Finite-time algorithm for microgrids

In this paper, a novel distributed algorithm is proposed to solve the optimal resource management while respecting the generation constraints.

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

To reduce unnecessary communication while realizing fixed-time economic dispatch, a distributed event-triggered fixed-time algorithm (abbreviated as disEXAM) is established in the paper.

Therefore, finite-time consensus algorithms and event-triggered control methods are combined to propose a distributed coordination control method for microgrid systems.

For micro-sources, based on the necessary information exchanged with neighboring micro-sources in the MG, realize dynamic adjustment of power generation in the neighborhood of the ...

Therefore, a complex network based on a finite-time consensus pinning control method for microgrids is proposed in this paper. First, the distributed generators are regarded as agent nodes,...

To address these challenges, this paper proposes a novel model-following finite-time robust tracking control strategy. The proposed method effectively handles extreme time-varying uncertainty, false ...

To realize economic dispatch within a finite time, a distributed consensus-based optimization algorithm is raised in Mao et al. (2021), in which the assumption of the linear increment ...

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.

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