Special Issue

Drive System and Control Strategy of Electric Vehicle

Message from the Guest Editors

In recent years, electromobility has rapidly grown, with electric propulsion systems becoming common in vehicles, ships, and even aircraft. This shift is driven by advantages like fast response times, compact structures, high speeds, and torque, supported by regulatory incentives in many countries. The electric drive comprises several components, primarily an electric machine powered by a power electronic converter. Optimal design of these parts presents significant scientific and engineering challenges. Proper connection to the executive components via reducers or gears is essential. The system is powered by an internal battery, which introduces further challenges. Each component is managed by specific control algorithms, coordinated by a master algorithm. Topics of interest include:

- Electrical machine design
- Design of power electronic converters
- Gearbox and speed reducer design
- Control issues for electric machines and converters
- Sensor design for electromobility
- Torsional vibration damping
- Battery management
- Master control system design
- Safety in electromobility

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Deadline for manuscript submissions

10 August 2026

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/236311

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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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