

**Call for Papers for Selected Areas in Communications Symposium
Access Systems and Networks Track
(SAC-1 ASN)**

Symposium Track Chair

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Submissions must be done through EDAS at: <https://edas.info/newPaper.php?c=22642&track=81057>

The paper submission deadline is October 14, 2016.

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, high- and ultra-high definition video, and multimedia have significantly impacted the access segment of service-provider networks. The ongoing roll out of machine-to-machine communications and the Internet-of-things will put immense pressures on access networks and systems. Moreover, many access lines today terminate on multiple home devices. This leads 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 systems must grow to meet this demand. Such systems typically consist of a diverse set of transmission technologies and associated networking functions, which are often far more complex than those found in other parts of the network. Furthermore, 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, LTE and Cellular Access
- Personal area networks, including Bluetooth and Zigbee
- Integrated wired/wireless access
- Access network integration into the Internet-of-Things (IoT)
- Optical-Wireless integration and radio-over-fiber
- Free-space optics (FSO) and optical wireless for access (components, systems, and networks)
- Digital satellite access technologies
- Power line communications (PLC) for access networks and systems
- 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
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- Software-defined networking (SDN) and cloud computing in access networks
- Applications (IPTV, networked appliances, home networks 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

Steve Hranilovic (S'94-M'03-SM'07) (hranilovic@mcmaster.ca) received the B.A.Sc. degree with honours in electrical engineering from the University of Waterloo, Canada in 1997 and M.A.Sc. and Ph.D. degrees in electrical engineering from the University of Toronto, Canada in 1999 and 2003 respectively. He is a Senior Member of the IEEE, OSA and SPIE. He is a Professor in the Department of Electrical and Computer Engineering, McMaster University (Hamilton, Ontario, Canada). His research interests are in the areas of free-space and optical wireless communications, digital communication algorithms, and electronic and photonic implementation of coding and communication algorithms. He is the author of the book *Wireless Optical Communication Systems* (New York:Springer, 2004).

Dr. Hranilovic is a licensed Professional Engineer in the Province of Ontario and was awarded the Government of Ontario Early Researcher Award in 2006. In 2016 he was given the title of University Scholar at McMaster University. He currently serves as an Editor for the IEEE Transactions on Communications in the area of Optical Wireless Communications and an Associate Editor of the OSA Journal of Optical Communications and Networking.