# IEEE ICC 2010 - Optical Networks and Systems Symposium Program

**Symposium Co-Chairs:**
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**Monday, May 24**

**16:15 - 18:00**

**ON01: Network Planning, Dimensioning, and Design**

**Room: 1.62 Session Chair: Suresh Subramaniam (The George Washington University, USA)**

**Reducing the CAPEX and OPEX Costs of Optical Backbone Networks**
Abdallah Jarray (Universite de Montreal, Canada); Brigitte Jaumard (Concordia University, Canada); Alain C. Houle (Université de Sherbrooke, Canada)

**Limiting Wavelength Converter Usage in Resilient WDM Networks**
Miguel Razo (University of Texas at Dallas, USA); Shreejith Billenahalli (University of Texas at Dallas, USA); Wanjun Huang (University of Texas at Dallas, USA); Arularasi Sivasankaran (University of Texas at Dallas, USA); Limin Tang (University of Texas at Dallas, USA); Hars Vardhan (University of Texas at Dallas, USA); Paolo Monti (The Royal Institute of Technology (KTH), Sweden); Marco Tacca (University of Texas at Dallas, USA); Andrea Fumagalli (UTD, USA)

**Graph Partitioning for Survivability in Multi-Domain Optical Networks**
Hamza Drid (Inria of Rennes, France); Bernard Cousin (IRISA, University of Rennes 1, France); Miklos Molnar (INSA Rennes / IRISA, France); Nasir Ghani (University of New Mexico, USA)

**The Value of Traffic Bifurcation in Multi-Granular Optical Networks**
Nabil A Naas (University of Ottawa, Canada); Hussein Mouftah (University of Ottawa, Canada)

**Carrier Grade Ethernet versus SDH in Optical Networks: planning methods and CAPEX comparisons**
Domenico Siracusa (Politecnico di Milano, Italy); Guido Maier (Politecnico di Milano, Italy)

**Traffic-Driven vs Topology-Driven Strategies for Regeneration Sites Placement**
Mayssa Youssef (TELECOM ParisTech, France); Sawsan Al Zahr (TELECOM ParisTech, France); Maurice Gagnaire (Ecole Nationale Superieure des Telecommunications, France)

**Tuesday, May 25**
ON02: Survivability

Room: 1.62 Session Chair: Georgios Ellinas (University of Cyprus, Cyprus)

**PCE-based Dynamic Restoration in Wavelength Switched Optical Networks**
Alessio Giorgetti (Scuola Superiore Sant’Anna, Italy); Luca Valcarenghi (Scuola Superiore Sant’Anna, Italy); Filippo Cugini (CNIT, Italy); Piero Castoldi (Scuola Superiore Sant’Anna, Italy)

**p2-Cycles: p-Cycles with Parasitic Protection Links**
Long Long (Iowa State University, USA); Ahmed E. Kamal (Iowa State University, USA)

**Availability Evaluation in Shared-Path-Protected WDM Networks with Startup-Failure-Driven Backup Path Reprovisioning**
Wenda Ni (Tsinghua University, P.R. China); Erwin Patzak (Fraunhofer HHI, Germany); Michael Schlosser (Fraunhofer-Institute for Telecommunications Heinrich-Hertz-Institut, Germany); Hanyi Zhang (Tsinghua University, Beijing, Algeria)

**Path Protection in WDM Networks with Quality of Transmission Limitations**
Panagiotis Kokkinos (University of Patras, Greece); Konstantinos Manousakis (University of Patras, Greece); Emmanouel Varvarigos (University of Patras, Greece)

**Implementing Protection Classes through p-Cycles in Impairment-Constrained Optical Networks**
Amir Askarian (The George Washington University, USA); Suresh Subramaniam (The George Washington University, USA); Maite Brandt-Pearce (University of Virginia, USA)

**Coordinated Multi-Layer Loss Recovery in TCP over Optical Burst-Switched (OBS) Networks**
Rajesh RC Bikram (University of Massachusetts Dartmouth, USA); Neal Charbonneau (University of Massachusetts Dartmouth, USA); Vinod M. Vokkarane (University of Massachusetts Dartmouth, USA)

16:15 - 18:00

ON03: Optical Device and Node Architectures

Room: 1.63 Session Chair: Filippo Cugini (CNIT, Italy)

**Optical Interconnection Networks based on Microring Resonators**
Andrea Bianco (Politecnico di Torino, Italy); Davide Cuda (Politecnico di Torino, Italy); Miquel Garrich (Universitat Politecnica de Catalunya, Spain); Roberto Gaudino (Politecnico di Torino, Italy); Guido Alejandro Gavilanes Castillo (Politecnico di Torino, Italy); Paolo Giaccone (Politecnico di Torino, Italy); Fabio Neri (Politecnico di Torino, Italy)

