



**IEEE Global Communications
Conference**
9-13 December 2018
Abu Dhabi, UAE
Gateway to a Connected World



Call for Papers

Selected Areas in Communications Symposium

Track on Access Systems and Networks

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Scope and Motivation:

The rising of new services and definition of novel networking paradigms always inspire researchers to investigate solutions for Access Networks and Systems that continue to be one of the most hot topic in the communication and networking. This is due to the evolution of systems and technologies and these come 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, in other words multimedia, today, is the environment leading to the necessity of investigating the access since the node is no more the user but the device. The evolution towards multi-service platforms and the emergence of a spectrum of new IP-based applications are fueling more demand for bandwidth.

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) 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 Networks and Systems (ANS) 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 this field, the ANS 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



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- 5G front/mid-haul networks
- Optical-Wireless integration and radio over fiber
- Free-Space Optical-Access (components, systems, and networks)
- New technologies and architectures in access and aggregation nodes
- Service convergence and multimedia networks
- Quality of Service (QoS): characterization and provisioning
- Access network survivability and security
- Municipal and community networks
- Home/Building/Neighborhood Area Networks
- Networked appliances
- Applications (video streaming/IPTV etc.)
- Synchronization (time & frequency) support in the access
- Billing and management aspects
- Standardization