

Power management techniques for these microgrids are among the most important operational aspects. This paper provides a systematic review on numerous schemes to control ...

In order to reduce the economic costs, enhance the efficiency, and improve the structural stability of microgrids, this paper proposes a novel AC/DC hybrid microgrid structure.

In this paper, an improved voltage control strategy for microgrids (MG) is proposed, using an artificial neural network (ANN)-based adaptive proportional-integral (PI) controller combined ...

In these lecture notes, we embark on a journey to explore the key role of microgrids in shaping the future of our energy systems, delving into the need for advanced automation and control techniques to ...

ETAP Microgrid Control offers an integrated model-driven solution to design, simulate, optimize, test, and control microgrids with inherent capability to fine-tune the logic for maximum system resiliency ...

A simulation model for the AC/DC hybrid microgrid is built on MATLAB/Simulink and an experimental setup is built in the laboratory. The results obtained from the simulation and ...

Abstract-- This paper presents a distributed cooperative control-based power management algorithm for a hybrid AC/DC microgrid. The proposed algorithm for a hybrid microgrid system controls the power ...

In our study, we are focusing on a hybrid AC/DC MG connected to a main AC grid, and using WTs based on a doubly fed induction generator (DFIG), PV panels, AC and DC loads as well ...

The present trends in power system is gradually shifting towards the vision of smart grids. Here, the present distribution system is moving from being passive to ...

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