

# SCSS 2025

The 4<sup>th</sup> International Symposium on Satellite  
Communication Systems & Services (SCSS)  
(In Conjunction with International Conference on ICT Convergence)

October 16, 2025 | Lotte Hotel, Jeju Island, Korea

## CALL FOR PAPERS

Satellites will play a crucial role in 6G communication networks by providing seamless global coverage and extending data paths to space through standalone deployment or satellite-terrestrial integrated networks. With the large-scale deployment of Low Earth Orbit (LEO) satellites, and the standardization of the 3rd Generation Partnership Project (3GPP) Non-Terrestrial Network (NTN), both academia and industry are expected to continue investing in R&D efforts aimed at technological innovation and eventual commercialization.

Satellite communication channels have unique characteristics, such as larger propagation delays and Doppler shifts, which require the development of robust and flexible waveforms and multiple access schemes resilient to the NTN characteristics across a broad spectrum. The dynamic topologies of Non-Geosynchronous Orbit (NGSO) satellites must be considered to optimize routing decisions and end-to-end flow control. Efficient resource allocation and network management in integrated networks can leverage Artificial Intelligence (AI) and Machine Learning (ML) technologies in software-defined and virtualized networks. In addition to providing broadband internet access, backhauling, and Internet of Things (IoT) services to remote areas, the design of 6G communication satellite systems and payloads will be focused on supporting multi-purpose and multi-functional space networks for applications such as earth observation, monitoring, positioning/navigation, space exploration, and more.

The fourth International Symposium on Satellite Communication Systems & Services (SCSS), co-located with ICTC 2025, is an ideal forum to share state-of-the-art satellite communication R&D outcomes and to seek a global network for 6G satellite communication standardization/deployment. We invite researchers and engineers to submit original technical papers for oral/poster presentation at the symposium. Topics of interest include, but are not limited to:

- PHY/MAC layer technologies for 6G satellite communications
- Network/Transport layer technologies for 6G satellite networks
- Applications and use-cases for 6G satellite communication networks
- Satellite-air-terrestrial integrated network architecture for 6G
- LEO and vLEO mega-constellation networks for 6G
- AI and ML for 6G satellite networks
- Security, privacy, and authentication in 6G satellite networks
- ISL (Inter-Satellite Links) and FSO (Free Space Optical) communications for 6G satellite networks
- RF technologies and spectrum for 6G satellite networks
- Virtualization and software-defined networking for 6G satellite networks
- Payload and system design for 6G communication satellites
- Small/cube/Nano satellites for 6G networks
- HAPS/UAV/UAM integration and services with 6G satellites
- 6G networks for multi-purpose and multi-functional satellites
- 3D network orchestration and routing in space
- Testbeds and simulations for 6G satellite networks
- 6G NTN standardization

### Submission Guidelines

The paper submission process will be managed using EDAS. Prospective authors may submit full or short papers. Paper length should be five or six pages for a full paper and two for a short paper. Please use the standard IEEE conference proceedings template in MS Word or a LaTeX format. Accepted papers will be published in the ICTC2025 Conference Proceedings and in IEEE Xplore for which at least one author is required to register for the symposium at the full rate. Selected papers may be invited for publication in the special issue on satellite networks of ICT Express, an SCIE-indexed international journal published by KICS, after suitable peer-reviews and further revisions (<https://www.journals.elsevier.com/ict-express>).

### Important Dates

Paper submission due:  
**June 25, 2025**

Notification of acceptance:  
**To be Announced**

Camera-ready papers:  
**To be Announced**

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