

WIRELESS COMMUNICATIONS AND MOBILE COMPUTING

Special Issue Announcement

Advances in Resource-Constrained Device Networking

Guest Editors

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Mobile communication devices of the next generation are expected to have an increasingly diminishing form-factor but at the same time are expected to be capable of universal network access. This leads to numerous challenges due to limited resources, such as battery power and radio size and limited transmission range. To obtain universal connectivity such devices must be able to recognize and connect to networks in their vicinity by forming ad hoc networks until data reaches a backbone network. This should be accomplished instantaneously and seamlessly with or without the support of a pre-existing infrastructure. These devices should have the capability for self-organization, support for multiple levels of quality of service, and high security.

This special issue seeks contributions in the area of wireless and ad hoc networking with special emphasis on resource-constrained communication devices. Papers should describe original and previously unpublished work, not currently under review by another conference, workshop or journal.

Topics of interest, with special emphasis on resource-constrained devices/networks, including but not limited to are the following:

- Techniques for self-organization
- 1/f Noise and power-law indicators of organization
- Boolean Networks and Attractors
- Active network, algorithmic information theoretic, and compression-based approaches
- Swarm and emergent behavior approaches
- Energy management
- Security
- Synchronization
- Robust transport protocols
- Quality-of-service aware routing and prioritization, cross-layer optimization
- Performance evaluation
- Testbed environments
- Scalability

The guest editors encourage the authors to submit their manuscripts as an email attachment to one of the guest editors, or to provide a URL with a PDF or postscript version of their manuscript. Detailed instructions to authors can be found in:

www.interscience.wiley.com/jpages/1530-8669/authors.html

Schedule:

Submission Deadline: 1 May 2006

Notification of acceptance: 1 September 2006

Camera-ready papers: 31 October 2006

Publication: First half of 2007

