

Call for Papers

Signal Processing for Communications Symposium

Symposium Co-Chairs

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Scope and Motivation

Signal processing plays a pivotal role in the development of modern communications technologies. Advanced algorithms are designed, and sophisticated modules are developed to provide innovative solutions for contemporary and emerging communications and sensing systems. Considering the diverse and fast-growing nature of research in this wide field, the Signal Processing for Communications Symposium welcomes original contributions in all pertinent aspects of signal processing for wireless and wired systems, including algorithmic design and analysis, implementation of signal processing and learning schemes, as well as communication, localization, and sensing applications. High quality papers from both industry and academia are encouraged.

Topics of Interest

The Signal Processing for Communications Symposium seeks original contributions in the following topical areas, plus others that are not explicitly listed, but are closely related to:

- Adaptive antennas, metamaterials, and beamforming
- Channel estimation, acquisition, and equalization
- Compressive sensing and sparse signal processing algorithms
- Decentralized and cooperative signal processing
- Distributed signal processing for edge learning and computing
- Interference management techniques in communications systems
- Localization, positioning, and tracking techniques
- Novel architectures for signal demodulation and decoding
- Signal processing for integrated communications and sensing
- Signal processing for artificial intelligence, data analytics, machine learning
- Signal processing for green communications, energy harvesting, and wireless power transfer
- Signal processing for millimeter and THz communication systems

- Signal processing for multi-antenna, MIMO, and/or multi-user systems
- Signal processing for optical communications
- Signal processing for security enhancement, particularly physical layer security and privacy
- Signal processing for sensor networks, smart cities, and IoT applications
- Signal processing for single-carrier, OFDM / OFDMA, multicarrier systems including new waveforms
- Signal processing for smart grid and powerline communications
- Signal processing for software defined and cognitive radio
- Signal processing for emerging wireless hardware architectures (e.g., reconfigurable intelligent surfaces, metasurface-based antennas, holographic MIMO)
- Signal processing techniques for commercial/standardized and emerging systems
- Signal processing techniques for full-duplex communications
- Signal processing techniques for physical-layer network slicing
- Signal transmission, detection, and synchronization
- Spatial transmission and distributed transmission techniques
- Spectrum sensing, shaping, and management techniques

Important Note

The authors of selected papers from this symposium will be invited to submit an extended version of their work for fast-track review and possible publication in the IEEE Open Journal of the Communications Society.

Important Dates

Paper Submission: 11 October 2022

Notification: 18 January 2023

Camera Ready and Registration: 15 February 2023

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 ICC 2023 website: <https://icc2023.ieee-icc.org/>