

# Optical Networking: Systems and Protocols

Guest Editors

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Optical communication networks have played and will continue to play a prominent role in the development and deployment of network infrastructures. The optical systems and networks with protocols are capable to meet diverse requirements from wide range of applications and services. Nowadays, optical networks have evolved dramatically to more flexible, intelligent and reliable network infrastructures with new optical switching architectures and technologies as well as advanced control and management protocols to offer core backbone, metro and access network services. The widespread deployment of optical communication networks will certainly produce many significant changes to our life in the new century.

This special issue will provide a platform for the researchers from academia and industry to present their possible solutions on the development, deployment, and application of optical networks. The focus of this issue is on optical networking with emphasis on systems and protocols. The issue will consist of the peer-reviewed research papers on the optical system and network design, MAC and higher layer protocols, traffic modeling and routing, network control and management, etc. The papers could also address the topics of optical network solutions to support new applications such as storage networks, global grid computing, disaster recovery, etc.

- Optical access, metro and core networks
- Multilayer network architectures (IP/MPLS/GMPLS/optical)
- Optical virtual private networks
- Optical switches architecture and performance
- Optical circuit, burst and packet switching
- Hybrid wireless-optical networks
- Medium access control protocols
- Bandwidth allocation and scheduling for PON/EPON
- QoS service in optical networks
- Broadcast, multicast and anycast
- Dynamic routing and wavelength assignment
- Traffic grooming and traffic engineering
- Network modeling and design
- Network recovery strategies, protection and restoration
- Network control and management
- Innovative services: grid computing, storage networks, content distribution networks, and multimedia streaming, etc.

## IMPORTANT DATES

Deadline for submissions: November 1 2006

Notification of acceptance: January 15 2007

Final papers due: February 22 2007

## SUBMISSION GUIDELINES

Only original and unpublished research papers will be considered in this special issue. The manuscripts must be written in English and to be submitted electronically by using online manuscript submission at <http://authors.elsevier.com/journal/comcom>. For submissions to the special issue of Optical Networking: Systems and Protocols, please select "SI: Optical Networking: Systems and Protocols" for Article Type.

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