

algorithms 2007

july 14, 2007. wroclaw / poland

CALL FOR PAPERS

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.

This Workshop aims to bring together research contributions related to diverse algorithmic and complexity theoretic aspects of wireless sensor networks. This is the third event in the series. **ALGOSENSORS 2004** was held in Turku, Finland, **ALGOSENSORS 2006** was held in Venice, Italy. Since its beginning ALGOSENSORS is collocated with **ICALP**.

TOPICS

Contributions solicited cover the algorithmic issues in a variety of topics including (but not limited to):

- Abstract models of sensor networks
- Methods for ad hoc deployment/topology control
- Energy management
- Data propagation and routing
- Infrastructure discovery
- Opportunistic Networking / DTN
- Localization
- Tracking
- Data aggregation/data compression
- Obstacle avoidance
- Power saving schemes
- Communication protocols
- Medium access control
- Fault tolerance and dependability
- Security and trust
- Time synchronization
- Distributed computing issues

PROGRAM COMMITTEE CHAIR

Mirosław Kutylowski, Wrocław University of Technology, Poland

PROGRAM COMMITTEE

- Alan A. Bertossi, University of Bologna, Italy
- Costas Busch, Rensselaer Polytechnic Institute, USA
- Bogdan Chlebus, University of Colorado at Denver, USA
- Jacek Cichoń, Wrocław University of Technology, Poland
- Andrea Clementi, University of Rome "Tor Vergata", Italy
- Tassos Dimitriou, Athens Information Technology, Greece
- Sándor Fekete, Braunschweig University of Technology, Germany
- Antonio Alfredo Ferreira Loureiro, Universidade Federal de Minas Gerais, Brazil
- Eric Fleury, INRIA, France
- Rachid Guerraoui, EPFL, Switzerland
- Dariusz Kowalski, University of Liverpool, UK
- Evangelos Kranakis, Carleton University, Canada
- Mirosław Kutylowski, Wrocław University of Technology, Poland
- Jan van Leeuwen, Utrecht University, The Netherlands
- Sotiris Nikolettseas, University of Patras and CTI, Greece
- Pekka Orponen, Helsinki University of Technology TKK, Finland
- Jose D. P. Rolim, University of Geneva, Switzerland
- Christian Scheideler, TU Munich, Germany
- Christian Schindelhauer, University of Freiburg, Germany
- Paul G. Spirakis, University of Patras and CTI, Greece
- Sébastien Tixeuil, Univ. Paris-Sud / INRIA, France
- Peter Widmayer, ETH Zurich, Switzerland

ORGANIZING COMMITTEE

- Ioannis Chatzigiannakis, Publicity Chair, U. of Patras and CTI, Greece
- Agnieszka Róžańska, Local Organization, Wrocław University of Technology, Poland

STEERING COMMITTEE

- Josep Diaz, Technical University of Catalonia, Spain
- Jan van Leeuwen, Utrecht University, The Netherlands
- Sotiris Nikolettseas (Chair), University of Patras and CTI, Greece
- Jose Rolim, University of Geneva, Switzerland
- Paul Spirakis, University of Patras and CTI, Greece

KEYNOTE SPEAKERS

- Sándor P. Fekete, Braunschweig University of Technology, Germany
- João Barros, Universidade do Porto, Portugal

PROCEEDINGS

Accepted papers will be published in full text in a hardcopy Proceedings by the Lecture Notes in Computer Science (LNCS) Series of Springer Verlag.

We are going to have post-proceedings i.e. authors will have the opportunity to revise their papers in the light of the discussion at the event and then submit their camera ready files by the end of August. Pre-proceedings will be available during the workshop for the participants.

TCS JOURNAL SPECIAL ISSUE

Selected high quality papers will be considered for publication in a Special Issue on Algorithmic Aspects of Wireless Sensor Networks of the Theoretical Computer Science (TCS) Journal.

PAPER SUBMISSION

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](#).

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.

IMPORTANT DATES

Submission Deadline: : May 2, 2007. 23:59 GMT (**extended**)

Author Notification: June 10, 2007 (**extended**)

Camera Ready Manuscript Due: August 28, 2007

SPONSORS

Polish Ministry Of Science and Higher Education



Politechnika Wroclawska

SIEMENS

CONTACT

<http://algorithms2007.im.pwr.wroc.pl>

algorithms2007@im.pwr.wroc.pl

fax: +4871 320 2109

