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

"Challenges and Capacity-building Opportunities for Emerging Space Nations"

Baku Convention Centre, Baku, Azerbaijan 29 September - 1 October 2023



### **OPENING CEREMONY**



#### **AARTI HOLLA-MAINI**

Director, UNOOSA

On 26 June 2023, Aarti Holla-Maini was appointed as 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, 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/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.



#### **SAMADDIN ASADOV**

Chairman, Azercosmos

Samaddin Asadov was appointed as the Chairman of the Board of Azercosmos, Space Agency of the Republic of Azerbaijan in 2021 by a Presidential decree. Before his appointment as the Chairman, he held the position of the Director of the Finance Department from 2014 to 2021, as well as various other positions in 2011-2014. In 2007-2011, he worked at the Finance, Accounting, and Economic Analysis Department of the Ministry of Communications and Information Technologies. He holds BA and MA degree in Finance and Credit from Azerbaijan State University of Economics. He also participated in the ADA University's Executive Education and Duke University's Fugua School of Business Adaptive Strategic Execution Program and graduated from ADA University's Executive Education and Strategic Management qualification course, organized jointly with Maastricht School of Management.

### **KEYNOTE**



#### **ANIL KUMAR**

Dr. AK.Anil Kumar is presently the Associate Director of the 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 network of observational facilities to track and catalogue space objects and also to develop a centralized control centre for SSA activities. He is now the Vice President of International Astronautical Federation dealing with relations with International organisations.

### **SETTING THE SCENE**



#### **NATHALIE RICARD**

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 standardisation of multi-constellation satellite-based augmentation services with the International Civil Aviation Organisation for the European EGNOS programme.



#### **CHRISTIAN FEICHTINGER**

Dr Feichtinger took up the post of IAF Executive Director on 1 January 2012. Before moving to the IAF, Feichtinger, who comes from Austria, 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.



#### **RENA JAFAROVA**

Having joined Azercosmos, Space Agency of the Republic of Azerbaijan in 2019, Mrs. Jafarova's experience includes leading numerous domestic and international projects, project governance reviews, managing affairs for multi-national corporations and public and private entities. Since her appointment as Project Manager of the 74th International Astronautical Congress — Baku chapter in 2021, she is performing a unique set of skills that can help teams effectively collaborate and communicate to achieve results on a global scale. She is also a member of interview panel of IAF Inclusion, Diversity and Equity Administrative Committee.



#### **MASAMI ONODA**

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



#### **MATIAS CAMPOS**

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 Administrative Committee for Developing Countries and Emerging Communities. Matias has been recognized as an Emerging Space Leader by IAF in 2022.

### NEEDS OF NEW SPACE-FARING NATIONS OR OF NON-SPACE-FARING NATIONS TO DEVELOP AND OBTAIN SPACE-RELATED KNOWLEDGE AND SKILLS



#### **HAZUKI MORI**

Hazuki MORI is serving as an Expert to the Space Applications Section of the United Nations Office for Outer Space Affairs (UNOOSA) in Vienna. She is currently seconded by Japan Aerospace Exploration Agency (JAXA) to UNOOSA. She has served as legal, international relations, and industrial promotion administrator at JAXA. At UNOOSA, her main role is the coordination and implementation of the Access to Space for All initiative.



#### **ELECTDOM MATANDIROTYA**

Electdom Matandirotya is one of senior researchers the Zimbabwe National Geospatial and Space Agency. As the acting Director for the Space Science department, her roles include defining and leading space science research in line with the Agency strategic goals. She also participates in national awareness programmes to help young learners understand space concepts and appreciate the significant roles played by the space industry. She is also a senior Lecturer at the University of Zimbabwe.



#### **SOLOMON KWAKU APPEKEY**

Solomon is an early career space scientist and a graduate of the University of Leeds, United Kingdom where he obtained a master's by research in Astronomy/Astrophysics. He is the founder of Xavier Space Solutions, a space start-up company in Ghana, West Africa and also the project leader for the experimental satellite project – CanSat Ghana. He has experience in various aspects of satellite R&D, especially in designing experimental satellites and payloads.



#### **ASINTA NTIDA MANYELE**

Dr. Manyele is a senior lecturer at Dar es Salaam Institute of Technology, an institute under the Ministry of Education, Science and Technology in Tanzania. She holds PhD in Electronics Engineering and Information Technology, working as a Technical Teacher for more than 20 years. She has been working in the development of curriculum and research activities in higher learning institutions in Tanzania, towards transformation from knowledge-based educational training to skill or Challenge-Based Education training.



