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Collana	Modeling and Optimization in Science and Technologies, , 2196-7326 ; ; 8
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Towards the Usage of CCN for IoT Networks -- On the Track of 5G Radio Access Network for IoT Wireless Spectrum Sharing in Device Positioning Applications -- Millimetre Wave Communication for 5G IoT Applications -- Implementing Internet of Things (IoT) Using Cognitive Radio Capabilities in 5G Mobile Networks -- Role Coordination in Large-Scale and Highly-Dense Internet-of-Things -- Energy Harvesting and Sustainable M2M Communication in 5G Mobile Technologies -- Green 5G Femtocells for Supporting Indoor Generated IoT Traffic -- On the Research and Development of Social Internet of Things -- Microgrid State Estimation Using the IoT with 5G Technology -- Building IoT Ecosystems from Mobile Clouds at Network Edge -- Middleware Platform for Mobile Crowd-Sensing Applications Using HTML5 Apis and Web Technologies -- Identification and Access to Objects and Services in the IoT Environment -- A Generic and Scalable IoT Data Fusion Infrastructure -- ONSIDE-SELF: A Selfish Node Detection and Incentive Mechanism for Opportunistic Dissemination in Future Wireless Network

-- Middleware Technology for IoT Systems: Challenges and Perspectives Toward 5G -- Security in Smart Grids and Smart Spaces for Smooth IoT Deployment in 5G -- Security Challenges in 5G-based IoT Middleware Systems -- Signal Processing Techniques for Energy Efficiency, Security, and Reliability in the IoT Domain -- IoT Enablers and their Security and Privacy Issues.

#### Sommario/riassunto

This book reports on the latest advances in the modeling, analysis and efficient management of information in Internet of Things (IoT) applications in the context of 5G access technologies. It presents cutting-edge applications made possible by the implementation of femtocell networks and millimeter wave communications solutions, examining them from the perspective of the universally and constantly connected IoT. Moreover, it describes novel architectural approaches to the IoT and presents the new framework possibilities offered by 5G mobile networks, including middleware requirements, node-centrality and the location of extensive functionalities at the edge. By providing researchers and professionals with a timely snapshot of emerging mobile communication systems, and highlighting the main pitfalls and potential solutions, the book fills an important gap in the literature and will foster the further developments of 5G hosting IoT devices.