1. Record Nr. UNINA9910557794303321
Autore Han Sekyung

Titolo Grid-to-Vehicle (G2V) and Vehicle-to-Grid (V2G) Technologies

Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing

Institute, 2021

Descrizione fisica 1 electronic resource (112 p.)

Soggetti History of engineering & technology

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Sommario/riassunto

This Special Issue "Grid-to-Vehicle (G2V) and Vehicle-to-Grid (V2G) Technologies" was in session from 1 May 2019 to 31 May 2020. For this Special issue, we invited articles on current state-of-the-art technologies and solutions in G2V and V2G, including but not limited to the operation and control of gridable vehicles, energy storage and management systems, charging infrastructure and chargers, EV demand and load forecasting, V2G interfaces and applications, V2G and energy reliability and security, environmental impacts, and economic benefits as well as demonstration projects and case studies in the aforementioned areas. Articles that deal with the latest hot topics in V2G are of particular interest, such as V2G and demand-side response control technique, smart charging infrastructure and grid planning, advanced power electronics for V2G systems, adaptation of V2G systems in the smart grid, adaptation of smart cities for a large number of EVs, integration, and the optimization of V2G systems, utilities and transportation assets for advanced V2G systems, wireless power transfer systems for advanced V2G systems, fault detection, maintenance and diagnostics in V2G processes, communications protocols for V2G systems, energy management system (EMS) in V2G systems, IoT for V2G systems, distributed energy and storage systems for V2G, transportation networks and V2G, energy management for V2G, smart charging/discharging stations for efficient V2G, environmental and socio-economic benefits and challenges of V2G

systems, and building integrated V2G systems (BIV2G). Five manuscripts are published in this Special Issue, including "An Ensemble Stochastic Forecasting Framework for Variable Distributed Demand Loads" by Agyeman et al., "Where Will You Park? Predicting Vehicle Locations for Vehicle-to-Grid, An MPC Scheme with Enhanced Active Voltage Vector Region for V2G Inverter" by Shipman et al., "Electric Vehicles Energy Management with V2G/G2V Multifactor Optimization of Smart Grids" by Xia et al., and "A Review on Communication Standards and Charging Topologies of V2G and V2H Operation Strategies" by Savitti et al.