IEEE International Conference on Communications
IEEE ICC 2014
Communications: The Centrepoint of the Digital Economy
10-14 June 2014, Sydney, Australia

<u>Selected Areas in Communications Symposium</u>
<u>Access Systems and Networks (ASN) Track</u>

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
Access networks and systems continue to be one of the most active fields of telecommunication research and development in recent years. Variety of technologies and services came together to create technological challenges in the access domain. Advances in Voice over IP (VoIP), IPTV, conventional and high-definition video, and multimedia have significantly impacted the access segment of service-provider networks. Moreover, many access lines today terminate on multiple home devices. This led to a need for home networks that are designed for a blend of multi-computer Internet access, multi-platform entertainment, and voice support. The evolution towards multi-service platforms and the emergence of a spectrum of new IP-based applications are fueling more demand for bandwidth. As service providers, Telcos and Cable MSOs alike, face the challenge of triple and quadruple play delivery (voice, data, and video to end customers; over wired and wireless networks), researchers in both academia and industry must develop innovative solutions to tackle this challenge.

Broadband access utilizes a variety of transmission media and systems, such as twisted-pair copper based systems (xDSL), coaxial-cable plants, fiber based solutions (passive and active optical networks), wireless systems (Wi-Fi, WiMAX, and cellular technologies), power-lines systems (PLC), and hybrid combinations of these. Various protocols are also required to support both downstream and

upstream traffic. Understanding the performance characteristics of all the technological ingredients of tomorrow's access networks/systems is critical for delivering the desired Quality of Service (QoS) to end users.

The aim of the Access Systems and Networks (ASN) Track of the Symposium on Selected Areas on Communications is to provide a forum that brings together scientists and researchers from all over the world to present their cutting-edge innovations in all aspects of the field. Papers on practical applications and R&D results from industry and academic/industrial collaborations are particularly encouraged.

To ensure complete coverage of the advances in this field, the ASN Track of the SAC Symposium solicits original contributions in, but not limited to, the following topical areas:

- Twisted pair copper systems and networks; xDSL
- Hybrid Fiber Coaxial (HFC) systems and networks
- FTTx and Passive/Active Optical systems and networks (PONs and AONs)
- Cable TV systems and networks
- Bluetooth, Wi-Fi, WiMAX, and Cellular Access
- Integrated wired/wireless access
- Optical-Wireless integration and radio over fiber
- Free-Space Optical-Access (components, systems, and networks)
- Digital satellite access technology
- Access network architectures and protocols
- Service convergence and multimedia networks
- Quality of Service (QoS): characterization and provisioning
- Access network survivability and security
- Municipal and community networks
- Power Line Communication (PLC)
- Home Networks
- Networked appliances
- Applications (video streaming/IPTV etc.)
- Synchronization (time & frequency) support in the access
- Billing and management aspects
- Standardization

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).

Co-Chair Biography:
Tarek El-Bawab has more than 25 years of experience in the field of electrical, computer, and telecommunication engineering. His areas of research interest include broadband access, optical networks and WDM, network architectures, performance analysis, and next-generation switching/routing. Currently, he is with Jackson State University, USA. Prior to Jackson State, he was with Alcatel-Lucent as project manager of the optical networking project of the Network Strategy Group (NSG), part of the company's CTO organization. Before this, he was in networking research with a number of institutions: Alcatel-Lucent, Colorado State University (USA) and University of Essex (UK). Prior to this he was System Design Engineer with Dar Al-Handasah Consultants, and Telecommunication Lead Engineer in Greater Cairo Metro projects.

Dr El-Bawab has more than 70 publications and patents in the field of telecommunications. His book "Optical Switching" is the most comprehensive reference in this subject. He served as Symposium Co-Chair in several Globecom/ICC conferences, such as Globecom 2008, Globecom 2009, ICC 2011, and Globecom 2012. He was the founder, organizer and chair of the annual International Workshop on Optical Networking Technologies (IWONT), which was inherent part of the ICC/Globecom technical programs for ten years (1999-2008). He is the current Chair of ComSoc Technical Committee on Transmission, Access, and Optical Systems (TAOS), Board Member of ComSoc Education Board, and Chair of its Work Group on Telecommunication Engineering Education.

Tarek has a B.Sc. in Electrical Engineering, and a B.A. in History, from Ain Shams University, Egypt. He holds M.Sc. in Solid State Science from the American University in Cairo and M.Sc. in Telecommunications and Information Systems from the University of Essex, U.K. He obtained his Ph.D. in Electrical Engineering from Colorado State University, USA.