Special Issue

Energy Management and Control System of Electric Vehicles

Message from the Guest Editors

This Special Issue, "Energy Management and Control System of Electric Vehicles," focuses on innovations to enhance the performance, efficiency, and sustainability of electric vehicles (EVs). As global concerns about fossil fuel dependence and carbon emissions rise, EV adoption is crucial for cleaner transportation. Key topics include advanced energy management methodologies, such as battery management systems (BMS), regenerative braking, thermal management, and real-time energy distribution. Effective battery management is essential for monitoring health and maximizing lifespan, while regenerative braking recovers energy lost during braking, enhancing efficiency. The role of artificial intelligence (AI) and machine learning (ML) is also discussed, optimizing energy use through predictive models. Additionally, the integration of renewable energy sources with EV charging stations and vehicle-to-grid (V2G) technology is explored, enabling EVs to serve as mobile energy storage units that stabilize grid loads during peak demand.

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Message from the Editor-in-Chief

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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