

Efficient energy management and accurate load forecasting are one of the critical aspects for improving the operation of microgrids. Various approaches for energy prediction and load ...

Analyzing the precision of disturbance predictions, reveals that predicting one hour in advance is more effective than immediate predictions or those made several hours beforehand.

The growing integration of renewable energy sources into grid-connected microgrids has created new challenges in power generation forecasting and energy management.

The net load in a microgrid emerges as a synthesis of various uncertainties associated with forecasts for PV and wind generation, coupled with load forecast data.

This research proposes a data-driven machine learning framework for the optimized operation of a microgrid and predictive outage detection using a Recurrent Neural Network-Long ...

Simulations in optimizing microgrid operations, with ML techniques contribute to more effective analysis and planning in the electrical sector. The study highlights the significance of research in this area to ...

We move closer to increased resilience, energy independence, and a low-carbon future via microgrids. Microgrids are essential for improving energy security, resilience, and sustainability ...

The concept of microgrids (MGs) as compact power systems, incorporating distributed energy resources, generating units, storage systems, and loads, is widely acknowledged in the ...

To enhance photovoltaic (PV) generation prediction accuracy, researchers have developed a forecasting algorithm based on LSTM (Hossain and Mahmood, 2020).

The study not only provides a systematic framework for load prediction in microgrids but also highlights the economic benefits of effective peak load management.

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