia**, President, Italian Space Agency (ASI)

Intervention by Members of Parliaments

12:45 Closing Remarks

- **Saqr Ghobash**, Speaker of UAE Federal National Council and Co-Chair of the 11th IAF MOP Meeting
- **Dominique Tilmans**, IAF VP for Parliamentary and Ministerial Relations and User Communities and Co-Chair of the 11th IAF MOP Event

13:00 Adjourn and Group Picture

13:05 Lunch Break

14:00 11th IAF MOP Event Press Conference (upon request by MoP Participants)

19:00 IAF International Meeting for Members of Parliaments Cocktail and Dinner
Bubble Lounge - Dubai World Trade Centre (DWTC)

Monday 25 October 2021

08:00 - 09:00 VIP Gathering – **Sheikh Rashid A** (Dubai World Trade Centre (DWTC))

09:00 - 10:30 IAC 2021 Opening Ceremony
Sheikh Rashid Hall EF, Ground Floor (Dubai World Trade Centre) – Reserved VIP Seats for the MoPs

10:30 - 11:30 Opening of the IAC 2021 Exhibition and VIP Tour

- Gathering at the entrance of the Exhibition Hall
- Opening and Tour through the Exhibition

12:00 - 13:00 Speakers Luncheon sponsored by ESA – Bubble Lounge

13:15 - 14:45 Plenary Event 1: **Heads of Space Agencies**
Sheikh Rashid Hall EF

15:00 - 18:00 Free time to visit the Exhibition and attending the GNF Programme

- Visit and presentation of the Eurisy/IAF “**Space Service Hub - Space Solutions for Society**” at the IAC 2021 Exhibition
- Free time

18:15 - 19:30 Plenary Event 2: **Host Plenary “Expeditions 60/61 Reunion”** – Sheikh Rashid Hall EF

19:30 - 22:30 IAC 2021 Welcome Reception – Dubai World Trade Centre

Tuesday 26 October 2021

07:00 - 08:00 OHB Industry Breakfast

08:00 - 08:30 IAF Excellence in Industry Award to Lockheed Martin - Intervention by Lisa Callahan
(Sheikh Rashid Hall E)


08:30 - 09:30 Plenary Event 3 “**Small Satellites Solving Climate Challenges**” (Sheikh Rashid Hall E)

16:30 - 20:00 MoP Visit to World Expo 2020

- 16:00 Pick up at DWTC (with private transfer)
- 17:30 – 19:00 MoP Exclusive Visit to World Expo 2020
- 20:00 Drop-off at the DWTC (with private transfer)

2.4 IAC Hosts Summit – Eighth Session (Closed Meeting)

Date: Sunday 24 October 2021
Time: 10:30 - 13:00
Venue: Dubai World Trade Center (room Dubai C+D)

Time:	Programme
Opening	Welcome Address and Opening Remarks by Master of Ceremony & Moderator 10:30 Clay MOWRY <i>Global Sales, Marketing & Customer Experience, Blue Origin</i> <i>Special Advisor to the IAF President (IAC Evolution)</i>
Welcome Address by Sponsor:	István SÁRHEGYI <i>Founder of Herius Capital</i> https://heriuscapital.com/ 
Keynote with Q&A	The Power of Resilience during the COVID-19 Crisis: The Inspirational Success Stories of the IAF <i>Building resilient strategies has been at the heart of the IAF leadership during the unprecedented COVID-19 crisis. How did the IAF manage to emerge stronger and keep the global space community more united than ever?</i> Christian FEICHTINGER <i>Executive Director, International Astronautical Federation (IAF)</i>
Panel Discussion	The Road to Recovery: A Situation Report on the Global Space Sector <i>A panel discussion dedicated to the assessment of the impacts and resilience to the COVID-19 crisis of the various domains in the space sector.</i>
Moderator:	Nobu OKADA <i>Founder and CEO, Astroscale / IAF VP for Space Economy and Sponsorship</i>
Panellists	Bruce CHESLEY <i>Former Senior Director of Strategy, Space and Missile Systems, The Boeing Company / VP for Financial Matters and Industry Relations</i> Deganit PAIKOWSKY <i>Lecturer, Department of International Relations, Hebrew University of Jerusalem / IAF VP for Diversity Initiatives and Science, and Academic Relations</i> Andreas LINDENTHAL <i>Head of Business Operations Space Systems, Airbus Defence and Space / IAF Vice-President of the Global Networking Forum</i> Clay MOWRY <i>Global Sales, Marketing & Customer Experience, Blue Origin / Special Advisor to the IAF President (IAC Evolution)</i>
Coffee break	

