

IEEE Global Communications Conference

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Accelerating the Digital Transformation through Smart Communications



CALL FOR PAPERS AND PROPOSALS

Signal Processing for Communications Symposium

Symposium Co-Chairs

- Nan Zhao, Dalian University of Technology, China, zhaonan@dlut.edu.cn
- Yongming Huang, Southeast University, China, huangym@seu.edu.cn
- Claudio Sacchi, University of Trento, Italy, claudio.sacchi@unitn.it

Scope and Motivation

Signal processing is an integral part of the development of most of the modern communication technologies. Advanced signal processing algorithms are designed, and modules are developed, to provide innovative solutions to contemporary and emerging communication systems. Considering the diverse and fast-growing nature of research in this field, the Signal Processing for Communications Symposium welcomes original contributions in all pertinent aspects of signal processing for communications, including design, analysis, implementation, and application.

Topics of Interest

The issues covered in the Signal Processing for Communications Symposium are broad, spanning from traditional transceiver design to state-of-the-art signal processing methodologies in contemporary and emerging communication systems, and the application to new frontiers. Our intention is to provide a comprehensive coverage of signal processing methodologies, theories and practices in prevalent and next-generation communication systems and networks.

Topics of interest to the Signal Processing for Communications symposium include, but are not limited to:

- Signal processing techniques in 5G/6G.
- Intelligent signal processing for communication systems.
- Deep learning enabled end-to-end communication systems.
- Signal processing for data analytics and machine learning.
- Semantic communication systems.
- Multi-antenna (SIMO, MISO, MIMO, Massive MIMO), multi-user, centralized and distributed multi node systems.
- Decentralized and cooperative signal processing in networked systems.
- Channel estimation and equalization.

- Signal transmission, detection, and synchronization.
- Novel architectures for signal demodulation and decoding.
- Source coding, channel coding, and joint source-channel coding.
- Signal processing for single-carrier, OFDM/OFDMA, multicarrier systems including new waveforms.
- Signal processing for quality of service-based applications.
- Signal processing for quality of experience-based applications.
- Signal processing for security enhancement particularly physical layer security.
- Signal processing for sensor networks and IoT applications.
- Signal processing for optical communications.
- Signal processing for millimeter and terahertz communication systems.
- Signal processing for intelligent reflecting surface.
- Signal processing for smart grid and powerline communications.
- Signal processing techniques for full-duplex communications.
- Signal processing for green communications, energy harvesting and wireless power transmission.
- Signal processing techniques for commercial/standardized and emerging systems.
- Signal processing for multimedia services.
- Signal processing for wearable communications.
- Compressive sensing algorithms and their applications in wireless communications.
- Spectrum sensing, shaping, and management techniques.
- Localization, positioning, and tracking techniques.
- Interference cancellation techniques in communications systems including NOMA.
- Spatial transmission and distributed transmission techniques.

Important Dates

Paper Submission: 15 April 2022

Notification: 25 July 2022

Camera Ready and Registration: 1 September 2022

How to Submit a Paper

All papers for technical symposia should be submitted via EDAS. Full instructions on how to submit papers are provided on the IEEE Globecom 2022 website: <https://globecom2022.ieee-globecom.org/>