Call for Papers for
Selected Areas in Communications Symposium
Access Systems and Networks (ASN) Track

Symposium Track Chair

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Submissions must be done through EDAS at http://edas.info/N20921

Scope and Motivation

Access systems and networks have been, and continue to be one of the most active fields of telecommunications research and development. 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 and video support. The evolution towards multi-service platforms and the emergence of a spectrum of new IP-based applications are fueling more demand for bandwidth, and access networks and system must grow to match this demand. Such systems typically consist of a diverse set of transmission technologies and associated networking functions, which are typically far more complex than those found in other parts of the network. Further more, putting these diverse components together creates technological challenges in the access domain. 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 these challenges.

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.

Main Topics of Interest

To ensure complete coverage of the advances in the 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
- Wi-Fi, WiMAX, and Cellular Access
- Personal area networks, including Bluetooth and Zigbee
- Integrated wired/wireless access
- Access networks integration in the Internet of Things (IoT)
- 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) in the access: 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 of access systems and networks
- Standardization of access systems and networks
- Performance evaluation of access systems and networks

Biography of Track Chair

Ahmed E. Kamal is a professor of Electrical and Computer Engineering at Iowa State University in the USA. He received a B.Sc. (distinction with honors) and an M.Sc. both from Cairo University, Egypt, and an M.A.Sc. and a Ph.D. both from the University of Toronto, Canada, all in Electrical Engineering. He is a Fellow of the IEEE and a senior member of the Association of Computing Machinery. He was an IEEE Communications Society Distinguished Lecturer for 2013 and 2014.

Kamal's research interests include cognitive radio networks, optical networks, wireless sensor networks, and performance evaluation. He received the 1993 IEE Hartree Premium for papers published in Computers and Control in IEE Proceedings, and the best paper award of the IEEE Globecom 2008 Symposium on Ad Hoc and Sensors Networks Symposium.

Kamal chaired or co-chaired Technical Program Committees of several IEEE sponsored conferences including the Optical Networks and Systems Symposia of the IEEE Globecom 2007 and 2010, the Cognitive Radio and Networks Symposia of the IEEE Globecom 2012 and 2014, and the Access Systems and Networks track of the IEEE International Conference on Communications 2016. He is on the editorial boards of the IEEE Communications Surveys and Tutorials, the Computer Networks journal, and the Optical Switching and Networking journal.