Panel Discussion	A Comparative Perspective on Hosting Space Events in the New Normal <i>Among the countless difficulties COVID-19 has brought upon business, hosting live events is one of the biggest challenges. How are Event Organizers and Sponsors pivoting through Pandemic, what are the best practices and tips for planning and delivering a successful and safe in-person event?</i>
Moderator:	Lionel SUCHET <i>Chief Operating Officer, Centre National d'Études Spatiales (CNES), Special Advisor to the IAF President (IAC Resilience)</i>
Panellists:	Salem AL MARRI <i>Assistant Director General for Science and Technology/Astronaut Program Manager, Mohammed Bin Rashid Space Centre (MBRSC)</i> Tatiana TISHCHENKO <i>Director, International Cooperation Department, State Space Corporation, ROSCOSMOS</i> Steve EISENHART <i>Senior Vice President, Space Foundation</i> Lisa MAY <i>Chief Technologist, Advanced Programs, Lockheed Martin Corporation</i>
Panel Discussion	The Future of the IAC: How Host Candidates Plan to Innovate and Adapt to the New Normal? <i>Post-Pandemic gatherings require innovative adaptation. What can IAC 2024 Host Candidates offer to respond to the new challenges and use the New Normal as an opportunity?</i>
Moderator:	Clay MOWRY <i>Global Sales, Marketing & Customer Experience, Blue Origin</i> <i>Special Advisor to the IAF President (IAC Evolution)</i>
Speakers: (IAC 2024 Host Candidates)	Laszlo BACSARDI <i>Budapest, Hungary, Hungarian Astronautical Society (MANT)</i> Erasmus CARRERA <i>Milan, Italy, Italian Association of Aeronautics and Astronautics (A.I.D.A.A.), Italian Space Agency (ASI) and Leonardo</i> Minister Marcos PONTES <i>Sao Paulo, Brazil, Brazilian Space Agency (AEB)</i> Pedro DUQUE <i>Seville, Spain, Instituto Nacional de Técnica Aeroespacial (INTA)</i>
Closing	Closing Remarks by Master of Ceremony
13:00 - 14:00	Hosts Summit Lunch

Sponsored by: 

2.5 IAC 2021 IAF Public Speaking and Presentation Skills Lab

Date: Sunday 24 October 2021
Time: 15:00 - 17:00
Venue: Sheikh Maktoum C



With Scott Madry and Carol Carnett

This two-hour workshop will focus on improving your presentation skills in an international scientific context such as the International Astronautical Congress. Presenters Carnett and Madry have given many workshops around the world and have advised graduate students for many years in developing their presentation skills. The workshop will begin with an introduction to the concept of culture and the role of culture in our participation in international activities.

Moderators:



Scott MADRY

Scott Madry is a research associate professor at the University of North Carolina at Chapel Hill and a member of the faculty of the International Space University in Strasbourg, France. He has been doing international teaching and research for some 30 years and is interested in effective international communications and presentation skills.



Carol CARNETT

Carol Carnett is an attorney and a teacher of English to Speakers of Other Languages. She is Director of English Programs for the International Space University Summer Space Studies Program and Southern Hemisphere Space Studies Program, where she teaches English language skills, including writing and presentation workshops focused on effective English communication in international meetings and conferences.

2.6 UN/IAF 28th Workshop on Space Technology for Socio-Economic Benefits: “Space Exploration – A Source of Inspiration, Innovation and Discovery”

Date: 22-24 October 2021
Time: 08:00 - 17:30
Venue: Dubai World Trade Centre, Sheikh Zayed Rd, Dubai, United Arab Emirates

Organized by:



HOSTED BY THE MOHAMMED BIN RASHID SPACE CENTRE



INTRODUCTION AND BACKGROUND

The United Nations, through its Programme on Space Applications implemented by the United Nations Office for Outer Space Affairs, and the International Astronautical Federation (IAF) are co-organizing the **Workshop on Space Technology for Socio-Economic Benefits on the theme “Space Exploration - A source of Inspiration, Innovation and Discovery”** to provide space emerging countries with capacity building opportunities in using space science, technologies and applications for space exploration in support of sustainable economic, social and environmental development and on the role of industry.

WORKSHOP OBJECTIVES

The Workshop will provide a forum for discussion on space science, technologies and applications for space exploration in support of sustainable economic, social and environmental development and as a source of inspiration, innovation and discovery. Considering the direct and/or indirect relevance of space to all 17 Sustainable Development Goals (SDGs), the workshop will address the specific elements of SDG 4 (quality education), SDG 8 (decent work and economic growth), SDG 10 (reduced inequalities), SDG 9 (industry, innovation and infrastructure), in addition to SDG 17 (partnerships for the Goals). The Workshop will serve as a platform to ensure inclusive development in the areas of space technologies taking people, students, private sectors, researchers, academia, innovators and other actors on board in bringing benefits of space exploration to the end users.

The main objectives of the Workshop are to:

1. Raise awareness about the international and national entities, space agencies, industry and civil society activities related to Space Exploration
2. Raise awareness about planetary protection concepts and guidelines
3. Raise awareness about capacity-building efforts on space exploration and discuss synergies and common areas of work
4. Promote and discuss inclusiveness on space exploration
5. Raise awareness on the efforts of the international space community on how space exploration and innovations can trigger inclusiveness through new partnerships involving space emerging nations and industries
6. Bring together policy- and decision-makers, and the research and academic communities to help integrate space into policy and the decision-making process

Presentations made during the Workshop will be published on the website of the Office for Outer Space Affairs to increase awareness about the capabilities and benefits of space technology applications. The report of the Workshop and its recommendations will be distributed to the participants and the space technology user community.

