Call for Papers

ALGOSENSORS 2009

Fifth International Workshop on Algorithmic Aspects of Wireless Sensor Networks

July 11th, 2009, Rhodes, Greece; to be held in conjunction with ICALP 2009.

http://www.algosensors.org

Dates:

Submission deadline	**April 30, 2009**
Acceptance notification	**May 30, 2009**
Camera-ready pre-proceedings	**June 15, 2009**
Camera-ready post-proceedings	**August 31, 2009**

Program Committee:

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Proceedings: Accepted papers will be published in *full text* in hardcopy proceedings, which are planned to appear in the Lecture Notes in Computer Science (LNCS) Series of Springer Verlag after August 2009. Submissions may be considered for a two-pages *brief announcement* in case not accepted as a full text; authors that wish their paper to be considered for both full paper and brief announcement tracks should indicate this fact in the front page.

TCS Journal Special Issue: As in previous years, it is planned that selected high-quality papers will be considered for publication in a Special Issue on Algorithmic Aspects of Wireless Sensor Networks of Theoretical Computer Science (TCS).

Scope: Wireless ad-hoc sensor networks have recently become a very active research subject due to their high potential of providing diverse services to numerous important applications, including remote monitoring and tracking in environmental applications and low maintenance ambient intelligence in everyday life. The effective and efficient realization of such large scale, complex ad-hoc networking environments requires intensive, coordinated technical research and development efforts, especially in power aware, scalable, robust wireless distributed protocols, due to the unusual application requirements and the severe resource constraints of the sensor devices.

On the other hand, a solid foundational background seems necessary for sensor networks to achieve their full potential. It is a challenge for abstract modeling, algorithmic design and analysis to achieve provably efficient, scalable and fault-tolerant realizations of such huge, highly-dynamic, complex, non-conventional networks. Features including the extremely large number of sensor devices in the network, the severe power, computing and memory limitations, their dense, random deployment and frequent failures, pose new interesting abstract modeling, algorithmic design, analysis and implementation challenges of great practical impact.

ALGOSENSORS aims to bring together research contributions related to diverse algorithmic and complexity theoretic aspects of wireless sensor networks. Contributions solicited cover the algorithmic issues in a variety of topics including, but not limited to:

- Abstract models of sensor networks
- Virtual infrastructures
- Infrastructure discovery
- Methods for ad-hoc deployment/topology control
- Data propagation and routing
- Data aggregation/data compression
- Error and erasure correcting codes for information dispersal
- Energy management
- Power saving schemes
- Communication protocols
- Medium access control
- Localization
- Tracking
- Fault tolerance and dependability
- Self-stabilization
- Adaptiveness and Self-organization
- Game theoretic aspects
- Cryptography, Security and trust
- Distributed computing issues
- Time synchronization
- Swarm computing
- Mobile robotic sensors
- Algorithms for RFID
- Obstacle avoidance

How to Submit: Authors are invited to submit manuscripts reporting original research in the topics related to the workshop. Simultaneous submission to other conferences is not allowed. Papers should not exceed twelve (12) pages of text using at least 11 point size type, including references, figures, tables, etc., preferably formatted in the LNCS style. Additional material may be added at a clearly marked Appendix to be read at the discretion of the Program Committee Members. Authors must submit their papers electronically via Web page: http://www.algosensors.org. All papers will be peer reviewed and comments will be provided to the authors. Authors need to make sure that for each accepted paper at least one author will attend the workshop.