Special Issue

Advancements in Smart Electric Mobility Systems: Integration of Renewable Energy and Energy Storage

Message from the Guest Editors

This Special Issue aims to present state-of-the-art research and developments in the field of Smart Electric Mobility Systems, seeking to optimize the synergy between renewable energy generation and energy storage, paying the way for greener and more resilient mobility solutions. Topics of interest include the development of devices, models, control strategies, and system architectures for the integration of different mobility infrastructures with Renewable Energy Sources (RESs), Battery Electric Storage Systems (BESSs), and the grid. In addition, emphasis will be given to the development of sustainable materials for energy storage and conversion and integrated photovoltaics, focusing on aspects such as safety, second life, and recyclability. In the landscape of smart electric mobility, devising a smart charging strategy is pivotal for maximizing the utilization of renewable energy and energy storage systems. By dynamically adjusting charging schedules based on factors like energy availability, demand fluctuations, and grid conditions, such strategies aim to enhance efficiency, minimize costs, and reduce the environmental footprint of electric vehicle charging infrastructure.

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Deadline for manuscript submissions

15 October 2025



Energies

an Open Access Journal by MDPI

Impact Factor 3.2 CiteScore 7.3



mdpi.com/si/197071

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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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