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Nota di contenuto	Chapter 1. Smart Grid 3.0: Grid with Proactive Intelligence -- Chapter 2. Blockchain for Smart Meters, Home Automation and Electric vehicles -- Chapter 3. Engineering Applications of Crowdsourcing Concept in Active Distribution Grids -- Chapter 4. Machine Learning Based Approaches for Transmission Line Fault Detection Using Synchrophasor Measurements -- Chapter 5. Data Mining-based Approaches in the Power Quality Analysis -- Chapter 6. Emerging Communication Technologies for V2X: Standards and Protocols -- Chapter 7. Machine Learning and Deep Learning Approaches for Energy Management in Smart Grid 3.0 -- Chapter 8. Big Data Analytics for Enhanced Situational Awareness in Smart Grid 3.0 -- Chapter 9. Evolutionary Algorithms for Load Frequency Control in Renewable Microgrids -- Chapter 10. Smart Cities: Communication Standards, Protocols and Emerging Technologies -- Chapter 11. Internet of Things for Smart

Sommario/riassunto

This book is the first on Smart Grid 3.0. The book presents literature reviews of recent computational and communication technologies and their application in the evolution of smart grids to Smart Grid 3.0. It offers new control solutions, architectures and energy management strategies that are based on artificial intelligence and deep learning techniques. The book details the hardware and software implementation of fault identification or detection based on synchrophasor data and machine learning. It also discusses blockchain architectures for smart grid applications such as electric vehicles, home automation and automatic metering infrastructure. .