

# Call for Papers for *Selected Areas in Communications Symposium* *Power Line Communications Track*

## **Scope and Motivation:**

Power Line Communication (PLC) uses existing electrical wiring in buildings, industry, the power grid and vehicles. Therefore, PLC becomes one of the promising communications solutions to transfer smart grid data and a lot of other applications.

The aim of the Power Line Communication track is to bring together researchers from both academia and industry in order to have a forum for discussion and technical presentations on the recent advances in theory, application and implementation of power line communication networks.

Topics of interest include, but are not limited to:

- PLC in the context of Smart Grid applications, control and protocols
- In-home, access and in-vehicle PLC networks
- Multi hop routing in PLC and combined PLC / wireless networks
- Modeling and performance evaluation for PLC
- Multiple access techniques and protocols for PLC networks
- Capacity planning, resource allocation and scheduling for PLC
- Real-time and security issues for PLC
- Precise time synchronization over PLC networks
- 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
- Coexistence and interoperability for PLC
- Cognitive, autonomous and cooperative systems for PLC
- Cross-layer optimization and service integration in PLC
- Management, diagnostics and troubleshooting protocols and tools
- Green communications and energy saving concepts for narrow/broadband PLC
- 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
- Emerging PLC-related technologies