



# GLOC 2026

## IAF GLOBAL SPACE CONFERENCE ON CLIMATE CHANGE



ORGANIZER:  
INTERNATIONAL  
ASTRONAUTICAL  
FEDERATION



HOST:

WEDNESDAY 3 JUNE 2026

| SPEAKER                      | TITLE  | SCREEN | TIME        |
|------------------------------|--|--------|-------------|
| Emmanuel Githinji            | Defining Africa's Climate Identity: Indigenous Philosophies, Unique Challenges, And Pathways To Practical Application  | 1      | 12:00-12:10 |
| Ndakize Joseph Sebaziya      | Trends and Variability of Seasonal Rainfall Characteristics and Extreme Rainfall Indices and Their Projected Changes in Rwanda   | 1      | 12:10-12:20 |
| Adriano Castillo Huayanay    | Development of a Collaborative Web Platform for Aerospace Engineering Training and Promotion   | 1      | 12:20-12:30 |
| Raja Munusamy                | Assessing the Interaction Between Anthropogenic Maritime Patterns and Natural Bloom Events in the Context of Climate Adaptation  | 1      | 12:30-12:40 |
| Udoka Nnodum                 | Climate Change and Rural Energy Transition: The Role of Renewable Energy as an Alternative to Firewood   | 1      | 12:50-13:00 |
| Daniel Asante                | A Novel Airship for Sustainable Connectivity and Safety in Arctic Communities.   | 3      | 12:00-12:10 |
| Raja Munusamy                | Bio-Inspired Morphing Wing UAVs for Ecosystem Services and Climate Impact Mitigation   | 3      | 12:10-12:20 |
| Paloma Toscan                | mapping urban community gardens as nature-based solutions using deep learning and remote sensing   | 3      | 12:50-13:00 |
| Raja Munusamy                | Ecosystem-Based Adaptation to Sargassum Invasion: AI-Powered Risk Mapping and Policy Support   | 4      | 12:10-12:20 |
| K Jayamani                   | The 'Common Concern' in the Province of all Humankind: A TWAII perspective on Uniting Earth & Space for Climate Resilience   | 4      | 12:20-12:30 |
| Julio Cesar Tello Rojas      | Hybrid TinyML model for nitrogen dioxide prediction using Sentinel-5P satellite imagery and local data   | 4      | 12:30-12:40 |
| Gabriele Redigonda           | Alignment of Space solutions with Climate Resilience policy objectives in Europe and in the Mediterranean – Assessment and Opportunities for improvement   | 4      | 12:40-12:50 |
| Helen Haile                  | Bridging Regional Climate Data Gaps Using Earth Observation Data and Machine Learning for Early Warning Systems  | 4      | 12:50-13:00 |
| Amarech Alebie Addisuu       | Evaluation of two Variants of Quantile Mapping for Bias Correction of CMIP6 Models projection of Extreme Precipitation over Southern Africa  | 5      | 12:10-12:20 |
| Unis Lebbie                  | Assessing the Impact of Roof Types on Land Surface Temperature in Bhubaneswar, India Using High-Resolution Optical and Thermal Satellite Data  | 5      | 12:20-12:30 |
| Susanne Meckenburg           | Tracking Adaptation progress using Earth observation   | 5      | 12:30-12:40 |
| Nelson Mwova                 | SAR-NDWI Integration in Water Body Mapping for Hydrological Analysis in ASALS  | 5      | 12:40-12:50 |
| Marisol Ramos Camacho        | AI-Enhanced Environmental Monitoring and Early Warning System for Climate Resilience in the Peruvian Highlands   | 5      | 12:50-13:00 |
| Erik Espinet                 | Design and thermal simulation of a low-cost IoT node for in-situ albedo validation in peruvian tropical glaciers   | 6      | 12:00-12:10 |
| Andre Dias                   | Rondônia Carbon: Space-Based Modelling of Carbon Sequestration and Ecosystem Services Across Tropical Landscapes   | 6      | 12:10-12:20 |
| Emmanuel Okello Otieno       | Earth Observation and Geospatial AI for Climate-Resilient Urbanization: A Digital Twin Approach to Infrastructure Equity in Sub-Saharan African Informal Settlements   | 6      | 12:20-12:30 |
| Ismat Bakhishov              | Evaluating Climate Variability in Azerbaijan through Satellite-Based Earth Observation   | 6      | 12:30-12:40 |
| Alice Guibert                | International cooperation supporting space-data driven climate solutions   | 6      | 12:40-12:50 |
| Taha Arben Vurgun            | Universal Climate Access: Inclusive and Accessible Space-Based Maps  | 6      | 12:50-13:00 |
| Emmanuel Karikari            | Factors affecting access to critical information for disaster response from public space data archives   | 7      | 12:00-12:10 |
| Shadi Rochard                | Balancing Openness and Protection – EO Data Policy for Boosting Policy Impact  | 7      | 12:10-12:20 |
