Record Nr. UNISA996465900603316 Wireless Sensor Networks [[electronic resource]]: First European **Titolo** Workshop, EWSN 2004, Berlin, Germany, January 19-21, 2004. Proceedings / / edited by Holger Karl, Andreas Willig, Wolisz Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa 2004 **ISBN** 1-280-30669-6 9783540246061 9786610306695 3-540-24606-1 Edizione [1st ed. 2004.] Descrizione fisica 1 online resource (XIV, 370 p.) Lecture Notes in Computer Science, , 0302-9743 ; ; 2920 Collana 004.67 Disciplina Soggetti Electrical engineering Computer communication systems **Algorithms** Computer programming Software engineering Application software Communications Engineering, Networks Computer Communication Networks Algorithm Analysis and Problem Complexity **Programming Techniques** Software Engineering Information Systems Applications (incl. Internet) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Power Sources for Wireless Sensor Networks -- Matrix Pencil for Positioning in Wireless ad hoc Sensor Network -- Tracking Real-World Phenomena with Smart Dust -- Networked Slepian-Wolf: Theory and Algorithms -- WSDP: Efficient, Yet Reliable, Transmission of Real-Time

Sensor Data over Wireless Networks -- Context-Aware Sensors --

Analysis of Node Energy Consumption in Sensor Networks -- Silence Is Golden with High Probability: Maintaining a Connected Backbone in Wireless Sensor Networks -- Topology Transparent Support for Sensor Networks -- Structured Communication in Single Hop Sensor Networks -- ACE: An Emergent Algorithm for Highly Uniform Cluster Formation -- Improving the Energy Efficiency of Directed Diffusion Using Passive Clustering -- The XCast Approach for Content-Based Flooding Control in Distributed Virtual Shared Information Spaces—Design and Evaluation -- A Novel Mechanism for Routing in Highly Mobile ad hoc Sensor Networks -- Building Blocks of Energy and Cost Efficient Wireless Sensor Networks -- Max-Min Length-Energy-Constrained Routing in Wireless Sensor Networks -- Time-Synchronized Neighbor Nodes Based Redundant Robust Routing (TSN2R3) for Mobile Sensor Networks -- Design of Surveillance Sensor Grids with a Lifetime Constraint -- Design of a Secure Distributed Service Directory for Wireless Sensornetworks -- Embedding Low-Cost Wireless Sensors into Universal Plug and Play Environments -- Lessons from a Sensor Network Expedition -- Prototyping Wireless Sensor Network Applications with BTnodes -- A Real-World, Simple Wireless Sensor Network for Monitoring Electrical Energy Consumption -- Reliable Set-Up of Medical Body-Sensor Networks.

## Sommario/riassunto

WithgreatpleasurewewelcomedtheattendeestoEWSN2004, the1stEuropean Workshop on Wireless Sensor Networks, held in the exciting and lively city of Berlin. Wireless sensor networks are a key technology for new ways of interaction betweencomputersandthephysicalenvironmentwhichsurroundsus. Compared to traditional networking technologies, wireless sensor

Compared to traditional networking technologies, wireless sensor networks are faced with a rather unique mix of challenges: scalability, energy e?ciency, self-con?guration,

constrained computation and memory resources in individual nodes, datacent- city, and interaction with the physical environment, to name but a few. The goal of this workshop is to create a forum for presenting new results in the ?ourishing ?eld of wireless sensor networks. By bringing together academia and industry we hope to stimulate new opportunities for collaborations. In compiling the scienti?c program we have been guite selective. Thanks to the e?orts of 90 reviewers who delivered 252 reviews for the 76 papers originally submitted from all over the world, a strong selection of the 24 best contributions was made possible. The Technical Program Committee created an outstanding program covering the broad scope of this highly interdisciplinary ?eld: from distributed signal processing through networking and middleware issues to - plication experience. Running such a workshop requires dedication and much work from many people. We want to thank in particular Petra Hutt, Irene Ostertag and Heike Klemz for their valuable and esteemed help in the local organization of this workshop. We hope that you enjoy this volume, and if you were lucky enough to - tend we hope that you enjoyed the discussions with colleagues working in this fascinating area.