Special Issue

Adaptive Optimal Control Strategy for Plug-In Hybrid Electric Vehicles

Message from the Guest Editor

In the current transition from conventional forms of transport towards more sustainable and net-zero emissions solutions, hybrid electric vehicles are widely considered to a suitable response to ever stricter requirements imposed by governing bodies and economic markets. In this context, conventional technologies, such as internal combustion engines, or more innovative ones, such as fuel cells, can be connected in series, parallel, or in mixed architectures with batteries to provide the required degree of freedom to manage the power needs of the drivetrain and enable proper battery management. It is evident that the choice of optimal control strategies plays a crucial role in terms of powertrain component sizing, energy savings, as well as tailpipe emissions (when conventional fuels are accounted for). Key topics of interest include, but are not limited to:

- The modeling, simulation and validation of control strategies for plug-in hybrid vehicles;
- Plug-in hybrid powertrain design with internal combustion engines or fuel cells;
- Batteries and power electronics technologies trends for plug-in HEVs;

Guest Editor

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Deadline for manuscript submissions

20 July 2026

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 8.3

mdpi.com/si/217365

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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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