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   Nota di contenuto   A Day Ahead Power Output Forecasting of three PV Systems using
                        Regression, Machine Learning and Deep Learning Techniques --
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                        Infrastructure Towards Energy Optimization -- Reinforcement Learning
                        Algorithm to Reduce Energy Consumption in Electric Vehicles --
                        Spotted Hyena Optimization (SHO) Algorithm based Novel Control
                        Approach for Buck DC-DC Converter Fed PMBLDC Motor -- Simulation
                        and Performance Analysis of Standalone Photovoltaic System with Boost
                        Converter Under Irradiation and Temperature -- Analysis of Variation in
                        Locational Marginal Pricing under Influence of Stochastic Wind
                        Generation -- Optimal Integration of Plug-In Electric Vehicles Within a
                        Distribution Network Using Genetic Algorithm -- Frequency Control of
                        5kW Self-Excited Induction Generator Using Gravitational Search
                        Algorithm and Genetic Algorithm -- Cloud Based Real-time Vibration
                        and Temperature Monitoring System for Wind Turbine -- Smart Solar-
                        Powered Smart Agricultural Monitoring System Using Internet of Things
                        Devices.

   Sommario/riassunto   This book presents the latest research on applications of artificial
                        intelligence and the Internet of Things in renewable energy systems.
                        Advanced renewable energy systems must necessarily involve the latest
                        technology like artificial intelligence and Internet of Things to develop
                        low cost, smart and efficient solutions. Intelligence allows the system to
                        optimize the power, thereby making it a power efficient system;

whereas, Internet of Things makes the system independent of wire and flexibility in operation. As a result, intelligent and IOT paradigms are finding increasing applications in the study of renewable energy systems. This book presents advanced applications of artificial intelligence and the internet of things in renewable energy systems development. It covers such topics as solar energy systems, electric vehicles etc. In all these areas applications of artificial intelligence methods such as artificial neural networks, genetic algorithms, fuzzy logic and a combination of the above, called hybrid systems, are included. The book is intended for a wide audience ranging from the undergraduate level up to the research academic and industrial communities engaged in the study and performance prediction of renewable energy systems. .