CALL FOR PAPERS -- IEEE GLOBECOM 2011
Selected Areas in Communications Symposium
Access Network Track

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Scope and Motivation

Access networks and systems have become one of the very active fields of telecommunications research and development. Progress in VoIP, IPTV and (high-definition) video streaming has 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 which are designed for a blend of multi-computer Internet access, 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 play delivery. Researchers in both academia and industry are developing 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, WLL and cellular technologies), power-lines systems (PLC), and hybrid combinations thereof. Different protocols are also involved 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 this track of the Symposium on Selected Areas on Communications is to provide a forum that brings together scientists and researchers from both academia and industry to present their cutting-edge innovations in all aspects of access networks and systems.

Main Topics of Interest

- Twisted pair copper systems and xDSL
- Hybrid Fiber Coaxial (HFC) systems
- FTTx and Passive/Active Optical Networks (PONs and AONs)
- Progress in Cable TV systems
- Bluetooth, Wi-Fi, WiMAX, WLL and Cellular Access
- Integrated wired/wireless access
- Optical-Wireless integration
- Free-Space Optical-Access (components, systems, and networks)
- Digital satellite access technology
- Municipal and community networks
- Power Line Communication (PLC)
- Home/Building/Neighborhood Area Networks

- Access network architectures and protocols
- Service convergence
- Quality of service provisioning
- Access network survivability and security
- Access Networks for Smart Grid and energy related applications
- Body area, elder/health care and biomedical access networks
- Networked appliances
- Applications (video streaming/IPTV etc.)
- Billing and management aspects

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