

Title: Solar power generation and load paper

Generated on: 2026-05-17 08:16:11

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In this study, solar energy and load demand predictions were conducted individually before being incorporated into artificial neural network-particle swarm optimization (ANN-PSO) and ANN ...

This study developed a load regulation model for a multi-power generation system comprising wind, PV, and coal energy storage using real-world data. The power supply process was divided into eight ...

The basis solar generation datasets are produced from the meteorological data available in the National Solar Radiation Database (NSRDB) for 204 utility-scale proposed and 22 existing solar power plant ...

Wind power, solar power, and electrical load forecasting are essential works to ensure the safe and stable operation of the electric power system.

This paper aims to assess the feasibility of replacing diesel generation with generation from intermittent renewable resources (e.g., solar, wave, and wind power generation).

In order to increase the model's effectiveness for temporal sequence prediction, a hybrid ANN-solar power model is proposed and is evaluated using extensive data from the Xingtai Power ...

Abstract: This chapter presents the important features of solar photovoltaic (PV) generation and an overview of electrical storage technologies. The basic unit of a solar PV generation system is a solar ...

: This paper describes predictive modeling applied to optimization of solar power generation systems. Such modeling, based on machine learning principles, is performed for both solar irradiation and load ...

The study focuses on utilizing machine learning (ML) methodologies for accurate forecasting of solar power generation, addressing challenges related to integrating renewable energy ...

In our knowledge, it is the first paper which can both forecast the electrical load and PV power generation



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using large amount of historical data for long term predictions.

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