

## **Optical Networks and Systems (ONS) Symposium**

Co-Chairs :

George Rouskas, Filippo Cugini, Ahmed E. Kamal, Jun Zheng

Scope

Rapid advances in optical communications, systems, and networks have been the driver behind their deployment beyond the network core to grid, storage, and access systems. The emergence of a new generation of photonic devices that are intelligent, self-aware, and programmable under software control opens up new possibilities in optical network design. Hence, new optical networks architectures are conceivable that go beyond simply providing raw transmission capacity to higher transport layers, to capturing the full potential of an optical substrate populated with a multitude of elements performing a variety of monitoring, sensing, impairment compensation, reconfiguration, switching, signal splitting and multiplexing functions natively in the optical domain. To realize these novel network architectures, new challenges arise in designing and engineering multiple layers in an integrated manner, in facilitating explicitly cross-layer interactions, in integrating control plane policy and strategy, and in coordinating standardization efforts.

The Symposium will continue its established practice of focusing on cutting-edge, state-of-the-art research in optical networks and systems and newly emerging areas. Submissions of papers that relate the topics of optical networks and systems to other research areas and disciplines, including the integration of optical and wireless networks, emergent service paradigms for new applications, and the role of optics in the future Internet design, are highly encouraged.

This Symposium aims to bring together researchers from academia and industry to address recent advances in the design, modeling, prototyping, implementation, standardization, and deployment of optical networks.

Topics include but are not limited to:

Optical technologies and devices for telecommunication applications  
Optical modulation and signal processing  
Optical wavelength-division, time-division, and code-division multiplexing (WDM, OTDM, OCDM)  
Optical integrated circuits and novel transmission methods  
Measurement, monitoring and supervision techniques  
Optical switching technologies, devices, and architectures  
Optical cross-connects (OXC)  
Optical add/drop multiplexers (OADMs)  
Optical packet switching (OPS)  
Optical burst switching (OBS)  
Multi-granularity switching  
Optical access networks (PONs, AONs, and other FTTx architectures)  
Optical Ethernet and new service paradigms  
Free space optical networks  
Optical metropolitan and regional networks  
Optical networking for storage, Grid, and research & education (R&E) networks  
Optical virtual private networks  
Multi-domain optical communications  
Optical network demonstrations, test-beds and field trials  
Impact of physical-layer impairments on optical network design and engineering  
Cross-layer design and software defined optics  
Routing and wavelength assignment (RWA)  
Traffic grooming and engineering for optical networks  
Optical network performance modeling

Optical network control and management  
 Multipoint communication in optical networks  
 Single-layer and multi-layer protection and restoration  
 Security and privacy in optical networks  
 Traffic engineering for next-generation SONET/SDH  
 Standardization issues  
 Inter-working between optical and wireless networks  
 Energy efficiency in optical networks  
 Economic and regulatory issues and migration studies  
 Optical networks for future Internet design

#### Author guidelines

All submissions should be written in English with a maximum paper length of Five (5) printed pages (10-point font) including figures without incurring additional page charges (maximum 1 additional page with overlength page charge if accepted).

#### TPC List

Nail Akar	Bilkent University	akar@ee.bilkent.edu.tr
Abdullah Al-Ghamdi	National Information Centre	agghamdi@nic.gov.sa
Hussein Alnuweiri	Texas A&M University, Qatar	hussein.alnuweiri@qatar.tamu.edu
Vishal Anand	State University of New York at Brockport	vanand@brockport.edu
Chadi Assi	Concordia University	assi@ciise.concordia.ca
Ilia Baldine	Renaissance Computing Institute, UNC-CH	ibaldin@renci.org
Lina Battestilli	IBM	lina@battestilli.net
Polina Bayvel	UCL	pbayvel@ee.ucl.ac.uk
Alejandra Beghelli	Universidad Tecnica Federico Santa Maria	alejandra.beghelli@usm.cl
Andrea Bianco	Politecnico di Torino	bianco@polito.it
Sebastien Bigo	Bell Labs, Alcatel-Lucent	sebastien.bigo@alcatel-lucent.com
Pierpaolo Boffi	POLITECNICO di MILANO	boffi@elet.polimi.it
Paul Bonenfant	Morgan Keegan & Co.	pbonenfant@ieee.org
Alberto Bononi	Università di Parma	bononi@tlc.unipr.it
Maite Brandt-Pearce	University of Virginia	mb-p@virginia.edu
Franco Callegati	Università di Bologna	franco.callegati@unibo.it
Hakki Cankaya	Alcatel-Lucent, USA	candan@engr.smu.edu
Xiaojun Cao	Georgia State University	cao@cs.gsu.edu
Davide Careglio	Universitat Politecnica de Catalunya	careglio@ac.upc.edu
Vincent Chan	Massachusetts Institute of Technology	chan@mit.edu
Gee-Kung Chang	Georgia Tech	gkchang@ece.gatech.edu
Piotr Cholda	AGH University of Science and Technology	piotr.cholda@ieee.org
Xiaowen Chu	Hong Kong Baptist University	chxw@comp.hkbu.edu.hk
Yun C. Chung	KAIST	ychung@ee.kaist.ac.kr
Grzegorz Danilewicz	Poznan University of Technology	grzegorz.danilewicz@et.put.poznan.pl
Jitender Deogun	University of Nebraska-Lincoln	deogun@cse.unl.edu
Jerzy Domzal	AGH University of Science and Technology	jdomzal@kt.agh.edu.pl
John Doucette	University of Alberta	john.doucette@ualberta.ca
Rudra Dutta	North Carolina State University	dutta@csc.ncsu.edu
Frank Effenberger	HUAWEI	feffenberger@huawei.com
Tarek El-Bawab	Jackson State University	telbawab@ieee.org
Halima Elbiaze	University of Quebec at Montreal	elbiaze.halima@uqam.ca
Georgios Ellinas	University of Cyprus	gellinas@ucy.ac.cy
Jaafar Elmirghani	University of Leeds	j.m.h.elmirghani@leeds.ac.uk
Vincenzo Eramo	University of Rome "La Sapienza"	Vincenzo.Eramo@uniroma1.it
Xavier Fernando	Ryerson University	fernando@ee.ryerson.ca
Maurice Gagnaire	ENST	gagnaire@telecom-paristech.fr
Joan Garcia-Haro	Polytechnic University of Cartagena	joang.haro@upct.es
Roberto Gaudino	Politecnico di Torino	gaudino@polito.it
Nasir Ghani	University of New Mexico	nghani@ece.unm.edu
Ivan Glesk	University of Strathclyde	ivan.glesk@eee.strath.ac.uk

