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Altri autori (Persone)	ElsnerAnatolii Ottovich
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Soggetti	Telecommunication Electric power distribution Automatic control Robotics Automation Communications Engineering, Networks Energy Grids and Networks Control, Robotics, Automation
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Nota di contenuto	Integration of Electric Vehicle Charging Stations into Microgrid with Solar Generation -- Analysis of the Impact of Meteorological Factors on Solar Energy Generation in the Microgrid -- Models for Forecasting Solar Generation in the Microgrid -- Predictive Models of Solar Generation in the Microgrid -- Algorithm for Charging Stations Controlling in a Microgrid with Solar Generation -- Modelling and Implementation of Intelligent Charging of Electric Vehicles in the Microgrid with Solar Generation.
Sommario/riassunto	The integration of microgrids with solar generation enhances energy efficiency, stability, and sustainability. Yet, managing such systems requires advanced forecasting and optimisation models. Microgrids that unite distributed sources, storage, and intelligent control enable efficient energy use even under grid constraints. Powering electric vehicle charging stations with solar energy supports eco-friendly and independent mobility. This book explores modern methods for modelling and controlling EV charging stations within solar-powered

microgrids. It focuses on predictive models, load balancing, and optimisation algorithms that improve energy distribution and grid reliability. Special attention is given to intelligent control strategies, machine learning applications, and adaptive scheduling. The presented approaches advance sustainable energy development, enabling flexible, efficient, and environmentally friendly charging infrastructure for the electric transport of the future.

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