

# UN/IAF 31ST WORKSHOP ON SPACE TECHNOLOGY FOR SOCIO-ECONOMIC BENEFITS

“Space Sustainability as a Game-Changer  
for Development”

Milan, Italy

11 – 13 October 2024



**SPEAKERS’  
BIOGRAPHIES**

# DAY 1 - 11 OCTOBER 2024

## OPENING CEREMONY

### AARTI HOLLA-MAINI

#### *Director, United Nations Office for Outer Space Affairs (UNOOSA)*

Aarti Holla-Maini is the Director of the United Nations Office for Outer Space Affairs (UNOOSA). She brings to this position over 25 years of professional experience in the space sector including in managerial and advocacy functions. Most recently, she has held the role of Executive Vice-President Sustainability, Policy & Impact at NorthStar Earth & Space. She holds a bachelor's degree in law with German law from Kings College London, UK, a master's degree in business administration from HEC Paris, France, and she is also an alumna of the International Space University.

### CLAY MOWRY

#### *President, International Astronautical Federation (IAF)*

Clay Mowry has worked for over 25 years in the commercial launch and satellite sectors serving in government, as the leader of an industry trade association and as a senior executive for leading space companies. He joined Voyager Space in January 2022 as Chief Revenue Officer. He is responsible for growing sales, aligning operating company product and service offerings, developing analytics, setting strategy, and delivering customer success. He previously served for five years as Vice President for Global Sales at Blue Origin. He is currently the President of the International Astronautical Federation.

### H.E. DEBORA LEPRE

#### *Permanent Representative of Italy to International Organizations in Vienna*

Debora Lepre entered the diplomatic career in 1998. She served in the Italian Embassies in Paris, Moscow and Berlin and in the Permanent Representation to the EU in Brussels. From 2018 to 2023, she worked at Palazzo Chigi, in the Office of the Diplomatic Advisor to the Prime Minister, where in December 2021 she assumed the role of Deputy Diplomatic Advisor. She is currently the Permanent Representative of Italy to International Organizations in Vienna. A convinced promoter of gender equality and equal opportunities, she is among the founders of the Association of Italian Diplomatic and Executive Women, of which she was Vice-President in the period 2021-22.

## SETTING THE SCENE

### NATHALIE RICARD

#### *Scientific Affairs Officer, United Nations Office for Outer Space Affairs (UNOOSA)*

Nathalie Ricard is an aerospace engineer and scientific affairs officer at the United Nations Office for Outer Space Affairs. Previously, she managed satellite communication and navigation activities at Deutsche Telekom, the European Space Agency, and the European Union Agency for the Space Programme. She notably started and developed the Iris Programme of satellite communications for air traffic management at ESA. She then coordinated standardization of multi-constellation satellite-based augmentation services with the International Civil Aviation Organization for the European EGNOS programme.

## **CHRISTIAN FEICHTINGER**

### ***Executive Director, International Astronautical Federation (IAF)***

Dr Feichtinger took up the post of IAF Executive Director on 1 January 2012. Before moving to the IAF, he spent three years as senior advisor on exploration at the European Space Agency (ESA). Prior to that, he was head of ESA's permanent mission in the Russian Federation, after having worked as the Agency's representative for human space flight and exploration in Moscow during 10 years. He holds a PhD in space experimentation from Graz University of Technology, Austria.

## **TEODORO VALENTE**

### ***President, Italian Space Agency (ASI)***

Teodoro Valente is an expert in polymeric and composite materials and nanotechnology. He has a long experience in the academic sector, graduated in Mechanical Engineering from Sapienza Università di Roma, where he also served for several years as a Full professor of Materials Science and Technology and Deputy Rector. Before his appointment as ASI's president, he held the position of director of the Institute for Polymers, Composites, and Biomaterials (IPCB) at Italy's National Research Council – CNR, served in the Research and Development Directorate of the EU Commission, and held various positions in the private sector.

## **ERASMO CARRERA**

### ***President, Italian Association of Aeronautics and Astronautics (AIDAA)***

Erasmus Carrera is the President of the Italian Association of Aeronautics and Astronautics and Local Chairman of IAC 2024 Milano and ICAS 2024 Florence. He is Professor of Aeronautics and Astronautics at Politecnico di Torino, Italy. He has been author and coauthor of about 800 papers, and several books. Professor Carrera has been recognized as Highly Cited Researchers (Top 100 Scientist) by Thompson Reuters in two Sections: Engineering and Materials (2013) and Engineering (2015). He is editor-in-chief of Mechanics of Advanced Materials and Structures by Taylor & Francis, and of Advanced in Aircraft and Spacecraft Sciences by Techno-Press.

## **MASAMI ONODA**

### ***IAF Committee for Liaison with International Organizations and Developing Nations (IAF CLIODN)***

Masami Onoda is currently Director of Japan Aerospace Exploration Agency (JAXA) Washington D.C. Office. She has extensive experience in international affairs, satellite applications and industry relations. She holds a Ph.D. in Global Environmental Studies and a master's degree in environmental management, both from Kyoto University Graduate School of Global Environmental Studies, and a BA in international relations from the University of Tokyo. She is the chair of the IAF Committee for Liaison with International Organisations and Developing Nations (CLIODN).

## **MATIAS CAMPOS ABAD**

### ***IAF Committee on Connecting Emerging Space ecoSystems (IAF ACCESS)***

Matias is an Ecuadorian engineer and space enthusiast. He graduated from Worcester Polytechnic Institute, USA, where he obtained his Bachelor and Master of Science degrees in Aerospace Engineering. Matias is the founder and CEO of Astralintu Space Technologies, a startup focused on providing in-orbit services for emerging countries. Additionally, Matias is the current Vice-Chair of the IAF Committee on Connecting Emerging Space ecoSystems. Matias has been recognized as an Emerging Space Leader by IAF in 2022.