#### **MENSAH EDOE FERNAND**

Dr. Mensah has been a full faculty member since 2011, in the Department of Electrical and Engineering and Electronics at the "Institut National Polytechnique Houphouet-Boigny (INP-HB)" in Cote d'Ivoire. Since May 2023, he has been the lead manager of the Nanosatellite project at the INP-HB with the goal of designing, building and launching the first nanosatellite of Cote d'Ivoire. He holds a Ph.D. in mechanical engineering from Drexel University, Philadelphia, USA, a master's degree in electrical engineering and a master's degree in mathematics.



#### **MATIEU HENRY**

Matieu holds a PhD in forest ecology and modelling and an advanced MSc in tropical agronomy. He has over 15 years of professional experience with international organizations in tropical agronomy, forestry, land management, carbon cycling, geographic information system, remote sensing, and climate change. He has worked for FAO for more than 10 years, responsible for supporting countries in deploying geospatial tools to support national plans and international reporting frameworks. He is currently a technical officer, Head of Geospatial Unit at Land and Water Division, Food and Agriculture Organization of the United Nations.

### NEEDS OF NEW SPACE-FARING NATIONS OR OF NON-SPACE-FARING NATIONS TO DEVELOP AN INDUSTRY AND SPACE ECOSYSTEM



#### **ANNA EBEHITA AIKOHI**

Anna Aikohi is the Chief Operating Officer at Space in Africa. Before joining Space in Africa, Anna worked at Price Waterhouse Coopers, a leading global professional service and consulting firm. She has worked on and co-authored several projects, including the African Space Industry Annual Report, the Global Space Budget Report and the NewSpace Africa Industry Report. She has also coordinated several consulting projects for both foreign and indigenous space institutions, government agencies and parastatals, and private institutions.



#### **ARIANE PLATELL**

Ariane is the Chief Operating Officer of QL Space, an innovative Australian Earth observation startup. Named a start-up finalist in the 2023 Australian Space Awards, and winner of the Government of South Australia's 2022 Thinking Critical Unearthed Mineral Challenge, She is passionate about disrupting Australia's traditional use of satellite data to promote efficiency, resource management, risk management, data-driven decision-making, and environmental responsibility.



#### **GEORGE STEVE FAJARDO SORIA**

George Fajardo pursued a Bachelor's degree in Mechatronics Engineering. During his university years, he co-founded the AIDA group to promote aerospace sciences. In his university's Smart Machines Lab, he contributed to the WANKA stratospheric balloon project and embraced scientific publications. Currently, George is a member of the Peruvian Space Agency, where he is developing the attitude control subsystem for the KillaSAT nanosatellite. His commitment lies in applying and contributing his knowledge in nanosatellite technology to advance aerospace capabilities in Peru.



#### **MADIN MASEEH**

Madin is an ISU alum and is currently the President of the Maldives Space Research Organisation (MSRO), the first entity in the Maldives dedicated to the development and research of the space sector. Before founding MSRO, Madin worked in the data and intelligence sector for more than five years and collaborated with the Maldivian government to address critical issues such as mobility and disaster response. Through MSRO, Madin's vision is to help establish a space sector in the Maldives and create a new identity for Maldivians.



#### **MICHELE CRISTINA SILVA MELO**

Michelle holds a PhD in Economics and a Master's in Industrial and Innovation Economics. She has worked as a Science and Technology Analyst at the Brazilian Space Agency since 2016. She is currently working at the Attorney General's Office, as a professor at the Catholic University of Brasília, and as a Collaborating Researcher at the University of Brasília. She is a member of the technical committees of the IAF: Space Economy, Entrepreneurship and Space Investments, and Space Transportation. She conducts studies on the Brazilian space market and industry.

# UNIVERSITY-LEVEL EDUCATION IN SPACE ENGINEERING



#### **VUGAR BAYRAMOV**

Vugar is advisor to the Chairman on International Relations at Azercosmos, Space Agency of the Republic of Azerbaijan. Having joined Azercosmos in 2021, he is accountable for conceptualizing, developing, and managing international relations of the Agency, and implementing agreements with space agencies around the world. He holds a Bachelor's Degree in International Economic Studies and Master's in International Economic and Political Studies.