Programme at Glance

Opening session:	Opening Remarks
Keynote Speech:	The importance of Space in Society
Setting the scene	Background and the objectives of the workshop.
Session 1a:	Space Exploration for All - National and International Perspective Space exploration activities have peaked in recent years. This journey of space exploration is not limited anymore to the developed nations. Thanks to an inclusive approach implemented by space-faring countries, several developing and space emerging nations are also delving into space exploration. The 1a sub-session will present space exploration National and International efforts on space exploration and reveal the latest and future approach towards space exploration.
Session 1b:	Space Exploration for All - Industry Perspective Space exploration activities have peaked in recent years. This journey of space exploration is not limited anymore to the developed nations. Thanks to an inclusive approach implemented by space-faring countries, several developing and space emerging nations are also delving into space exploration. The 1b sub-session will present space exploration efforts focusing on the industry perspective and reveal the latest and future approach towards space exploration
Session 1c:	Space Exploration for All - Civil Society Perspective Space exploration activities have peaked in recent years. This journey of space exploration is not limited anymore to the developed nations. Thanks to an inclusive approach implemented by space-faring countries, several developing and space emerging nations are also delving into space exploration. The session will present space exploration efforts focusing on the role of civil society and reveal the latest and future approach towards space exploration
Session 2:	Capacity-Building for Space Exploration This session will cover activities to develop capacity in space exploration. It will showcase national, regional and international projects and initiatives supporting the development of skills, infrastructure and capabilities related to space exploration. Breakout Group Discussions and Presentations
Session 3: (Panel discussion):	Opportunities for space emerging countries to join efforts in space exploration Selected members from previous sessions of the Workshop
Closing session:	Closing remarks

Agenda of the Workshop

Time	Title of Presentation	Speaker	Organisation
Friday, 22 October 2021			
08:00-09:00	Registration		
Opening Ceremony			
09:00 - 09:10	Opening remarks by UNOOSA	Simonetta Di Pippo	Director, UN Office for Outer Space Affairs (UNOOSA)
09:10 - 09:20	Opening remarks by IAF	Pascale Ehrenfreund	President, International Astronautical Federation (IAF)
09:20 - 09:30	Opening remarks by MBRSC	Salem Al Marri	Deputy Director General and Executive Director, Mohammed Bin Rashid Space Centre (MBRSC)
Keynote speech			
09:35 - 09:45	The importance of space in society	Athanasios Staveris-Polykalas	Secretary General of Telecommunication and Post, Ministry of Digital Governance, Greece
Setting the scene			
09:45 - 10:05	Perspective from the programme committee	Nathalie Ricard/Hazuki Mori	UN Office for Outer Space Affairs (UNOOSA)
10:05 - 10:12	Perspective from the programme committee	Christian Feichtinger	International Astronautical Federation
10:12 - 10:19	Perspective from the programme committee	Adnan Mohammad Alreis	Mohammed Bin Rashid Space Centre
10:19 - 10:26	Perspective from the programme committee	Christina Giannopapa	Chair, Committee for Liaison with International Organisations and Developing Nations (CLIODN)
10:26 - 10:33	Perspective from the programme committee	Valanathan Munsami	Chair, Committee on Developing Countries and Emerging Communities (ACDCEC)
10:33 - 10:40	Perspective from the programme committee	Christian Sallaberger	Chair, Space Exploration Technical Committee
10:40 - 10:47	Perspective from the International Space Exploration Coordination Group	Stefaan De Mey	Secretariat of the International Space Exploration Coordination Group
10:47 - 11:15	Coffee Break/Ice-Breaker		
Session 1a: Space Exploration for All - National and International Perspective			
11:15	Chair: Bernard Foing (TBC) / Rapporteur:		
11:15 - 11:30	Title of presentation to be determined	Francesco Longo	Italian Space Agency
11:30 - 11:45	The Algerian Space Agency - National Space Program	Salah Eddine Bentata	Algerian Space Agency
11:45 - 12:00	Angolan Space Programme	Marco Filipe Menezes Romero	Angolan Office for Space Affairs

