1. Record Nr. UNINA9911046548103321

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Titolo	Advances in Energy Power and Automation Engineering : Select Proceedings of the International Conference, ICEPAE 2024 / / edited by Sanjay Yadav, Yogendra Arya, Shanay Rab, Dongshu Wang
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	981-9690-09-9
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (709 pages)
Collana	Lecture Notes in Electrical Engineering, , 1876-1119 ; ; 1448
Disciplina	621.31
Soggetti	Electric power production Control engineering Robotics Automation Energy policy Energy and state Electrical Power Engineering Control, Robotics, Automation Energy Policy, Economics and Management
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part 1: Energy Utilization Management and System Optimization -- Sensitivity analysis of stratigraphic parameters on the yield of CO2 enhanced geothermal systems -- Temporal and spatial downscaling of wind forecast of new energy stations based on optimal frequency bias algorithm -- Study on signal noise reduction based on wavelet threshold technique -- Neural network PID-based frequency control strategy for energy storage participating loads -- A small sample load recognition method incorporating SE attention mechanism -- Research on Optimization Configuration of Distributed Integrated Energy System Based on Latin Hypercube Method -- Numerical simulation and defect optimization in CZTSSe solar thin-film cells implementing MoS2 as HTL layer -- The solar cell performance parameters of CuI as a hole transport layer were analyzed by SCAPS-1D -- The influence of two flow control methods on the anti wind sand erosion wear of airfoils --

Tannic acid/polyurethane laminated coatings for the stability of metal anodes in aqueous zinc-ion batteries -- Cost-benefit optimization analysis of proper utilization rate of provincial renewable energy -- Water partial discharge detection via interferometry -- Interactive management strategy of Virtual Power Plants based on Carbon Demand Response -- A multi-objective optimal scheduling method for the gas-steam-power system takes into account the exergy efficiency of iron and steel enterprises -- Load forecasting based on SABO-PSO-ELM hybrid algorithm -- Optimal Configuration Method of Power-Energy Hybrid Storage Systems for Renewable Power Plants -- Integrated optimal operation of rural microgrid production management considering photovoltaic outputs -- Part 2: Power System and Power Equipment Modeling -- Parameter identification for transformer winding equivalent networks based on an improved whale optimization algorithm -- Decoupled Spatial-Temporal Model for Temperature Field Prediction of Transformer -- The Differentiated Lightning Protection Modification of The Inlet Section Considering The Characteristic Change of The Station Lightning Arrester -- Automatic Classification of Substation Equipment Based on Multi-view Inspection Images -- Simulation research on distribution network based on improved transmission line decoupling method -- Recommended Protection to Prevent Safety Related Motors from Losing All AC Power When an Open Phase Fault Occurs in the Auxiliary Transformer of a Nuclear Power Plant -- Analysis of Load Characteristics of Floating Wind Turbines under Combined Wind and Wave Actions -- Improving Rotor-Angle Stability via Virtual Inertia Planning for Converter Interfaced Generations -- A Risk Assessment Model for the Impact of Insufficient Inertia on New Power Systems -- Research on optimal method of reactive power compensation for power grid based on risk assessment -- Analysis of the characteristics of 10kV line arrester discharge current under typical lightning strikes -- Research on the Application of Domestic Modeling and Simulation Platform in Nuclear Power Plants -- Optimization of Active Distribution Network Scheduling Based on Stackelberg Game -- Current Situation and Prospect of Impedance Spectroscopy and Its Application in Electric Power Equipment Oil's Performance Test -- A fault rate evaluation model of distribution network line under wind and rain hazards -- Voltage fluctuation solution and control strategy of traction network based on vehicle energy storage -- Research on Distributed Optimal Scheduling Technology for Distribution Networks with High-Proportion Photovoltaic Integration -- Research on the Application of Magnetic Network Approach in Magnetically-Saturated Controllable Reactors -- A Parallel 18-Pulse Rectifier Based on Power Electronic Transformer -- Splitting and Modularized Combination Approach of Power Distribution Terminal Services for Microservices Architecture -- Part 3: Mechatronics and Automation Control -- Trusted metering terminal and application design for distributed power supply -- A Study on Model Predictive Current Control Method for Permanent Magnet Synchronous Motors in Electric Aircraft -- GRU-DNN hybrid network for multi-factor electric vehicle energy consumption prediction -- Design of pressure monitoring system for push tool of avionics connector -- Super-Twisting Sliding Mode Controller Design for Permanent Magnet Synchronous Motor -- Research and Implementation of Automotive Power Seat Fault Detection System Based on LabVIEW -- Study on the jet behavior of the secondary oxygen nozzle of the secondary combustion oxygen lance in 260 t converter -- Study on Fault Diagnosis of Rolling Bearings Based on CNN-BiLSTM -- Numerical analysis and sensitivity study of friction parameters for high-

temperature molten salt storage tanks -- A study of Low-voltage Distributed Photovoltaic Flexible Control Technology -- Simulation of Fault Current Characteristics in Ship Lock Motor based on Harmonic Analysis -- API Independent Pitch Control Strategy for Large Wind Turbines Considering Load Reduction -- Research on the Electronic Differential Control Strategy for Aerial Working Platforms Based on the Ackermann Model -- NVH Analysis of Rotor Step Skewing on Permanent Magnet Synchronous Motor -- Optimization of Oil Cavity Structure in Hydrostatic Bearings Based on Multi objective Particle Swarm Optimization Algorithm -- Research on Thermal Runaway Propagation Characteristics of a Battery Module with PCM and Aluminum Plate Fins Structure -- Hybrid Damping Control Strategy for LLCL Grid-connected Inverters under Weak Grids -- Research on Modulation Strategies for Permanent Magnet Synchronous Motors in Electric Vehicles.

Sommario/riassunto

This book features selected and expanded papers presented at the 2024 5th International Conference on Energy, Power, and Automation Engineering (ICEPAE 2024), held in Zhengzhou, China during May 24 to 26, 2024. It focuses on the research domains of energy science and engineering, electric power and electrical engineering, and automation engineering. The book showcases the latest advancements in renewable energy, power systems, smart grids, electric vehicles, control engineering, and industrial automation. The volume highlights progress in renewable power generation, electrical infrastructure, and automation technologies, offering engineers, scholars, and researchers' valuable insights and recent breakthroughs. It also seeks to inspire innovative solutions to pressing challenges in these fields.