**Optical Bistability in a Nonlinear Resonator With Saturable Losses and Intensity-Dependent Refractive Index**
Swati Bhargava (The LNM Institute of Information and Technology,Jaipur,India, India); Claudio Porzi (Scuola Superiore Sant’Anna, Italy); Luca Poti (Consorzio Nazionale Interuniversitario per le Telecomunicazioni, Italy); Antonella Bogoni (CNIT, Italy); Prasanta Datta (Indian Institute of Technology Kharagpur, India); Ranjan Gangopadhyay (The L.N.Mittal Institute of Information Technology, India)

**Performance of an Optical Packet Switch with Parametric Wavelength Converters**
Nattapong Kitsuwang (The University of Electro-communications, Japan); Roberto Rojas-Cessa (New Jersey Institute of Technology, USA); Eiji Oki (The University of Electro-Communications, Japan); Motoharu Matsuura (The University of Electro-Communications, Japan)

**Multi-Carrier Distributed WDM Ring Network Based on Reconfigurable Optical Drop-Add-Drop Multiplexers and Carrier Wavelength Reuse**
Motoharu Matsuura (The University of Electro-Communications, Japan); Eiji Oki (The University of Electro-Communications, Japan)

**Native Ethernet-Based Self-Healing WDM-PON Local Access Ring Architecture: A New Direction for Supporting Simple and Efficient Resilience Capabilities**
Hasan Erkan (The Graduate Center, The City University of New York, USA); Georgios Ellinas (University of Cyprus, Cyprus); Antonis Hadjiantonis (University of Nicosia, Cyprus); Roger Dorsinville (City University of NY, USA); Mohamed A Ali (City University of New York, USA)
Multi-stage access network based on SOA with/without OEO for low delay performance
Tatsuya Shimada (NTT, Japan); Naoya Sakurai (NTT, Japan); Hideaki Kimura (NTT Access Network Service Systems Laboratories, Japan); Hisaya Hadama (NTT, Japan)

ON1p: Transmission
Room: Exhibit Hall

A Simple Statistical Model for Turbulence-Induced Fading in Free-Space Optical Systems
Nestor Chatzidiamantis (Aristotle University of Thessaloniki, Greece); Harilaos G. Sandalidis (University of Central Greece, Greece); George K. Karagiannidis (Aristotle University of Thessaloniki, Greece)

Indoor MIMO Optical Wireless Communication Using Spatial Modulation
Raed Yousef Mesleh (Jacobs University Bremen, Germany); Rashid Mehmood (Jacobs University Bremen, Germany); Hany Elgala (Jacobs University Bremen, Germany); Harald Haas (The University of Edinburgh, United Kingdom)

Is OFDM a viable alternative to single-carrier transmission for future long-haul optical systems?
Alan Barbieri (Qualcomm Inc., USA); Giulio Colavolpe (University of Parma, Italy); Tommaso Foggi (University of Parma, Italy); Enrico Forestieri (Scuola Superiore S. Anna, Pisa, Italy); Giancarlo Prati (Scuola Superiore Sant'Anna, Italy)

Polarization Division Multiplexing for SC-FDE Communications over Dispersive Optical Fibers
François Horlin (Université Libre de Bruxelles, Belgium); François Quitin (Université Libre de Bruxelles (ULB), Belgium); Jessica Fickers (ULB, Belgium); Philippe Emplit (ULB, Belgium)

Successive Decoding of Anti-periodic OFDM Signals in IM/DD Optical Channel
Liang Chen (University of Melbourne, Australia); Brian Scott Krongold (University of Melbourne, Australia); Jamie Evans (University of Melbourne, Australia)

Wednesday, May 26
08:30 - 10:15

ON2p: Transmission and OBS
Room: Exhibit Hall

Multibeam 2.5 Gbit/s Mobile Optical Wireless Systems Employing Beam Power and Angle Adaptation Method
Fuad E Al saadi (University of Leeds, United Kingdom); Jaafar Elmirghani (University of Leeds, United Kingdom)

Space-Time codes for optical fiber communication with polarization multiplexing
Sami Mumtaz (Télécom ParisTech, France); Ghaya Rekaya-Ben Othman (TELECOM ParisTech, France); Yves Jaouen (Telecom ParisTech, France)

A Novel Formulation for Routing and Wavelength Assignment Problem in OBS Networks
Abdelouaib Belbekkouche (University of Montreal, Canada); Abdel Hafid (University of Montreal, Canada); Mariam Tagmouti (University of Montreal, Canada); Michel Gendreau (University of Montreal, Canada)

