Call for Papers

Optical Networks and Systems Symposium

Symposium chairs

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Scope and Topics of Interest

Today, there is a quest to maximize efficiency, utilization of resources, flexibility, agility, reliability, and service scalability. Mobile applications, high-definition video streaming, social networking, cloud-based storage and services, smart grids, big data, and Internet of Things (IoT) are some of the drivers of today's research on optical systems and networks. Developments in software defined networking (SDN) and network function virtualization (NFV) are also redefining traditional paradigms and impacting the optical networking landscape. As a result, optical systems and networks technologies are evolving to meet numerous new research and development challenges. Progress in optical components capabilities, optical transmission, optical switching, and control are paving the way for a very promising return and rise of optical networking in the foreseeable future. Hence this symposium seeks to present the latest developments in all areas of optical networks and systems research. Topics of interest include, but are not limited to, the following:

- Compressed Sensing for Optical Systems
- Elastic and flexible grid optical networks
- Energy-efficient optical networks and systems
- Free space optical (FSO) communications and networks
- Impact of physical-layer impairments and non-linearities on optical network design
- Innovations in optical X-haul networks and fixed-mobile convergence
- Lighting constrained visible light communications and networks
- Multi-casting in optical networks
- Multi-layer and Multi-domain optical network design and operations
- Network function virtualization (NFV) in optical networks
- Optical access networks (PONs, AONs, and FTTx architectures)
- Optical add/drop multiplexers (OADMs)

- o Optical cross-connects (OXCs)
- o Optical modulation and signal processing
- o Optical network and system standards
- o Optical network control
- o Optical network demonstrations, test-beds and field trials
- o Optical network management
- o Optical networking in 5G systems
- o Optical networks and edge computing
- o Optical networks and systems for big data and cloud applications
- o Optical networks and systems for IoT and smart grids
- o Optical networks security concerns
- o Optical switching technologies, devices, and architectures
- o Optical technologies, components, and sub-systems for telecom networks
- o Optical transmission systems and performance monitoring
- o Optical virtual private networks (O-VPN), optical cloud networks, optical data center networks
- o Optical wavelength-division, time-division, and code-division multiplexing (WDM, OTDM, OCDM)
- o Optical wireless convergence
- o Protection and restoration, survivability and disaster recovery in optical networks
- o Routing and wavelength assignment and spectrum management
- o Software defined networking (SDN) for optical networks
- o Techno-economic analysis
- o Traffic grooming and engineering in optical networks
- o Ultraviolet communications and networks
- o Underwater optical communications

Submission Guidelines

The IEEE ICC 2020 website (icc2020.ieee-icc.org) provides full instructions on manuscript format and how to submit a manuscript. You will select the desired symposium/track when submitting your manuscript.