Mohan Gurusamy	National University of Singapore	gmohan@ieee.org
Ibrahim Habib	City University of New York	habib@ccny.cuny.edu
Mounir Hamdi	Hong Kong University of Science and Technology	hamdi@cse.ust.hk
Haitam Hamza	Cairo University	hshamza@acm.org
Hiroaki Harai	NICT	harai@nict.go.jp
Keang-Po Ho	SiBEAM, Sunnyvale, CA	kpho@ieee.org
Pin-Han Ho	University of Waterloo	pinhan@bcr.uwaterloo.ca
Shu Huang	RENCI	shuang@renci.org
David Hunter	University of Essex	dkhunter@essex.ac.uk
Arunita Jaekel	University of Windsor	arunita@uwindsor.ca
Brigitte Jaumard	Concordia University	bjaumard@ciise.concordia.ca
Xiaohong Jiang	Tohoku University	jiang@ecei.tohoku.ac.jp
Jason Jue	University of Texas at Dallas	jjue@utdallas.edu
Admela Jukan	Technische Universität Carolo-Wilhelmina zu Braunschweig	jukan@ida.ing.tu-bs.de
Volkan Kaman	Calient Networks	v.kaman@verizon.net
Ezhan Karasan	Bilkent University	ezhan@ee.bilkent.edu.tr
Gigi Karmous-Edwards	Northwestern University	gigi_ke@ncsu.edu
Ahmad Khalil	CUNY	akhilil@ccny.cuny.edu
Ken'ichi Kitayama	Osaka University	kitayama@comm.eng.osaka-u.ac.jp
Hoa Le Minh	University of Oxford	hoa.le-minh@eng.ox.ac.uk
Chin-Tau Lea	Hong Kong University of Science and Technology	ctlea@yahoo.com
Steven Lumetta	University of Illinois at Urbana-Champaign	lumetta@uiuc.edu
Hongbin Luo	Beijing Jiaotong University	luohb@uestc.edu.cn
Guido Maier	Politecnico di Milano	maier@elet.polimi.it
Martin Maier	Institut National de la Recherche Scientifique (INRS)	maier@emt.inrs.ca
Athanasios Manikas	Imperial College London	a.manikas@imperial.ac.uk
Xavier Masip-Bruin	Universitat Politècnica de Catalunya	xmasip@ac.upc.edu
Michael McGarry	University of Akron	mmcgarry@uakron.edu
Rami Melhem	University of Pittsburgh	melhem@cs.pitt.edu
Marco Mellia	Politecnico di Torino	mellia@tlc.polito.it
Michael Menth	University of Wuerzburg	menth@informatik.uni-wuerzburg.de
Branko Mikac	University of Zagreb	branko.mikac@fer.hr
Hussein Mouftah	University of Ottawa	mouftah@site.uottawa.ca
Raul Muñoz	CTTC	raul.munoz@cttc.es
Masayuki Murata	Osaka University	murata@cmc.osaka-u.ac.jp
Hassan Naser	Lakehead University	hnaser@lakeheadu.ca
Fabio Neri	Politecnico di Torino	neri@polito.it
Wai Pang Ng	Northumbria University	wai.pang.ng@ieee.org
Satoru Okamoto	Keio University	okamoto@ieee.org
Eiji Oki	The University of Electro-Communications	oki@ice.uec.ac.jp
Cherkaoui Omar	University of Quebec in Montreal	cherkaoui.omar@uqam.ca
Harald Overby	Norwegian University of Science and Technology	haraldov@item.ntnu.no
Georgios Papadimitriou	Aristotle University	gp@csd.auth.gr
Achille Pattavina	Politecnico di Milano	pattavina@elet.polimi.it
Mario Pickavet	Ghent University	mario.pickavet@intec.ugent.be
Michal Pioro	Warsaw University of Technology	mpp@tele.pw.edu.pl
Christina Politi	University of Peloponnese	tpoliti@uop.gr
Byrav Ramamurthy	University of Nebraska-Lincoln	byrav@cse.unl.edu
Srinivasan Ramasubramanian	University of Arizona	srini@ece.arizona.edu
Martin Reisslein	Arizona State University	reisslein@asu.edu
June-Koo Kevin Rhee	KAIST	rhee.jk@ieee.org
Joel Rodrigues	IT, University of Beira Interior	joeljr@ieee.org
Lu Ruan	Iowa State University	ruan@cs.iastate.edu
Galen Sasaki	University of Hawaii	sasaki@spectra.eng.hawaii.edu
Dominic Schupke	Nokia Siemens Networks	dominic.schupke@nsn.com
Marco Secondini	Scuola Superiore Sant'Anna	marco.secondini@sssup.it
Abdallah Shami	The University of Western Ontario	ashami@eng.uwo.ca
Xu Shao	Institute for Infocomm Research	shaouxu@i2r.a-star.edu.sg
Gangxiang Shen	Ciena	egxshen@gmail.com
Jong-Dug Shin	Soongsil University	jdshin@ssu.ac.kr
Kohei Shiimoto	NTT	shiimoto.kohei@lab.ntt.co.jp
Dimitra Simeonidou	University of Essex	dsimeo@essex.ac.uk