#### **NADIR ATAYEV**

Nadir Atayev is a dedicated Azerbaijani hardware research scientist and lecturer with a strong commitment to advancing his country's space industry. He is a senior hardware research engineer in the Research and Development Department at Azercosmos. He focuses on researching and designing small satellites while also mentoring and guiding young engineers entering the field. He holds a Master's degree in Multichannel Telecommunication Systems and is working toward his Ph.D. in Telecommunication Technologies.



#### **RIGOBERTO REYES MORALES**

Rigoberto works at the Mexican Space Agency as a Manager for Educational Strategies. He is appointed at Atlacomulco Regional Center for Space Development, where he is in charge of the Laboratory for Satellite Design and Development. He participated in the assembly of Atlacom-1, a 1U CubeSat, and currently, he is working on a Command and data Handling Subsystem for nanosatellites in an international collaboration between Mexico and Uruguay. He holds a MEng in Mechanical Engineering, and a BSc. in Mechatronics Engineering.



#### **DIANA ALJBOUR**

Diana is an undergraduate student majoring in aeronautical engineering at Jordan University of Science and Technology and Middle East Space Leader Award winner. Her primary interest in spacecraft design, system engineering, and space mission design. She initiated and led a student-led CubeSat project team that functions as an educational hands-on platform and functional simulation project for CubeSat systems. Diana is an active member of the SGAC space exploration project group and the small satellites project group.



#### **REI KAWASHIMA**

Rei Kawashima has contributed to micro/nano/pico satellites for education and business applications through her leadership role in UNISEC – the University Space Engineering Consortium that she co-founded in 2002. In 2013, she was appointed as the Secretary-General of UNISEC-Global, an international NGO accepted as a permanent observer of UNCOPUOS in 2017. She organizes training programs and technology competitions to facilitate the university's participation in space projects worldwide, especially in emerging countries with the "Vision 2030-ALL".



#### ABDIKUL ASHUROV

Abdikul Ashurov is a head of the Department of Space Engineering and Technology at the L.N. Gumilyov Eurasian National University, Astana, Kazakhstan. His current research interest is focused on the astrodynamics of spacecraft. He worked in the companies of the space industry of Kazakhstan such as JSC National Company Garysh Kazakhstan Sapary and the Center for Space Communications. He has developed new educational programs for the master's program "Aerospace Engineering" and "Earth Remote Sensing Technologies" and implemented at his university.



#### **ROGELIO MORALES GARCÍA**

Rogelio is currently an engineer/researcher at the Bolivarian Agency for Space Activities (ABAE) and a Professor of Graduate Studies at the Faculty of Engineering of the Universidad Central de Venezuela. He is engaged in autonomous robotic platforms, with a particular focus on space exploration and the promotion of deeptech space entrepreneurship. Among other activities, he was the founder of the Educational Project "Vecindario Submarino" (2010-2017), dedicated to the education of children, adolescents and young people in underwater robotics.



#### **BEHNAM SABOURI**

Behnam Sabouri received his Ph.D. in 2015 in mechanical engineering. After graduating with a master of science degree in the same field of study, he has been working in the Iranian Space Agency since 2009. He is an expert in the field of space technology development and has been working as an expert, technical supervisor and project manager in various projects of designing, manufacturing and testing telecommunication satellites, remote sensing satellites, and living creature carrier spacecraft. The projects include national and international cooperations projects.

# THE UNITED NATIONS ACCESS TO SPACE FOR ALL INITIATIVE



#### **MERLE CORNELIUS**

Dr. Cornelius is a physicist working as Deputy Head of Science and Operation at the ZARM Drop Tower Operation and Service Company in Bremen, Germany. At ZARM, she manages the drop tower operation and is the point of contact for the scientists. Dr. Cornelius is involved in the selection process and acts as a technical consultant for the teams in DropTES. Before working at ZARM FAB mbH, she was a researcher and did her PhD in physics at the University of Bremen, where she conducted microgravity experiments at ZARM in the field of quantum optics.



#### **TETSUHITO FUSE**

After completing his master's degree in applied physics at Waseda University in 2004, Fuse joined the Japan Aerospace Exploration Agency (JAXA). He served as an engineer at the Satellite Operations and Network Systems group and the International Space Station (ISS) Kibo Utilization Center. Since 2022, he has held the position of Associate Professor at the Laboratory of Lean Satellite Enterprises and In-Orbit Experiments (LaSEINE) at Kyushu Institute of Technology (Kyutech) and has played a crucial role in the administration of the Space Engineering International Course.



