
This approach is aimed at effectively extracting temporal data from energy datasets to improve the precision of microgrid behavior forecasts. Additionally, an attention layer is employed to under-score ...

To predict renewable energy sources such as solar power in microgrids more accurately, a hybrid power prediction method is presented in this paper.

In this research, an effort is made to address microgrid systems" operational challenges, characterized by power oscillations that eventually contribute to grid instability. An integrated...

The AF-OA-CNNLSTM integrates an adaptive filter that dynamically denoises input signals without distorting essential features, a CNN to extract local patterns, an LSTM network to capture ...

So, the power system has two fundamental challenges: supplying the demand load and sustaining energy. This paper proposes an optimal deep learning-based energy management system ...

Therefore, this study proposes a dual-branch frequency transformer (DBFformer), which leverages multi-scale spectral transformation and the multi-head attention mechanism to improve the ...

This paper proposes a distributed multi-scale attention and predictor-based control (DMAPC) strategy to address false data injection attacks and packet loss failures with time delays.

This study focuses on microgrid environments, and introduces a novel hybrid deep learning approach that integrates LSTMs, residual connections and attention mechanisms to improve ...

Inspired by the above discussion, this paper proposes a fault identification method based on CNN-Attention-LSTM, which is mainly used to diagnose fault types in AC-DC hybrid microgrids. ...

Modern energy systems increasingly rely on complex, multi-energy microgrids incorporating diverse energy

carriers, including hydrogen-based technologies, yet their efficient ...

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