IEEE International Conference on Communications
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Next Generation Networking (NGN) Symposium

Symposium Co-Chairs

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The 2014 IEEE International Conference on Communications (ICC) will be held in the beautiful city of Sydney, Australia between 10 and 14 June 2014. The theme of this flagship conference of IEEE Communications Society for 2014 is "*Communications: The Centrepoint of the Digital Economy*." The conference will feature a comprehensive technical program including twelve Symposia and a number of Tutorials and Workshops. IEEE ICC 2014 will also include an attractive expo program including keynote speakers, and Industry Forum & Exhibitions (IF&E). We invite you to submit your original technical papers, industry forum, workshop, and tutorial proposals to this event. Accepted and presented papers will be published in the IEEE ICC 2014 Conference Proceedings and in IEEE Xplore®. Full details of submission procedures are available at http://www.ieee-icc.org/2014.

Scope and Topics of Interest

Advancements in communications and networking technologies have reached unprecedented heights, but many new challenges and opportunities are emerging. Of particular importance to Next Generation Networks are emerging topics in the area of software defined networks, network virtualization, mobile cloud, network heterogeneity, scalability, services and applications, security, manageability, dependability, and performance predictability. Furthermore, many salient issues are affecting broadband next-generation wireless networks, such as, handover/mobility management, cross-layer activities, self-organization, and energy efficiency operations. The Next Generation Networking Symposium at IEEE ICC 2014 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 technologies, services, architectures, and protocols. The overall goal is to present the latest snapshot of the ongoing research as well as to shed further light on future directions in this space. Authors are invited to submit papers presenting novel technical studies as well as broader position and vision papers comprising hypothetical/speculative scenarios.
To ensure complete coverage of the advances in this field, the Next Generation Networking Symposium solicits original contributions in, but not limited to, the following topical areas:

- Future Internet and next-generation networking architectures
- Software Defined Networking (SDN)
- Software Defined Radio (SDR)

- Overlay networks and peer-to-peer networking
- Network and service virtualization
- Cloud-based networking
- Mobile cloud
- Centralized-RAN and CPRI architectures
- Network sharing mechanisms
- Provisioning, monitoring, and management of IP services
- Flow management: resource sharing, congestion control, etc.
- Routing: unicast, multicast, anycast, etc (wireless, wireline)
- Multihoming, network planning and optimization
- Addressing and naming, especially in the presence of mobility and portability
- Operational and research issues with IPv6
- VoIP protocols and services
- Self-protecting networking
- Switch and router architectures, performance, control, buffer management, packet scheduling
- Network management methodologies and control plane design
- Internet survivability and network resilience strategies
- Mechanisms for self-organization and autonomous networking
- Traffic measurement, analysis, modeling, visualization, and engineering
- Anomaly, intrusion, and attack detection/prevention
- Policy based mechanisms and high-speed firewall technology
- Packet classification and forwarding mechanisms at ultra-high link rates (terabits)
- High speed and parallel processing architectures for next generation routers
- Heterogeneous multi-layer and multi-domain networks, wireless-wireline internetworking
- Connecting mobile/wireless devices to the Internet
- Content-based networking: caching, distribution, load balancing, resiliency
- Internet of Things, M2M, MTC
- Mobile/wireless content distribution
- Internet applications including interactive media, voice and video, games, immersive applications
- Internet signaling and service enabling protocols, including SIP, NSIS, HTTP, RTSP/RTP, etc.
- Privacy and/or security issues and intrusion detection/prevention in the Internet
- Design methodologies for Internet services
- Internet economics, pricing models, accounting, Internet growth modeling
- IP multimedia subsystem: architecture and design

- Next-Generation access networking
- Converged networks and applications, including NGN telecom networks Converged management mechanism for RAN and mobile backhaul
- Quality of Service and Quality of Experience in Next Generation Networks
- Energy efficiency, green communications

Submission Guidelines

Prospective authors are invited to submit original technical papers by the deadline 15 September 2013 for publication in the IEEE ICC 2014 Conference Proceedings and for oral or poster presentation(s). All submissions should be written in English with a maximum paper length of Six (6) printed pages (10-point font) including figures without incurring additional page charges (maximum 1 additional page with over length page charge if accepted).

