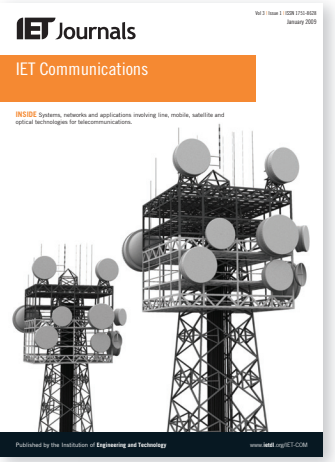
IET Journals



IET Communications
Call for Papers

SPECIAL ISSUE ON:
Energy Aware Wireless Network Protocols

In today's world, wireless systems have become an essential tool and provide solutions in everyday personal and business situations in an easy and cost-effective manner. Wireless networking affects a number of fields, including healthcare, environmental, home appliances, education, military applications, among others. In general, designing, developing and testing of an efficient wireless network protocol is a great challenge for the researchers in these areas. Moreover, the development of an application specific protocol in any of these fields depends on various factors including the security, miniaturization, application constraints, hardware constraints, and energy requirements.

The traditional trend in wireless network protocol design and development is towards maximization of the performance observed by the end-user, in terms of perceived throughput, delay, QoS, etc. Nevertheless, the rate of advances in battery technology continues to lag behind that of semiconductor technology, which is still well predicted by the celebrated Moore's law. This imbalance in the rate of advances creates a gap between the energy a wireless network needs to operate and the battery capacity that powers its nodes. Hence, the requirement of Energy-Efficiency appears as an extremely important property of new protocols for wireless networks with battery-powered mobile nodes. Moreover, Energy-Efficiency is the tool to realize the vision of green wireless networks, which are deemed important these days due to the increasing share of wireless systems of the total energy expended in communications and networking systems. Energy-awareness contributes to achieving the task of energy-efficiency, as it provides the ability to networking protocols to adapt their operation according to the energy reserves of the network nodes and thus increase the energy-efficiency of a system.

The objective of this special issue is to report state-of-the art results in energy-aware wireless networking protocols by welcoming contributions originating from both academic and industrial research. These should be original contributions solicited in relevant areas of energy-efficient wireless networking protocols.

Topics of interest include, but are not limited to, the following list:

- Energy-cognizant protocol design and network architectures
- Optimization of energy-efficient protocols/algorithms
- Energy-efficient MAC protocols
- Energy-efficient routing protocols
- Energy-efficient transport protocols
- Energy-efficient cross-layer protocols
- Energy-efficient communication protocols
- Adaptive energy efficient protocols.
- Energy efficiency in protocols for wireless sensor networks.
- Network models and simulation modules/tools for energy efficient solutions
- Innovative power control techniques.
- Energy-efficient applications for wireless networks.
- Novel applications of energy efficient wireless networking protocols

Submitted papers, which should be unpublished, not currently under review by another journal, should be of tutorial nature and the authors must follow the IET guidelines for preparation of the manuscripts. For further details, potential authors should refer to "IET Research Journals Author Guide" in IET website at http://www.ietdl.org/journals/doc/IEEDRL-home/info/journals/proceedings/submissions.jsp

All papers must be submitted through the journal's Manuscript Central system:
http://mc.manuscriptcentral.com/iet-com

Proposed publication schedule:

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Authors to receive a 1st decision by: February 3, 2012
Revised submission: March 30, 2012
Final notification of acceptance: June 29, 2012
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