

**CONFERENCE PROGRAMME****TUESDAY****26 APRIL 2022****15⁰⁰ - 18⁰⁰ REGISTRATION OF PARTICIPANTS****18⁰⁰ BARBECUE DINNER****WEDNESDAY****27 APRIL 2022****8⁰⁰ - 9⁰⁰ BREAKFAST****9⁰⁰ - 9¹⁵ OPENING CEREMONIES****9¹⁵ - 10³⁰ SESSION 1****9¹⁵ - 9³⁰ Gidlewski Mirosław, Jackowski Jerzy, Posuniak Paweł**

Review and analysis of technical designs of rear underrun protective devices (RUPDs) in terms of regulatory compliance

9³⁰ - 9⁴⁵ Lozia Zbigniew, Zdanowicz Piotr

Peak-picking method in the diagnostics of automotive shock absorbers – simulation assessment with elements of experimental verification

9⁴⁵ - 10⁰⁰ Ziubiński Mateusz, Prochowski Leon

Assessment of the vehicle body side stiffness influence on the process of hazard generating in front-to-side vehicles' collision

10⁰⁰ - 10¹⁵ Klockiewicz Zbyszko, Ślaski Grzegorz

The estimation of frequency response of nonlinear quarter car model and bilinear model of damper characteristics

10¹⁵ - 10³⁰ Dębowski Andrzej, Faryński Jakub, Żardecki Dariusz

The bicycle model of a 4WS car lateral dynamics for lane change controller

10³⁰ - 10⁵⁰ COFFE BREAK**10⁵⁰ - 12²⁰ SESSION 2****10⁵⁰ - 11⁰⁵ Čulík Kristián, Štefancová Vladimíra, Kalašová Alica**

Driving Simulator as a Tool for Reaction Time Measurement

11⁰⁵ - 11²⁰ Dębowski Andrzej

Effects of motorbike front suspension component operation on torsional vibration frequencies

11²⁰ - 11³⁵ Gidlewski Mirosław, Jemioł Leszek, Żardecki Dariusz

Simulation tests of the integrated lane change control system

11³⁵ - 11⁵⁰ Guzek Marek, Lozia Zbigniew

Accident reconstruction based on EDR records – new findings based on simulation calculations

11⁵⁰ - 12⁰⁵ Sulej Stanisław, Szurgott Piotr, Jackowski Jerzy

Universal Design in Supporting People with Special Needs in Using of Their Own Passenger Cars

12⁰⁵ - 12²⁰ PRESENTATION - EC TEST SYSTEMS**12³⁰ - 13⁴⁵ LUNCH****14⁰⁰ - 16¹⁵ SESSION 3 "YOUNGER RESEARCHERS"****14⁰⁰ - 14¹⁵ Gruszczyński Michał, Jurecki Rafał,**

