

First International Workshop on Protocols and Algorithms for Reliable and Data Intensive Sensor Networks (PARIS'07)

<http://paris.tu-harburg.de/>

Held in conjunction with the
Fourth IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS'07)

October 8, 2007

Pisa, Italy

Important Dates

Submission Deadline:	May 31, 2007
Acceptance Notifications:	July 15, 2007
Camera-Ready Version:	August 10, 2007
PARIS Workshop:	October 8, 2007
MASS Conference:	October 8-11, 2007

Submission Information

All submissions must be full papers in .pdf or .ps (PostScript) format. Papers must be uploaded to EDAS by May 31, 2007, and must not exceed 6 single-spaced, two-column pages (4 pages for position papers and experience reports) using at least 11 point size fonts on 8.5 x 11 inch pages. Detailed submission instructions will be published in due time on the workshop website.

Workshop Organizers

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Program Committee Member

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Workshop Description

An new emerging class of applications has very high bandwidth requirements. In some of these applications sensors measure data at rates 100 Hz and higher. At the same time sensors such as cameras are used that produce high volumes of data. Examples of applications that show these characteristics are structural monitoring of buildings, volcano and coastline monitoring, and Surveillance of public transport systems. Protocols and algorithms developed for lightly-loaded sensor networks can not be directly applied to this domain.

Besides being data intensive, some applications require that the measured data is reliably transported towards a sink. A reliable service is needed if the data from all sensors is used to build a model, where only the entirety of the data allows a correct interpretation. Any loss of data items requires extrapolation reducing the quality of the analysis or even rendering the analysis impossible. The reliable transportation of high volumes of sampled data through a multi-hop network with limited resources towards a sink has not received much attention until now and is a real challenge. Also it is not obvious which reliability criteria to use, in same applications statistical guarantees may also suffices. These questions are part of the more general topic of quality of service for wireless sensor networks. While this topic has received a lot of attention in wired communications systems, there are only a few contributions dedicated to sensor networks.

The objective of this workshop is to provide an opportunity for academic researchers and industry practitioners to present and discuss experiences and research results for this new emerging field and to find new research directions to follow.

Topics

PARIS'07 seeks original papers describing research in all areas described above. Papers should not have been published or be in submission at another workshop or conference. Topics include but are not limited to:

- * Quality of service for sensor networks
- * Intelligent and adaptive scheduling mechanisms
- * Power management for data intensive applications
- * Energy-aware reliable transport protocols
- * Probabilistic reliability
- * Fault tolerance in sensor networks
- * In-Network aggregation schemes
- * Distributed data compression
- * Bulk data transportation
- * Stream processing in sensor networks

Submissions should present original reports of substantive new work. Papers should properly place the work within the field, cite related work, and clearly indicate the innovative aspects of the work and its contribution to the field.

In addition to regular papers, we also solicit submissions of position papers articulating high-level architectural visions, describing challenging future directions, or criticizing current design wisdom. Position papers should contribute perspective rather than performance numbers, wisdom rather than knowledge, and guidance rather than results. Furthermore, we encourage reports on lessons learned from real-world deployments and best practices for different applications areas.

All submissions will be peer-reviewed by at least three reviewers from an international program committee. Accepted submissions will appear in the main conference proceedings published by the IEEE.

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