Call for Papers for
Selected Areas in Communications Symposium Smart Grid and Power Line Communications Track

Scope and Motivation:

Smart grid has been emerging as a new paradigm to operate power system and electrical grid more efficiently and more economically. A few major approaches in smart grid include real-time data collection through smart meter, optimal energy usage through smart appliances, and adoption of renewable energy sources. In order to implement smart grid, reliable and efficient data communications and networking play an important role to support energy optimization. Power Line Communication (PLC) uses existing electrical wiring in buildings and the power grid. Therefore, PLC becomes one of the promising communications solutions to transfer smart grid data to achieve the objective and meet the requirements. Papers are solicited that address subjects including though not limited to PLC channel characterization and modeling, electromagnetic interference and regulations, coupling, communication protocols for broadband and narrowband PLC as well as the overall the design and analysis of current and future PLC systems in smart grid. Topics of interest include, but are not limited to:

- PLC applications in Smart grid communications, controls and protocols
- In-home, access and in-vehicle networks
- Capacity planning, resource allocation and scheduling for PLC
- PHY and MAC layer protocols for PLC
- Congestion and admission control for PLC
- Modulation, coding and signal processing for PLC
- MIMO and multi-user PLC
- Electromagnetic compatibility, interference and coupling issues
- Green communications and energy saving concepts for narrow/broadband PLC
- Multiple access techniques and protocols for PLC networks
- Multi hop routing in PLC and combined PLC / wireless networks
- Coexistence and interoperability for PLC
- Cognitive, autonomous and cooperative systems for PLC
- Cross-layer optimization and service integration in PLC

- Modeling and performance evaluation for PLC
- Management, diagnostics and troubleshooting protocols and tools
- Power Quality monitoring and PLC data concentrators
- PLC channel characterization, measurements, modeling and emulation
- Measurement data from testbeds, field trials and commercial deployments
- Regulation and standardization
- PLC applications between charging stations and electric cars
- Communications, networks and architectures to enable the smart grid
- Cyber security and privacy for the smart grid
- Control and operation for smart grids, microgrids and distributed resources
- Data management and grid analytics and dynamic pricing
- Emerging PLC-related technologies

Sponsoring Technical Committees:

- Power Line Communications
- Smart Grid Communications
- Communication Theory
- Signal Processing and Communications Electronics

How to Submit a Paper:

The IEEE Globecom 2016 website provides full instructions on how to submit papers. You will select the desired symposium when submitting. **The paper submission deadline is April 1, 2016. Unlike recent ICC's and Globecom's, this is a hard deadline that will not be extended.**

Symposium Co-Chairs:

- Dusit (Tao) Niyato, Nanyang Technological University (NTU), dniyato@ntu.edu.sg
- Haris Gacanin, Nokia, haris.gacanin@nokia.com

Biography:

Dusit Niyato is currently an associate professor in the School of Computer Engineering, at the Nanyang Technological University, Singapore. He received B.E. from King Mongkuk's Institute of Technology Ladkrabang (KMITL) in 1999. He received Ph.D. in Electrical and Computer Engineering from the University of Manitoba, Canada in 2008. He is an associate editor of IEEE Transactions on Communications, an editor of IEEE Communications Surveys and Tutorials (COMST), IEEE Wireless Communications Letters (WCL), and IEEE Transactions on Cognitive Communications and Networking (TCCN). He was a guest editor of IEEE Journal on Selected Areas on Communications, special issue on Cognitive Radio Networking & Communications, and Recent Advances in Heterogeneous Cellular Networks as well as IEEE Transactions on Wireless Communications. His research interests are in the area of the optimization of wireless communication and mobile cloud computing, smart grid systems, and green radio communications.

Haris Gačanin received his Dipl.-Ing. degree in Electrical engineering from the Faculty of Electrical Engineering, University of Sarajevo in 2000. In 2005 and 2008, he received M.E.E. and Ph.D.E.E. from Tohoku University, Japan. He was with Tohoku University from April 2008 until May 2010 first as Japan Society for Promotion of Science postdoctoral fellow and then, as Assistant Professor. He is currently Research Director at Nokia in Belgium. His professional interests are research management with strong emphasis on product/solution development through applied research projects: advanced signal processing and algorithms with focus on mobile/wireless and wireline physical (L1) and media access (L2) layer technologies and network architectures. He has more than 120 scientific publications (journals, conferences and patent applications) and invited/tutorial talks. He is senior member of IEEE and IEICE. He is an Associate Editor of IET Communications and IEICE Transactions on Communications.