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Descrizione fisica	1 online resource (xxi, 652 pages) : illustrations
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	INTELLIGENT SENSOR NETWORKS: MACHINE LEARNING APPROACH -- Machine Learning Basics / Krasimira Kapitanova and Sang H. Son -- Modeling Unreliable Data and Sensors: Using Event Log Performance and F-Measure Attribute Selection / Vasanth Iyer, S. Sitharama Iyengar, and Srinivas Srivathsan -- Intelligent Sensor Interfaces and Data Format / Konstantin Mikhaylov, Joni Jamsa, Mika Luimula, Jouni Tervonen, and Ville Autio -- Smart Wireless Sensor Nodes for Structural Health Monitoring / Xuefeng Liu, Shaojie Tang, and Xiaohua Xu -- Knowledge Representation and Reasoning for the Design of Resilient Sensor Networks / David W. Kelle, Touria El-Mezyani, Sanjeev K. Srivastava, and David A. Cartes -- Intelligent Sensor-to-Mission Assignment / Hosam Rowaihy -- Prediction-Based Data Collection in Wireless Sensor Networks / Jann-Ael Le Borgne and Gianluca Bontempi -- Neuro-Disorder Patient Monitoring via Gait Sensor Networks: Toward an Intelligent, Context-Oriented Signal Processing / Fei Hu, Qingquan Sun, and Qi Hao -- Cognitive Wireless Sensor Networks / Sumit Kumar, Deepti Singhal, and Rama Murthy Garimella -- INTELLIGENT SENSOR NETWORKS: SIGNAL PROCESSING / Routing for Signal Processing / Wanzhi Qiu and Efstratios Skafidas -- On-Board Image Processing in Wireless Multimedia Sensor Networks: A Parking Space Monitoring Solution for Intelligent Transportation Systems / Claudio Salvadori, Matteo Petracca, Marco Ghibaudi, and Paolo Pagano -- Signal Processing for Sensing and Monitoring Civil Infrastructure Systems /

Mustafa Gul and F. Necati Catbas -- Data Cleaning in Low Powered Wireless Sensor Networks / Qutub Ali Bakhtiar, Niki Pissinou, and Kia Makki -- Sensor Stream Reduction / Andre L.L. Aquino, Paulo R.S. Silva Filho, Elizabeth F. Wanner, and Ricardo A. Rabelo -- Compressive Sensing and Its Application in Wireless Sensor Networks / Jae-Gun Choi, Sang-Jun Park, and Heung-No Lee -- Compressive Sensing for Wireless Sensor Networks / Mohammadreza Mahmudimanesh, Abdelmajid Khelil, and Neeraj Suri -- A Framework for Detecting Attacks on Sensors of Water Systems / Kebina Manandhar, Xiaojun Cao, and Fei Hu -- INTELLIGENT SENSOR NETWORKS: SENSORS AND SENSOR NETWORKS / Reliable and Energy-Efficient Networking Protocol Design in Wireless Sensor Networks / Ting Zhu and Ping Yi -- Agent-Driven Wireless Sensors Cooperation for Limited Resources Allocation / Sameh Abdel-Naby, Conor Muldoon, Olga Zlydareva, and Gregory O'Hare -- Event Detection in Wireless Sensor Networks / Norman Dziengel, Georg Wittenburg, Stephan Adler, Zakaria Kasmi, Marco Ziegert, And Jochen Schiller -- Dynamic Coverage Problems in Sensor Networks / Hristo Djidjev and Miodrag Potkonjak -- Self-Organizing Distributed State Estimator / Joris Sijs and Zoltan Papp -- Low-Power Solutions for Wireless Passive Sensor Network Node Processor Architecture / Vyasa Sai, Ajay Ogirala, and Marlin H. Mickle -- Fusion of Pre/Post-RFID Correction Techniques to Reduce Anomalies / Peter Darcy, Prapassara Pupunwiwat, and Bela Stantic -- Radio Frequency Identification Systems and Sensor Integration for Telemedicine / Ajay Ogirala, Shruti Mantravadi, and Marlin H. Mickle -- Introduction: A New Generation of Intrusion Detection Networks / Jerry Krill, Michael O'Driscoll, and Natalie N. Dickins.

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#### Sommario/riassunto

"In the last decade, wireless or wired sensor networks have attracted much attention. However, most designs target general sensor network issues including protocol stack (routing, MAC, etc.) and security issues. This book focuses on the close integration of sensing, networking, and smart signal processing via machine learning. Based on their world-class research, the authors present the fundamentals of intelligent sensor networks. They cover sensing and sampling, distributed signal processing, and intelligent signal learning. In addition, they present cutting-edge research results from leading experts"--

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