energies

an Open Access Journal by MDPI

IMPACT FACTOR 3.2

CITESCORE 5.5

Modeling, Controlling and Protecting of the Vehicle-Grid System in Electrified Railways

Guest Editors:

Prof. Dr. Zhigang Liu

Dr. Keting Hu

Dr. Yicheng Liao

Dr. Fangyuan Li

Dr. He Du

Dr. Zheming Jin

Deadline for manuscript submissions:
closed (16 October 2023)

Message from the Guest Editors

Electrified railways are an efficient, safe, environmental-friendly, and energy-saving way of transportation. In recent decades, they have gained remarkable achievements in developing both the economy and society. Nowadays, more and more electrified trains are taken into service and interacting with the traction power grid, resulting in a complex vehicle–grid system with a higher risk of instability and fault. On the one hand, the interaction between the traction power supply grid and the electrical multiple units may cause a harmonic instability problem or low-frequency oscillation, which could lead to the shutdown of the traction power in the vehicles. On the other hand, the components of the electrified railway suffer heavy loads and harsh operating environments, making them prone to failure and affecting the normal operation of the train. Consequently, ensuring a stable and reliable operation of the electrified railway is of paramount importance. This requires an accurate model, high-performance control, and reliable protection methods for every aspect of the vehicle–grid system.

energies

an Open Access Journal by MDPI

IMPACT FACTOR 3.2

CITESCORE 5.5

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 Roma, Italy

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.
Journal Rank: CiteScore - Q1 (*Engineering (miscellaneous)*)

Contact Us

Energies Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/energies
energies@mdpi.com
𝕏@energies_mdpi