## DAY 1 - SESSION 1

# ASSESSING AND REDUCING THE IMPACT OF SPACE ACTIVITIES ON THE ENVIRONMENT

### PIETER VAN BEEKHUIZEN

*IAF Committee for Liaison with International Organisations and Developing Nations (IAF CLIODN)*

Pieter van Beekhuizen has worked his whole professional life in the space domain, and has occupied during this period a large variety of different staff / management responsibilities within ESA. Today he has his consultancy company (Bexperience) providing consultancy and support services.

He is Board member of SSPF, a foundation financially supporting young professionals /students in the Dutch space sector. He is chairman of the board of NVR, the Netherlands Space Society with 1200 members, and a member of the Executive board of the Colombian Space Agency. Furthermore, he is the Vice-Chair of the IAF CLIODN committee.

### SAMANTHA LAWLER

*Outer Space Institute and University of Regina, Canada*

Samantha Lawler is a Fellow of the Outer Space Institute and a professor of astronomy at the University of Regina in Canada. She completed degrees at the California Institute of Technology, Wesleyan University, and the University of British Columbia, followed by postdoctoral fellowships at the University of Victoria and NRC-Herzberg Astronomy and Astrophysics Research Centre. She studies the orbits of Kuiper Belt objects as well as light pollution from satellites. She has been advocating for regulation of satellites as her research telescope data and her dark prairie skies have increasingly filled with bright satellites over the past 5 years.

### VICTORIA FERNANDA VALDIVIA CERDA

*Academia Nacional de Estudios Políticos y Estratégicos (ANEPE), Chile*

Victoria is a Chilean researcher on space policies, the Antarctic, strategy, and defence with experience in the governmental and academic fields. She is a political scientist with a master's degree in International Studies from the University of Santiago, Chile, as well as a professor at ANEPE, Ministry of Defence in Chile, and mentor within several international initiatives, including Space4women (2020-2023). Winner of the 2024 GCSP prize on innovative futures, she is Global Fellow at the European Space Policy Institute.

### RYAN JOHN MCCALL LAIRD

*Green Orbit Digital, United Kingdom*

Ryan Laird, founder and director of Green Orbit Digital, is an experienced communications and marketing professional with over a decade of expertise in the space industry. Ryan combines his technical knowledge in physics and space studies with marketing and public relations to effectively communicate complex topics to diverse audiences. Throughout his career, Ryan has championed initiatives such as the Copernicus EU Programme and organised influential startup events like the ESA PhiWeek Bootcamp, DLR INNOspace Weekend, and the University of Leicester's Copernicus Hackathon on Food Security and Resilience.



## **JOSÉ PEDRO FERREIRA**

*Portugal, University of Southern California (USC), USA*

José Pedro Ferreira is a Fulbright and NASA fellow pursuing a doctorate in Astronautical Engineering at USC on the subject of space sustainability and environmental impacts of spacecraft demise in the atmosphere. As an aerospace engineer, he worked in commercial Earth observation and institutional science missions. José currently is the Project Groups Coordinator within the Space Generation Advisory Council, and a guest managing editor for the Journal of Space Safety Engineering. He is a member of the Space Entrepreneurship and Investment Committee within IAF, and the recipient of ESA's Space for Sustainability award in 2023.

## **PIERO BENVENUTI**

*Italy, International Astronomical Union (IAU) Centre for the Protection of the Dark and Quiet Sky from Satellite Constellation Interference*

Piero Benvenuti is Professor Emeritus of the University of Padova where he held the Chair of High Energy Astrophysics. He was Project Scientist for the IUE satellite and the Hubble Space Telescope European Coordinating Facility. He has been the President of the Italian National Institute for Astrophysics and Commissioner of the Italian Space Agency. He is the Director of the IAU Centre for the Protection of Dark and Quiet Sky from Satellite Constellations Interference and is the IAU Representative to the UN COPUOS.

# **DAY 1 - PITCH**

## **SOLUTIONS TO REDUCE THE ENVIRONMENTAL IMPACT OF SPACE ACTIVITIES**

## **LISA VITARIS**

*Space Industry Association of Australia*

Lisa Vitaris is Interim CEO and Director of IAC 2025 Sydney at the Space Industry Association of Australia, leading the world's largest space event. An experienced business leader in high growth acquisition, digital technology, and branding, she has held executive roles, including Chief Marketing Officer, in high-growth sectors such as technology, telecommunications, and financial services. Lisa is also a board member of Engineers Australia and Founder of 10 Pieces, a sustainable travel initiative.

## **GEOVIAN TADZI STOWER**

*Kenya Space Agency*

Geovian is a pioneering figure in Kenya's aerospace sector, holding a Bachelor of Science in Aerospace Engineering (Astronautics and Space) from Kenyatta University. As a Space Infrastructure and Facility Development Engineer at the Kenya Space Agency, he plays a key role in developing the Telemetry Tracking Command & Monitoring Station, spaceport projects, and managing Space Situational Awareness for the Taifa-1 satellite and other orbiting assets. He also manages sounding rocket tests, contributing to Kenya's advancements in space exploration and technology.

## DAY 1 - PANEL 1

# SOLUTIONS TO REDUCE THE ENVIRONMENTAL IMPACT OF SPACE ACTIVITIES

### GUIA PASTORINI

*Leonardo, Italy*

Guia Pastornini holds a PhD in Astronomy and Astrophysics and has been with Leonardo since 2008, specializing in the Space. She began as a Verification Engineer and later led the Assembly Integration and Verification discipline for Payloads. As Project Engineering Manager, Guia oversaw the Lightning Imager Instrument, successfully launched in 2022 from French Guiana. She was responsible for Engineering Capability and is now Head of the Integrated Industrial Governance & Sustainability Department for Space Business Unit.