Time	Title of Presentation	Speaker	Organisation
12:00 - 12:15	National efforts in Venezuela on space exploration and the integration with Latin America and the Caribbean	Marglad Bencomo Noguera	Executive Director, Bolivarian Agency for Space Activities (ABAE) – Venezuela
12:15 - 12:30	Title of presentation to be determined	Erik Imbuzeiro	Brazilian Space Agency
12:30 - 12:45	The Creation of the Costa Rica Space Agency: A unique, self-sustainable design to take advantages of space 2.0	Adolfo Chavez Jimenez	Costa Rica Space Agency/Costa Rica Institute of Technology
12:45 - 13:00	Overview of Ethiopian Space Program Development: Challenges and Prospects	Yeshurun Alemayi Adde	Deputy Director General
13:00 - 13:15	Egyptian Space Agency’s Projects towards Capacity Building and Sustainability of Space Exploration	Hoda Awny El-Megharbel	Egyptian Space Agency
13:15-14:45	Lunch Break		
Session 1a: Space Exploration for All - National and International Perspective (continuation)			
14:45	Chair: (TBC) / Rapporteur: (TBC)		
14:45 - 15:00	ESA’s Terrae Novae Exploration Programme & Opportunities for an Inclusive Space Exploration Journey	Stefaan De Mey	European Space Agency
15:00 - 15:15	How the Kenya Space Agency is Fast Growing in the Space Sector	Olivia Mwaniki	Kenya Space Agency
15:15 - 15:30	JAXA Space Exploration Programme	Masami Onoda	Japan Aerospace Exploration Agency
15:30 - 15:45	Joining the Journey of Space Exploration: the Korea Aerospace Research Institute (KARI) Case	Soyoung Chung	Korea Aerospace Research Institute
15:45 - 16:00	Development of a Space Roadmap in Mauritius	Faraaz Shamutally	Mauritius Innovation Research Council
16:00 - 16:15	The Mexican Space Agency, as emerging agency, participates and promotes space exploration	Jesus Romero	Mexican Space Agency
16:15-16:35	Coffee Break		
16:35 - 16:50	Title of presentation to be determined	Omran Sharaf/ Mohsen Alawadhi	Mohammed Bin Rashid Space Centre
16:50 - 17:05	The Vitality of Lunar Exploration for all Deep Space Human Missions: The Socio-Economic Benefits.	Funmilola Oluwafemi	National Space Research and Development Agency – Nigeria
17:05 - 17:20	NSSA: A Bright Vision to a Bright Future	Ali Al-Qaraan	National Space Science Agency Bahrain
17:20 - 17:35	Socio-economic Benefits of Aerospace Development from an Emerging Country Perspective: The case of Paraguay	Alejandro Roman	Paraguay Space Agency
17:35 - 17:50	Polish Space Sector overview and space exploration main activities	Aleksandra Bukala	Polish Space Agency
END OF DAY 1			

Time	Title of Presentation	Speaker	Organisation
Saturday, 23 October 2021			
Session 1b: Space Exploration for All - Industry Perspective			
09:00	Chair: George Maeda (TBC) / Rapporteur: (TBC)		
09:00 - 09:15	Building Partnerships for Student Programs for Emerging Space Nations	Henrik Johansson	Swedish Space Corporation
09:15 - 09:30	Lessons Learnt from Sustainable Development Programmes	Alex da Silva Couriel	Surrey Satellite Technology
Session 1c: Space Exploration for All - Civil Society Perspective (part I)			
09:45	Chair: Gwang Ju / Soyoung Chung Rapporteur: (TBC)		
	Report 2021 from International Lunar Exploration Working Group (ILEWG): Task Groups, Roadmap, Highlights and EURO-MOONMARS Campaigns Results	Bernard Foing	International Lunar Exploration Working Group
09:45 - 10:00	Deep Space Food Challenge	Stephanie Wan	Methuselah Foundation – United States of America
10:00 - 10:15	Network to Promote STEM Space Education in Brazil	Luisa Santos	Federal University of Rio Grande do Norte (UFRN) – Brazil
10:15 - 10:30	A Multidisciplinary Approach for Space Sustainability and Colonization	Loredana Santo	University of Rome Tor Vergata – Italy
10:30 - 10:45	Blockchain and Cryptoeconomy for Space Exploration	Itzel Rocillo	National Autonomous University of Mexico
10:45 - 11:00	An Educational Approach to Planetary Defense for Global Involvement During COVID-19	Nancy Wolfson	IAF Technical Committee on Near Earth Objects
11:00-11:15	Coffee Break		
Session 2: Capacity-Building for Space Exploration (part I)			
11:15	Chair: Adolfo Chavez Jimenez (TBC) / Rapporteur: (TBC)		
11:15 -11:30	Space education from the perspective of the African Regional Centre Space and Technology Education	Ganiyu Agbaje	African Regional Centre for Space Science & Technology Education - English (ARCSSTE-E) – Nigeria
11:30 - 11:45	Space Missions Preparation on Earth	Thorben Konemann	Center for Applied Space Technology and Microgravity (ZARM) – Germany
11:45 - 12:00	Open-Sourcing of CubeSat Bus for Capacity-Building aimed at Space Exploration	George Maeda	Kyushu Institute of Technology (Kyutech) – Japan
12:00 - 12:15	Title of presentation be determined	TBC	Moon Village Association
12:15 - 12:30	Hands-on activities in Nepal Astronomical Society	Manisha Dwa	Nepal Astronomical Society
12:30 - 12:45	The Space Exploration Seed and its Growing during the Inclusion. Economic and Social Impact through the Space Education in the Childhood in Developing Countries. Colombia Case Study.	Heylen Andrea Polo Cano	Apollo Foundation – Colombia

