Special Issue

Optimization and Control of Electric and Hybrid Vehicles

Message from the Guest Editors

Electric vehicles offer potential for significant reductions in carbon dioxide emissions associated with transport. However, the underlying technology is very different from that of a vehicle powered by a traditional internal combustion engine. The key components of the new generation, such as the powertrain, energy storage system, and thermal management system, often require careful optimization and control to perform at their best; similarly, the way in which fleets of vehicles are used to deliver a service can require careful analysis and design to work around constraints. This Special Issue seeks to explore current topics in the application of optimization and control to electric and hybrid-electric vehicles. Topics of interest for publication include, but are not limited to:

- Active vehicle dynamics and chassis control;
- Battery management, monitoring and prognosis;
- Powertrain control and electrical machines;
- Thermal management, including HVAC;
- Component sizing and optimization;
- System identification and control-oriented modelling;
- State estimation, monitoring and prognosis;
- Development and applications of advanced control techniques.

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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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