Special Issue

Energy Storage and Conversion of Electric Vehicles

Message from the Guest Editors

The electrification of transportation plays a crucial role in global decarbonization efforts. Electric vehicles (EVs) including hydrogen fuel cell vehicles are a key facilitator of this transition. Advances in energy storage technology and energy conversion technology are central to the performance improvement, reliability, and sustainability of EVs. This Special Issue aims to attract cutting-edge research in the design, modelling, optimisation, and integration of energy storage systems (batteries and fuel cells), and energy conversion interfaces in EVs. The topics of interests include, but are not limited to: battery energy storage systems, hydrogen fuel cell stacks, bidirectional converters, battery and fuel cell management systems, charging and refuelling infrastructure, thermal management, and novel hybrid energy conversion architectures. Contributions exploring vehicle-to-grid strategies, hydrogen-to-grid concepts, hybrid energy systems, and comprehensive lifecycle assessments are also welcome. The goal is to provide a platform for academia and industry to share insights, innovations, and challenges in developing next-generation electrified transportation technologies.

Guest Editors

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Message from the Editor-in-Chief

Machines is an international, peer reviewed journal on machinery and engineering. It publishes research articles, reviews and communications.
Our aim is to encourage scientists to publish their experimental and theoretical results in as much detail as possible. There is no restriction on the length of the papers. Full experimental and/or methodical details must be provided.
There are, in addition, unique features of this journal: Manuscripts regarding research proposals and research ideas will be particularly welcomed; Electronic files or software regarding the full details of the calculation and experimental procedure - if unable to be published in a normal way can be deposited as supplementary material.

Editor-in-Chief

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