Special Issue

New Insights into Railway Vehicle Dynamics

Message from the Guest Editors

It is widely acknowledged that developing higher-speed rail transit is important. However, higher-speed, lighter-weight, and lower-axle-load designs will lead to a sharp increase in the aerodynamic loads of the train and the sensitivity of the vehicle system to external disturbances, which will weaken the train's toughness against external disturbances and further increase the risk of operational instability. This adds new challenges to the contradictory regulation between weight reduction–speed increase, energy saving–consumption reduction, and safety–stability operation performance of higher-speed trains, which has become a restriction on the safe, efficient, and green development of higher-speed rail transit. Hence, it is urgent to research new technologies that are suitable for higher-speed trains such as aerodynamics, vehicle dynamics, and safety operation in special weather environments such as strong winds from new perspectives.
For more information on the Special Issue, please visit LINK
https://www.mdpi.com/journal/applsci/special_issues/U64MQJ838G

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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