Microgrid frequency control

In this paper, a novel load frequency control (LFC) approach based on adaptive model predictive control (AMPC) is proposed for a microgrid system (MG) with distributed energy resources.

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).

The new frequency control approach requires all generating units connected to the microgrid to operate in a primary frequency droop mode, with a ...

Specifically, it examines the operating states of microgrids and associated frequency stability issues and expounds various methods for maintaining frequency stability.

In this paper, the application of an adaptive controller based on a hybrid Jaya-Balloon optimizer (JBO) for frequency oscillation mitigation in a ...

This paper introduces a novel control strategy to optimise the load frequency model in a microgrid (MG) with vehicle-to-grid interactions using Particle Swarm Optimisation - deep Artificial ...

This paper introduces an enhanced load frequency regulation strategy for isolated renewable microgrids, leveraging an Active Disturbance Rejection Control (ADRC) framework ...

The newly proposed grid frequency control is based on the droop and inertia controller for doubly-fed induction generator (DFIG) wind turbine (WT) using a data-driven algorithm.

This study delves into primary and secondary frequency regulation, emphasizing load frequency control (LFC) for stable grid operation. Investigating existing LFC models for both ...

Load Frequency Control (LFC) is essential for maintaining frequency stability in isolated microgrids. The

study designs a decentralized LFC mechanism utilizing ...

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