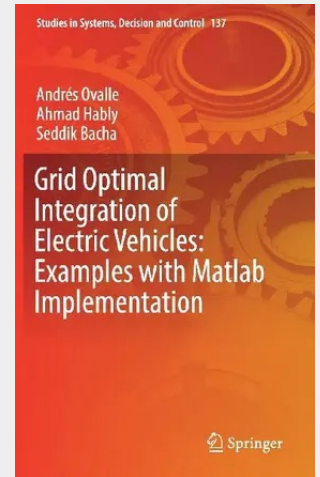


Grid Optimal Integration of Electric Vehicles: Examples with Matlab Implementation

This book is a compilation of recent research on distributed optimization algorithms for the integral load management of plug-in electric vehicle (PEV) fleets and their potential services to the electricity system. It also includes detailed developed Matlab scripts. These algorithms can be implemented and extended to diverse applications where energy management is required (smart buildings, railways systems, task sharing in micro-grids, etc.). The proposed methodologies optimally manage PEV fleets' charge and discharge schedules by applying classical optimization, game theory, and evolutionary game theory techniques. Taking owner's requirements into consideration, these approaches provide services like load shifting, load balancing among phases of the system, reactive power supply, and task sharing among PEVs. The book is intended for use in graduate optimization and energy management courses, and readers are encouraged to test and adapt the scripts to their specific applications.

This book is a compilation of recent research on distributed optimization algorithms for the integral load management of plug-in electric vehicle (PEV) fleets and their potential services to the electricity system. It also includes detailed developed Matlab scripts. These algorithms can be implemented and extended to diverse applications where energy management is required (smart buildings, railways systems, task sharing in micro-grids, etc.). The proposed methodologies optimally manage PEV fleets' charge and discharge schedules by applying classical optimization, game theory, and evolutionary game theory techniques. Taking owner's requirements into consideration, these approaches provide services like load shifting, load balancing among phases of the system, reactive power supply, and task sharing among PEVs. The book is intended for use in graduate optimization and energy management courses, and readers are encouraged to test and adapt the scripts to their specific applications.



128,39 €

119,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783319731766

Medium: Buch

ISBN: 978-3-319-73176-6

Verlag: Springer

Erscheinungstermin: 13.02.2018

Sprache(n): Englisch

Auflage: 1. Auflage 2018

Serie: Studies in Systems, Decision and Control

Produktform: Gebunden

Gewicht: 524 g

Seiten: 219

Format (B x H): 160 x 241 mm