Time	Title of Presentation	Speaker	Organisation
12:45 - 13:00	Promoting Space Science in Sierra Leone: The Progressive Steps	Kenneth Bamba	Science, Technology, Engineering, Arts and Development (STEAD) Society – Sierra Leone
13:00 - 13:15	Title of presentation to be determined	Jose Bagur	Universidad del Valle de Guatemala - Guatemala
13:15 - 14:45	Lunch Break		
Session 2: Capacity-Building for Space Exploration (part II)			
14:45	Chair: Adolfo Chavez Jimenez (TBC) / Rapporteur:		
14:45 - 15:00	Overview of ISU exploration-related team projects over the last three decades	Nicolas Peter	International Space University
15:00 - 15:15	Analogue Missions: Learning by doing - An Educational Tool for Universities and Primary Schools	Chloe Carriere	Swiss Federal Institute of Technology Lausanne
15:15 - 15:30	Title of presentation to be determined	Suhail Aldhafri	Mohammed Bin Rashid Space Centre
15:30-15:45	Coffee Break		
Breakout Sessions (from 15:45 to 17:45)			
Scenario 1	You have been appointed scientific advisor Vogspheria, a country without any previous experience in space, your task is to ensure that Vogspheria becomes one of the world references in space in the next 30 years. What are the steps you would take as advisor to reach that goal? Vogspheria also aims at championing inclusiveness. What actions would you suggest tackling inclusiveness?		
Scenario 2	You are the chief coordinator of an international programme that shall ensure that all countries access space, it is not an easy task but we trust you! What are the steps you would take and how much time do you think is realistic to reach that goal? How would you define “to have access to space”?		
Scenario 3	You have been appointed as lead negotiator for the World Space Exploration Alliance, your task is to convince countries to join an international alliance (hopefully worldwide alliance) to explore space, including celestial bodies such as the Moon. What would be your (very convincing) arguments for joining? (give arguments for a developing and for a developed country)		
Scenario 4	Space has attracted the interest of every single country in the world! You have been appointed lead rapporteur for preparing a report to all countries. In that report you have to explain which would be the consequences of all countries accessing space. You need to include in your report all the benefits and drawbacks, and for the drawbacks what would be the recommended mitigation actions. Everybody trusts your judgement!		
17:45 - 18:00	Flash wrap-up session		
END OF DAY 2			
18:00	Participants are invited to a cocktail organized by the Mohammed Bin Rashid Space Center		

Time	Title of Presentation	Speaker	Organisation
Sunday, 24 October 2021			
Breakout session presentations			
09:00-10:15	Presentations from each group		
Session 3 (Panel discussion): Opportunities for space emerging countries to join efforts in space exploration			
10:15 - 12:15	Chair: (TBC) / Rapporteur: (TBC)		
	Marglad Bencomo Noguera	Executive Director, Bolivarian Agency for Space Activities (ABAE)	
	Giorgio Saccoccia	President, Italian Space Agency	
	Grzegorz Wrochna/ Aleksandra Bukala	President / Director, Polish Space Agency	
	Hugo Andre Costa	Board Member, Portugal Space Agency	
	Valanathan Munsami	CEO, South African National Space Agency	
	Yeshurun Alemayi Adde	Deputy Director General Ethiopia Space Science and Technology Institute	
	Gwang Ju	Co-chair, Emerging Space Agencies Working Group (ESAWG) of the International Space Exploration Coordination Group (ISECG)	
	Athena Coustenis	Chair, COSPAR Planetary Protection Panel	
15:30 - 15:45	Coffee Break		
Closing Session			
12:45 - 13:00	Salem Al Marri	Deputy Director General and Executive Director, Mohammed Bin Rashid Space Centre (MBRSC)	
	Pascale Eherenfreund	President, International Astronautical Federation (IAF)	
	Simonetta Di Pippo	Director, United Nations Office for Outer Space Affairs (UNOOSA)	
13:00 - 13:15	Group picture		

2.7 IAA Academy Day

Date: Sunday 24 October 2021
Time: 13:00 - 20:00
Venue: Dubai World Trade Center (DWTC), Dubai, UAE Sheikh Maktoum A Room



THE INTERNATIONAL ACADEMY OF ASTRONAUTICS (IAA) – ACADEMY DAY – PROGRAMME

13:00	Opening of the Academy Day, John Schumacher , IAA President,
13:15	31 st IAA Regular Meeting (restricted access) and Induction of the 2021-2023 Board of Trustees
14:15	End of Restricted Meeting
IAA Plenary Session - Open Meeting	
14:20	Indian Space Programs and future plans, Kailasavadivoo Sivan , Chairman ISRO, and IAA Vice-President, India
15:15	Antares Program, Laurels for Team Achievements 2021, Dan Van Hulle , Program Product Manager, Northrop Grumman, USA, and Oleg Ventskovsky , Yuzhnoye State Design Office, Ukraine
15:45	Romanian Space Programs and Overview of the Space Systems as Critical Infrastructure study and conferences, Marius-Ioan Piso , President & CEO, Romanian Space Agency (ROSA) and IAA Vice President, Romania
16:15	Present and Future of the European Space Agency, Josef Aschbacher , Director General, ESA and new Academician.
17:00	End of Session
18:30	Cocktails (in advance registration)
19:00	Induction Ceremonies for Newly Elected Academicians (in advance registration)
20:00	Awards Gala Dinner (in advance Registration)
22h30	End



2.8 19th Space Generation Congress (SGC)

Date: 21 - 24 October 2021
Venue: Mohammed Bin Rashid University of Medicine and Health Sciences, University of Dubai



THE GLOBAL SPACE CONGRESS FOR UNIVERSITY STUDENTS AND YOUNG PROFESSIONALS INTERESTED IN TODAY'S KEY SPACE ISSUES

The Space Generation Congress (SGC) is the annual meeting of the Space Generation Advisory Council (SGAC) held in conjunction with the International Astronautical Congress. SGC brings together 150 of top university students and young professionals from various areas of the international sector – government, industry, and academia, who have a passion for space.

