



Special Issue Reprint

## Editorial Board Members' Collection Series: Smart Energy Systems Design

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Smart energy systems that integrate multiple energy sectors are considered a promising paradigm for providing a comprehensive and optimized solution for an achievable, affordable, and sustainable energy system in the near future. The Special Issue presents various emerging approaches for designing growing renewable energy (RE), energy storage (ES), and smart transportation with electric vehicles (EVs) in the power and automobile industries. Power generation from renewable energy resources (RESs) plays a major role in producing sustainable green power and reducing the dependency on fossil fuels; in turn, this leads to various technical, economic, and environmental benefits. Although extensive studies on the definition, implementation, and optimization of these systems have been conducted, the design and management of a smart energy system remain a critical challenge. The purpose of this collection, "Smart Energy System Design", is to provide a comprehensive overview of smart energy system design; the latest advancements, opportunities, challenges, and potential applications of energy storage; renewable energy; EVs; big data; artificial intelligence; the Internet of Things; and machine learning technologies. This collection features the most recent research on a variety of exciting topics, including (but not limited to) the following: Control and operation of modern power grids; Renewable energy power generation connected to the grid-microgrid; Energy harvesting and wireless power transfer technologies; Electronic equipment related to energy systems; Energy storage and electric vehicles; Big data and artificial intelligence.



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