Signal Processing for Communications Symposium

SYMPOSIUM CHAIRS AND 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 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, and 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 semantic 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
- Signal processing for emerging technologies in 6G, e.g., CoMP, OTFS, VLC, UAV, integrated sensing and communication and semantic communications

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