### AYTAN ZEYNALLI

*Space Agency of the Republic of Azerbaijan (Azercosmos)*

Aytan Zeynalli is a strategy and business development expert with over 7 years of experience, specializing in sustainable and profitable growth. With a background in oil and gas, and now in the space industry, she leads Azercosmos' strategy execution activities. Aytan is passionate about promoting Diversity, Equity, and Inclusion and advancing sustainability practices within the agency. As a PhD student in economics and management and an adjunct instructor, she remains at the forefront of academic and industry developments. Aytan actively promotes the space ecosystem through educational events, fostering an inclusive and sustainable future.

### GIAO MINH NGUYEN

*Promethee Earth Intelligence, France*

Giao Nguyen holds a master's degree in mechanical engineering and started his career at SNECMA (now Safran Aircraft Engines) in operations and supply chain management. In 2009, he joined Airbus Group, holding leadership roles at what is now Airbus Defense & Space. In 2013, he became director of the Space and Situational Awareness program at what is now Ariane Group and then in 2015 appointed director of the "Quick Access to Space" microlancer program. In 2018, he became VP of operations and institutional sales at Open Cosmos. In 2020, he co-founded Prométhée Earth Intelligence with Olivier Piepsz.

### TENSAE ALEMAYEHU ALI

*CubeSpace and IAF ACCESS African Subcommittee, Ethiopia*

Tensae Alemayehu Ali is a mechanical engineering graduate from Mekelle University, Ethiopia. He currently works as a sales engineer at CubeSpace, a leading satellite control systems manufacturer based in South Africa. Previously, he served as the Regional Coordinator for Africa at the Space Generation Advisory Council (SGAC). He has received the Young Space Leaders medal and the Emerging Leaders grant from the International Astronautical Federation. In 2021, he was named one of the Top 10 Under 30 African Space Industry Leaders by Space in Africa. Tensae is passionate about developing the indigenous space workforce and economy of Africa.

## **MUHAMAD NURAZMI BIN ABAS**

*Gading Group Berhad and Malaysia Space Industry Consortium (MASIC), Malaysia*

Muhamad Nurazmi is a staunch advocate for the New Space Economy in Malaysia. He collaborates with local experts to actualize the blueprint by the Malaysian Space Agency (MYSA), aimed at propelling Malaysia to the forefront of high-tech advancements. His leadership has been pivotal in projects involving small launcher launch sites, space cities, drones, vertiports, satellite technology, and defence.

## **DAY 1 - PITCH**

### **CAPACITY BUILDING AND RAISING AWARENESS**

## **FLORENT MORICE MTUKA**

*Ministry of Information, Communication and Information Technology, Tanzania*

Florent Morice Mtuka is a distinguished tanzanian engineer with a wealth of expertise in ICT and telecommunications. He holds master's degrees in Electronics and Information Technology from the University of Dar Es Salaam and in Facilities Management from Leeds Metropolitan University. Currently serving as the Assistant Director of Communication Investment at the Ministry of Information, Communications, and Information Technology, he is also Tanzania National Space Program Coordinator. He has previously served as Network Planning and Development Manager at Tanzania Telecommunications Company Limited and as an Assistant Lecturer at Dar Es Salaam Institute of Technology.

## **RUVIMBO SAMANGA**

*Milo Space Science Institute, Zimbabwe*

Ruvimbo Samanga is a space policy analyst currently specializing in African regulatory market access. She serves as Ambassador at the Milo Space Science Institute and is involved in international capacity-building for sustainable development. A recipient of the IAF's Young Space Leader Award, her research focus includes space sustainability, commercialization of space activity, Earth observation and remote sensing. She will also receive this year the International Institute of Space Law Young Achiever award.

## **ANNA HUROVA**

*Koretsky State and Law Institute of National Academy of Sciences of Ukraine*

Anna Hurova holds a Master of Psychology, a PhD in space law, and is a research fellow at Koretsky State and Law Institute of the National Academy of Science of Ukraine. Her PhD thesis was focused on the application of environmental law for space debris mitigation and remediation. She participated as legal support of an EU project devoted to active debris removal. She was an invited researcher at the Center for Interdisciplinary Research in Environmental Law, Planning and Urban Development (France, 2018) and at UNIDROIT (Italy, 2020). She works at CNRS (France, 2022-2024) on the gamification of space activities, is a member of the IISL, of the Moon Village Association and of the Space Youth Council of Ukraine.



## DAY 1 - PANEL 2

### LEGAL BEST PRACTICES FOR SPACE SUSTAINABILITY

#### LULEKWA MAKAPELA

*National Earth Observations and Space Secretariat (NEOSS), South Africa*

Lulekwa Makapela is the Manager of the NEOSS, that is hosted by the Council for Scientific and Industrial Research in South Africa. She holds a Master's degree in Corporate Law, with specializations in public management and space law, and has over 20 years of experience in the space science and technology field. She represents South Africa on the Programme Board of the Group on Earth Observations and its Executive Committee. She previously served on the South African Council for Space Affairs and led the South African delegations to the Legal Subcommittee of COPUOS. She has received awards from the IAF and the IISL.

#### BEAULER WOZHELE

*Law Space Africa, Zimbabwe*

Beauler Wozhele is a distinguished legal professional with a Master's degree in Intellectual Property and Technology Law, specializing in Artificial Intelligence. She is an admitted attorney of the High Court of Zimbabwe, with over 20 years of experience across various legal domains, including space law. As a member of the Law Society of Zimbabwe, she actively contributes to the legal community. Currently, she serves as the Manager of Legal Affairs at Law Space Africa, a research-focused company. Additionally, she is the National Coordinator of the Manfred Lachs Space Law Moot Court Competition in Zimbabwe and has led Zimbabwean teams to participate in the Regional and World finals of the competition.

