

DOCS'2022-Special Session Proposal

“Data-driven Fault Diagnosis and Optimization for High-speed Trains”

Fault diagnosis and optimization for high-speed trains have attracted attention over the past decades. Among these methods, data-driven designs, that can be directly implemented without a logical or mathematical description of high-speed trains, have received special attention because of their overwhelming advantages. Despite the current progress of these advanced methods made so far, data-driven designs of fault diagnosis and optimization for high-speed trains are still in their embryonic forms. This special session aims to provide a forum for researchers and practitioners to discuss the latest achievements in data-driven fault diagnosis and optimization for high-speed trains, including theories, technology, and practice.

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Topics

Topics of interest include but are not limited to:

- Public policy, regulatory and societal issues in intelligent transportation systems
- AI and deep learning in fault diagnosis and optimization
- New trends in fault diagnosis of high-speed trains
- Advanced vehicle safety systems
- Data-driven fault diagnosis, health maintenance and performance evaluation
- Learning-based optimization for constrained problems
- Statistical learning, machine learning, and data mining in transportation systems
- Technology of big-data systems and applications
- Data-driven control for high-speed trains
- Model-free modeling, optimization, scheduling, and decision

Important Dates

Paper submission: February 15, 2022

Notification of acceptance: March 15, 2022

Camera-ready copy and author registration: April 15, 2022

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