

# IEEE GLOBAL COMMUNICATIONS CONFERENCE

8–12 December 2024  
Cape Town, South Africa

**Call For Papers**

[globecom2024.ieee-globecom.org](http://globecom2024.ieee-globecom.org)



## SATELLITE AND SPACE COMMUNICATIONS

### SYMPOSIUM CHAIRS AND CO-CHAIRS

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### SCOPE AND MOTIVATION

The recent technological advancements in satellite and space communications have attracted intensive interest from the industry and academia, enabling unprecedented possibilities and ubiquitous distribution of digital services to everyone anywhere. In this regard, the evolution of new standards, such as B5G and 6G, the simultaneous integration with terrestrial infrastructures, the dynamics and heterogeneity of integrated systems, and emerging applications have introduced many new technical challenges. In particular, the challenges imposed by i) the integration of satellites with future terrestrial and aerial networks, including high-altitude platform stations (HAPS) and low-altitude platform stations (LAPS), such as drones, airships, and balloons, ii) the recent growth of the development of mega-constellations with nano- and micro-satellites, and iii) the increasing adoption and development of Artificial Intelligence (AI) and machine learning (ML) solutions in communications systems, call for research on novel communications, networking, and computing paradigms for satellite and space communications systems.

The Satellite and Space Communications track solicits original and unpublished work not currently under review by any other conference or journal. The focus of this track is on exploring and discussing new technical breakthroughs and applications focusing on all aspects of satellite and space communications.

### TOPICS OF INTEREST

The Satellite and Space Communications Track seeks original contributions in the following topical areas, plus others that are not explicitly listed but are closely related to:

- Satellite and space communications & networking
- Space-air-ground integrated networking
- Near-Earth satellite communications
- HAPS/LAPS-assisted space communications
- MIMO satellite communications
- Hybrid satellite/terrestrial networks
- Satellite integration with 5G

- Satellite communications in 5G, B5G, or 6G
- Coding, modulation, and synchronization schemes for satellite communications
- Channel models for satellite communications
- Transport protocol performance over satellites
- Security, privacy, and trust in satellite networks
- Radio resource management in satellite networks
- Emerging standards: DVB-Sx, DVB-SH, DVB-RCS2, IP over satellites
- Cognitive satellite networks
- Delay-tolerant networking for satellite networks
- QoS and performance for satellite networks
- On-board switching and processing technologies
- Interference and fade mitigation techniques over satellite channels
- Micro- and nano-satellites communications
- Mega-constellations design
- M2M over satellite applications
- Signal detection and estimation for satellite communications
- Statistical and adaptive signal processing for satellite systems
- Satellite communications for maritime applications (e.g., AIS)
- Satellite-based disaster recovery
- Satellite-based remote e-Health
- Satellite-based solutions for aeronautical applications
- Interplanetary communications
- Next-generation channel coding for deep-space communications
- Telemetry/telecommand space protocol evolutions
- Internet of Remote Things
- AI/ML applications for satellite and space communications & networking

### **IMPORTANT DATES**

Deadline for paper submission: 1 April 2024

Date for notification: 1 August 2024

Deadline for final paper submission: 1 September 2024

### **SUBMISSION INSTRUCTIONS**

All papers for technical symposia should be submitted via EDAS through the following link:

<https://edas.info/N31420>