

This paper deals with the problem of designing a fully-distributed and robust secondary control scheme for voltage and frequency restoration of islanded microgrids along with real power ...

The hierarchical control strategy enables seamless integration of power electronics-based distributed generators (DGs) into microgrids (MGs). This work presents a distributed coordinated secondary ...

In microgrids, frequency and voltage deviations caused by the primary control generate correction control signals in the secondary level of a hierarchical structure to maintain the electrical ...

This paper proposes a nonuniform delay-dependent robust secondary voltage control strategy with a finite-time voltage reference observer for an islanded microgrid.

y voltage control (SVC) for microgrids using nonlin. ar multiple models adaptive control. The proposed method is comprised of two components. Firstly, a linear robust adaptive controller is designed to guarantee the voltage ...

The stable operation of DC microgrids requires robust secondary control strategies capable of ensuring accurate power sharing and bus voltage regulation, even under adverse conditions.

To address this issue, in this paper, we propose a two-stage reinforcement learning secondary control method for DC microgrids, which can effectively suppress the bus voltage ...

Abstract--In this paper, we address the problem of frequency and voltage control in microgrids in which generators and loads are interfaced via grid-forming (GFM) inverters.

Abstract--This paper proposes a novel safety-critical secondary voltage control method based on explicit neural networks (NNs) for islanded microgrids (MGs) that can guarantee any state inside the desired safety bound ...

This paper proposes secondary voltage restoration in a dc MG to enhance S-shaped functions for SoC equalization among battery energy storage system (BESS) units.

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