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  
Acceptance notification  
Camera-ready pre-proceedings  
Camera-ready post-proceedings  

Program Committee:
James Aspnes  
Ben Avin  
Ed Coffman  
Shlomi Dolev  
Ted Herman  
Seth Gilbert  
Chrysiss Georgiou  
Nordcei Golin  
Marian Gradinaru Potop-Butucaru  
Alex Kesselmen  
Darek Kowalski  
Evangelos Kranakis  
Danny Krizanc  
Limor Lahiani  
Flaminia Luccio  
Nancy Lynch  
Thomas Moscibroda  
Seffi Naor  
Calvin Newport  
Rafal Ostrovsky  
Marina Papatriantafilou  
Andrzej Pelc  
Giuseppe Persiano  
Jose Rolim  
Nicola Santoro  
Elad Schiller  
Paul Spirakis  
Eli Upfal  
Jennifer Welch  
Moti Yung  

Steering Committee:
Josep Diaz  
Bruno Gavrilov  
Jan van Leeuwen  
Sotiris Nikolopoulos  
Jose Rolim  
Paul Spirakis  

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.