#### **CHARLES MWANGI**

Charles Mwangi is the Acting Director of Space Sector and technology Development at the Kenya Space Agency (KSA). He oversees Earth Observation (EO), Research, Education and Outreach programs, and the Research Grant program at KSA. He was part of the team that participated in the development of Kenya's first space object, 1st Kenyan University NanoSatellite—Precursor Flight (1KUNS-PF), which was launched from the International Space Station in 2018 and is currently coordinating the implementation of the ISONscope project in Kenya.



#### **GEORGINA CHÁVEZ**

Georgina holds a Master's degree in Biological and Biomedical Sciences and she was awarded a scholarship from the Swedish Institute to enrol in the Ph.D. program of Chemical Engineering at Lund University. She has work experience in Perú, Bolivia and The Netherlands. Since 2017 she has been the Research Coordinator of campus La Paz at Universidad Católica Boliviana San Pablo. She is actively working with students to develop their research skills. This year her research team has been awarded a fellowship in the HyperGES program of UNOOSA and ESA.

# UNIVERSITY-LEVEL EDUCATION ABOUT DEVELOPING AND USING SPACE APPLICATIONS



#### PIETER VAN BEEKHUIZEN

Pieter van Beekhuizen has worked his whole professional life in the space domain, first with ESRO and later with ESA, and has occupied during this period a large variety of different staff functions and management responsibilities within ESA. He was head of ESA Industrial Cost Auditing and Return Division which has included industrial cost audits and the provision of the industrial geo return data to ESA Member States. He is the vice chair of the IAF CLIODN committee, and a Board member of SSPF, a foundation set up to financially support young professionals in the Dutch space sector.



#### **RODRIGO DA COSTA**

In October 2020, Rodrigo took up his duties as Executive Director of the European Union Agency for the Space Programme (EUSPA). Prior to this, he was the Galileo Services Programme Manager from March 2017. Before that, he held senior project management, business development, and institutional key account management positions in the space industry. He has 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 EuroMBA consortium of Business Schools.



#### **SADAF SAJJAD**

Sadaf Sajjad has been working as a Manager at the Pakistan Space and Upper Atmospheric Research Commission (SUPARCO) since 2012. She has over 11 years of diverse experience in the area of international collaboration. During her tenure, she has been the nominated focal point official by SUPARCO for various international forums. She is currently working as Administrator of Inter - Islamic Network of Space Sciences and Technology (ISNET). On behalf of ISNET, she has organized various capacity-building activities on space, science, technology and applications.



#### KRISHNA PRASAD BHANDARI

Dr. Bhandari is the director of the Center for Space Science and Geomatics Studies, and the coordinator of Geospatial Engineering IOE, Pashchimanchal Campus Lamachaur, Pokhara, Nepal. He has been teaching at the Paschimanchal Campus since 1996. He is a mentor for the youth mapper inaugural chapter, Tribhuvan University-Pashchimanchal Campus, Geomatics Engineering Students' Association Nepal. He has completed 8 land use planning projects as a team leader of the National Land Use Project based on RS, GIS and PGIS-based Ministry of Land Reform and Management, Government of Nepal.



#### **NATALIA INDIRA VARGAS CUENTAS**

Natalia is a Ph.D. candidate for the Doctorate in Geomatics and Space Systems from the Mario Gulich Institute of Advanced Space Studies of CONAE (National Commission for Space Activities) and the Universidad Nacional de Córdoba, Argentina. She holds a master's degree in Space Technology Applications, with a major in Remote Sensing and Geographic Information Systems from Beihang University, China. Currently, she is the Coordinator of the Image Processing Research Laboratory of the Universidad de Ciencias y Humanidades in Peru.



#### **RAJASEKHAR MEKA**

Dr. Meka joined Satish Dhawan Space Centre SHAR, Sriharikota of the Indian Space Research Organization (ISRO) in 2006. Currently, he works as the Chief Meteorologist / Weather Forecaster for ISRO Space Launch Operations. His professional experience includes Operational short & medium-range weather forecasts and upper wind profiles for Day of Launch Wind Biasing for PSLV & and GSLV missions. He holds a Ph.D. degree from the Dept. of Meteorology & Oceanography, Andhra University, and a master's in Meteorology from Andhra University.

