Call for Papers for
Optical Networks and Systems Symposium

Scope and Motivation:

The traffic demand on the network keep increasing rapidly due to the growing number of users, the growing offered bandwidth per user, and the large data flows that are transferred between users. In addition, an enormous increase in on-line content and video traffic offered by the Internet is expected to continue. In this regard it is expected that optical technology will continue to expand in the communication networks in order to meet the traffic demand. This symposium stresses major advancements in optical networking in the area of switching and routing, IP/WDM integration, QoS support, network control and management, and traffic engineering.

Moreover, optical networks are inherently more energy-efficient than their electronic counterparts due to their ability to treat large data streams in a transparent way, i.e., without O/E/O conversion. Despite this advantage, there is still a lot that can be done to reduce the energy footprint of optical networks. Therefore, there is growing interest in energy-efficient solutions for low-carbon optical networks and systems.

This symposium is intended to provide a timely forum for exploratory research and practical contributions in the area of optical networking with the objective to foster the exchange of information among researchers and experts in the field. The program will include presentations by distinguished speakers on recent advances in theory and practice of optical networking. This symposium also intends to bring together various optical networking system developers to

discuss the current status, technical challenges, standards, fundamental issues, and future services and applications in the form of workshops, business application sessions and tutorials.

Topics of Interest

The Optical Networks and Systems Symposium seeks original contributions in, but not limited to, the following topical areas:

- Wavelength division multiplexing, optical time-division and code-division multiplexing
- Optical OFDM systems
- Coding, modulation, and signal processing in optical networks
- Performance monitoring and failure localization
- Optical switching technologies, devices, and architectures
- Optical cross-connects and add drop multiplexers
- Dispersion and nonlinearity management in optical networks
- Optical access networks
    - Fiber-wireless broadband access networks
    - Next-generation passive optical networks
- IP-WDM integration
- Optical network architectures, design and performance evaluation
- Optical network control and management
- Traffic grooming and traffic engineering
- Dynamic traffic management in optical networks
- Multi-granularity switching
- Optical packet, burst, and flow switching
- Packet optical transport networks
- Multicasting in optical networks
- Protection and restoration
- Optical networks in support of Grid and cloud computing
- Storage networks
- Free space optics
- Terrestrial and submarine optical networks
- Optical network security
- Optical virtual private networks
- Optical network experiments: demonstrations, test beds and field trials
- Optical translucent networks
- Optical network standardization issues
- Efficient simulation techniques for optical networks
- Emerging applications on the optical Internet backbone
- Optical interconnects
- Energy efficient/green optical networks and systems