| Lucrezia Vittoria Meris      | optimised ground segment framework for efficient processing of copernicus sentinel-2 data streams  | 7      | 12:20-12:30 |
| Ilkin Abdullayev             | Natural-Language Satellite Data Query Using LLM Semantic Indexing  | 7      | 12:40-12:50 |
| Zaman Kazimov                | A Distributed Big Data Architecture for Real Time Climate Resilience Using Multi Sensor Satellite Earth Observation Streams  | 7      | 12:50-13:00 |
| Sanjukta Deshpande           | leveraging methanesat insights for finer methane emission mapping  | 9      | 12:00-12:10 |
| Melanie Munyori              | Due Diligence: The Panacea for Environmental Sustainability for Space Activities on Earth and in Orbit   | 9      | 12:10-12:20 |
| Raja Munusamy                | Greenhouse Gas Dynamics and Climate Impact: An Integrated Monitoring Framework Using Satellite Swarms  | 9      | 12:20-12:30 |
| Deepti Kannapan              | Resilient Communication and Calibration Protocols and Data Architecture for Deployable Surface Networks for Greenhouse Gas Monitoring  | 9      | 12:30-12:40 |
| Raad Abu Hammad              | Bridging Policy and Innovation: How space-based Greenhouse Gas Monitoring Enables Public-Private Action Toward Net Zero  | 9      | 12:40-12:50 |
| Lokesh Chaudhary             | High-Resolution CO2 and CH4 Quantification via Remote Sensing and Deep Learning: A Case Study in Bhanu Municipality, Nepal   | 9      | 12:50-13:00 |
| Marisol Ramos Camacho        | Coastal Digital Twin for Climate Resilience: Integrating Space Technologies, IoT, and GeoAI to Mitigate El Niño Impacts  | 10     | 12:00-12:10 |
| Oguz Deniz                   | Developing a Virtual Laboratory for Climate Adaptation with the AI-Powered UDENE Tool  | 10     | 12:10-12:20 |
| Amit Bhojar                  | Towards Granular and Interpretable Spacecraft Fault Detection: A Hybrid Machine Learning Framework Leveraging PMON, Time-Series Features, and Markovian Dynamics   | 10     | 12:20-12:30 |
| Charaka Gunatillake          | Multi-agent AI framework for satellite climate monitoring and scenario simulation  | 10     | 12:30-12:40 |
| Moise Iradukunda             | Geospatial Intelligence and AI for Combating Illegal Deforestation, Land Encroachment, and Unsustainable Land Use.   | 10     | 12:40-12:50 |
| Anna Boukina                 | Governing Satellite Data and Predictive AI Models for Climate-Smart Agriculture in Africa: Principles for a Framework for Responsible Earth Observation Decision-Making                                      | 10     | 12:50-13:00 |
| Andrea Carrabba              | AI-Driven Adaptive Climate Management for Airport Terminals: A Public-Private Pathway to Energy Resilience   | 11     | 12:00-12:10 |
| Taha Arben Vurgun            | ClimateAccess: AI for Inclusive and Low-Carbon Cities  | 11     | 12:10-12:20 |
| Milagrosa Russelle Ballestar | GridShield™: A Hybrid ML/DL-Satellite Fusion Framework for Year-over-Year Grid Resilience Prediction and Climate-Verified Carbon Credit Generation Using ESA Copernicus Sentinel Data Carbon as the New Gold | 11     | 12:30-12:40 |
| Raja Munusamy                | Urban and Ecological Resilience: AI and Remote Sensing for Wildfire Prediction and Carbon Assessment   | 11     | 12:40-12:50 |
| Mutavu Sonia Nyagatare       | Harnessing Artificial Intelligence and Space-Based Technologies for Climate Adaptation and Resilience: Pathways for Inclusive and Sustainable Transformation.  | 11     | 12:50-13:00 |
| Michael Loughane             | social media analysis for natural disaster modeling: a novel, ai-driven solution for simulating progression of floods, fires, and other forces of nature   | 15     | 12:00-12:10 |
| Celine Uwinema               | Volcanic dispersion modeling:Application to Nyiragongo and Nyamuragira volcanoes of the East African Rift  | 15     | 12:10-12:20 |
| Philippe Lattes              | LeoBlue – A Sovereign Last-Mile Bluetooth Alert system from Space, Balloons and Drones   | 15     | 12:20-12:30 |
| Luna Panel                   | Harnessing Space Technologies for Climate Change Adaptation and Disaster Resilience: Italy's Commitment to Global Risk Reduction   | 15     | 12:30-12:40 |
| Sanjukta Deshpande           | lightweight optical and microwave preprocessing framework for flood monitoring using cubesat and sentinel data   | 15     | 12:40-12:50 |
| Michael Loughane             | SPACE-BASED DISASTER MAPPING: RESILIENCE, RESPONSE AND REHABILITATION FROM ORBITS  | 15     | 12:50-13:00 |