#### MOTOLANI DEBORAH FADAHUNSI-BANJO

*National Space Research and Development Agency (NASRDA), Nigeria*

Ms. Fadahunsi-banjo Motolani is Assistant Director and Head MoU and Programs within Legal Services of National Space Research and Development Agency (NASRDA). She is a resource person with the Nigerian Institute of Space Science and Technology, United Nations African Regional Center for Space Science and Technology Education in English, and Women in Aerospace Nigeria. She holds Master's degrees in Air and Space Law, (Leiden University, Netherlands), and Space, Cyber, and Telecommunications law (University of Nebraska). She currently coordinates the Nigerian National rounds of the Manfred Lachs moot court competition, and the annual space law workshop within the Agency. She is currently working on initiating the Space Traffic Management and Space Situation Awareness desk in the Agency.

#### ZUZANNA KULIŃSKA-KĘPA

*University of Warsaw, Faculty of Law and Administration, Manfred Lachs Center for Space Law, Poland*

Dr. Zuzanna Kulińska-Kępa is an Assistant Professor in the Department of International Air and Space Law at the Faculty of Law and Administration, University of Warsaw, and the founder of the Manfred Lachs Center for Space Law. Since 2017, she has been a member of the Polish delegation to the Legal Subcommittee of COPUOS. In 2019, she was admitted to the Warsaw Bar Association as an attorney. With over 20 years of experience at Amnesty International, where she held various managerial positions, Dr. Kulińska-Kępa also serves on the Supervisory Board of the Space Technology Park for Research, Development, and Innovation. Her areas of expertise include space law, international human rights law, humanitarian aid, and international organizations.

## **ANDREW RATCLIFFE**

*UK Space Agency*

Andrew Ratcliffe is Chief Engineer at the UK Space Agency (UKSA) leading the Office of the Chief Engineer which serves as principal advisor to the Deputy CEO on matters pertaining to the technical readiness and execution of UKSA programmes. Andrew is also head of delegation at a number of international forums including the UNCOPUOS STSC and IADC. Prior to joining the UKSA, Andrew worked for Airbus Defence and Space where his role included leading a number of mission studies and technology development activities for ESA across Science and Exploration including the development of a Harpoon for capturing space debris.

## **DAY 2 - 12 OCTOBER 2024**

### **KEYNOTE - "THE DARK SIDE OF SPACE: ADDRESSING THE SPACE DEBRIS CRISIS"**

## **ANIL KUMAR**

*IAF Vice President for Relations with International Organizations*

Dr. AK.Anil Kumar is presently the Associate Director of the Indian Space Research Organization (ISRO) Telemetry Tracking and Command Network and Chief General Manager for Safe and Sustainable Space Operations Management. He has been leading the team of Space Debris Mitigation and Management for more than 15 years and is responsible for all activities related to Space Debris and Space Situational Awareness and Management within the purview of ISRO. He is also the Project Director of NETRA, aimed at developing a network of observational facilities to track and catalogue space objects and also to develop a centralized control center for SSA activities. He is now the Vice President of the International Astronautical Federation dealing with relations with international organizations.

## **DAY 2 - SESSION 2**

### **SPACE SITUATIONAL AWARENESS AND COLLISION AVOIDANCE**

## **RICHARD DALBELLO**

*NOAA Office of Space Commerce, USA*

Richard DalBello is the Director of the Office of Space Commerce, overseeing the development of a space traffic control system and regulation of the U.S. commercial remote sensing industry. He also advocates for commercial space interests across the government. Previously, he was Virgin Galactic's Vice President of Global Engagement, handling international business development for the company's space vehicles. Earlier roles include Director of Space and Aeronautics at the White House Office of Science and Technology Policy, where he advised on space and aeronautics policy, and Vice President of Government Affairs for Intelsat General. Richard holds a bachelor's degree in political science from the University of Illinois, a master's degree in law from McGill University, and a doctorate in jurisprudence from the University of San Francisco.

## **BENEDETTA MARGRETHE CATTANI**

*Ecosmic, Italy*

Benedetta Cattani is a space engineer specialised in space sustainability, who graduated from Politecnico di Milano and Delft University of Technology. After working at the European Space Agency for two years, she co-founded Ecosmic, a startup aiming at converting idle resources into revenues through software solutions for the space sector. The first product of Ecosmic is a revolutionary software capable of filtering out false positives among the hundreds of collision warnings that satellite operators receive every day.

## **GEETANJALI RAMANAND KAMAT**

*Digantara Research and Technologies Private Limited, India*

Geetanjali is the driving force behind Digantara's legal and policy framework. At Digantara, she leverages her knowledge in space law to expertly navigate the company through intricate regulatory landscapes. By leading contractual and regulatory affairs, Geetanjali oversees the practical application of space law to the commercial space industry. Prior to her role at Digantara, she worked as a corporate lawyer at a boutique Indian law firm. Geetanjali's academic background includes a bachelor's degree in law from a leading Indian national law university and a 'cum laude' distinction from Leiden University's Advanced LL.M. program in Air & Space Law.

## **VICTOR UCHENNA JONATHAN NWANKWO**

*Nigeria, German Aerospace Center (DLR), Germany*

Victor U. J. Nwankwo is a Research Scientist at the DLR's Institute for Solar-Terrestrial Physics. He served as the Ag. Director of Centre for Space Research, Anchor University, Lagos (Nigeria) before his appointment in DLR. His research interests include space weather, atmospheric drag effects on low Earth orbit (LEO) objects and satellites, space and orbital sustainability, magnetosphere-ionosphere-thermosphere coupling, and radio wave propagation in the Earth-ionosphere waveguide. His research output (Aerodynamic drag model) is now being used to provide short- and long-term model-based SSA for LEO objects, and resourceful for debris removal mission planning. He is also a recipient of TWAS Postgraduate Fellowship, SCOSTEP Visiting Scholarship (Postdoc) and Visiting Research Fellow (to DIAS).

