

2024 the 10th International Conference on Communication and Information Processing

Lingshui, Hainan, China / November 14-17, 2024

Track 2

Non-Terrestrial Networks(NTN)

Non-Terrestrial Networks (NTN) refers to the "networks or segments of networks using an airborne or space-borne vehicle to embark a transmission equipment relay node or base station", which has been regarded as an important component of 5G and 6G networks. The 3rd Generation Partnership Project (3GPP) started with study items on NTN in Relaease 15, aiming to define a new global standard for satellite systems which can achieve a truly ubiquitous worldwide coverage and support any orbit, any frequency band, and any device. A set of technical specifications related to NTN enhancements has recently been published in order to promote the seamless integration of terrestrial networks and non-terrestrial networks.

However, the environment difference between space and terrestrial brings new challenges to the design of NTN from the physical layer to the network infrastructure. This special session aims to provide a forum for research, innovation and application for NTN, and to introduce the latest research progress on space-air-satellite communication technologies. The session will focus on the new requirements and challenges that the integration of communication and computation will pose to the space-air-ground integrated networks, as well as the key problems to be solved and potential key technologies.

Topics include, but not limited to:

- Modulation and channel coding
- Random access and synchronization
- Channel estimation
- Resource management
- Edge computing

- Low-latency and high-reliability communication
- Energy efficient communication and computation
- Terrestrial-satellite multi-level caching
- Terrestrial-satellite Internet of Things
- Network Infrastructure

Special Session Organizer(s):



Beijing University of Posts and Telecommunications



Zhao Ling Beihang University

Submissions

Submit method: http://iccip.org/submission.html
Submit full paper/abstract via online system: https://www.zmeeting.org/submission/iccip2024

Publication

ICCIP 2024 is to publish latest & high-quality research works on communication and information processing in theoretical and practical aspects. Submitted paper will be peer reviewed by conference committees. The accepted paper will be included into ICCIP 2024 Conference Proceedings, which will be archived in the ACM Digital Library, and indexed by Ei Compendex and Scopus



Conference Secretary: Ms. Robin Luo Phone: +86-182-2760-9313

Email: iccip_iccip@young.ac.cn

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