Liu Renba Solar Power Generation

This dataset contains time-series data for analyzing and predicting wind and solar power generation. The data comes from wind farms and photovoltaic power plants in a certain location, ...

Monthly electricity generation data in Fig. 2, Fig. 3 reveal noticeable fluctuations in wind and solar power generation in China, indicating significant seasonal fluctuations.

Here we develop a rule-of-thumb statistical learning model for wind and solar power prediction and generate a year-long dataset of hourly prediction errors of 30 provinces in China.

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 ...

In this paper, an open dataset consisting of data collected from on-site renewable energy stations, including six wind farms and eight solar stations in China, is provided. Over two years...

This paper proposes a solar power generation prediction model based on enhanced feature engineering and stacked ensemble learning. In terms of feature engineering, we comprehensively extract Fourier ...

This paper proposes a model called X-LSTM-EO, which integrates explainable artificial intelligence (XAI), long short-term memory (LSTM), and ...

Our study reveals substantial variations in machine learning-driven predictions of hydro, solar, and wind power generation across diverse climate ...

At the optimal wind/solar ratio, the most stable hybrid wind-solar energy was concentrated in eastern Inner Mongolia, northeastern China, and northern China.

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