## **GULNARA OMAROVA**

*Fesenkov Astrophysical Institute, Kazakhstan*

Dr. Gulnara Omarova earned PhD degrees in Physics and Mathematics at the Kazakh National University in Almaty. Her scientific research activity concerns Dynamical Systems, Celestial Mechanics. She has been involved in National space activities, coordinating space science and technology issues. She is a member of the International Astronomical Union. Currently, she is a Senior Scientific Researcher at the Fesenkov Astrophysical Institute in the Laboratory of Stellar Dynamics, Cosmology and Computational Astrophysics. Her professional experience and areas of publication include celestial mechanics, space activities, space policy and law.



## DAY 2 - PANEL 3

# MANUFACTURING AND RECYCLING IN SPACE

### CRAIG D. BURKHARD

*NASA Small Spacecraft Systems Virtual Institute, USA*

During Craig's tenure at NASA, he has acquired project management and project technical experience through involvement in the Asteroid Threat Assessment Project, small satellite and International Space Station payloads development.

Craig currently serves as the Deputy Director for the Small Spacecraft Systems Virtual Institute (S3VI) and is responsible in assisting the director in the overall technical and programmatic execution of the institute. Craig is currently engaged in developing collaborations with international organizations. He manages activities to federate various small satellite tools, reports, and databases into the S3VI Web Portal. S3VI uses web technologies, databases, and virtual collaboration tools to collect, organize, and disseminate SmallSat knowledge for the benefit of NASA and the national and international SmallSat community.

### NIEVES CUBO MATEO

*Nebrija University, Spain*

Nieves Mateo, industrial engineer and researcher, is a pioneer in 3D tissue printing, having developed the first low-cost 3D bioprinter for generating implantable human skin to support regenerative medicine. She holds a Master's degree in Materials Science and Engineering and a PhD in Pharmacy, conducting her thesis at the Spanish Higher Council for Scientific Research. During this time, she participated in the PLT-Space study ("3D Printing of Living Tissue for Space Exploration"). Her current field of study is sustainable manufacturing for tissue regeneration, focused on space. Nieves is a Professor at Nebrija University, leading the ARIES Research group, the Bioengineering Bachelor's program and the Space Exploration Club.

### ONUR ÇELİK

*Türkiye, Delft University of Technology, the Netherlands*

Onur Çelik is an Assistant Professor at Delft University of Technology, in the faculty of Aerospace Engineering in the Netherlands. He received his PhD degree in 2020 with his research at JAXA and has previously been a Postdoctoral Research Associate at the University of Glasgow in the UK. His current research is in the domain of space-based solar power with orbiting solar reflectors.

### MAXIMILIAN MAIER

*KINETIK Space, Germany*

Maximilian Maier is the CEO of KINETIK Space and a leading researcher in the fields of robotics and mechatronics. With over 18 years of experience at the DLR Institute of Robotics and Mechatronics, Maximilian has made significant contributions to advancements in these areas. He is the author of more than 50 patents and has worked on numerous projects, including TINA, a space robotic arm, and MASCOT's mobility system, an asteroid lander that landed on Ryugu using an innovative hopping mechanism. In addition to his work at DLR, Maximilian is an entrepreneur, having founded two companies, including KINETIK Space, which now commercializes 30 years of space robotics development from DLR.

## **MEKHI DHESI**

*Astroscale UK*

Dr Mekhi Dhesi is Space Situational Awareness Strategy Lead at Astroscale UK. Mekhi oversees the development of Astroscale UK's In-Situ Space Situational Awareness service line. Mekhi holds a PhD in Theoretical Astrophysics from the University of Southampton.

## **DAY 2 - PITCH**

### **RAISING AWARENESS**

## **MAMONAHENG KOENANE**

*Impact School, Lesotho*

Mamonaheng Koenane, with a background in Computer Science, has led technical and education initiatives in Lesotho. She founded Impact School, introducing advanced technology programs like Space Technology and the Robot Operating System, and established Holberton School Lesotho, providing global software engineering training to local youth. As the Lesotho Ambassador for Mission ShakthiSAT, she supports a lunar satellite project involving students from 108 countries. Mamonaheng also serves on the board of Revenue Services Lesotho and the steering committee for the Lesotho Research and Education Network (LesREN), and has contributed to national digital policies at the request of the Ministry of Science and Technology.

## **DAY 2 - SESSION 3**

### **CAPACITY BUILDING AND RAISING AWARENESS**

## **CHRISTINA GIANNOPAPA**

*Greece, European Union Agency for the Space Programme (EUSPA)*

Christina Giannopapa is the Head of the Office of the Executive Director of the European Union Agency for the Space Programme. Prior, she was advisor to the Secretary General of Telecommunications and Post of the Ministry of Digital Governance in Greece, seconded from the European Space Agency (ESA). In ESA, she held various posts including the Head of Political Affairs Office of the Director General. She has co-edited the Springer "Handbook on space security". She is the Vice Chair of the Committee on Space Security of the International Astronautical Federation and prior was the Chair of the Committee for Liaison with International Organisations and Developing Nations. She is also the Chair of the Board of Women in Aerospace Europe. She holds a Ph.D. in Engineering and Applied Mathematics; a Master in Manufacturing Systems Engineering and Mechatronics; and a MBA in International Management from the University of London.