Standard IEEE Transactions templates for Microsoft Word or LaTeX formats found at
http://www.ieee.org/portal/pages/pubs/transactions/stylesheets.html
Alternatively you can follow the sample instructions in template.pdf at
http://www.comsoc.org/confs/globecom/2008/downloads/template.pdf
Only PDF files will be accepted for the review process and all submissions must be done through EDAS at
http://edas.info/

Mohammed Atiquzzaman obtained his M.S. and Ph.D. in Electrical Engineering and Electronics from the University of Manchester (UK). He is currently holds the Edith Kinney Gaylord Presidential professorship in the School of Computer Science at the University of Oklahoma, and is a senior member of IEEE. Dr. Atiquzzaman is the editor-in-chief of Journal of Networks and Computer Applications, and has served/serving on the editorial boards of IEEE Communications Magazine, International Journal on Wireless and Optical Communications, Real Time Imaging journal, Journal of Communication Systems, Communication Networks and Distributed Systems and Journal of Sensor Networks. He also guest edited 12 special issues in various journals. He has served as co-chair of IEEE High Performance Switching and Routing Symposium (2011 and 2003) and has served as symposium co-chairs for IEEE Globecom (2006, 2007) and IEEE ICC (2007, 2009, 2011, 2012) conferences. He co-chaired ChinaComm (2008), and SPIE Next-Generation Communication and Sensor Networks (2006) and the SPIE Quality of Service over Next Generation Data Networks conferences (2001, 2002, 2003, 2005). He was the panels co-chair of INFOCOM'05, and is/has been in the program committee of numerous conferences such as INFOCOM, ICCCN, and Local Computer Networks. He serves on the review panels of funding agencies such as the National Science Foundation and National Research Council (Canada) and Australian Research Council (Australia). In recognition of his contribution to NASA research, he received the NASA Group Achievement Award for "outstanding work to further NASA Glenn Research Center's effort in the area of Advanced Communications/Air Traffic Management's Fiber Optic Signal Distribution for Aeronautical

Communications" project. He is the co-author of the book “Performance of TCP/IP over ATM networks” and has over 250 refereed publications, most of which can be accessed at www.cs.ou.edu/~atiq. His research interests are in communications switching, transport protocols, wireless and mobile networks, ad hoc networks, satellite networks, Quality of Service, and optical communications. His research has been funded by National Science Foundation (NSF), National Aeronautics and Space Administration (NASA), U.S. Air Force, and Cisco and Honeywell through grants totaling over $3.8M.

Konstantinos Samdanis is a Senior Researcher and broadband backhaul standardization specialist at NEC Europe Ltd at Heidelberg, Germany. He received an MSc in Research Electronics and a PhD in Mobile Communications, both from King’s College London, UK. Konstantinos is active at the Broadband Forum (BBF) in where he is the editor of a Work Item named Energy Efficient Mobile Backhaul and has served as a board member of the Green oversight Committee (GoC). He has served as a guest editor for the IEEE Communication Magazine FT “Service Interoperability in Ethernet Passive Optical Networks (SIEPON)” and he is currently on the editorial board for the IEEE ComSoc MMTC E-letters. He is also the co-chair of the IEEE Telecommunication Standards: From Research to Standards Workshop at ICC 2013 and has served as a TPC in several IEEE and ACM conferences. His research interests include network management for LTE-A and beyond, Software Defined Networks (SDN) for carrier networks, cloud networking, mobile backhaul and energy efficiency.

Antonio Pescapè is an Assistant Professor at the Department of Computer Engineering and Systems of the University of Napoli Federico II (Italy) and Honorary Visiting Senior Research Fellow at the School of Computing, Informatics and Media of the University of Bradford (UK). He received the M.S. Laurea Degree in Computer Engineering and the Ph.D. in Computer Engineering and Systems, both at University of Napoli Federico II. Antonio Pescapè teaches courses in Computer Networks, Computer Architectures, Programming, and Multimedia and he has also supervised and graduated more than 100 among BS, MS, and PhD students. His research interests are in the networking field with focus on Internet Monitoring, Measurements and Management and on Network Security. Antonio Pescapè has coauthored over 130 journal (Communications of the ACM, IEEE Communications Magazine, JSAC, IEEE Wireless Communications Magazine, IEEE Networks, etc.) and conference (SIGCOMM, IMC, PAM, Globecom, ICC, etc.) publications and he is co-author of several patents pending. He has served and serves as workshops and conferences Chair and on more than 120 technical program committees of IEEE and ACM conferences. He has served as Editorial Board Member of IEEE Survey and Tutorials (2008-2011) and was guest editor for the special issue of Computer Networks on ``Traffic classification and its applications to modern networks". For his research activities he has received several awards. In 2009 he was awarded the IET Communications Premium Award 2009; in 2010 he was awarded the best local paper award at IEEE ISCC 2010; in November 2011 he was awarded the TEA (Technologybiz

Endorsement Award); in November 2011 he was awarded by Open Source Software World Challenge 2011 for the D-ITG platform; in 2012 two of his papers have been awarded the IRTF ANRP (Applied Networking Research Prize) and he was awarded the Best Poster award at SIGCOMM 2012. He is a Senior Member of the IEEE. Finally, Antonio Pescapè has served and serves as independent reviewer/evaluator of research and implementation projects and project proposals co-funded by the Sweden government, several Italian local governments, Italian Ministry for University and Research (MIUR) and Italian Ministry of Economic Development (MISE).