Photovoltaic and energy-storage joint control microgrid

In view of the shortcomings of the above research, this paper proposes a new power allocation strategy for photovoltaic and energy storage coordinated frequency regulation based on MPC.

This paper proposes a novel control technique for the HESS in DC microgrid, which combines model predictive control (MPC) with faster joint control. This innovative approach aims to ...

To improve the stability and system controllability of photovoltaic microgrid output, this study constructs an optimized grey wolf optimization algorithm.

An adaptive control approach is proposed in this work to improve the MG stability in the presence of PV and battery energy storage systems (BESSs).

To address the challenges posed by the large-scale integration of electric vehicles and new energy sources on the stability of power system operations and the efficient utilization of new ...

In this study, we propose a nonlinear control approach coupled with an energy management algorithm for a hybrid system combining solar photovoltaic and wind energy, along with ...

This paper proposed a comprehensive framework for the design and optimization of standalone solar PV DC microgrids with adaptive storage control for residential applications.

With the growing global energy demand and the increasing severity of environmental issues, microgrid systems incorporating photovoltaic (PV) and energy storage

A simulation model of photovoltaic microgrid hybrid energy storage system was built in MATLAB/Simulink, and the simulation results showed the effectiveness of the control strategy ...

With the development of vehicle-to-grid (V2G) interaction technology, more and more electric vehicles (EVs) are being integrated into microgrids as energy storage.

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