Testing of driving under varying road conditions

14¹⁵ - 14³⁰ Frej Damian, Jaśkiewicz Marek, Zuska Andrzej, Więckowski Dariusz

Frontal collision simulation in laboratory conditions

- 14³⁰–14⁴⁵ **Stańko- Pająk Katarzyna, Bursa Bartłomiej, Seńko Jarosław, Detka Tomasz, Korczak Sebastian, Nowak Radosław, Popiołek Krzysztof, Lisiecki Jakub**
A three-wheeled vehicle for the disabled people
- 14⁴⁵–15⁰⁰ **Ondrej Kuba, Jagelčák Juraj**
Lateral acceleration of passenger vehicle in roundabouts in term of cargo securing
- 15⁰⁰–15¹⁵ **Miloš Poliak, Tomaszewska Iwona**
Transport services provided for customers by carriers and building of relationship between them
- 15¹⁵–15³⁰ **Poliak Miloš, Salamakhina Ekaterina, Lakhmetkina Natalia, Zhuravleva Natalia**
Comparison of freight forwarder liability in selected countries of the European Union and selected countries of the Commonwealth of Independent States (CIS)
- 15³⁰–15⁴⁵ **Prochowski Leon, Ziubiński Mateusz, Mantur Tomasz**
Hazards arising during road accidents in cases of vehicle adaptation for the person with special needs
- 15⁴⁵–16⁰⁰ **Skuza Adriana, Jurecki Rafał**
Analysis of factors affecting the energy consumption of an EV vehicle - a literature study
- 16⁰⁰–16¹⁵ **Podosek Krzysztof, Šarić Željko, Zuska Andrzej**
Test bench for the assessment of vibrations occurring in motorcycles
- 16¹⁵–16³⁰ **Takosoglu Jakub, Ziejewski Kamil, Klusek Aurelia, Chłopek Łukasz**
Design of the stand for experimental tests of pneumatic bellows actuators
- 16³⁰ – 16⁴⁰ COFFE BREAK**
- 16⁴⁰ – 19⁰⁰ 4 SHORT SESSION**
- 1 SECTION**
- 16⁴⁰–16⁵⁰ **Gosławski Łukasz, Sys Ewa, Mrowicki Adam, Krukowski Mateusz, Turoboś Filip, Knap Lech, Bogusławski Grzegorz, Gralewski Jacek, Kubiak Przemysław**
Determination of subcompact vehicle speed prior to impact using inverse system and tensor product of Legendre polynomials
- 16⁵⁰–17⁰⁰ **Gosławski Łukasz, Sys Ewa, Mrowicki Adam, Mateusz Krukowski, Yanlin Ma, Przemysław Kubiak**
Determination of precrash velocity of luxury class vehicles using nonlinear approach to tensor product of Legendre polynomials
- 17⁰⁰–17¹⁰ **Rak Roman, Sulc Vladimír, Vlach Frantisek, Kopencova Dagmar, Hudecova Vladimira**
Identifying the Age of a Vehicle for Commercial Safety and Forensic Purposes Using “Window Stamps”
- 17¹⁰–17²⁰ **Szymanek Andrzej, Stoklosa Józef**
Carpooling and the reduction of urban traffic
- 17²⁰–17³⁰ **Kasperek Dariusz, Bartnik Grzegorz, Marciniak Andrzej, Małek Arkadiusz, Pieniak Daniel, Gil Leszek**
The use of probabilistic networks in the analysis of risks to the components of the bus power system with hydrogen fuel cells
- 17³⁰–17⁴⁰ **Kopania Joanna, Zakrzewicz Wojciech, Kubiak Przemysław, Mrowicki Adam, Głogowski Michał, Gralewski Jacek, Bogusławski Grzegorz, Wójciak Kamil, Gaj Patryk**
Airborne sound transmission in fluted PVC panels-properties of materials and structures
- 17⁴⁰–17⁵⁰ **Dębowski Andrzej**
Adaptation of single-track vehicles to the needs of people with disabilities
- 17⁵⁰–18⁰⁰ **Frej Damian, Jaśkiewicz Marek, Jurecki Rafał, Kurczyński Dariusz, Łagowski Piotr, Stańczyk Tomasz, Zuska Andrzej, Szumska Emilia, Grabski Paweł**
Tests of lateral acceleration during a controlled skid - various types of vehicles
- 18⁰⁰–18¹⁰ **Łagowski Piotr, Stańczyk Tomasz L., Szumska Emilia, Zuska Andrzej, Grabski Paweł, Jaśkiewicz Marek, Jurecki Rafał, Kurczyński Dariusz**
Influence of road conditions on the values of longitudinal acceleration during braking of a tourist coach
- 18¹⁰–18²⁰ **Grabski Paweł, Jaśkiewicz Marek, Jurecki Rafał, Kurczyński Dariusz, Łagowski Piotr, Stańczyk Tomasz L. Szumska Emilia, Zuska Andrzej**
Lateral acceleration tests during double lane change and circular driving maneuvers.
- 18²⁰–18³⁰ **Frej Damian, Zuska Andrzej**
Selection of child seats in terms of vibration comfort
- 18³⁰–18⁴⁰ **Gidlewski Mirosław, Pusty Tomasz, Jemioł Leszek, Kochanek Hanna**
Methods for determining the physical quantities describing the vehicle movement and the driver during a road accident
- 18⁴⁰–18⁵⁰ **Jackowski Jerzy, Żmuda Marcin, Wieczorek Marcin**
Quasi-static research of cornering stiffness for selected tires of UTV/ATV vehicles
- 18⁵⁰–19⁰⁰ **Rymarz Joanna, Niewczas Andrzej, Hołyszko Piotr, Dębicka Ewa**
Application of Spearman's Method for the Analysis of the Causes of Long-Term Post-Failure Downtime of City Buses

