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Nota di contenuto	List of Contributors -- About the Editors -- PART ONE PERVASIVE COMPUTING AND SYSTEMS -- 1 Introduction / Mohammad S. Obaidat and Isaac Woungang -- 1.1 Pervasive Computing and Its Significance -- 1.2 Research Trends in Pervasive Computing and Networking -- 1.3 Scanning the Book -- 1.4 Target Audience -- 1.5 Supplementary Resources -- 1.6 Acknowledgments -- References -- 2 Tools and Techniques for Dynamic Reconfiguration and Interoperability of Pervasive Systems / Evens Jean, Sahra Sedigh, Ali R. Hurson, and Behrooz A. Shirazi -- 2.1 Introduction -- 2.2 Mobile Agent Technology -- 2.3 Sensor Networks -- 2.4 Collaboration and Interoperability Among Sensor Networks -- 2.5 Applications -- 2.6 Conclusion -- References -- 3 Models for Service and Resource Discovery in Pervasive Computing / Mehdi Khouja, Carlos Juiz, Ramon Puigjaner, and Farouk

Kamoun -- 3.1 Introduction -- 3.2 Service Oriented Architecture -- 3.3 Industry and Consortia Supported Models for Service Discovery -- 3.4 Research Initiatives in Service Discovery for Pervasive Systems -- 3.5 Conclusions -- References -- 4 Pervasive Learning Tools and Technologies / Neil Y. Yen, Qun Jin, Hiroaki Ogata, Timothy K. Shih, and Y. Yano -- 4.1 Introduction -- 4.2 Pervasive Learning: A Promising Innovative Paradigm -- 4.3 Emerging Technologies and Systems for Pervasive Learning -- 4.4 Integration of Real-World Practice and Experience with Pervasive Learning -- 4.5 Nature of Pervasive Learning and Provision of Well-Being in Education -- 4.6 Conclusion -- References -- 5 Service Management in Pervasive Computing Environments / Jiannong Cao, Joanna Siebert, and Vaskar Raychoudhury -- 5.1 Introduction -- 5.2 Service Management in Pervasive Computing Environments -- 5.3 Techniques for Service Management in PvCE -- 5.4 Service Composition -- 5.5 Conclusions -- References -- 6 Wireless Sensor Cooperation for a Sustainable Quality of Information / Abdelmajid Khelil, Christian Reinl, Brahim Ayari, Faisal Karim Shaikh, Piotr Szczytowski, Azad Ali, and Neeraj Suri.
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11.9 Conclusion and Future Work -- References -- 12 An Experimental Comparison of Collaborative Defense Strategies for Network Security / Hao Chen and Yu Chen -- 12.1 Introduction -- 12.2 Background -- 12.3 Small-World Network Based Modeling Platform -- 12.4 Internet Worm Attack and Defense -- 12.5 Experiments and Performance Evaluation -- 12.6 Conclusions -- References -- 13 Smart Devices, Systems and Intelligent Environments / Joaquin Entrialgo and Mohammad S. Obaidat -- 13.1 Introduction -- 13.2 Smart Devices and

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Sommario/riassunto

This book presents state-of-the-art research on architectures, algorithms, protocols and applications in pervasive computing and networks With the widespread availability of wireless and mobile networking technologies and the expected convergence of ubiquitous computing with these emerging technologies in the near future, pervasive computing and networking research and applications are among the hot topics on the agenda of researchers working on the next generation of mobile communications and networks. This book provides a comprehensive guide to selected topics, both ongoing and emerging, in pervasive computing and networking. It contains contributions from high profile researchers and is edited by leading experts in this field. The main topics covered in the book include pervasive computing and systems, pervasive networking security, and pervasive networking and communication. Key Features: . Discusses existing and emerging communications and computing models, design architectures, mobile and pervasive wireless applications, technology and research challenges in pervasive computing systems, networking and communications. Provides detailed discussions of key research challenges and open research issues in the field of autonomic computing and networking. Offers information on existing experimental studies including case studies, implementation test-beds in industry and academia. Includes a set of PowerPoint slides for each

chapter for instructors adopting it as a textbook Pervasive Computing and Networking will be an ideal reference for practitioners and researchers working in the areas of communication networking and pervasive computing and networking. It also serves as an excellent textbook for graduate and senior undergraduate courses in computer science, computer engineering, electrical engineering, software engineering, and information engineering and science.