With SGC, SGAC aims to hone and promote the perspectives of tomorrow's space leaders on today's key space issues. SGC delegates also have the opportunity to meet many high-level international space leaders through networking events. SGC is proudly endorsed by the United Nations Office of Outer Space Affairs.

Aims

The aim of the SGC is threefold:

- **First**, to strengthen the international network of the Space Generation Advisory Council. From the perspective of the individual delegates, many of whom come from developing countries, it is a chance to interact and engage with the incoming generation of space policy professionals from all over the world. From the perspective of the Space Generation Advisory Council, it allows us to consolidate our international links in order to best represent and facilitate the voice of the next space generation.
- **Second**, to examine and consider key questions that are facing the space and international community at large and to provide input to international thinking from the next generation of space professionals.
- **Third**, to allow tomorrow's space sector leaders to grow their network within their generation and to also have the opportunity to interact with today's space leaders by way of our high-level speakers

SGC 2021 Programme

Thursday 21 October 2021

08:30 - 09:10	Registration and Coffee Break Sponsored by Skyrora
09:15 - 09:50	Intro to SGC + Expected Outcomes
09:50 - 10:00	Welcome to MBRU - Dr. Hanan Al Suwaidi , Director of Governance at MBRU
10:00 - 10:30	Keynote: Planet, Dr. Agnieszka Lukaszczyk , Senior Director for European Affairs
10:30 - 11:00	Keynote: International Space University, Dr. Pascale Ehrenfreund , President
11:00 - 11:30	Keynote: NASA Exploration - Greg Chavers , Acting Deputy Associate Administrator for Systems Engineering and Integration, NASA Human Exploration and Operations Mission Directorate
11:30 - 12:00	WG 1-3 Overviews
11:35 - 12:40	WG 4-6 Lunch
12:05 - 12:45	WG 1-3: Working Group Time
12:45 - 13:15	WG 4-6 Overviews
12:50 - 13:55	WG 1-3 Lunch
13:20 - 14:55	WG 4-6: Working Group Time
14:00 - 15:20	WG 1-3: Working Group Time

15:00 - 15:20	WG 4-6: Coffee Break sponsored by SES
15:25 - 15:45	WG 1-3: Coffee Break sponsored by SES
15:50 - 17:05	Space Technology for Climate Change Panel: SES, Airbus, GHGSat, NSSTC
17:05 - 17:10	SGC Day 1 Closing Remarks
17:15 - 18:45	WG 1-3: Working Group Time
17:15 - 18:45	WG 4-6: Working Group Time
18:50 - 19:20	Keynote: NASA PDCO, Lindley Johnson, Planetary Defense Officer
19:20 - 19:45	Shuttles travel from MBRU to Evening Event
19:45 - 22:45	Space Night, Secret Garden Tajj Hotel

Friday 22 October 2021

08:00 - 08:40	Coffee Break sponsored by Skyrora
08:45 - 09:00	SGC Day 2 Welcome
09:00 - 09:30	Keynote 4: Lockheed Martin, Mike Hawes, Vice President and Orion Program Manager
09:30 - 10:00	Keynote 5: Luxembourg Space Agency, Marc Serres, CEO
10:05 - 11:20	Private Public Partnerships Panel: UKSA, NSSTC, BryceTech
11:25 - 12:30	WG 1-3 Lunch
11:25 - 12:30	WG 4-6: Working Group Time
12:35 - 13:40	WG 4-6 Lunch
12:35 - 14:55	WG 1-3: Working Group Time
13:45 - 15:20	WG 4-6: Working Group Time
15:00 - 15:20	WG 1-3: Coffee Break sponsored by BryceTech
15:25 - 15:45	WG 4-6: Coffee Break sponsored by BryceTech
15:50 - 16:20	Keynote: ISpace, Takeshi Hakamada, CEO
16:20 - 16:25	SGC Day 2 Closing Remarks
16:25 - 18:35	WG 1-3: Working Group Time
16:25 - 18:35	WG 4-6 Working Group Time
19:10 - 19:45	Shuttles travel from MBRU to Evening Event
19:45 - 22:45	International Night, Soho Bar & Grill

Saturday 23 October 2021

08:00 - 08:40	Morning Coffee
08:45 - 09:00	SGC Day 3 Welcome
09:00 - 10:15	Suborbital Commerical Space Flight Panel: Blue Origin
10:20 - 11:30	WG 4-6: Working Group Time
10:20 - 12:15	WG 1-3: Working Group Time
11:35 - 12:15	WG 4-6: Lunch
12:20 - 13:00	WG 1-3: Lunch
12:20 - 13:00	WG 4-6: Working Group Time
13:05 - 13:35	Keynote: European Space Agency, Maria-Gabriella Sarah, Partnerships and Member States Relations
13:40 - 14:05	ALL WG: Final Presentation Prep
14:10 - 15:10	WG 1-3 Presentations

15:10 - 15:35	Break + WG Photos
15:40 - 16:40	WG 4-6 Presentations
16:40 - 17:00	SGC Day 3 Closing
18:30 - 19:00	Buses Leave The Apartments Hotel for Closing Dinner
19:00 - 2 3:00	SGC Closing Dinner, Sahara Desert Resort