## **ROMAN ALEXANDER DA SILVA CURIEL**

*Surrey Satellite Technology Ltd. (SSTL), The Netherlands*

Alex has been involved in the small satellite revolution with SSTL since 1989, working on over 70 small satellite missions. He is a member of the International Academy of Astronautics (IAA) and is the co-chair for the International Astronautical Congress Small Satellite Symposium, for which he received a distinguished service award in 2021. In SSTL, Alex currently is responsible for international business development, previously holding positions in communications and systems engineering. He has been involved in various training and development missions in SSTL, has strong interests in the small satellite market, and their application in commercial as well as government, or training and development missions.

## **AYA HESHAM**

### ***Egypt, Sigma Fit LLC and the Maldivian Space Research Organization***

Aya Hesham is a seasoned medical doctor with over seven years of research experience in space medicine and human performance in extreme environments. Currently, she serves as an External Collaborator at The Maldivian Space Research Organization focusing on space medicine and microgravity science, and as a technical consultant at Sigma Fit. She led several projects in the area of capacity building in emerging space countries, playing a crucial role in democratizing access to space research and technology. Her work drives the development of technologies essential for sustaining human presence in outer space, addressing critical challenges in long-term space habitation. Committed to the principles of open science, Aya actively engages with publicly available datasets. She utilizes open-access data from organizations including NASA's Open Science Data Repository, contributing her expertise as a space medicine researcher to advance our understanding of human physiology in space.

## **PRUDENCE AYIVI**

### ***Space Generation Advisory Council, Benin***

Prudence, with a background in physics and a passion for space, has been actively promoting space development in Benin since 2021. As Founder and President of the Sirius Space Association, he leads space outreach efforts and heads Benin's first CubeSat prototype project to engage youth in STEM. He serves as the National Point of Contact for the Space Generation Advisory Council and contributes to its Space Safety and Near Earth Object Project Groups. Additionally, Prudence is the Local Lead for NASA's Space Apps Challenge and is preparing for a Master's degree in International Security, with a focus on geopolitics and defence.

## **EMELINE PAAT-DAHLSTROM**

### ***The Philippines, SpaceBase, New Zealand***

Emeline Paat-Dahlstrom is a Filipino-American based in New Zealand. She is the co-founder and CEO of SpaceBase, a social enterprise dedicated to democratizing access to space by catalyzing space ecosystems, and empowering space enablers in developing and emerging countries. She holds degrees in Physics as well as Earth and Space Science. Emeline is a Fellow of the Institute of Space Commerce and SingularityU. She is also an Alumnus and Adjunct Faculty at the International Space University .

## **HIROKI AKAGI**

### ***Japan Aerospace Exploration Agency (JAXA), Japan***

Dr. AKAGI Hiroki is an Associate Senior Administrator at the Japan Aerospace Exploration Agency (JAXA), specializing in the Human Spaceflight Program, including the ISS, Gateway, and lunar surface activities. With 16 years of experience at JAXA, he has contributed to structural design and verification for spacecraft, mission integration, and international cooperation. As a founding member of KiboCUBE, he has helped over 20 emerging countries to launch their first satellite within an international cooperation with UNOOSA and other strategic partners. Dr. Akagi has been recognized with the MEXT Prize for Science and Technology in 2018 and was named an IAF Young Space Leader in 2020.



## DAY 2 - PITCH

### CAPACITY BUILDING WITH SMALL SATELLITE PROJECTS

#### **AFIQ HERDIKA SULISTYA**

##### *Surya Satellite-1 Project Team, Indonesia*

Afiq Sulistya is a satellite engineer with a Bachelor's degree in Engineering Physics from Universitas Surya. He has been working at PT Pasifik Satelit Nusantara in large-scale satellite projects, including SATRIA-1. He also played a key role in developing Surya Satellite-1, Indonesia's first student-built CubeSat, deployed from the ISS in January 2023. His expertise spans engineering of large geo synchronous orbit satellite, and small low earth orbit satellites, with a focus on cost-effective and sustainable solutions.

#### **ASINTA NTINDA MANYELE**

##### *Dar es Salaam Institute of Technology, Tanzania*

Dr. Asinta Manyele holds a Ph.D in Electronic Engineering and Information Technology and has been a Technical Teacher at the Dar es Salaam Institute of Technology for over 20 years. As an innovator, her research focuses on using low-cost sensors and wireless networks to address societal challenges related to natural resources management, disaster response to earthquakes, water and air quality. Dr. Manyele serves as Vice-Chair of the Technical Team working to establish the Tanzania Space Agency and launch the country's satellite. She is part of the KiboCube 8th Round winning team, where she leads the Internet of Things team in expanding air quality monitoring across cities and tracking boundary beacons in national parks and protected areas.

#### **YAQOOB ALQASSAB**

##### *National Space Science Agency (NSSA), Bahrain*

Yaqoob Alqassab is an Engineering Specialist at Bahrain's National Space Science Agency (NSSA). He holds a master's degree in Mechanical Engineering with a focus on Space System Technology from Khalifa University and a bachelor's degree in Mechanical Engineering from the University of Bahrain. He developed Bahrain's first space software for the Attitude Determination and Control Subsystem (ADCS). Since joining NSSA in 2019, he has contributed to the launch of six satellites. Yaqoob has published 28 research papers in space system technology and won the first round of the Payload Hosting Initiative, organized by UNOOSA and the Mohammed Bin Rashid Space Centre. In 2023, he also received the Emerging Space Leaders grant from the IAF.

