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Titolo	Plug In Electric Vehicles in Smart Grids : Charging Strategies / / edited by Sumedha Rajakaruna, Farhad Shahnia, Arindam Ghosh
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Descrizione fisica	1 online resource (329 p.)
Collana	Power Systems, , 1612-1287
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Soggetti	Transportation Energy policy Electronics Microelectronics Physical measurements Measurement Electronic circuits Energy Policy, Economics and Management Electronics and Microelectronics, Instrumentation Measurement Science and Instrumentation Circuits and Systems
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Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Charging Coordination Paradigms of Electric Vehicles -- Control and Management of PV Integrated Charging Facilities for PEVs -- Hierarchical Coordinated Control Strategies for Plug-in Electric Vehicle Charging -- Impacts of Plug-in Electric Vehicles Integration in Distribution Networks under Different Charging Strategies -- Smart Management of PEV Charging Enhanced by PEV Load Forecasting -- Optimal Charging Strategies of Plug-in Electric Vehicles for Minimizing Load Variance within Smart Grids.
Sommario/riassunto	This book covers the recent research advancements in the area of charging strategies that can be employed to accommodate the anticipated high deployment of Plug-in Electric Vehicles (PEVs) in smart grids. Recent literature has focused on various potential issues of

uncoordinated charging of PEVs and methods of overcoming such challenges. After an introduction to charging coordination paradigms of PEVs, this book will present various ways the coordinated control can be accomplished. These innovative approaches include hierarchical coordinated control, model predictive control, optimal control strategies to minimize load variance, smart PEV load management based on load forecasting, integrating renewable energy sources such as photovoltaic arrays to supplement grid power, using wireless communication networks to coordinate the charging load of a smart grid and using market price of electricity and customers payment to coordinate the charging load. Hence, this book proposes many new strategies proposed recently by the researchers around the world to address the issues related to coordination of charging load of PEVs in a future smart grid.