



## Optical Networks and Systems Symposium

### SYMPOSIUM CHAIRS AND CO-CHAIRS:

Jiajia Chen, Chalmers University of Technology, Sweden, Email: [jjajiac@chalmers.se](mailto:jjajiac@chalmers.se)

Abdelmoula Bekkali, TOYO Electric Corporation, Japan, Email: [bekkali\\_a@toyo-elec.co.jp](mailto:bekkali_a@toyo-elec.co.jp)

### SCOPE AND MOTIVATION

A major factor contributing to ever-increasing demand on network capacity is the growing number of connected end users as well as connected devices and machines. Moreover, coupled with rapidly increasing use of BigData and Cloud-based services, this is resulting in progressively vast volumes (zettabytes and upwards) 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, etc. This is impacting network technologies on all network segments from the edge (access) up to the core (backbone) and also datacenters, demanding substantial advances in optical systems and networks.

Optical communications then, must evolve to support the challenges identified in the different network segments while making benefit from current efforts 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 2020 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:

- Role of optical networks in 5G and beyond
- Role of 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
- 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 communications and networks
- Visible light communications and networks
- Ultraviolet communications and networks
- Underwater optical communications
- Optical vehicular networks

## **IMPORTANT DATES**

Paper Submission: 15 April , 2020

Acceptance Notification: 25 July , 2020

Camera Ready and Registration: 1 September , 2020

## **SUBMISSION INSTRUCTION**

All papers for technical symposia should be submitted via EDAS through the following link: <https://edas.info/N27054>