



# IEEE Global Communications Conference

7-11 December 2021 • Madrid, Spain

*Connecting Cultures around the Globe*

## SIGNAL PROCESSING FOR COMMUNICATIONS SYMPOSIUM

### **SYMPOSIUM CHAIRS AND CO-CHAIRS**

Chenhao Qi, Southeast University, China

Zhijin Qin, Queen Mary University of London, UK

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### **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 B5G/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/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**

Deadline for paper submission: 15 April 2021

Date for notification: 25 July 2021

Deadline for final paper submission: 1 September 2021

### **SUBMISSION INSTRUCTIONS**

All papers for the **Globecom 2021 SPC** should be submitted via EDAS through the link <https://edas.info/N27501>

Please visit the conference web page for more details: <http://globecom2021.ieee-globecom.org/>