Special Issue

Dynamic Control and Machine Learning for Thermal Management, Energy Utilization, and Environment

Message from the Guest Editors

Temperature is controlled using technology in a thermal management system. Thermodynamics, heat transfer, and fluid flow are the foundations of this technology. The gap between the system's specifications and its requirements is the issue that thermal management systems must address. Filling this void necessitates a variety of strategies, ranging from heating and cooling to heat removal, temperature cycling, and temperature uniformity. This Special Issue bonds these two aspects as energy and thermal management are strongly inter-related. The role of different types of controls, especially dynamics control, in enhancing the thermal processes and fluid flow situations in high-speed vehicles, automobiles, aerospace vehicles, etc. are focused on. Numerical simulation methods and experimental analysis for various types of thermal management systems are covered. The focus of this Special Issue will also extend to research on energy utilization and the environment. The use of different modeling methods using machine learning techniques is quite new and tremendously growing in these fields and, hence, also falls within the scope of this Special Issue.

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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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