A Viable Translucent Architecture for Lossless OBS Networks
Thomas Coutelen (Concordia University, Canada); Brigitte Jaumard (Concordia University, Canada); Gerard Hebuterne (Telecom & Management-SudParis, France)

LOBS-H: An Enhanced OBS with Wavelength Sharable Home Circuits
Miguel A. González-Ortega (University of Vigo, Spain); Chunming Qiao (State University of New York at Buffalo, USA); Andres Suarez-Gonzalez (University of Vigo, Spain); Xin Liu (Brookhaven National Laboratory, USA); José-Carlos Lopez-Ardao (University of Vigo, Spain)

10:45 - 12:30

ON04: Scheduling
Room: 1.62 Session Chair: Nirwan Ansari (NJIT, USA)
Availability-Aware Joint Task Scheduling for Real-Time Distributed Computing Applications over Optical Networks
Min Zhu (Shanghai Jiao Tong University, P.R. China); Wei Guo (Shanghai Jiao Tong University, P.R. China); Shilin Xiao (Shanghai Jiao Tong University, P.R. China); Weisheng Hu (Shanghai Jiao Tong University, P.R. China); Benoit Geller (UEI Lab, ENSTA ParisTech, France)

Analysis of the Two-Step Scheduling Framework with Transfer Speedup under Non-Uniform Traffic
Pier Giorgio Raponi (Scuola Superiore Sant’Anna, Italy); Nicola Andriolli (Scuola Superiore Sant’Anna, Italy); Piero Castoldi (Scuola Superiore Sant’Anna, Italy)

Connection Scheduling in Wavelength-Constrained Optical Time-Slotted Networks
Arush G Gadkar (The George Washington University, USA); Suresh Subramaniam (The George Washington University, USA)

Efficient Joint Scheduling and Grant Sizing in Multichannel WDM PONs
Mohammad Seyed Kiaei (Concordia University, Canada); Lehan Meng (Concordia University, Canada); Chadi Assi (Concordia University, Canada); Martin Maier (Institut National de la Recherche Scientifique (INRS), Canada)

Energy Management Mechanism for Ethernet Passive Optical Networks (EPONs)
Ying Yan (Technical University of Denmark, Denmark); Shing-Wa Wong (Stanford University, USA); Luca Valcarenghi (Scuola Superiore Sant’Anna, Italy); She-Hwa yen (Stanford PNRL, USA); Divanilson Campelo (Stanford University, USA); Shinji Yamashita (Fujitsu Laboratories LTD., Japan); Leonid Kazovsky (Stanford University, USA); Lars Dittmann (Technical University of Denmark, Denmark)

Sequential Task Anycast Scheduling in Optical Burst Switched Networks
Nipatjakorn Kannasoot (University of Texas at Dallas, USA); Ankitkumar Patel (University of Texas at Dallas, USA); Jason Jue (University of Texas at Dallas, USA)

16:15 - 18:00

ON05: RWA and Traffic Engineering

Room: 1.62 Session Chair: Roberto Rojas-Cessa (New Jersey Institute of Technology, USA)

Tabu Search Meta-Heuristic for Static Manycast Routing and Wavelength Assignment over Wavelength-Routed Optical WDM Networks
Neal Charbonneau (University of Massachusetts Dartmouth, USA); Vinod M. Vokkarane (University of Massachusetts Dartmouth, USA)

Inter-domain Routing in Optical Networks with Wavelength Converters
Anteneh A Beshir (Delft University of Technology, The Netherlands); Marcelo Yannuzzi (Universitat Politècnica de Catalunya, Spain); Fernando A. Kuipers (Delft University of Technology, The Netherlands)

Dynamic Time Allocation and Wavelength Assignment in Next Generation Multi-rate Multi-wavelength Passive Optical Networks
Jingjing Zhang (New Jersey Institute of Technology, USA); Nirwan Ansari (NJIT, USA)

Greening the Optical Backbone Networks: a Traffic Engineering Approach
Ming Xia (University of California, Davis, USA); Massimo Tornatore (University of California, Davis, USA); Yi Zhang (University of California, Davis, USA); Pulak Chowdhury (University of California, Davis, USA); Charles Martel (University of California, Davis, USA); Biswanath Mukherjee (Dept. of Computer Science - University of California Davis, USA)

Throughput Optimization and Traffic Engineering in WDM Networks Considering Multiple Metrics
Jorge Crichigno (Northern New Mexico College, USA); Min-You Wu (Shanghai JiaoTong University, P.R. China); Wei Shu (The University of New Mexico, USA)

Traffic Grooming in Green Optical Networks
Mohammad Masud Hasan (University of Texas at Dallas, USA); Farid Farahmand (Sonoma State University, USA); Ankitkumar Patel (University of Texas at Dallas, USA); Jason Jue (University of Texas at Dallas, USA)