

AUTOMOTIVE AND RAILWAY TRANSPORT

30th International Scientific Conference

**TRANSPORT
MEANS
2026**



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Session 4

Online presentations

9 October 2026, 9.00 – 15.00

Chairman – **S. Kilikevičius**

Co-Chairman – **V. Lukoševičius**

9.00 – 15.00	Session
11.00 – 11.20	Coffee Break
13.00 – 13.30	Coffee Break

Cost-Benefit Analysis of the ERTMS Level 2 Implementation on a Regional Railway Line: An Italian Case Study

G. D'Ovidio, N. Di Stefano, University of L'Aquila, **M. Di Pasquale, F. Fedele, S. Liberatore**, TUA SpA – Abruzzo Regional Public Transport Company, **L. Iacone**, Independent professional (Italy)

Regression-Based Screening of Tramway Network Length for Baltic Urban Transport Planning

G. Vaičiūnas, J. Matijošius, VILNIUS TECH (Lithuania)

Development and Experimental Investigation of a Disc Brake System with Increased Braking Torque Stability

M. Podrigalo, D. Klets, Kharkiv National Automobile and Highway University, **I. Gritsuk**, Chernihiv Polytechnic National University, **O. Stepanov**, National University of Life and Environmental Sciences of Ukraine, **A. Korobko, M. Kholodov**, Kharkiv National Automobile and Highway University (Ukraine)

Key Aspects of Evaluating Vehicle Thermal Preconditioning Parameters Using Phase-Change Oil and Coolant Storage Units in a Combined Heating Circuit

D. Pohorletskyi, N. Pohorletska, I. Khudiakov, Kherson State Maritime Academy, **V. Kalchenko**, Chernihiv Polytechnic National University (Ukraine)

A Hybrid Evolutionary–Neural Approach for Optimal Shunting Route Selection: Methodology and Algorithm

O. Ischuka, M. Gorobetz, Riga Technical University (Latvia)

Fail-Safe IoT-Based Control of Automated Protective Shutters for Transport Infrastructure Safety under Blast-Related Threats

S. Arhun, O. Dziubenko, A. Hnatov, Kharkiv National Automobile and Highway University (Ukraine)

Concept of a Retrofit Vibration Monitoring System for Fleet-Based Condition Assessment of Vehicle Powertrain Units

S. Arhun, Kharkiv National Automobile and Highway University, **V. Mygal**, State Biotechnological University, **A. Hnatov**, Kharkiv National Automobile and Highway University (Ukraine)

What Future Transportation Experts Should Know about Spectral Matrix Decomposition

J. Kulička, University of Pardubice (Czech Republic)

An Overview of Pedestrian Safety Regarding the Current Global Trends in Transportation

S. Himmetoglu, Z.G. Ergün, K.B. Oflazoğlu, Hacettepe University (Turkey)

Safety of Delivery Riders with an Overview of the Situation in Türkiye

S. Himmetoglu, B. Akgül, Y. Çimen, H. Şimşek, Hacettepe University (Turkey)

Comparison of Traffic Capacity in Railway System Equipped with ETCS/ERTMS and Conventional Signalling

M. Chira, B. Tănase, National University of Science and Technology Politehnica Bucharest (Romania)

Design of a Printed Circuit Board for Bicycle Gear Ratio Regulation

V. Samaš, M. Bučko, P. Slušňák, J. Dižo, University of Žilina (Slovak Republic)

Numerical Analysis of Thermal and Phase Transitions in an Engine Oil Accumulator During Reciprocating Engine Thermal Preconditioning

Yu. Grytsuk, National University of Ostroh Academy, **V. Verbovskyi**, The Gas Institute of the National Academy of Sciences of Ukraine, **O. Volska**, Kherson National Technical University, **I. Murovanyi**, Lutsk National Technical University, **A. Dzygar**, Kherson State Maritime Academy (Ukraine)

Study of Changes in Railway Sidings Gauge Parameters

G. Vaičiūnas, S. Steišūnas, D. Laurinavičius, VILNIUS TECH (Lithuania)

Practical Implementation of the Integration of Two Highway Tracing Methods: The Flexible Bracelet Method and the Maximum Radius Method

I. Musiienko, Kharkiv National Automobile and Highway University, **N. Musiienko**, H.S. Skovoroda Kharkiv National Pedagogical University (Ukraine)

Max-Plus Algebra Based Modeling of Hump Yard Operation Schedule as a Digital Twin Component

V. Prokhorov, L. Parkhomenko, T. Kalashnikova, Ukrainian State University of Railway Transport (Ukraine)

Digital Marketing Communication of Passenger Transport Operators in the Czech Republic: Evidence from the Meta Ad Library

Š. Vančurová, J. Chocholáč, H. Becková, University of Pardubice (Czech Republic)

Methods for Planning Maintenance and Repair Works on the Railway Infrastructure

A.G. Stan, National University of Science and Technology Politehnica Bucharest (Romania)

Numerical Investigation of the Crashworthiness of Multi-Chamber Side Protection Profiles for an Electric Vehicle Battery Enclosure

V. Leišis, G. Micevičius, Kaunas University of Technology (Lithuania)

Indirect Telemetry Extraction from Legacy Vehicle Systems Using Computer Vision, Machine Learning, and Signal Post-Processing

U.K. Medževėprytė, Kaunas University of Technology (Lithuania)

Research on Improving the Aerodynamics of a Truck with a Semi-Trailer

A. Dargužis, Lietuvos Inžinerijos Kolegija / Higher Education Institution, **E. Chaalan**, Kaunas University of Technology (Lithuania)

Investigation of Towing Performance of All-Terrain Vehicles

D. Juodvalkis, Lietuvos Inžinerijos Kolegija / Higher Education Institution (Lithuania)

Optimization of Aerodynamics of Hopper Wagons for Grain Transportation

O. Fomin, National Transport University, **M. Khara**, SHEI "Pryazovskyi State Technical University", **S. Turpak**, Zaporizhzhia Polytechnic National University (Ukraine), **A. Keršys**, Kaunas University of Technology (Lithuania), **I. Gunko**, National Transport University (Ukraine)

Improvement of the Operational Characteristics of a Freight Wagon Bolster Beam by Filling the Internal Cavity with Aluminum Foam

O. Fomin, **V. Ishchenko**, **N. Braikovska**, National Transport University (Ukraine), **R. Skvireckas**, Lietuvos Inžinerijos Kolegija / Higher Education Institution (Lithuania), **V. Osmak**, State University "Kyiv Aviation Institute", **A. Sulym**, State Enterprise "Ukrainian Scientific Railway Car Building Research Institute" (Ukraine)