

INFORMATIK 2005 – Informatik LIVE!

35. Jahrestagung der Gesellschaft für Informatik | 19. bis 22.9.2005 | Uni Bonn

2nd Workshop on Sensor Networks Call for Papers

Scope of the Workshop

Wireless sensor networks (WSN) — networks of tiny sensing devices capable of wireless communication — are a topic of active research in a number of different research communities, ranging from hardware to applications.

WSNs realize the vision of pervasive computing and bridge the gap between computer systems and the real world. They are deeply embedded into physical surroundings and gather and process environmental data like temperature, humidity, light conditions, seismic activities, or images of the environment. This data can be used to detect events and to trigger activity. Some applications are habitat monitoring (observing live animals), precision agriculture, structural health monitoring (detecting damage in buildings, bridges, aircrafts), emergency and rescue operations, supply chain management, or perimeter and building security.

Designing sensor networks is especially challenging due to the extremely limited energy, computation, and communication resources of individual sensor nodes. Novel cross-layer solutions are needed that integrate all aspects of networking, such as radio communication, middleware, security, data management.

Building on the success of the first Workshop on Sensor Networks at Informatik 2004, this workshop aims at bringing together researchers from different backgrounds to create a forum where cross-layer integration, novel solutions for specific problems, and the future development of WSN functionalities can be discussed.

The workshop is associated with the Workshop *Multisensordatenfusion: Trends, Lösungen, Anwendungsfelder* which takes place after our workshop

on the same day. Technical programs of both workshops will be coordinated. Participants are encouraged to attend both workshops.

Areas of Interest

Possible topics of interest include, but are not limited to:

- Hardware for WSNs and its impact on communication protocols
- Operating systems and middleware for WSNs
- Communication protocols for WSNs, e.g. MAC and routing, addressing schemes
- Distributed classification and data fusion
- Distributed data storage and processing
- Self-organization in sensor networks
- Quality of Service in WSNs
- Energy/efficiency tradeoffs in all protocol layers
- Security requirements and security primitives for WSNs
- Access control and trust management
- Privacy impacts of WSNs
- Inter-connection between WSN and the Internet
- Testbeds, use cases

Participants

The intended audience are researchers from academia and industry, especially working in the areas of sensor networks, embedded systems, communication middleware, and databases as well as resource-constrained communication networks as such.

Important Dates

Submission deadline	April 29, 2005
Acceptance notification	May 27, 2005
Camera ready copy due	June 24, 2005
INFORMATIK 2005	Sept. 19-22, 2005

Submission

We accept submissions in both German and English. Submissions must not exceed 5 pages including figures and bibliography and have to be formatted according to the style guidelines of the Springer LNI series (available via www.gi-ev.de/LNI/index.html). Submissions should be sent by email to Zinaida Benenson at:

zina@i4.informatik.rwth-aachen.de

Accepted submissions will be published in the proceedings of the INFORMATIK 2005 conference. At least one author of an accepted submission is to register to INFORMATIK 2005 and should attend the workshop (precise date within the INFORMATIK 2005 event is not known yet). Further information will be available on the workshop home page.

Organization

The workshop is jointly organized by the members of the graduate school "Software for Mobile Com-

munication Systems" at the RWTH Aachen and the members of "Fachgespräch Sensornetze" of the GI/ITG KuVS group.

<http://www-i4.informatik.rwth-aachen.de/Kolleg/>

<http://www.fachgespraech-sensornetze.de/>

<http://www.kuvs.de/>

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Workshop home page

<http://www-i4.informatik.rwth-aachen.de/sensornets-informatik2005>