



IEEE Global Communications Conference

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Connecting Cultures around the Globe

OPTICAL NETWORKS AND SYSTEMS SYMPOSIUM

SYMPOSIUM CHAIRS AND CO-CHAIRS

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SCOPE AND MOTIVATION

The recent pandemic months have only underscored an accelerating trend of recent years and decades, the growing demand for more bandwidth everywhere. The need to connect synchronous video and audio applications, as well as asynchronous huge-data content applications, has become a critical need for an unprecedented number of users, assuming an almost lifeline quality. Further, growth is not only generated by people but also by machines, towards a real implementation of the paradigm of the Internet of Everything. Finally, coupled with rapidly increasing use of Big-Data and Cloud-based services, this is resulting in progressively vast volumes of data being transported across networks. These trends not only contribute to the growth in data volumes, but also pose entirely new challenges related to end-to-end performance in terms of latency, reliability, energy efficiency, achievability for allowing the user to be connected reliably everywhere and every time. This is impacting network technologies on all network segments from the edge (fixed and optical wireless access) up to the core (backbone/optical backhaul) and also datacenters, demanding substantial advances in optical systems and networks. Optical communications challenges in turn appear, involving the required evolution in fiber and wireless sides so as to support the challenges identified in the different network segments - while benefiting from recent paradigms such as Software Defined Networking, Network Infrastructure and Function Virtualization, Data Analytics and Artificial Intelligence, Cloud and Edge computing, and Optical Transmission Technologies. IEEE Globecom 2021 Optical Networks and Systems Symposium solicits original papers related to the latest research, development, and applications in these and other relevant areas of optical communication systems and networks.

TOPICS OF INTEREST

The Optical Networks and Systems Symposium intends to showcase the latest developments in all research areas related to optical networks and systems. The Symposium cordially invites original contributions in, but not limited to, the following:

- Optical networks in 5G and beyond
- Optical networks in network function virtualization
- Virtualization and slicing in optical networks
- Artificial Intelligence and machine learning for optical systems and networks
- Big data driven optical networking

- Data analytics for optical networks
- Software defined optical networks
- Optical network control and management
- Elastic, flexible rate and flexi-grid optical networks
- Optical network architectures, design, and performance evaluation
- Cross-layer design of optical networks
- Energy efficient optical networks
- Optical network survivability and availability
- Optical network for inter- and intra-datacentre connectivity
- Optical interconnects for high performance computing
- Quantum communication and networking
- Optical network security
- Optical network testbeds and experiments
- Wireless optical channel characterization
- Coding, modulation, and signal processing for optical systems
- OFDM and MIMO for optical systems
- Optical and wireless network convergence and mobile x-haul
- Radio-over-fiber
- Free space optical (FSO) communications and networks
- FSO-RF integration
- Visible light communications and networks
- Modulation and coding for optical wireless
- Multiple access techniques for optical wireless
- Visible light positioning
- Visible light communications / Camera communications
- Ultraviolet communications and networks
- Underwater optical communications
- Optical vehicular networks

IMPORTANT DATES

Deadline for paper submission: ~~15 April 2021~~ 28 May 2021 (**final and firm**)

Date for notification: ~~25 July 2021~~ 15 August 2021

Deadline for final camera-ready paper submission: ~~1 September 2021~~ 15 September 2021 (**final and firm**)

SUBMISSION INSTRUCTIONS

All papers for technical symposia should be submitted via EDAS through the following link <https://edas.info/newPaper.php?c=27489> .