Improving the Quality of Microgrids Series

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

Hence, this paper provides enactment of an adaptive hybrid control strategy based on an Adaptive Leaky Least Mean Square (AL_LMS) algorithm combined with Fuzzy Logic (FL) to the ...

It presents a comprehensive review of the various types of microgrids and the primary obstacles they encounter.

To enhance the efficacy, dynamics and power density of the FCs, this research article introduces the hybridization of energy storage technologies like batteries and SCs with fuel cells.

In order to reduce power quality disturbances such as voltage swells, sags and harmonics in microgrids, this study analyzes the performance of UPQC with Dynamic Voltage Restorer (DVR). Simulation ...

The MFGTI structure is presented to improve power quality based on voltage, current and harmonics. The proposed MFGTI can be connected in series or shunt with the system via bidirectional switches.

The study focuses on improving the stability and power-sharing control of the hybrid MG under different scenarios, including load changes, power fluctuations, and grid disturbances.

Microgrids (MGs) are systems that cleanly, efficiently, and economically integrate Renewable Energy Sources (RESs) and Energy Storage Systems (ESSs) to the electrical grid. They ...

The primary aim of these technological advancements is to improve the performance, reliability, and efficiency of MGs, ensuring seamless integration of DERs, and effective management ...

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Various studies have explored energy management (EM) strategies for power quality (PQ) improvement in microgrids (MGs) with renewable energy sources (RES) and hybrid energy ...

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