Conference Program

DGIS 2023

9:00 - 9:15Welcome speech **Bouchner Petr** (FTS, CTU in Prague) 9:15 - 9:45 About project RESICITIES Costa Jordao Ticiano (FTS, CTU in Prague) Section 1: Innovative Solutions and Safety 9:45 - 10:45 Safety aspects of e-cars charging Štěrba Roman, Cigánek Jiří (FTS, CTU in Prague) Passive safety testing of light vehicles - Initial Cenkner Michal, Toman Přemysl, validation of the proposed methodology using FEM **Svoboda Josef** (FTS, CTU in Prague) Gear Ration Optimization of Single And Two-Speed Heřmanová Jolana (FME, CTU in Prague) Transmission For an Electric Motorcycle **Electric Vehicle Charging Considerations:** Frankhuizen Nico (ROCSYS, NL) **Pre-Implementation Analysis** 10:45 - 11:05 Coffee break Section 2: Driving Simulators, HMI and Testing 11:05 - 12:05 Optimizing Timing for Emergency Vehicle Approach Warnings Weibull Kajsa, Lidestam Björn, Prytz Erik (VTI, SE) **Augmented Emergency Lighting** Lidestam Björn, Lindblad Philip, Ondomiši Petr, Sörengård Emilia, Weibull Kajsa (VTI, SE) **Leistner Jan** (FTS, CTU in Prague) Autonomous driving with a focus on HMI for parallel parking maneuvers Assessment of the influence of music genres and sound Magdziak-Tokłowicz Monika (WUST, PL) intensity on driver response and active safety in vehicle 12:05 - 13:15 Lunch Section 3: Biosensorics & Informatics 13:15 - 14:15 System for physiological monitoring and tracking the Kliment Radim (FBE, CTU in Prague) direction of the driver's gaze in the vehicle cabin Development of non-invasive miniaturized Vítězník Martin (FBE, CTU in Prague) optical sensor for blood pressure sensing Testing of a complex information system built on API Sliacky Milan (FTS, CTU in Prague) Sleep analysis - Automatic detection of Rychlík Jan (DCSE, UWB in Pilsen) sleep spindles by neural networks 14:15 - 14:30 Coffee break Section 4: Urban Mobility and Sustainability 14:30 - 15:45 Drivers and Instruments of Knowledge and Technology Michel-Schneider Ulrike Transfer in the automotive sector – a comprehensive review (FCE, CTU in Prague) for the Czech Republic and the Free State of Saxony Assessing Time and Financial Costs of Bus Delays Scháno Martin, Dvořáčková Alexandra in the Ústí nad Labem Region, Czech Republic (FTS, CTU in Prague) Digital reconstruction of real (near) accidents of Piksa Ondřej, Ritter Jan, vulnerable road users (VRU) in the Czech Republic Drbohlav Pavel, Petrán Tomáš

15:45 - 16:15 Poster session and networking

- modern technology brings new perspectives

An Examination of Driving Speed: The Role

future drivers using a vehicle simulator

of Perceivable Road Characteristics in Towns

Use and access possibilities in the field of training

Bouchner Petr (FTS, CTU in Prague)

(FTS, CTU in Prague)

Scháno Martin, Nový Josef,

Krejčí Dan (FTS, CTU in Prague) **Topol Libor** (FTS, CTU in Prague)