Special Issue on Power Line Communications and its Integration with the Networking Ecosystem

Advances in both technology and standardisation in recent years mean that Power Line Communications (PLC) can now be utilised and integrated into a variety of systems (e.g. home networks, smart grid/metering, in-vehicle networking, etc.). While power line communications has a history going back to the beginning of the last century, this newfound flexibility and increased potential for integration have placed new requirements and challenges on the basic components of the PLC system.

This J-SAC special issue considers Power Line Communications, particularly focusing on its integration with contemporary networking and its relevance in the modern network environment. Submissions are encouraged considering PLC as an established technology, covering development of fundamental PLC technology and its use within networks, applications and the technology ecosystem. Papers considering PLC’s place within the broader networking area and showing how PLC fits within the wider body of networks and systems research are particularly welcome.

Topics of interest include, but are not limited to:
- PLC as a part of heterogeneous networks (e.g. home networks, backhaul, small cells),
- PLC in Smart Grid and Smart Metering,
- Forward looking PLC technology and applications,
- PLC for in-vehicle networking and vehicle charging,
- Routing, relaying, multi-hop for PLC networks,
- Network coding for PLC networks,
- Coexistence and cognitive techniques for PLC networks,
- Security and privacy in PLC networks,
- QoS, QoE and multimedia for PLC networks,
- EMC, interference and interoperability of PLC deployment,
- Advances in PLC channel characterization and modeling,
- Energy efficient PLC protocols and techniques,
- Advances at the physical layer (modulation, coding, interference and noise mitigation, ...) for PLC,
- Open challenges, results and the role of PLC in new standards (IEEE 1905, IEEE 1909, ...).

Prospective authors should prepare their manuscripts following the IEEE JSAC format at http://www.comsoc.org/jsac/author-information. Authors should submit a PDF version of their completed manuscript via EDAS (http://edas.info/N19543), according to the following schedule:

- Submission Deadline: **Extended to 15th July 2015**
- First Round Reviews: 1st October 2015
- Second Round Reviews: 1st January 2016
- Final Decisions: 1st February 2016
- Publication: Second Quarter 2016

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