

Special Issue

Hybrid, Hydrogen, and Electric Vehicles: Energy Management, Optimizations Techniques, and Control Systems

Message from the Guest Editors

Today's challenges in energy and transportation require innovative vehicles, which can make better use of the energy (BEV) and fuel (HEV, FCEV) they use.

Electrification is just one out of many possible answers: EVs are playing and will play a key role in that scenario, but innovation applied to vehicles also equipped with an ICE can help in the transition. Hydrogen technologies are also beginning to play an important role in automotive transformation. Hence, in this Special Issue, we are welcoming original contributions on:

- Electrified architectures of vehicle powertrains;
- Optimal sizing of the on-board energy storage system;
- Optimized control of dynamics coupled to energy;
- Fusion of various energy storage devices in complex storage systems;
- Modeling and simulation of hybrid, hydrogen, and electric vehicles;
- AI techniques to forecast energy demand on board and recharge patterns;
- User demand impact on the optimal design of vehicles (urban vs. other types of mobility);
- Evaluation of the impact of cooperative driving on energy consumption (vehicles and grid);
- Effective use of the hydrogen system (fuel cell) in coupling it with the electric propulsion system.

Guest Editors

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Prof. Dr. Carlo Concarì

Deadline for manuscript submissions

closed (20 April 2023)



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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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