Krishna Sivalingam	Indian Institute of Technology Madras	krishna.sivalingam@gmail.com
Vijay Sivaraman	University of New South Wales	vijay@unsw.edu.au
Nina Skorin-Kapov	University of Zagreb	nina.skorin-kapov@fer.hr
Josep Sole Pareta	UPC	pareta@ac.upc.edu
Arun Somani	Iowa State University	arun@iastate.edu
Alexandros Stavdas	University of Peloponnese	astavdas@uop.gr
John Strand	AT&T Labs Research	jls@research.att.com
Suresh Subramaniam	The George Washington University	suresh@gwu.edu
Marco Tacca	University of Texas at Dallas	mtacca@utdallas.edu
Antonio Teixeira	University of Aveiro	teixeira@ua.pt
Ioannis Tomkos	AIT	itom@ait.edu.gr
Massimo Tornatore	University of California, Davis	tornator@elet.polimi.it
Anna Tzanakaki	AIT	atza@ait.gr
Raza Ul-Mustafa	Microsoft Corporation	raza.ul.mustafa@gmail.com
Luca Valcarenghi	Scuola Superiore Sant'Anna	valcarenghi@sss.up.it
Emmanouel Varvarigos	University of Patras	manos@ceid.upatras.gr
Dominique Verchere	Alcatel-Lucent Bell Labs	Dominique.Verchere@alcatel-lucent.com
Kyriakos Vlachos	University of Patras	kvlachos@ceid.upatras.gr
Vinod Vokkarane	University of Massachusetts Dartmouth	vvokkarane@umassd.edu
Helio Waldman	Federal University of the ABC	helio.waldman@ufabc.edu.br
Bin Wang	Wright State University	bin.wang@wright.edu
Alan Willner	University of Southern California	willner@usc.edu
Lena Wosinska	Royal Institute of Technology KTH	wosinska@kth.se
Jing Wu	Communications Research Centre Canada	jing.wu@crc.gc.ca
Chunsheng Xin	Norfolk State University	cxin@nsu.edu
Yufeng Xin	Renaissance Computing Institute (RENCI)	yxin@renci.org
Naoaki Yamanaka	Keio University	yamanaka@ics.keio.ac.jp
Yuanyuan Yang	Stony Brook University	yang@ece.sunysb.edu
Aysegul Yayimli	Istanbul Technical University	gencata@itu.edu.tr
Yabin Ye	Huawei Technologies Deutschland GmbH	yabin.ye@ieee.org
Emre Yetginer	Tubitak Uekae	yetginer@ee.bilkent.edu.tr
Tetsuya Yokotani	Mitsubishi Electric Corp.	yokotani.tetsuya@eb.mitsubishielectric.co.jp
Ben Yoo	University of California, Davis	yoo@ece.ucdavis.edu
Jianjun Yu	NEC Labs America	jianjun@ece.gatech.edu
Georgios Zervas	University of Essex	gzerva@essex.ac.uk
Wen-De Zhong	Nanyang Technological University	wzhong@ieee.org
Luying Zhou	Institute for Infocomm Research	Lzhou@i2r.a-star.edu.sg
Xiangfei Zhu	Yahoo! Inc.	xiangfei@yahoo-inc.com