Call for Papers for
Next Generation Networking and Internet (NGNI) Symposium

Symposium Co-Chairs

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Submissions must be done through EDAS at http://edas.info/N20751

Scope and Motivation

Advances in communications and networking technologies have reached unprecedented heights, while many new challenges and opportunities are emerging. Of particular importance to the next generation networks are the emerging topics in the areas of software defined networks (SDN), network virtualization, mobile cloud, network heterogeneity, content and centric-based networking, scalability, services and applications, security, manageability, dependability, value added services and performance predictability. Furthermore, many salient issues are affecting next-generation broadband wireless networks, such as, handover/mobility management, cross-layer activities, self-organization, and energy efficiency operations. The NGNI Symposium at IEEE ICC 2016 aims to consolidate and disseminate the latest developments and advances in these emerging focus areas. This symposium invites participation from both academic and industry researchers working in the area of next-generation networking and Internet technologies, theories, services, architectures, and protocols. The main goal is to present a latest snapshot of the cutting-edge research as well as to shed light on future directions in this exciting area.

Main Topics of Interest

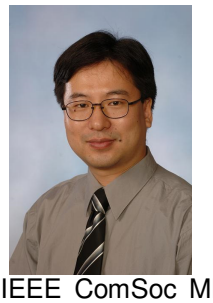
Authors are invited to submit papers presenting novel technical studies as well as broader position and visionary papers in the area of next generation networking and Internet. The Next Generation Networking and Internet Symposium solicits original contributions in, but not limited to, the following topical areas:

- Addressing and naming with the presence of mobility and portability
- Centralized-RAN and Cloud-RAN architectures
- Content-based networking: caching, naming, distribution, load balancing, resiliency
- Converged networks and applications, including NGN telecom converged management mechanism for RAN and mobile backhaul
- Future Internet and next-generation networking architectures
- Heterogeneous multi-layer and multi-domain wireless-wireline internetworking
- High speed and parallel processing architectures for next generation routers and switches
- Internet economics, pricing, accounting, and growth modelling
- Machine-to-Machine, Device-to-Device, Machine-Type-Communications in next generation Internet
- Internet survivability and network resilience strategies
- Mobile security: device, application, and data
- Mobile/wireless content distribution
- Network and service virtualization
- Next-generation access networking
- Next-generation anomaly, intrusion, and attack detection/prevention
- Next-generation flow management: resource sharing, congestion control
- Next-generation Internet applications and services, including interactive media, voice and video, games, and immersive applications
- Next-generation IP multimedia subsystem: architecture and design
- Next-generation network management and control
- Next-generation VoIP protocols and services

- Operational and research issues with IPv6
- Overlay and peer-to-peer (P2P) networking
- Packet classification and forwarding mechanisms at ultra-high link rates (terabits)
- Policy-based mechanisms and high-speed firewall technology
- Quality of Service (QoS) and Quality of Experience (QoE) in next-generation networks
- Self-protection and self-organization networking
- Software Defined Networking (SDN)
- Software Defined Radio (SDR)
- Traffic measurement, analysis, modelling, visualization, and engineering in next-generation networks

Co-Chairs Biographies

Rami Langar received the M.Sc. degree in network and computer science from the University of Pierre and Marie Curie in 2002; and the Ph.D. degree in network and computer science from Telecom ParisTech, Paris, France, in 2006. In 2007 and 2008, he was with the School of Computer Science, University of Waterloo, ON, Canada, as a Post-Doctoral Research Fellow. He is currently an Associate Professor at the LIP6, University of Pierre and Marie Curie, Paris, France. He obtained his HDR (Habilitation à Diriger des Recherches) in 2013. His research interests include mobility and resource management in wireless mesh, vehicular ad-hoc and femtocell networks, cloud radio access networks, green networking, performance evaluation and quality-of-service support. He is elected as Secretary of the IEEE ComSoc Technical Committee on Information Infrastructure and Networking (TCIIN) for the period Jan. 2014 - Dec. 2015. He has served as Co-Guest Editor of the Special Issue of Elsevier Vehicular Communications Journal on "Vehicular Cloud Networking", Co-Chair of the IEEE ICC'16 Next Generation Networks Symposium, Wired/Wireless Track Chair of GIIS'15 and GIIS'14, Co-Chair of the IEEE ICC'12 Ad-Hoc, Mesh, and Sensor Networking Symposium, and TPC Co-Chair of the third international conference on Network of the Future, and as the TPC member for many international conferences, including IEEE ICC, GLOBECOM, WCNC, PIMRC and VTC. He is a co-recipient of the IEEE/IFIP CNSM 2014 Best Paper Award. Dr. Langar is a member of IEEE and IEEE Communication Society.



Shiwen Mao received Ph.D. in electrical and computer engineering from Polytechnic University, Brooklyn, NY in 2004. Currently, he is the McWane Professor in the Department of Electrical and Computer Engineering, Auburn University, Auburn, AL, USA. His research interests include wireless networks and multimedia communications, with current focus on cognitive radio, small cells, 60 GHz mmWave networks, free space optical networks, indoor localization, and smart grid. He is on the Editorial Board of IEEE Transactions on Wireless Communications, IEEE Internet of Things Journal, IEEE Communications Surveys and Tutorials, Elsevier Ad Hoc Networks Journal, Elsevier Digital Communications and Networks Journal, and Wiley International Journal on Communication Systems. He received the 2013 IEEE ComSoc MMTC Outstanding Leadership Award and the NSF CAREER Award in 2010. He is a co-recipient of The IEEE WCNC 2015 Best Paper Award, The IEEE ICC 2013 Best Paper Award, and the 2004 IEEE Communications Society Leonard G. Abraham Prize in the Field of Communications Systems. He is a Distinguished Lecturer of IEEE Vehicular Technology Society in the Class of 2014.

Abdelhamid Mellouk is a full professor at the University of Paris-Est Créteil VdM (Paris-12 University, UPEC) Networks & Telecommunications Department and LiSSi Laboratory, France. He graduated in computer network engineering from the Computer Science High Engineering School, University Oran-EsSenia, Algeria, received the DEA-M.Sc. diploma and PhD in computer science from the University of Paris-Sud Orsay (Paris-11 University) and a Doctorate of Sciences (Habilitation) diploma from UPEC. He is the founder of the Network Control Research activity in UPEC with extensive international academic and industrial collaborations. His general area of research focus is on computer networks, including adaptive real-time bio-inspired control mechanisms for high-speed new generation dynamic wired/wireless networking in order to maintain acceptable quality of service/experience for added value services. Member of the Editorial Board of several refereed international journals (IEEE TPDS, Elsevier JNCA, ..), conferences (ICC, GlobeCom, VTC, ..), and book's collection (Iste & Wiley), in addition to numerous keynotes, plenary talks in flagship venues and awards (Best Paper, Distinguished Service, Outstanding Leadership, etc.), he has held several national and international offices, including leadership positions in IEEE Communications Society Technical Committees.