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
Date for notification: 25 July 2021
Deadline for final paper submission: 1 September 2021

SUBMISSION INSTRUCTIONS
All papers for technical symposia should be submitted via EDAS through the following link