# UNIVERSITY-LEVEL EDUCATION IN SPACE POLICY AND LAW



#### **NAYOUNG YOUN**

Nayoung Youn recently works as a senior researcher in the Policy team at Korea Aerospace Research Institute. She has a Doctorate degree in space law from the Institute of Air Law, Space Law, and Cyber Law at the University of Cologne. Her recent research focuses on the Legal Aspects of International Space Financing. She obtained her Bachelor of Law from Waseda University and LL.M. in international space law from Keio University in Japan. She also holds an Advanced LL.M. in the International Institute of Air & Space Law at Leiden University.



#### **KAI-UWE SCHROGL**

Professor Dr. Kai-Uwe Schrogl is the Special Adviser for Political Affairs of the European Space Agency. Before, he was seconded from ESA to the German Federal Ministry for Economic Affairs and Energy in Berlin to support the German Presidency of the Council of the European Union. Until 2019, he was the Chief Strategy Officer of ESA in Paris. From 2007 to 2011 he was the Director of the European Space Policy Institute (ESPI) in Vienna. Kai-Uwe Schrogl is the President of the International Institute of Space Law (IISL), the global association of space lawyers from over 50 countries.



#### **JAIRO ANDRES BECERRA ORTIZ**

Jairo is a lawyer. He holds a PhD in Law and Political Science from the University of Barcelona in Spain. He is the director of the Center for Socio-legal Research CISJUC, director of the research group on Public Law and ICT at the Catholic University of Colombia, regional organizer of the Latin American round of the Manfred Lachs Space Law Moot Court Competition. He is also a Board Member of the Latin American and Caribbean Space Network RELACA-ESPACIO. He is a Former adviser of the Colombian Space Commission CCE and a Member of the International Institute of Space Law IISL.



#### IAN GROSNER

lan Grosner is a federal attorney in Brazil. Since 2022, he has been serving as a Legal Counsel and Deputy Head of the Legal Services department at the Brazilian Space Agency (AEB). He has a master's degree (LL.M.) from the University of Leiden in Air & Space Law (2017-2018). He organized and formulated the first Brazil Post-Graduation Course in Space Law and Policy at the Catholic University of Santos (Brazil). In March 2023, he was appointed and elected chair of the Working Group on the Definition and Delimitation of Outer Space of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space (COPUOS).



#### **ETIM OKON OFFIONG**

Etim Offiong is presently on study leave from the African Regional Centre for Space Science and Technology Education in English (ARCSSTE-E), Ile-Ife, Nigeria. He is undertaking a PhD programme in Systems Engineering at the University of Pretoria, South Africa. Etim co-founded the African Space Leadership Institute (ASLI), with the mission to develop Africa's capabilities and capacity in space policy, strategy, law, governance and leadership. He participated in the drafting of the African Space Policy and Strategy adopted by African Heads of State in 2016.



#### TATIA NIKVASHVILI

Tatia is the Chief Legal Officer at Georgian National Competition Agency. She is also the co-founder of the European Business Association – Youth, which fosters collaboration between public and private sectors. She holds the certificate in Blockchain Business Foundations and is the member of the Center for Effective Communication and Leadership at the New Vision University in Georgia, where she actively supports students' participation in international moot court competitions. She is a member of the alumni networks of the University of Helsinki and the Amsterdam Law & Technology Institute.

# LESSONS LEARNT IN BUILDING EDUCATION OPPORTUNITIES



#### **KAREM SAAD**

Karem is a forest engineer. He holds a European master's degree in Environment and is currently pursuing a Ph.D. He served as the Rangeland and Forest Chief Department in Tunisia and as a Technical Officer in Forests and Natural Resources at the Food and Agriculture Organization (FAO) Subregional Office for North Africa for two years. He has actively participated in various projects and studies that leverage satellite imagery as a valuable source of information, conducted in collaboration with the National Center for Cartography and Remote Sensing.



#### **MOHAMED IBRAHIM**

Dr. Ibrahim is a distinguished professional currently serving as the director of the Commercialization of Space Products and as the executive director at the Business Incubator of the Egyptian Space Agency. He has served as the project manager for the educational satellite Space Keys and worked as a satellite communication engineer for Egyptsat-1, and Egyptsat-2. He has led the EGSE team for projects like NexSat, NARSSCube series, and Misrsat-2. He holds a PhD in Space System Engineering along with MSc and BSc degrees in Communication and Electronics Engineering.



