

To investigate the multi-timescale behaviors and instability mechanisms under dynamic inter-actions for AC MGs, existing coordinated control strategies are discussed, and the dynamic stability of...

Here, we develop three random-forest (RF) response models that accurately capture the nonlinear relationship between renewable energy generation (hydro, solar, and wind power) and climate ...

Solar and wind generation data from on-site sources are beneficial for the development of data-driven forecasting models. In this paper, an open dataset consisting of data collected from...

Therefore, this paper puts forward a PV prediction model combining a physical model and a neural network that can modify solar radiation in complex weather through the neural network ...

To improve prediction accuracy, we propose a novel model, PerfCNN-LSTM, which combines a convolutional neural network (CNN) and a long short-term memory (LSTM) network with ...

Simulate the PV power generation, building energy consumption, and the outdoor environmental in-dexes (wind speed and UTCI) of the parametrically generated BIPV building.

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His research interests include power system operation and control, deep learning, computer technology and applications. Affiliations: [School of Mechanical and Electrical Engineering, University of ...

In addition to enhancing energy production, Mingyue's inverters are pivotal in solar energy systems as they convert direct current (DC) generated by solar panels into alternating current (AC) ...

This paper uses the LSTM model to predict solar power generation. At the same time, the data is reduced by using PCA to reduce the training duration of the model and improve the...

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