CALL FOR PAPERS

Special Issue of

JOURNAL OF PARALLEL AND DISTRIBUTED COMPUTING

on

Theoretical and Algorithmic Aspects of Sensor, Ad Hoc Wireless, and Peer-to-Peer Networks

The past five years have witnessed important advances in computing and communication technologies that were stimulated by the availability of faster, more reliable, and cheaper electronic components. Sensor networks, ad hoc wireless networks, and peer-to-peer networks (called SAP networks) are platforms for a large number of applications, ranging from civilian (file-sharing) to disaster recovery (search-and-rescue) to military (area monitoring, target surveillance).

Theoretical and algorithmic approaches that address key issues in SAP networks have played a central role in the development and progress of these emerging paradigms. There are common theoretical and algorithmic issues in SAP networks, including location management, topology design and control, scalable design, energy-aware design (sensor networks and ad hoc wireless networks) and routing and broadcasting (sensor networks and ad hoc wireless networks). Theoretical and algorithmic methods commonly used to address these issues include optimization, computational geometry, graph theory, combinatorics and approximation algorithms.

The goal of the special issue is to publish recent results in development of theoretical and algorithmic aspects in SAP networks. Researchers and practitioners working in this area have an opportunity to discuss and express their views on the current trends, challenges, and state-of-the-art solutions addressing issues in SAP networks. Topics to be covered in the special issue include but are not limited to:

- Theoretical and algorithmic methods/tools, including optimization, computational geometry, graph theory, combinatorics, and approximation algorithms
- Location-dependent applications and protocols
- Distributed and localized solutions
- Resource allocation
- Quality of service
- Topology management
- Media access control techniques
- Routing protocols
- Power control systems and energy efficient design
- Performance and simulations

Publication is scheduled for Fall 2004. Please submit your manuscript, following the guidelines below, to both guest editors by January 15, 2004.

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Instructions for submitting papers: Only electronic submission is acceptable. Papers should not exceed 35 double-spaced pages including figures, tables etc. and should not have been previously published, nor currently submitted elsewhere for publication. Papers should include a title page containing title, authors' names and affiliations, postal and email addresses, phone and FAX numbers. All submissions should include a maximum 200-word abstract. All submitted papers will be refereed in accordance with the usual criteria of JPDC.

Important Dates:

Submission Deadline:	January 15, 2004
Author Notification:	April 1, 2004
Revision Deadline:	June 1, 2004
Acceptance Notice:	August 1, 2004