Special Issue

Application of Big Data in Energy-Efficient Management of Rail Systems

Message from the Guest Editors

Advanced rail system plays an increasingly important role for passenger mobility both in intercity communication and urban commuting. For the design of a train control system, the energy efficiency should be borne in mind. In this respect, introducing eco-driving strategies or energy-saving infrastructures have been promoted for trains running safely and efficiently. The traditional mathematical modeling approach, where the train trajectory and device usage are the results of a theoretical analysis with highly idealized assumptions, has deviated far from its application in actual life. With the application of data mining and algorithms, the mathematical models and computer simulations in rail system could correct parameters, and further verify applicability. In view of the above concerns, the aim of the Special Issue is to collect the most promising approaches of modeling newly introduced energy-efficient operation in rail system with big data technology supplements. The Special Issue will be focused on modeling and simulation techniques, quantitative analysis and advanced solution algorithms, resulting in the development of this research area.

Guest Editors

Prof. Dr. Xin Yang

Dr. Songpo Yang

Dr. Xiaoming Xu

Deadline for manuscript submissions

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Sustainability
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sustainability@mdpi.com

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Editor-in-Chief

Prof. Dr. Marc A. Rosen
Faculty of Engineering and Applied Science, University of Ontario Institute of Technology, Oshawa, ON L1G 0C5, Canada

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