#### **ANUJA SHRESTHA**

Anuja is a graduate mechanical engineer currently working as Satellite Research Fellow at Antarikchya Pratisthan Nepal. Her space journey started when she joined APN as an intern in 2021. She learned about CubeSats, got the hands-on Satellite operation training by collecting on-orbit data of Nepal's First satellite; NepaliSat-1 using a ground station at Nepal Academy of Science and Technology. She is currently working as Satellite Research Fellow at APN, where she mentors 9 high school students as part of Project MUNAL, Nepal's 1st High School Satellite Project.



#### **PARIPAT PAIRAT**

Paripat is an aerospace engineer who is very interested in human capacity building in the space sector in Thailand. She holds a master's degree in industrial and organizational psychology. In 2019, she was selected as a key member of the spacecraft design and implementation team of the THEOS-2A project focusing on the Attitude Determination and Control System. Currently, she is leading the ADCS team for GISTDA's THEOS-3 satellite project and is responsible as a knowledge management manager to emphasize the space technology transfer.



#### **HANNAH ASHFORD**

Hannah Ashford is a non-profit director and lawyer working to promote the cooperative potentials and positive uses of space technologies for life on Earth. As the Managing Director of The Karman Project, Hannah works with public and private sector space leaders worldwide to facilitate forums for strategic dialogue and international cooperation. She graduated in Law (Honours) and Journalism from the University of Queensland, and practised as a lawyer at the Supreme Court of Queensland, Australia before transitioning to the innovation sector.

# LESSONS LEARNT IN BUILDING A SPACE ECOSYSTEM



#### **MICHAL BRICHTA**

Michal is a co-founder of the newly-established Slovak Space Office and the head of its Industry Branch working under the Slovak Investment and Trade Development Agency. In 2019 he initiated a new strategic approach to the comprehensive development of national space industry capabilities. His team supports the further development of the Slovak space sector and its internationalization with a focus on the full utilization of the country's strong industrial and R&D potential. He is also the Slovak delegate to the Council of ESA and the Chair of the newly-created IAF Europe Subcommittee.



#### **POOJA LEPCHA**

Pooja is a satellite systems engineer at the Division of Telecom and Space under the Government Technology Agency, Bhutan. In 2017 she received a UN/Japan Long term fellowship "Post Graduate Studies on Nano Satellites (PNST)" to pursue a master's degree in Space Engineering at Kyushu Institute of Technology and continued to the doctoral degree. She was involved in the BIRDS-2 satellite project that developed the first satellite of Bhutan, BHUTAN-1. She has been actively involved in six more satellite projects and mainly works on the Electrical Power System (EPS) of the satellites.



#### MAMONAHENG KOENANE

Mamonaheng studied Computer Science at Griffith College in Dublin, Ireland. Together with six other women, she co-founded the first tech school in Lesotho and co-founded and chaired the first Tech Conference in Lesotho. She later moved on to start Impact School, whose vision is to have a real impact, create real software developers, who will have real jobs and make real contributions in the tech industry. Impact School is the first to bring a Space Technology program to Lesotho and will be the first to launch an object in Lesotho air space that will reach the stratosphere.



#### **NUNZIA MARIA PARADISO**

Nunzia Paradiso graduated from the Sapienza University of Rome with a Bachelor's Degree in Contemporary History and a Master's Degree in International Relations. She worked at the European Centre for Space Law (ECSL) of the European Space Agency (ESA), in Paris; at the European Space Policy Institute (ESPI), in Vienna; and at the European Union Satellite Centre (EU SatCen), in Madrid. In 2016, she joined the Italian Space Agency and is currently Head of the Extra-European Bilateral and Multilateral Relations Office, within the ASI International Affairs Directorate.



#### HAMZA ABDUL HAMEED

Hamza Hameed is a Pakistani lawyer presently serving as the Chair of the Space Generation Advisory Council (SGAC). He works as a Senior Policy Manager for Access Partnership in Singapore. He supports governments and the private sector with legal, regulatory, and compliance-related matters in the space, satellite, and telecommunications industries. He holds an LLM from the International Institute for Air and Space Law at Leiden University. He teaches spacecraft financing at various universities and is a member of the International Institute for Space Law (IISL) and INSOL International.