Sunday 24 October 2021

SGAC Beach and Breakfast Running Challenge

07:30	OPTIONAL: Meet at The Apartments DWTC Hotel Lobby to coordinate group transportation (taxi/public transport)
8:00 - 08:10	Opening of running event, meet and greet with elseco Space Team and #elseFIT coaches
08:10 - 08:30	Training Session
08:30 - 09:10	Group Run
09:10 - 09:45	Breakfast and networking

Space Medicine and Life Science Half Day Workshop

12:30-13:00	Registration
13:00-13:10	Introduction to Space Medicine Workshop
13:10-13:20	Introduction to SGAC and SMLS
13:20-14:05	Keynote
14:05-14:15	Coffee Break
14:15-14:45	Student / YP Panel
14:45-15:15	Student / YP Panel Discussion
15:15-15:25	Coffee Break
15:25-16:00	Fireside Chat
16:00-16:15	Close and Awards

Career Development Half Day Workshop

13:30-14:00	Registration
14:00-14:05	Welcoming Address
14:20-14:30	Workshop Introductions
14:30-17:00	Career Development Workshop Session
17:00-17:05	Closing Remarks

3 Social Events

Welcome Reception

Date: 25 October 2021

Time: 19:00 - 22:00

Location: Sheikh Saeed Hall 2 & 3 @ DWTC

Gala Dinner

Date: 29 October 2021

Time: 19:30 - 22:00

Location: Armani Hotel, Burj Khalifa

Cost: 150 Euro



4 IAF Awards 2021

4.1 IAF World Space Award

The IAF World Space Award is presented for an outstanding contribution or contributions in space science, space technology, space medicine, space law or space management of exceptional impact to the world's progress in astronautics.

The recipient of this year's award is the **Hayabusa2 Team**.



"The Hayabusa2 has greatly contributed to the advancement of robotic interplanetary sample return missions through a series of flawless operational accomplishments made possible by its sophisticated technologies concerning solar-electric-propulsion cruising, landing, roving, impacting, and returning to Earth. Hayabusa2 has achieved the world's second-ever successful round-trip flight to a celestial body beyond the Moon, following the former Hayabusa mission. It has also accomplished the world's first in collecting samples from a C-type asteroid, which is expected to greatly contribute to the progress of planetary science."

The Hayabusa2 team consists of hundreds of experts including engineering staff from JAXA, international scientists from around the world, and young professionals ranging from graduate students to post-doctoral researchers"

4.2 IAF Excellence in International Cooperation Award

The IAF Excellence in International Cooperation Award is presented annually to an individual who has demonstrated excellence in their efforts to promote and facilitate global engagement and cooperation in the space sector.

In its first year, the award has been bestowed to:



Jean Yves LE GALL

Former President,
Centre National d'Etudes
Spatiales (CNES)

"As an advocate for international cooperation, Dr. Le Gall has established fruitful networks and collaborations with numerous stakeholders at political, institutional, industrial and academic levels encouraging them to work together to create a coherent space strategy."

Recognizing early on that the space landscape thrives on diversity and international collaboration, Dr. Le Gall has always found ways to convince political leaders that a strong space policy could only rely on strong cooperation within Europe and space leaders

around the world. To this day, Dr. Le Gall is one of the most influential French leaders on space policy and his support to European and international space programs and achievements is well documented throughout his different positions within the French national scientific research agency CNRS, several French ministries, at Novespace, Starsem, Arianespace, where he was Chairman & CEO, as President of the French space agency (CNES) and President of the International Astronautical Federation (IAF)”

4.3 IAF Excellence in “3G” Diversity Award

The IAF Excellence in “3G” Diversity Award is intended to recognize IAF member organizations (industry, government, academia) worldwide for outstanding contributions to the fostering of “3G” (Geography, Generation, Gender) Diversity within the space sector. The highest standards in “3G” Diversity can be achieved both by organizations and within teams’ activities. To correctly represent this the IAF Honours and Awards Committee (HAC) decided to divide the IAF Excellence in “3G” Diversity Awards in two corresponding categories.

The recipient of this year’s award are:

Jet Propulsion Laboratory (JPL)



“JPL has been on a focused journey over the last five years to build and execute on strategies to support diversity, equity and inclusion at the Laboratory and in the communities, we engage with. These strategies focus on evolving our culture, ensuring leadership understanding and accountability to the concepts of diversity, equity, and inclusion, and building our future through a diverse and inclusive workforce.”

Earth and Planetary Image Facility (EPiF) Academic Team



“The Earth and Planetary Image Facility (EPiF) academic team from Ben-Gurion University of the Negev has been awarded the IAF IDEA “3G” Diversity Award for their work on the She-Space initiative; a hands-on science outreach program to encourage high school-age girls to pursue science research and careers in fields related to space and space science”

4.4 IAF Excellence in Industry Award

The IAF Excellence in Industry Award is intended to distinguish an industry organization, member or non-member of the IAF, for introducing innovative space technologies to the global marketplace and being recognized throughout space industry for successfully executing a landmark space mission.