2 SECTION

- 16⁴⁰–16⁵⁰ **Kurczyński Dariusz, Łagowski Piotr, Stańczyk Tomasz L., Szumska Emilia, Zuska Andrzej, Grabski Paweł, Jaśkiewicz Marek, Jurecki Rafał**
Analysis of longitudinal acceleration during rapid minibus braking on various surfaces
- 16⁵⁰–17⁰⁰ **Kurczyński Dariusz, Łagowski Piotr, Stańczyk Tomasz L., Szumska Emilia, Zuska Andrzej, Grabski Paweł, Jaśkiewicz Marek, Jurecki Rafał**
Study of lateral acceleration of a Ford Transit car on various road surfaces
- 17⁰⁰–17¹⁰ **Szumska Emilia, Zuska Andrzej, Grabski Paweł, Jaśkiewicz Marek, Jurecki Rafał, Kurczyński Dariusz, Łagowski Piotr, Stańczyk Tomasz L.**
Road testing of lateral acceleration in urban bus
- 17¹⁰–17²⁰ **Szumska Emilia, Zuska Andrzej, Grabski Paweł, Jaśkiewicz Marek, Jurecki Rafał, Kurczyński Dariusz, Łagowski Piotr, Stańczyk Tomasz L.**
Experimental testing of longitudinal acceleration in urban buses
- 17²⁰–17³⁰ **Zuska Andrzej, Grabski Paweł, Jaśkiewicz Marek, Jurecki Rafał, Kurczyński Dariusz, Łagowski Piotr, Stańczyk Tomasz L., Szumska Emilia,**
Influence of harsh braking parameters on safety of load transport
- 17³⁰–17⁴⁰ **Hryciów Zdzisław**
The safety of wheelchair occupants in motor vehicles
- 17⁴⁰–17⁵⁰ **Kubáňová Jaroslava, Kubasáková Iveta, Poliak Miloš**
Risks of the insurance in road transport
- 17⁵⁰–18⁰⁰ **Piátowicz Radosław, Luty Witold**
Modelling of dynamics of the suspension of tandem axles of a multi-axle vehicle provided with a novel load-equalising system
- 18⁰⁰–18¹⁰ **Górniak Aleksander, Górniak Wanda, Matla Jędrzej, Zawiślak Maciej**
The influence of seatback reclination on body kinematics during low-speed frontal impact
- 18¹⁰–18²⁰ **Jackowski Jerzy, Gidlewski Mirosław, Posuniak Paweł**
Knowledge centre for transport accessibility and mobility of people with special needs using individual transport modes
- 18²⁰–18³⁰ **Dindorf Ryszard, Wos Piotr**
Vibration damping performance of the electrohydraulic self-leveling unit of a tracked platform of a robotic bricklaying combine
- 18³⁰–18⁴⁰ **Pusty Tomasz, Lewiński Ryszard, Kowieski Hubert**
Motor vehicles' problems with keeping the straight driving direction; analysis of selected cars
- 18⁴⁰–18⁵⁰ **Pusty Tomasz**
Determining the trajectory of the vehicle motion on the basis of the recorded physical quantities describing its dynamics during typical maneuvers in road traffic
- 18⁵⁰–19⁰⁰ **Zaklika Weronika, Sterniczuk Daniel**
The importance and directions of electromagnetic compatibility test methodologies development in the aspect of vehicle safety

