

Distributed Control and Optimization of Networked Microgrids

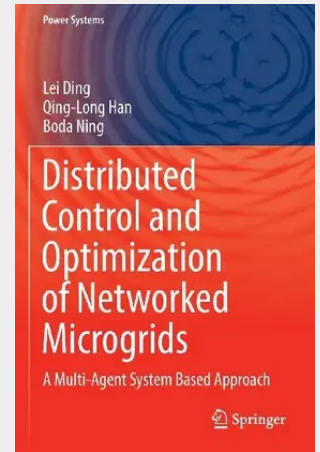
A Multi-Agent System Based Approach

This book presents new techniques and methods for distributed control and optimization of networked microgrids.

Distributed consensus issues under network-based and event-triggered mechanisms are first addressed in a multi-agent system framework, which can explicitly characterize the relationship between communication resources and the control performance. Then, considering the effects of network uncertainties, multi-agent system-based distributed schemes are tailored to solve the fundamental issues of networked microgrids such as distributed frequency regulation, voltage regulation, active power sharing/load sharing, and energy management.

The monograph will contribute to stimulating extensive interest of researchers in electrical and control fields.

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