The recipient of this year’s award is **Lockheed Martin Space**



“For the continued outstanding contributions of Lockheed Martin to the growth of the world’s space exploration industry, exemplified by success in milestone achievements in space telescopes, robotic missions, human missions, and international partnerships. The Lockheed Martin team has successfully tested and delivered the Orion spacecraft for the first crew-capable test flight to the moon in 2021 and has executed development and operations activities for missions to Jupiter, Mars, and several asteroid destinations. Lockheed Martin has continued its commitment to working with internal partners across its portfolio, including the European Space Agency and Airbus Defense & Space on the Orion program, and multiple other companies who provide instruments through NASA for the deep space robotics missions such as the lunar thermal mapper from the University of Oxford in the United Kingdom. The wide range of targets and mission capabilities deployed to learn about the worlds around us is exceptional and sets Lockheed Martin apart in the exploration community.”

4.5 IAF Hall of Fame

The IAF Hall of Fame is intended to create a standing forum of personalities that have contributed substantially to the progress of space science, technology, and space benefits to mankind. It will consist of a permanent gallery of these personalities, including a citation, biographical information, and a picture, in a special part of the IAF web presence.

The recipients of this year’s award are:



Dr. Alexander V. DEGTYAREV
General Director - General Designer,
Yuzhnoye State Design Office,
Ukraine
(in memoriam)

“For outstanding contribution to development of space science and expansion of international cooperation in space exploration”



Prof. Guirong MIN
Chief Scientist and former President,
China Academy of Space Technology (CAST),
China
(in memoriam)

“An expert with distinguished contribution for China space development from first satellite to space station for more than 50 years”



Dr. Hiroki MATSUO
President,
Society for Promotion of Space Sciences,
Japan

“MATSUO Hiroki has been dedicated to the research and development in space engineering from its dawn of history in Japan, including his notable contribution of strong leadership in space science and exploration.”

4.6 Frank J. Malina Astronautics Medal

Since 1986, the Frank J. Malina Astronautics Medal is presented annually to an educator who has demonstrated excellence in taking the fullest advantage of the resources available to them to promote the study of astronautics and related space sciences.

The recipient of this year's award is Prof. Filippo Graziani.



Prof. Filippo GRAZIANI
Senior Professor of Astrodynamics,
University of Roma “La Sapienza”, Scuola di
Ingegneria Aerospaziale,
President,
Italian company Group of Astrodynamics for the
Use of Space Systems (G.A.U.S.S. srl)
Italy

Filippo Graziani has been professor of Astrodynamics at Aerospace Engineering School of Sapienza University of Roma for 35 years till 2012 when he retired and has been dean of the School from 2004 to 2010. He is Member of the International Academy of Astronautics (IAA) and Member of IAA Trustees Board. His didactical and research activity has been mainly directed towards the “hands-on” space educational programs.

He participated to the main Italian space programs starting with the San Marco satellites in 1970 and he was the team leader of the Italian University Satellites Program (UNISAT) with the aim of designing, manufacturing, launching microsatellites with his students. Ten microsatellites have been launched since 2000.

In 2012 he founded the company GAUSS (Group of Astrodynamics for the Use of Space Systems) as a spin-off of the Aerospace Engineering School, active in the space technology field and he is President and CEO. He is author of more than 200 technical papers on Astrodynamics and Space Systems. He is Co-Editor of Acta Astronautica since 2009. He received the “Utkin Golden Medal” for international relationship between Russia and Italy for University Satellites Launches and the “M.K.Yangel -100 years Golden Medal” for the contribution to the development of space science in the world. Since 1975, every year, he participates to the IAF Conferences.



Frank J. Malina
(1912 – 1981)

4.7 IAF Interactive Presentations Competition Award

To be announced on Thursday 28 October during the IP Award Ceremony at 12:45 in the IP Area. The five best Interactive Presentations of the IAC 2021 will be awarded during a dedicated ceremony to be held just before the Interactive Presentation Session. A dedicated jury has chosen one winner for each of the five categories:

- A. Science and Exploration
- B. Explorations and Operations
- C. Technology
- D. Infrastructure
- E. Space and Society

This event will kick-off the IP Session and the IP cocktail reception, so do not miss your chance to mingle with the presenters and make sure to join us in the IP Hall!



4.8 Luigi G. Napolitano Award

The Luigi G. Napolitano Award is presented annually by the Space Education and Outreach Committee (SEOC) of the International Astronautical Federation to a young scientist, below 30 years of age, who has contributed significantly to the advancement of the aerospace science and has given a paper at the International Astronautical Congress on the contribution.

The Luigi G. Napolitano Award will be given during the closing ceremony on Friday 29 October 2021 of the 72nd IAC. The award was donated by the Napolitano family and consists of the Napolitano commemorative medal and a certificate of citation. The Luigi Gerardo Napolitano Society sponsors this annual award.



Luigi G. Napolitano
(1912 – 1981)



Notes



What is the IAC 2022 about?

The International Astronautical Congress 2022 will be hosted in the beautiful city of Paris, France. Exceptionally, the IAC 2022 will be from Sunday till Thursday, 18 – 22 September. The Hosting Organization is the Centre National d'Études Spatiales (CNES), a member of IAF since 1981. Paris hosted the first IAC ever in 1950, then in 1963 and lastly in 1982 and now will be holding the record of the city with most IACs hosted.

The IAC 2022 theme will be *Space for @ll* to reach beyond the space community and bringing together all communities. The IAC 2022 will offer great opportunities for networking and forging new contacts and potential partnerships.

For the latest information, visit www.iac2022.org or www.iafastro.org

www.iac2022.org

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