#### **HUSSEINAT ETTI-BALOGUN**

##### *Nigeria, Kyushu Institute of Technology, Japan*

Husseinat Etti-Balogun is a Space Systems Engineer pursuing an MEng at Kyushu Institute of Technology, Japan. With expertise in satellite testing and software development, she is a Project Maintainer for the BIRDS Open-Source Project and a Satellite Testing Engineer for the LEOPARD project. Skilled in Python and C programming, Husseinat excels in technical writing, project management, and community coordination. She has made notable contributions to international space initiatives as Executive Secretary at the Space Generation Advisory Council and Community Coordinator for LibreCube.

# DAY 2 - PITCH

## SUSTAINABLE LUNAR EXPLORATION

### **ABDALLA SHAKER TAWFIK ABDALLA**

*Egyptian Space agency*

Abdalla Shaker is a Space Environment Engineer and Satellite Operator for the MisrSat-2 mission at the Egyptian Space Agency, specializing in space mission design and analysis. He is also one of the key scientists behind Egypt's first lunar payload. He holds a Master's degree in Astrophysics and Space Science from Helwan University, where his research focused on ionospheric irregularities and their impact on space systems using data from the Swarm satellite and GNSS stations. With a strong background in space science and technology, he has actively participated in numerous international workshops and conferences, significantly contributing to space weather and ionospheric studies. His research has been published in prestigious journals and presented at global scientific assemblies.

### **ROGELIO MORALES GARCÍA**

*Agencia Bolivariana para Actividades Espaciales (ABAE), Venezuela*

Rogelio García is a Metallurgical Engineer with an MSc in Physics of Non-Destructive Testing from the Universidad Central de Venezuela (UCV), where he also serves as a Professor of Graduate Studies. He leads the UCV team that won the 9th round of the DropTES initiative of UNOOSA and ZARM. His work at the Bolivarian Agency for Space Activities (ABAE) involves research on aluminium welding in microgravity, lunar infrastructure materials, and swarm robotics for space. He has also held guest student positions at the Woods Hole Oceanographic Institute, where he focused on underwater autonomous vehicles, and at Technische Universität München, where he developed an Underwater Augmented Reality system.

### **RAGHAD ALI**

*Al-Balqa' Applied University, Jordan*

Raghad is an undergraduate mechatronics engineering student with a strong interest in spacecraft design, systems engineering, and human health in space. She previously served as a mission scientist for the Observatory team, presenting their rover and research at the International Astronautical Congress (IAC). An active member of SGAC's Space Exploration, Small Satellites, and Space Medicine & Life Science groups, Raghad also writes for AstroJo, simplifying science for children. She has contributed to research on human health in space and probe technologies and currently serves as a global ambassador for Space 4 Girls, promoting female representation in space science and engineering.

## DAY 2 - KEYNOTE

### TEODORO VALENTE

*President, Italian Space Agency (ASI)*

Teodoro Valente is an expert in polymeric and composite materials and nanotechnology. He has a long experience in the academic sector, graduated in Mechanical Engineering from Sapienza Università di Roma, where he also served for several years as a Full professor of Materials Science and Technology and Deputy Rector. Before his appointment as ASI's president, he held the position of director of the Institute for Polymers, Composites, and Biomaterials (IPCB) at Italy's National Research Council – CNR, served in the Research and Development Directorate of the EU Commission, and held various positions in the private sector.

## DAY 3 - 13 OCTOBER 2024

### KEYNOTE - "TOWARDS A ZERO DEBRIS FUTURE"

### QUENTIN VERSPIEREN

*European Space Agency (ESA)*

Quentin Verspieren is the Coordinator of the European Space Agency's Space Safety Programme, responsible for all ESA projects on space debris mitigation and remediation, space weather, and planetary defence. Dr. Verspieren is also a visiting Assistant Professor at the Science, Technology, and Innovation Governance program, Graduate School of Public Policy, The University of Tokyo. He has two master's degrees in aerospace engineering (ISAE-SUPAERO and The University of Tokyo) and a Ph.D in public policy (The University of Tokyo).

## DAY 3 - SESSION 4

### SPACE APPLICATIONS FOR SUSTAINABILITY ON EARTH

### SIRIKUL HUTASAVI

*GISTDA, Thailand*

Sirikul Hutasavi is an experienced professional in geography, remote sensing, and geographic information systems. She holds a PhD in Geography from Queen's University, Canada. Currently serving as the Head of the Agricultural Economics and Geo-Social Division at the Office of Geo-Informatics Management and Solutions at GISTDA. She has led projects focusing on monitoring economic crops using satellite imagery, developing digital platforms for smart farming, and socioeconomic data. Her previous work involved utilizing remote sensing technology to support land security and conflict management.



## **NGUYEN TIEN CONG**

*Vietnam National Space Center, Vietnam*

Nguyen Tien Cong is a senior researcher at the Vietnam National Space Center, where he has worked since 2011, after previously serving at the Institute of Geology Sciences. His research focuses on using remote sensing and geographic information systems to study natural systems and monitor hazards. He has participated in numerous national and international research projects, including the Asia-Pacific Network for Global Change Research. As principal investigator, he led a project from 2018 to 2021 assessing Vietnam's solar energy potential using remote sensing and climate modeling to support renewable energy development across the country.

## **ZAMBA LEONEL**

*South Sudan National Communication Authority, South Sudan*

Zamba Leonel is the Assistant Director for Space Services at South Sudan's National Communication Authority, where he established the department in 2023. Previously, as Assistant Director for Radiofrequency Spectrum Planning, he helped develop South Sudan's first National Frequency Allocation Table and secured two geostationary orbital slots with the International Telecommunication Union. Mr. Zamba holds a B.Sc. in Electrical Engineering from Makerere University and is pursuing a Master's degree in Space Systems Engineering at Kyushu Institute of Technology, Japan. His research focuses on satellite power systems and nano-satellite technologies, and he has actively contributed to international discussions on space services spectrum allocation for over seven years.

