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Titolo	Human Behavior Understanding in Networked Sensing : Theory and Applications of Networks of Sensors / / edited by Paolo Spagnolo, Pier Luigi Mazzeo, Cosimo Distante
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Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I: Distributed Sensing – Architectures -- Towards Cognitive and Perceptive Video Systems -- Access-Centric In-Network Storage Optimization in Distributed Sensing Networks -- Decentralized Human Tracking in Visual Sensor Networks -- Real-Time Tracking for Moving Target in WSN with Uncovered Holes -- Sequential Anomaly Detection Using Wireless Sensor Networks in Unknown Environment -- Part II: Distributed Sensing – Applications -- A Full-Scale Hardware Solution for Crowd Evacuation via Multiple Cameras -- Visual Sensor Networks – Adaptive Online Configuration of Surveillance Networks with Distributed Smart Cameras -- Human Detection and Tracking in Healthcare Applications Through the Use of a Network of Sensors -- Automatic Players Detection and Tracking in Multi-Camera Tennis Videos -- Data Fusion with a Dense Sensor Network for Anomaly Detection in Smart Homes -- People Counting Across Non-Overlapping Camera Views by Flow Estimation among Foreground Regions -- 2D

Human Pose Estimation and Tracking in Non-Overlapping Cameras -- Exploiting Crowd Synthesis for Multi-Camera Human Tracking -- Part III: Multi-Robot Systems -- Distributed Probabilistic Search and Tracking of Agile Mobile Ground Targets Using a Network of Unmanned Aerial Vehicles -- A Heterogeneous Robotic Network for Distributed Ambient Assisted Living -- Cooperative Multi-Robot Patrol in an Indoor Infrastructure -- Distributed Thermal Identification and Exploitation for Multiple Soaring UAVs -- Distributed Coordination of Networked Robots for Perimeter Surveillance Tasks -- Social-Aware Coordination of Multi-Robot Systems Based on Institutions -- Design of Safety Map with Collectives of Smartphone Sensors.

Sommario/riassunto

This unique text/reference provides a broad overview of both the technical challenges in sensor network development, and the real-world applications of distributed sensing. Important aspects of distributed computing in large-scale networked sensor systems are analyzed in the context of human behavior understanding, including such topics as systems design tools and techniques, in-network signals, and information processing. Additionally, the book examines a varied range of application scenarios, covering surveillance, indexing and retrieval, patient care, industrial safety, social and ambient intelligence, and sports analysis. Topics and features: Contains valuable contributions from an international selection of leading experts in the field Presents a high-level introduction to the aims and motivations underpinning distributed sensing Describes decision-making algorithms in the presence of complex sensor networks Provides a detailed analysis of the design, implementation, and development of a distributed network of homogeneous or heterogeneous sensors Reviews the application of distributed sensing to human behavior understanding and autonomous intelligent vehicles Includes a helpful glossary and a list of acronyms This authoritative collection offers practical insights of great benefit to graduate students, researchers, and practitioners from such diverse communities as computer vision, networked embedded sensing, and artificial intelligence. Dr. Paolo Spagnolo, Dr. Pier Luigi Mazzeo and Dr. Cosimo Distante are Researchers at the Italian National Research Council, Lecce, Italy.