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Wireless Sensor Networks

Third European Workshop, EWSN 2006
Zurich, Switzerland, February 13-15, 2006
Proceedings

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Preface

This volume contains the proceedings of EWSN 2006, the third in a series of European workshops on wireless sensor networks. The workshop took place at ETH Zurich from February 13 to 15, 2006. Its objective was to present, discuss, and explore the latest technical developments in the field of wireless sensor networks, as well as potential future directions.

Wireless sensor networks provide a bridge between traditional information systems and the physical world, with collections of wirelessly networked sensor nodes being deployed in our physical environment to cooperatively monitor real-world phenomena, but also to control aspects of the physical world. In contrast to traditional computing systems which are mostly decoupled from the real world, wireless sensor networks are inherently and closely integrated with the real world, with data about the physical environment being captured and processed automatically, online, and in real time. This paradigmatic change comes with a number of conceptual and technical challenges involving a wide range of disciplines in computer science and electrical engineering, but also material sciences, MEMS technology, and power engineering, thus making wireless sensor networks a multidisciplinary area of research. This workshop series aims at providing a high-level scientific forum to implement the cross-disciplinary exchange of ideas and results that is essential for this type of research area. While based in Europe, the workshop serves as a truly international forum with 40% of the submissions originating from Europe, 38% from Asia and Australia, 20% from the Americas, and 2% from Africa.

Wireless sensor networks has become an active and popular research area, which is witnessed by the 133 submissions we received from authors all over the world. The Program Committee chose 21 papers for inclusion in the workshop. It was a difficult choice, based on several hundred reviews produced by the Program Committee and many outside referees, where each paper was typically reviewed by three reviewers.

In addition to the papers contained in these proceedings, the conference program included a demo and poster track, and a special session on European research initiatives focusing on wireless sensor networks. Karl Aberer (EPFL), director of the Swiss National Competence Centre in Research for Mobile Information and Communication Systems (NCCR-MICS), delivered a keynote talk entitled “Unleashing the Power of Wireless Networks through Information Sharing in the Sensor Internet.” Moreover, the workshop offered two half-day tutorials:

- Data Management in Sensor Networks (Samuel Madden, MIT)
- Algorithms for Wireless Sensor Networks (Roger Wattenhofer, ETH Zurich)

In closing, we would like to express our sincere appreciation to all authors who submitted papers. We deeply thank all members of the Program Committee and

the external reviewers for their time and effort as well as their valuable input. Finally, we would like to thank Springer for their excellent cooperation, our sponsoring institutions, and the Organizing Committee.

February 2006

Kay Römer and Holger Karl, Program Chairs
Friedemann Mattern, General Chair

Organization

EWSN 2006, the third in a series of European workshops on wireless sensor networks, took place in Zurich, Switzerland from February 13 to 15, 2006. It was organized by ETH Zurich, the Swiss Federal Institute of Technology.

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Table of Contents

Tutorials

Data Management in Sensor Networks <i>Samuel Madden</i>	1
Algorithms for Wireless Sensor Networks <i>Roger Wattenhofer</i>	2

Invited Talk

Unleashing the Power of Wireless Networks Through Information Sharing in the Sensor Internet <i>Karl Aberer</i>	3
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Query Systems

Semantic Streams: A Framework for Composable Semantic Interpretation of Sensor Data <i>Kamin Whitehouse, Feng Zhao, Jie Liu</i>	5
PAQ: Time Series Forecasting for Approximate Query Answering in Sensor Networks <i>Daniela Tulone, Samuel Madden</i>	21
Proactive Context-Aware Sensor Networks <i>Sungjin Ahn, Daeyoung Kim</i>	38

Sensor Network Services

Constraint-Based Distance Estimation in Ad-Hoc Wireless Sensor Networks <i>Urs Bischoff, Martin Strohbach, Mike Hazas, Gerd Kortuem</i>	54
Sensor Density for Complete Information Coverage in Wireless Sensor Networks <i>Bang Wang, Kee Chaing Chua, Vikram Srinivasan, Wei Wang</i>	69

Hierarchical Grid-Based Pairwise Key Predistribution Scheme for
Wireless Sensor Networks
Abdelaziz Mohaisen, Dae-Hun Nyang 83

Routing

Generic Routing Metric and Policies for WSNs
*Olga Saukh, Pedro José Marrón, Andreas Lachenmann,
Matthias Gauger, Daniel Minder, Kurt Rothermel* 99

On the Scalability of Routing Integrated Time Synchronization
János Sallai, Branislav Kusý, Ákos Lédeczi, Prabal Dutta 115

Distributed Dynamic Shared Tree for Minimum Energy Data
Aggregation of Multiple Mobile Sinks in Wireless Sensor Networks
Kwang-il Hwang, JeongSik In, Doo-seop Eom 132

Localization

Constrained Tracking on a Road Network
Michał Piórkowski, Matthias Grossglauser 148

Range-Based Localization in Mobile Sensor Networks
Bram Dil, Stefan Dulman, Paul Havinga 164

Hierarchical Localization Algorithm Based on Inverse Delaunay
Tessellation
*Masayuki Saeki, Junya Inoue, Kok-How Khor, Tomohiro Kousaka,
Hiroaki Honda, Kenji Oguni, Muneo Hori* 180

Platforms and Development

Power Management for Bluetooth Sensor Networks
Luca Negri, Lothar Thiele 196

FlexCup: A Flexible and Efficient Code Update Mechanism for Sensor
Networks
*Pedro José Marrón, Matthias Gauger, Andreas Lachenmann,
Daniel Minder, Olga Saukh, Kurt Rothermel* 212

Transforming Protocol Specifications for Wireless Sensor Networks into
Efficient Embedded System Implementations
*Gerald Wagenknecht, Daniel Dietterle, Jean-Pierre Ebert,
Rolf Kraemer* 228

Medium Access Control

Extending Network Lifetime Using an Automatically Tuned Energy-Aware MAC Protocol <i>Rebecca Braynard, Adam Silberstein, Carla Ellis</i>	244
Sift: A MAC Protocol for Event-Driven Wireless Sensor Networks <i>Kyle Jamieson, Hari Balakrishnan, Y.C. Tay</i>	260
f-MAC: A Deterministic Media Access Control Protocol Without Time Synchronization <i>Utz Roedig, Andre Barroso, Cormac J. Sreenan</i>	276
 Measurements	
A Measurement-Based Analysis of the Interaction Between Network Layers in TinyOS <i>Umberto Malesci, Samuel Madden</i>	292
Results of Bit Error Measurements with Sensor Nodes and Casuistic Consequences for Design of Energy-Efficient Error Control Schemes <i>Andreas Willig, Robert Mischke</i>	310
An Empirical Characterization of Radio Signal Strength Variability in 3-D IEEE 802.15.4 Networks Using Monopole Antennas <i>Dimitrios LyMBERopoulos, Quentin Lindsey, Andreas Savvides</i>	326
Author Index	343