DC Microgrid Finite Time Control

In this work, based on a finite-time observer, a robust cooperative control strategy is suggested for DC microgrids. The proposed approach adopts a unified distributed coop-erative control framework.

This paper delineates an advanced distributed control paradigm for finite-time generation cost optimization in DC Microgrids (MGs), taking into account time delays.

This paper proposes a distributed finite-time event-triggered secondary control for islanded DC microgrids (MGs). The proposed controller can provide accurate current sharing and critical bus ...

To address this challenge, this paper presents a node-decomposition privacy-preserving (NDPP) method for fully distributed, finite-time secondary control in DC microgrids.

Distributed Finite-Time Secondary Control for DC Microgrids With Virtual Impedance Arrangement. Received March 29, 2019, accepted April 27, 2019, date of publication April 30, 2019, date...

This paper presents a novel distributed cooperative control strategy for DC microgrids, leveraging prescribed-time consensus to achieve accurate proportional power sharing and voltage ...

This paper develops a distributed fixed-time quadratic coordinated control strategy for isolated DC microgrids with time delays. The proposed control scheme based on the droop control ...

In this article, an autonomous finite-time backstepping controller (FTBC) for decentralized economic power dispatch and precise dc-bus voltage regulation of a dc MG is proposed.

This scheme is designed to be compatible with the actions of secondary and tertiary control (economic dispatch) of the adjacent DGs. Each controller incorporates finite-time consensus algorithms to ...

As a direct application, a simple decentralized composite controller is constructed for an autonomous DC microgrid system. Both numerical simulation and experimental comparison results show that a ...

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