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New Challenges in Railway Energy Management Systems

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Message from the Guest Editors

Dear Colleagues,

In the contemporary global context, railways play a pivotal role in providing sustainable transportation solutions as we collectively strive to achieve a net-zero-emissions future by 2050. Railways represent the most efficient land-based transportation system for swiftly moving people within and between urban areas. Moreover, railways worldwide serve a dual purpose, facilitating the transportation of both passengers and freight. These mixed railways face the intricate challenge of managing energy resources to harmonize the demands of both freight and passenger traffic.

However, it is important to note that railways across the world exhibit varying degrees of balance between passenger and freight services. This diversity underscores the challenges they encounter when embracing new technologies for decarbonization. Electrification rates also exhibit significant disparities, ranging from complete electrification to minimal electrification, posing substantial obstacles in the quest for sustainable railway systems.

This Special Issue aims to comprehensively explore all facets of railway energy and power systems, to our shared goal of decarbonization.



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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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