

Special Issue

Innovations in Railway Vehicle System: Design, Monitoring and Maintenance

Message from the Guest Editor

This Special Issue invites high-quality research contributions that explore new developments and practical applications in the field. We welcome original studies and comprehensive reviews that introduce innovative ideas, methodologies, and experimental validations to enhance the performance, safety, and durability of railway systems. In this Special Issue, original research articles and reviews are welcome. Research areas may include, but are not limited to, the following topics:

- Advanced design of bogies and suspension systems;
- Condition monitoring and fault diagnosis of railway subsystems;
- Vehicle-track interaction dynamics and wear prediction;
- Structural health monitoring and prognostics for rail vehicles;
- Intelligent maintenance systems and digital twins;
- Energy-efficient and environmentally friendly vehicle designs;
- Digital Twin Technology for Railway Vehicle Systems;
- Noise and vibration control in railway vehicles;
- Applications of AI and machine learning in railway vehicle health management;
- Sensor technologies and data-driven evaluation methods.

Guest Editor

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About the Journal

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

Prof. Dr. Antonio J. Marques Cardoso
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