

**Call for papers for  
*Next Generation Networking and Internet (NGNI)***

**Symposium Track Co-Chairs**

Shiwen Mao	Auburn University, USA
Mahesh K. Marina	University of Edinburgh, UK
Sidi-Mohammed Senouci	University of Bourgogne, France

**Submissions must be done through EDAS at:** <https://edas.info/newPaper.php?c=22637&track=81051>  
**The paper submission deadline is October 14, 2016.**

**Scope and Motivation**

There have been unprecedented advances in developing technologies to enable the next generation networks, while many new challenges and opportunities are emerging. Of particular importance to the next generation networks are the emerging topics such as software defined networks (SDN), network virtualization, cloud and fog computing, 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 network densification, spectrum expansion, many techniques to enhance spectrum efficiency, self-organization, energy efficiency operations, mobile cloud computing, and mobility management and indoor localization. The Next Generation Networking and Internet (NGNI) Symposium at IEEE ICC 2017 aims to consolidate and disseminate the latest developments and advances in these emerging focus areas. This symposium invites participation from academic, industry, and government researchers working in the broad area of next-generation networking and Internet, including technologies, theories, services, architectures, and protocols. The NGNI Symposium will provide a forum for researchers to get together, 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 NGNI 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
- Cloud-based networking
- Content-based networking: caching, naming, distribution, load balancing, resiliency
- Converged networks and applications
- Free space optical (FSO) networks and Visible light communication (VLC)
- 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
- Indoor localization and navigation
- Internet economics, pricing, accounting, and growth modelling
- Internet of Things (IoT), M2M, D2D, MTC
- Internet survivability and network resilience strategies
- Mobile cloud
- Mobile security: device, application, and data
- Network and service virtualization

- Next-generation access networks
- 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
- Operational and research issues with IPv6
- Overlay and peer-to-peer (P2P) networking
- Packet classification and forwarding mechanisms at ultra-high link rates (terabits)
- 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) and Cognitive Radio networks
- Terahertz Wireless Communications
- Traffic measurement, analysis, modelling, visualization, and engineering

## Biographies

**Shiwen Mao** received his Ph.D. in electrical and computer engineering from Polytechnic University, Brooklyn, NY in 2004. Currently, he is the Samuel Ginn Distinguished Professor and Director of Wireless Engineering Research and Education Center (WEREC) at Auburn University, Auburn, AL, USA. His research interests include wireless networks and multimedia communications. He is on the Editorial Board of IEEE Transactions on Multimedia, IEEE Internet of Things Journal, IEEE Communications Surveys and Tutorials, IEEE Multimedia, Elsevier Ad Hoc Networks Journal, Elsevier Digital Communications and Networks Journal, and Wiley International Journal on Communication Systems. He Chairs the IEEE ComSoc Multimedia Communications Technical Committee in 2016—2018. He received the 2015 IEEE ComSoc TC-CSR Distinguished Service Award, the 2013 IEEE ComSoc MMTC Outstanding Leadership Award, and the NSF CAREER Award in 2010. He is a co-recipient of the IEEE GLOBECOM 2015 Best Paper Award, 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.

**Mahesh K. Marina** is a Reader in the School of Informatics at the University of Edinburgh. Before joining Edinburgh, he had a two-year postdoctoral stint at University of California at Los Angeles (UCLA) Computer Science department. He received his Ph.D. in Computer Science from the State University of New York at Stony Brook. During 2013, he was a visiting researcher at ETH Zurich and Ofcom (the UK telecommunications regulator) Headquarters in London. His research falls in the areas of wireless networks and mobile systems, and has received recognition in the form of awards/nominations for best papers/demos at IEEE SECON 2013, IEEE IPIN 2013, IEEE WiNMeE 2012 and ACM WINTeCH 2010. He is an IEEE Senior Member. He is a co-founder and past steering committee member of ACM WINTeCH workshop with MobiCom. He has served/serving on 35+ technical program committees of international conferences/workshops on wireless networking and mobile systems, and recently served as a guest editor of a special issue of the Elsevier Pervasive and Mobile Computing Journal. He is currently serving as a chair of the All Things Cellular 2016 workshop with ACM MobiCom.

**Sidi-Mohammed Senouci** received his Ph.D. in Computer Science in October 2003 from the University of Paris 6. From September 2010, he is professor at ISAT, a major French post-graduate school located in Nevers, France, and component of the University of Bourgogne. His current research interests include Vehicular Communications, Ad hoc and Sensor Networks, Smart Grid, Wireless and Mesh Networks, Cooperative Networks, Performance evaluation. He holds 7 international patents on these topics and published his work in major IEEE conferences and renowned journals. He was co-chair of AHSN Symposium in IEEE Globecom 2011 and co-chair of NGN Symposium in IEEE ICC'2012. He was vice-chair of SAC symposium in IEEE Globecom2010, co-chair VCT Symposium in IEEE WCMC2010, and TPC co-chair of VehiCom2009 Workshop. He was the guest editor of a special issue of UBICC journal and was the special track co-chair in PIMRC'08 on ITS. He is founding co-editor of the IEEE ComSoc Ad Hoc and Sensor Network Technical Committee (AHSN TC) Newsletter. He also acted or still acts as TPC member of the following IFIP, ACM or IEEE conferences and workshops (ICC, GLOBECOM, PIMRC, GIIS, VTC, WiVeC, MWCN, IWWAN, Wireless Days, WITS,...). He was the Chair of IEEE ComSoc IIN Technical Committee, TCIIN (2014-2016). He is also a Member of IEEE and the Communications Society and Expert Senior of the French society SEE (Society of Electricity and Electronics).