19³⁰

GALA DINNER

THURSDAY

28 APRIL 2022

8⁰⁰ - 9⁰⁰

BREAKFAST

9⁰⁰ – 10³⁰

SESSION 5

- 9⁰⁰– 9¹⁵ **Ciesielski Radosław, Zakrzewski Mateusz, Shtyka Oleksandr, Maniecki Tomasz, Rylski Adam, Woźniak Marek, Kubiak Przemysław, Siczek Krzysztof**
Yellow and brown grease—characteristics of compression-ignition engine
- 9¹⁵– 9³⁰ **Małek Arkadiusz, Wojciechowski Łukasz**
Carports as an element of energy security for electric vehicles
- 9³⁰– 9⁴⁵ **Tarnapowicz Dariusz, German Galkin Sergey, Staude Marek, Jaśkiewicz Marek, Zaleski Tymoteusz**
Improvement of energy efficiency in the drive system of an electric car with PMSM
- 9⁴⁵– 10⁰⁰ **Jagier Jacek, Sternik Andrzej, Woliński Henryk, Marciniak Jan, Pusz Jacek, Kroński Jacek, Takosoglu Jakub, Dindorf Ryszard, Błasiak Sławomir, Woś Piotr**
A three-wheeled rehabilitation bicycle with an innovative pneumatic drive
- 10⁰⁰–10¹⁵ **Sys Ewa, Gosławski Łukasz, Mrowicki Adam, Głogowski Michał, Madziara Szymon, Droś Bartosz, Zakrzewicz Wojciech, Kubiak Przemysław**
IR spectroscopy analysis of skid marks for vehicle equipped with ABS considering slip ratio

10¹⁵ – 10³⁵ COFFE BREAK

10³⁵ – 11³⁵ SESSION 6

10³⁵ – 10⁵⁰ **Lozia Zbigniew**

The concept of the application of modelling and simulation to simplify and reduce the cost of durability tests of vehicles and their components

10⁵⁰ – 11⁰⁵ **Šarkan Branislav, Vrábel Ján, Moravčík Ľubomír**

Change in engine power in the event of electronic components failures

11⁰⁵ – 11²⁰ **Woś Piotr, Dindorf Ryszard**

Design of an electro-pneumatic driving simulator

11²⁰ – 11³⁵ PRESENTATION - THE OKB COMPANY

12⁰⁰ – 13⁴⁵ LUNCH

14⁰⁰ – 19⁰⁰ SHIP CRUISE ON THE SIRAVA

19³⁰ DINNER

FRIDAY

29 APRIL 2022

8⁰⁰ - 9⁰⁰ BREAKFAST

9⁰⁰ – 10³⁰ SESSION 7

9⁰⁰ – 9¹⁵ **Čulík Kristián**

COVID-19 Pandemic Risks Eliminated By the Introduction of EDI on the Logistics Activities

9¹⁵ – 9³⁰ **Wach Wojciech**

Validation of vehicle accident video recordings using the lightboard

9³⁰ – 9⁴⁵ **Beňuš Ján, Poliak Miloš**

Comparison of driver awareness in real traffic and driving on a simulator

9⁴⁵ – 10⁰⁰ **Longwic Rafał, Caban Jacek, Vrabel Jan, Nieoczym Aleksander**

Biomechanical Models in the Assessment of Road Collisions Between Motor Vehicle and Pedestrian

10⁰⁰ – 10¹⁵ **Więckowski Dariusz**

The issue of empirical testing of Highly Automated Vehicles

10¹⁵ – 10³⁵ COFFE BREAK

10³⁵ – 11²⁰ SESSION 8

10³⁵ – 10⁵⁰ **Šarkan Branislav, Loman Michal, Synák František, Richtár Michal, Gidlewski Mirosław**

Influence of engine electronic management fault simulation on vehicle operation

10⁵⁰ – 11⁰⁵ **Stopka Ondrej**

Application of multi-criteria decision making methods for comparison of selected passenger electric cars: a case study

11⁰⁵ – 11²⁰ **Kopania Joanna Maria, Zakrzewicz Wojciech, Kubiak Przemysław, Mrowicki Adam, Głogowski Michał, Gralewski Jacek, Bogusławski Grzegorz, Wójciak Kamil, Gaj Patryk**

The properties of materials and structures of fluted PVC panels to free transmission of airborne sound

11³⁰ CLOSING CEREMONIES

12⁰⁰ – 14⁰⁰ LUNCH

COMMENTS ON THE PRESENTATION

- PAPERS IN SESIONS 1-3, 5 -8, –PRESENTATION TIME - 10 MINUTES + 5 MINUTES DISCUSSION IN ACCORDANCE WITH THE DETAILED PROGRAM, PRESENTATION AT POWER POINT MUST BE LOADED INTO THE COMPUTER AND PROVEN BEFORE THE SESSION IN WHICH THE ARTICLE WILL BE REQUESTED
- PAPERS IN SESION 4 , MUST PRINT THE POSTER AND PLACE THIS ON THE PREPARED PLACE. WITHIN 7 MINUTES HAVE TO PRESENT THEM AND THE MOST IMPORTANT CONCLUSIONS, + 3 MINUTES DISCUSSION



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