Special Issue

Smart Electric Vehicle Charging Approaches for Demand Response

Message from the Guest Editors

This Special Issue focuses on emerging smart charging (V1G) or Vehicle-to-Grid (V2G) approaches able to increase the electrical grid operation reliability, through demand response programs. Then, it is important to discuss new strategies based for example on machine learning to forecast EV connection periods and its energy demand for scheduling the charger occupancy. Moreover, optimization techniques are proper tools to produce novel strategies capable of evaluating different demand response programs while considering the market and grid requirements. Topics of interest include, but are not limited, to the following:

- Vehicle-to-grid strategies;
- Electric vehicle integration;
- Machine learning-based algorithms for electric vehicles;
- Strategies for smart charging stations, electric vehicles, and fleets;
- Charging electric vehicles with renewable energy sources;
- Electric vehicle Flexible demand response;
- Optimal microgrids operation under uncertainty;
- Control strategies for charging stations, electric vehicles, and fleets;
- Active distribution networks.

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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