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IEEE Communications Magazine Feature Topic on
Communications Network Economics

Today's communication networks are highly complex, carry heterogeneous traffic in diverse environments, and are often owned by multiple profit-making entities. To successfully maintain, optimize, and upgrade such large distributed networks, it is important to design new economic incentive mechanisms as well as develop new technologies. The market deregulation of the telecommunication industry in many countries makes such economic consideration even more urgent, as there are often conflicting goals between the regulators and the commercial operators. Past history has shown that sound technologies based on pure engineering considerations can fail to get adopted. New debates, such as the network neutrality of the global Internet services, often have significant impact on the capacity, quality of service, reliability, and future evolution of communication networks. The wireless access networks are also at that cusp of their evolution, where dynamic spectrum sharing and new cooperative communication schemes bring economics and incentive issues to the fore. With wireless systems, there is an opportunity to build economic incentives into the network architecture and protocols under development, and avoid the many problems that have arisen on the Internet due to their lack thereof.

The purpose of this feature topic is to present to the magazine's audience a concise, tutorial oriented reference of the state-of-the-art, current and future research challenges and trends on the communications network economics. To achieve this goal, the feature topic seeks original review papers that survey emerging economics issues and the corresponding novel analytical techniques in communications networks. Original research contributions may also be considered if the authors can present the results in a tutorial fashion that is accessible to non-experts. The submitted materials should not be currently under review by any other journal/magazine/conference. Topics of interest include (but are not limited to):

- Economic analysis and mechanism design for communication networks
 - Medium access and network routing games
 - Network pricing and congestion control
 - Incentives in peer-to-peer and overlay networks
 - Network Neutrality and multiple service provider interactions
- Communication games and incentives in wireless systems
 - Wireless resource allocation games
 - Economics of dynamic spectrum sharing
 - Incentives for cooperative communication schemes
- New incentive-aware network architectures
 - Incentive-aware network protocols
 - Reputation-based systems
 - Incentive mechanisms for network security

Prospective authors should follow the IEEE Communications Magazine manuscript format described in the Authors Guidelines (http://dl.comsoc.org/livepubs/ci1/info/sub_guidelines.html). A typical feature topic consists of 4-5 accepted papers. All articles to be considered for publication must be submitted through the IEEE Manuscript Central (<http://commag-ieee.manuscriptcentral.com>), according to the following timetable:

Manuscript Submission:	March 1, 2012
Notification of acceptance Notification:	June 15, 2012
Final Manuscript Due:	August 15, 2012
Publication:	4th quarter 2012

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