

FedSenS 2011

International Workshop on Federated Wireless Sensor Systems

in conjunction with
The International Wireless Communications and Mobile Computing Conference
(IWCMC 2011)

July 5-8, 2011
Bahçeşehir University, Istanbul, Turkey

Call for Papers

Wireless sensor networks (WSN) can eliminate/reduce human intervention and provide fully-automated data gathering systems for numerous applications. However, WSNs may operate in inhospitable environments and become prone to sensor failures which not only can degrade the quality of coverage but also disrupt the data traffic. To address such a problem, most approaches in the literature deploy redundant nodes during network setup and reconfigure the network topology to establish alternate data paths. However, sometimes the network suffers a large scale damage that involves many nodes and would thus create multiple disjoint partitions. For these cases, a provisioned approach for tolerating occasional failures at the network design level will not be effective. A similar scenario happens when an application can be leveraged by engaging a number of standalone WSNs. For example, the disaster response may involve collaboration among multiple governmental agencies and may need to combine the services of their autonomously-operating WSNs in the search-and-rescue process.

Connecting such multiple WSNs or partitions of a damaged WSN is referred to as federation and these networks are called Federated Wireless Sensor Systems (FedSenS). The purpose of this workshop is to establish a platform to exchange ideas among researchers for creation, operation and management of FedSenS involving various heterogeneous sensor and gateway nodes.

Topics of Interest

Original, unpublished and unsubmitted work is sought in terms of algorithms, techniques, architectures, position papers, visionary approaches and modeling to deploy and maintain FedSenS. The workshop program invites papers on various aspects of the FedSenS including, but not limited to, the following:

- Self-federation using existing resources and node mobility
- Federation through relay node placement
- Distributed technique for detecting network partitioning
- Area coverage and network connectivity trade-offs
- Service oriented federation models
- Delay-constrained reliable data communication in FedSenS
- Topology control for improved QoS (i.e., delay or reliability)

- Sensor data correlation and fusion in FedSenS
- Reliable federated storage and querying of sensor data
- Handling uncertainties through federation
- Interoperability issues
- Security and privacy issues in data sharing
- Military and civilian security applications for FedSenS
- Performance evaluation and testbeds for FedSenS

Important Dates

Paper Submission Deadline: Dec. 15th, 2010

Notification of Acceptance: March 15th, 2011

Registration & Camera-Ready Paper Due: April 1st, 2011

Submission Instructions

Please submit papers electronically (as PDF files) using EDAS: <http://edas.info/N9425>

Submitted papers must not exceed 6 pages with 10pt or larger font size in standard IEEE Transactions double-column format including text, figures and references, templates: http://www.ieee.org/publications_standards/publications/authors/authors_journals.html

Please use US letter (8.5 x 11 inches) page size. All papers must include the title, complete contact information for all authors, abstract and up to 5 keywords on the cover page. The corresponding author must be clearly identified. Papers not conforming to the above instructions will not be reviewed.

Organizers

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