# **DAY 3 - PITCH**

## **SPACE APPLICATIONS FOR SUSTAINABILITY ON EARTH**

## **CAMILA ERAZO GONZALEZ**

*Youth leader at Colombian space agency and Lab & Law International Trade, Colombia*

Camila has been serving as the Young Leader Representative for the Latin America and the Caribbean region within the United Nations Economic and Social Council (ECOSOC) since April 2024. As a lawyer with expertise in international business, intellectual property and foreign trade, she has successfully led projects related to Foreign Direct Investments and International Trade activities across various regions worldwide. Her deep interest in the space industry motivated her to establish an NGO that integrates her knowledge of international trade with the space sector. As the founder of Lab & Law International Trade, she seeks to transform the innovation performance of industries by leveraging space applications on earth and intellectual property tools.

## **WENCESLAO BEJARANO TORRES**

*Honduras, Kyushu Institute of Technology, Japan*

Wenceslao Bejarano is a Master's student in Space Systems Engineering at the Kyushu Institute of Technology in Japan, supported by the JICA SDGs Global Leader Scholarship. Originally from Honduras, he is driven by a dream of becoming an astronaut. He leads the structure design for the 'Morazan SAT' project, which aims to develop Honduras' first satellite, and is part of the team establishing the country's first space agency. Collaborating with Honduras' Minister of Science, Technology, and Innovation, he has helped develop inclusive STEM and space education programs. He is also involved in the VERTECS and Leopard Nanosatellite Projects at Kyushu Institute of Technology.

## DAY 3 - PANEL 4

### SPACE APPLICATIONS FOR SUSTAINABILITY ON EARTH

#### **RODRIGO DA COSTA**

*Executive Director, EU Agency for the Space Programme*

In October 2020, Rodrigo da Costa took up his duties as Executive Director of the European Union Agency for the Space Programme (EUSPA), formerly the European GNSS Agency (GSA). Prior to this, he was the Galileo Services Programme Manager from March 2017. Before joining EUSPA, Rodrigo da Costa held several senior project managements, business development, and institutional key account management positions in the space industry, in the areas of human space flight, exploration, launchers and R&D. Rodrigo da Costa holds a degree in Aerospace Engineering from the "Instituto Superior Tecnico" in Lisbon, a Master's degree in Aerospace Engineering from the University of Delft, and an MBA from the EuroMBA consortium of Business Schools.

#### **SHARIF ISLAM**

*Bangladesh, Massachusetts Institute of Technology (MIT), USA*

Sharif Islam is a postdoctoral research associate in the Space Enabled research group at MIT Media Lab. Prior to coming to MIT, Sharif completed his PhD in Geospatial and Environmental Analysis from Virginia Tech. He is a broadly trained environmental scientist whose creative research activity focuses on the study of sustainable development using remote sensing, geospatial, or statistical tools and techniques. In his research, he examines real-world problems that communities face due to natural processes and impacts of human activities along with the application of geospatial tools and techniques.

#### **MESHACK KINYUA**

*African Union Commission*

Meshack is a space system engineer specializing in deriving actionable insights from satellite Earth observation data for better natural resource management and disaster risk reduction. As the Space Applications Training Officer at the African Union Commission, he manages the Global Monitoring for the Environment and Security in Africa (GMES & Africa) project, which connects over 120 institutions across Africa. His work focuses on integrating ICT with Earth Observation through virtualization and cloud computing. The GMES & Africa initiative has trained over 5,000 individuals, supported 45 Master's and Ph.D students, created a Digital Learning Platform, and engaged the private sector in developing Earth Observation services.

# DAY 3 - CLOSING CEREMONY

## CLOSING REMARKS

### ANIL KUMAR

#### *IAF Vice President for Relations with International Organizations*

Dr. AK.Anil Kumar is presently the Associate Director of the Indian Space Research Organization (ISRO) Telemetry Tracking and Command Network and Chief General Manager for Safe and Sustainable Space Operations Management. He has been leading the team of Space Debris Mitigation and Management for more than 15 years and is responsible for all activities related to Space Debris and Space Situational Awareness and Management within the purview of ISRO. He is also the Project Director of NETRA, aimed at developing a network of observational facilities to track and catalogue space objects and also to develop a centralized control center for SSA activities. He is now the Vice President of the International Astronautical Federation dealing with relations with international organizations.

### AARTI HOLLA-MAINI

#### *Director, United Nations Office for Outer Space Affairs (UNOOSA)*

Aarti Holla-Maini is the Director of the United Nations Office for Outer Space Affairs (UNOOSA). She brings to this position over 25 years of professional experience in the space sector including in managerial and advocacy functions. Most recently, she has held the role of Executive Vice-President Sustainability, Policy & Impact at NorthStar Earth & Space. She holds a bachelor's degree in law with German law from Kings College London, UK, a master's degree in business administration from HEC Paris, France, and she is also an alumna of the International Space University.

### ALFONSO PAGANI

#### *AIDAA and IAC-2024 International Program Committee co-Chair*

Alfonso Pagani is professor of spacecraft structures at Politecnico di Torino's Department of Mechanical and Aerospace Engineering. He holds Ph.D. degrees in Aerospace Engineering from City University of London and in Fluid-dynamics (Aeroelasticity) from Politecnico di Torino. An active fellow of the Italian Association of Aeronautics and Astronautics (AIDAA), he serves as its IAF delegate and IPC co-chair for IAC 2024. He is an associate editor for two journals and conducts research at MUL2 Lab, focusing on structures, space mechanisms, and advanced materials. He leads the project PRE-ECO and is the deputy for Spoke 8 in the "Space It Up!" program. He has held visiting positions at Caltech, Purdue University, RMIT Melbourne, and Universidade do Porto.



