

Section

# AUTOMOTIVE AND RAILWAY TRANSPORT

28<sup>th</sup> International Scientific Conference

**TRANSPORT  
MEANS  
2024**



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## Session 4

Virtual presentations

4 October 2024, 9.00 – 15.00

Chairman – Prof. **S. Kilikevičius**

Co-Chairman – Prof. **V. Lukoševičius**

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9.00 – 16.00	Session
11.00 – 11.20	Coffee Break
13.00 – 13.30	Coffee Break

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***Computational Evaluation of the Influence of the Control Piston Bore Throughput on the Differential Action of a Pneumatic Brake Valve***

**M. Kisiel, D. Szpica**, Bialystok University of Technology (Poland)

***Research of the Impact of Automotive Transport on the Environment***

**T. Rusakova, K. Rusakova**, Ukrainian State University of Science and Technologies (Ukraine)

***Tracing of Highways Using the Maximum Radius Method***

**I. Musiienko**, Ukrainian State University of Science and Technologies (Ukraine)

***Features of the Enhancing Vehicle Operability through Downtime Reduction and Spare Parts Optimization***

**I. Gritsuk**, Kherson State Maritime Academy, **V. Volkov**, Kharkiv National Automobile and Highway University, **R. Symonenko**, State Road Transport Research Institute, **V. Verbovskiy**, The Gas Institute, Ukrainian Academy of Science of Ukraine, **O. Holovashchenko**, **A. Navrotskyi**, National Transport University (Ukraine)

### ***Formation of a Methodology for Increasing the Stability of Movement of Caterpillar Tractors for Energy-intensive Agricultural Technologies***

**S. Lebedev**, State Scientific Organization "Leonid Pogorilyy Ukrainian Scientific Research Institute of Forecasting and Testing of Machinery and Technologies for Agricultural Production", **A. Lebedev**, **M. Shuliak**, Sumy National Agrarian University, **S. Khalin**, State Scientific Organization "Leonid Pogorilyy Ukrainian Scientific Research Institute of Forecasting and Testing of Machinery and Technologies for Agricultural Production", **S. Sokolik**, **A. Podliesnyi**, **V. Pogulyai**, Sumy National Agrarian University (Ukraine)

### ***Analysis of Electromobility and Euro 7 Emission Standard***

**Z. Krobot**, University of Defence (Czech Republic) **B. Kopilakova**, A. Dubcek University of Trencin (Slovak Republic), **P. Stodola**, **J. Stodola**, University of Defence (Czech Republic)

### ***Focused on the Future: Competence 4.0 Project for the Automotive Industry***

**A. Svasta**, University of Defence (Czech Republic) **B. Kopilakova**, A. Dubcek University of Trencin (Slovak Republic), **P. Stodola**, **J. Stodola**, University of Defence (Czech Republic)

### ***How to Assess the Operation of Terminal Stations: Integration of Morphological Analysis and Simulation***

**G. Malavasi**, **S. Ricci**, **L. Rizzetto**, Sapienza University of Rome (Italy)

### ***Train Based System for Wheelsets' Angle of Attack Measurement - Laboratory Verification of Sensor Characteristics***

**J. Kalivoda**, **P. Bauer**, **M. Novák**, **Z. Novák**, Czech Technical University in Prague (Czech Republic)

### ***Selection of Optimal Lithium Battery Technology for Backup Power Supply of Automatics Systems in Railway Transport***

**S. Buriak**, **O. Gololobova**, **T. Serdiuk**, Ukrainian State University of Science and Technologies, **O. Voznyak**, Lviv Polytechnic National University, **O. Yehorov**, Ukrainian State University of Science and Technologies, **I. Manachyn**, Ukrainian State University of Science and Technologies, Iron and Steel Institute of Z. I. Necrasov of NAS of Ukraine, **K. Radzikhovskiy**, Ukrainian State University of Science and Technologies (Ukraine)

### ***Research on the Effective Level of Customs Protection Using Blockchain Technologies in Railway Transport (Case Study of Ukraine)***

**O. Khodakivskiy**, **T. Butko**, **Ye. Khodakivska**, **P. Dolgoplov**, **D. Konstantinov**, **Ye. Bondarenko**, Ukrainian State University of Railway Transport (Ukraine)

### ***Problems of Automation of Cut Rolling Speed Adjustment***

**V. Moiseenko**, **O. Golovko**, Ukrainian State University of Railway Transport (Ukraine), **M. Meztis**, Transport Academy, Riga, (Latvia), **S. Matviienko**, Ukrainian State University of Railway Transport (Ukraine)

### ***The Competitiveness of the Railway Services Against Passenger Cars in the Visegrad Group Countries***

**A. Massel**, A. Soczówka, Railway Research Institute (Poland)

### ***Power Quality of the Transformer Circuits Supplying the Railroad Electric DC Traction Substation***

**J. Wojciechowski**, **G. Krawczyk**, **M. Wójcik**, Casimir Pulaski Radom University (Poland)

### ***Impact of Railroad DC Traction Substation Operation on Power Quality Parameters of the Electric Power Supply System***

**J. Wojciechowski**, **G. Krawczyk**, Casimir Pulaski Radom University (Poland)

### ***Acceleration Determination and Battery Charge Irregularities of an Electric Vehicle***

**U. K. Medževprytė**, KTU (Lithuania), **A. Borawski**, **D. Szpica**, **G. Mieczkowski**, Bialystok University of Technology (Poland)

### ***Theoretical Research of Hybrid Car Efficiency***

**D. Juodvalkis**, Lietuvos inžinerijos kolegija Higher Education Institution (Lithuania)

### ***Research of Electric Vehicle HV Battery Charging Power in Real Conditions***

**D. Juodvalkis**, KTU, Lietuvos inžinerijos kolegija Higher Education Institution (Lithuania)