# EDUCATION ON SPACE TECHNOLOGY AND APPLICATIONS AT A LEVEL BELOW UNIVERSITY



#### **WENBIN ZHANG**

Wenbin Zhang is currently an Expert in Space Science and Technology in the Space Applications Section of the United Nations Office for Outer Space Affairs on the Access to Space for All initiative. He worked at the China National Space Administration from 2017-2020, with bilateral space international cooperation as his duty. Previously, he worked as a senior engineer at the China Academy of Space Technology on spacecraft environmental testing. He holds an MSc in Space Science and a BSc in Physics. He is also an ISU alumnus with one year of MSS experience.



#### **DANIELLE RENEE WOOD**

Prof. Danielle serves as an Assistant Professor in the Program in Media Arts & Sciences and holds a joint appointment in the Department of Aeronautics & Astronautics at the Massachusetts Institute of Technology. She serves at MIT as the Faculty Lead for African and African Diaspora Studies. Within the Media Lab, she leads the Space Enabled Research Group which seeks to advance justice in Earth's complex systems using designs enabled by space. Her background includes satellite design, earth science applications, systems engineering, and technology policy.



#### DANIELA ESTEFANIA MERA GRANJA

Daniela Mera currently holds the position of Vice President at the Sideralis Foundation and serves as the Chief Marketing Officer at Astralintu Space Technologies, a pioneering space startup based in Ecuador. With over 5 years of experience in brand management, digital marketing, and design leadership, she has demonstrated her expertise across a wide range of sectors, including education, government, non-profit, and the space industry. She excels in shaping brand identity, executing digital campaigns, and managing design projects.



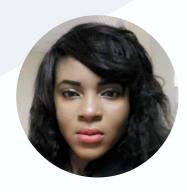
#### HALIL BAĞIŞ

Born in the southeast of Turkey, Halil Bagis's boyhood goal came true in 2018 when he received his degree from Istanbul University's Department of Astronomy and Space Sciences. Astronomy educator and science communicator since 2014. In 2022, he received his master's degree from Cukurova University. Eclipsing Binary Stars are the subject of the master's thesis. In 2018, he created Stellar Lab after working in Turkey for almost five years.



#### **DULANI CHAMIKA WITHANAGE**

Dulani is a PhD candidate in space systems engineering at Kyushu Institute of Technology, Japan. She completed her master's degree in Space systems engineering at the same university. She received the PNST scholarship, a scholarship program of UNOOSA and the Government of Japan in cooperation with Kyushu Institute of Technology, to study for her master's degree and Ph.D. She was a member of the Raavana-1 satellite project (Sri Lanka's first satellite). Moreover, she was a member of the KITSUNE satellite which was deployed to orbit in March 2022.



#### **PHILIPPA VOKE UDI**

Philippa is Space/Robotics Scientist with the Nigeria Space Agency - National Space Research and Development Agency (NASRDA) at the Physical Sciences Division where she is the STEAM outreach coordinator. Philippa is currently appointed as a mentor by Space Generation Advisory Council (SGAC). She is the current Nigeria Space Agency representative for NASA GLOBE Program in partnership with the Nigeria Federal Ministry of Education. She is also the international representative for the emergence of life (UK) an international Space research network that spreads to Africa.



#### **SHELLI BRUNSWICK**

Shelli Brunswick, COO of Space Foundation, brings a rich 25-year career in the space sector, encompassing pivotal roles in space acquisition, program management, and congressional liaison for the U.S. Air Force. Currently, she leads Space Foundation's key divisions: Center for Innovation and Education, Symposium 365, and Global Alliance. In addition, she collaborates with international organizations like the Space4Women Mentoring Program, Women Tech Network, Islamic World Educational, Scientific and Cultural Organization, World Business Angels Investment Forum, etc.



#### **CYRUS NIKKO PANTE**

Nikko holds a Bachelor's degree in Electronics Engineering and is pursuing his Master's degree in Geomatics Engineering. Nikko is now an Information Technology Officer at the Philippine Space Agency (PhilSA). He plays a pivotal role in the development of various software and information systems critical to advancing space-related activities in the Philippines. He also leads the Space Information Infrastructure Capacity Building and Training Program (SIICaP) and hosts a series of enlightening webinars furthering the agency's mission to educate and transfer know-how in space science technology and applications.

