

CALL FOR PAPERS / CATEGORIES

“Heavy Haul 4.0 – Achieving Breakthrough Performance Levels”

Technologies are Transforming Heavy Haul maintenance and operations. Can new possibilities and innovations be inspired from the Industry 4.0 concept?

Vehicle Track Systems

- Vehicle/track Interaction
- Wheel/rail interface analysis, optimization and management
- Safety and derailment prevention
- Condition monitoring
- Big data analytics with prognostics
- Automation in HH systems
- Vehicle/Track Systems and optimization

Track

- Track maintenance
- Track component performance
- Longitudinal stresses in rails
- Rail welding
- Special track work
- Track geometry
- Increasing axle loads on existing infrastructure
- Construction and maintenance standards
- New, re-design, new materials

Bridges & Tunnels

- Bridge management systems
- Bridge rehabilitation and strengthening
- Bridge loading
- Structural Health monitoring of bridges
- Condition and structural performance assessment
- Tunnel operations, management and maintenance
- New design, re-design, new materials

Operations

- Network Capacity and Operational Efficiency
- Long haul trains
- Train control and capacity optimization
- Heavy Axle Loading (HAL) Economics
- Signalling
- Electrification technology
- Security and Safety
- Service Reliability
- New design, re-design, new materials

Rolling Stock

- Wheels, axles & bearings
- Wagon design and maintenance
- Brake systems
- Detector-based wagon maintenance
- New design, re-design, new materials

Heavy Haul under Extreme Conditions

- Hot and cold environment

- Impact from climate changes

Human factors

- Skills, training and safety impact in relation to 4.0

Prior Publication. Only original contributions to the literature are accepted for publication. In most cases, this means that a paper should incorporate substantial new information not previously published. Under certain circumstances, reviews or collations or analyses of information previously published in scattered form may be acceptable.

All papers submitted or solicited are subject to review. Comments and evaluations of reviewers are confidential.

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Content of Paper. The order of contents of a paper is as follows: paper title, author's name and affiliations, abstract, nomenclature, body of paper including figures and tables, appendixes, acknowledgements, references.

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Classification of abstract: Please classify and indicate in what area the abstract are targeting to focus on. For example; Rolling Stock - Wagon design and maintenance, Operations - Train control and capacity optimization etc.

Summary. A short summary (50 to 100 words) should head the paper. Its purposes are:

- (1) to give a clear indication of the objective, scope and results of the paper so that readers may determine whether the full text will be of interest to them, and
- (2) to provide key words and phrases for indexing, abstracting and retrieval purposes.

Length. An IHHA paper should generally not exceed 8 camera-ready pages. Invited papers should not exceed 10 pages.

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