Special Issue

Vehicle-to-Grid Systems: The Trends and Smart Grid Interaction Technologies

Message from the Guest Editors

The development of smart grids allows electric vehicles to play a new role, vehicle-to-grid (V2G), in an electricity–power interaction between the electric vehicle and the power grid by delivering electricity back to the grid or controlling the charging rate. This Special Issue aims to collect high-quality reviews and research articles on the topic of vehicle-to-grid applications. Topics of interest for this Special Issue include, but are not limited to:

- State-of-the-art technologies and new developments for V2G applications
- Review articles on V2G demonstrator projects and learning
- Small/large-scale V2G integration and application
- EV interface standards and protocols with charging infrastructure that permit aggregator control of EV batteries
- Aggregator control, scheduling in V2G systems
- Battery conditioning and smart charge strategies for improved V2G operations
- Energy management system in V2G systems
- Understanding the impact of battery degradation and a lifetime participating in V2G schemes
- Security and privacy perspective in V2G networks
- Environmental and socio-economic benefits and challenges of V2G systems

Guest Editors

Dr. Truong Minh Ngoc Bui

Energy Innovation Centre, WMG, University of Warwick, Coventry CV4 7AL, UK

Dr. Sheikh Muhammad

School of Engineering, University of Warwick, Coventry CV4 7AL, UK

Dr. Truong Quang Dinh

WMG, University of Warwick, Coventry CV4 7AL, UK

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Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
applsci@mdpi.com

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32, 20133 Milano, Italy

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