



UNIVERSITY OF ŽILINA  
Faculty of Operation and Economics of Transport and Communications  
Department of Road and Urban Transport

organizes

under the auspices of the rector of the university

**Dr.h.c. prof. Ing. Tatiana Čorejová, PhD.**

and

under the auspices of

**Ministry of Transport, Construction and Regional  
Development of the SR**

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

## CMDTUR 2016



Preliminary program

Location:

**Žilina, Slovakia**

**19 – 20 October 2016**

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Invitation to the 7<sup>th</sup> International Scientific Conference „CMDTUR 2016“

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Invitation to the 7<sup>th</sup> International Scientific Conference „CMDTUR 2016“

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*Promotional Partners*



Marius Pedersen 



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Ing. Jozef Paťo, PhD.,

## ***Conference Secretariat***

University of Žilina  
Faculty of Operation and Economics of Transport and Communications  
Department of Road and Urban Transport  
Univerzitná 8215/1, building BF, 010 26 Žilina, Slovakia  
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e-mail: [stefania.semanova@fpedas.uniza.sk](mailto:stefania.semanova@fpedas.uniza.sk) 

*The International Scientific Conference is organized  
in cooperation with:*



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## *A Goal of the Conference*

Economic and social importance of road and urban transport is not negligible. Road and urban transport ensures mobility of inhabitants and goods transportation according to still varying consumers' requirements. The development of individual motoring and road freight transport causes many negative effects. Ones of the most serious negative effects are large number of accidents with incalculable losses of human lives, damage to property and adverse impacts on the environment. Despite the mentioned facts the life without cars is unimaginable nowadays. Searching for suitable further development of road and urban transport in present conditions in Europe, as well as outside Europe, in conditions of globalization represents looking for suitable consensus among safety, environment, technical, and economic demands. Searching for new solutions in area of mobility of people as well as logistics solutions which involve road transport should emphasize the dynamics of development in recent years for example introducing telematics. On the other hand, it should also point out the lack of professional staff, the possibility of changing the size and weight of vehicles as a tool for reducing energy consumption and negative impacts on the environment.

The Conference should be the forum for meetings and exchange of views of the experts from fields associated with road and urban transport.

### ***Conference Scope:***

- Legislation and safety issues, environmental requirements for road and urban transport
- Technology of operation and management of road and urban transport
- Public transport financing in Slovakia and abroad,
- Integrated transport systems
- Management of transport systems and intelligent transport systems

- Using information technologies in management of transport processes and transport companies
- Methods for increasing efficiency of road and urban transport
- Road transport as a part of intermodal transport
- Quality in transport services
- Electromobility and the use of alternative fuels (LNG, CNG)

***Conference is intended for:***

- scientific and research workers in area of transport and university teachers,
- employees of state and public administration in the fields of transport,
- managers and workers in transport and forwarding companies,
- manufacturers, importers and retailers of automotive technology.

The selected scientific papers published in English in the Conference Proceedings will be recommended for publication to editorial boards of scientific indexed journals:

COMUNICATIONS, Scientific Letter of the University of Zilina,  
registered in SCOPUS database

(<http://www.uniza.sk/komunikacie/menu/komunik.asp?v=s>)

TRANSPORT AND COMMUNICATIONS,  
registered in COPERNICUS database  
(<http://tac.uniza.sk/index.html>)

The papers which do not correspond to thematic scope of the Conference will not be accepted for a peer-review process. Each participant of the Conference can be an author or co-author of maximum of two papers. This way, we would like to invite you to the 7<sup>th</sup> International Scientific Conference "CMDTUR 2016" which already has its tradition.

***prof. Ing. Jozef Gnap, PhD.***  
The head of Department of Road and Urban Transport

## ***Venue of the Conference***

Hall BG2A1 – Datalan

University of Žilina  
Veľký diel  
Univerzitná 1  
010 26 Žilina

GPS: 49° 12' 10.56" S, 18° 45' 22.86" V  
([www.fpedas.uniza.sk](http://www.fpedas.uniza.sk))



Interpretation between the Slovak and English languages will be provided during the Conference.

## *Conference Programme*

**19. 10. 2016 – Hall BG02A1 Datalan**

**09:00 – 10:00                      Registration**

**10:00 – 12:00                      Opening of the Conference and Plenary Session**

**Presentations of representatives of cooperating organizations of CMDTUR:**

**Aktuálne problémy cestných dopravcov**

(Current problems of road hauliers)

*Pavol Jančovič, president of ČESMAD Slovakia (SK)*

**Aktuálne problémy v autobusovej doprave na Slovensku**

(Current problems in bus services in Slovakia)

*Peter Sádovský, president of Slovak National Association of the Bus Operators (SK)*

**Verejná doprava vo vzťahu k ekonomike regiónu**

(Public transport in relation to the region economy)

*Marek Modranský, chairman of Institute of Public Transport and honorary vice-president of UITP (SK)*

**Aktuálne problémy v logistike a zasielateľstve v SR v európskom kontexte**

(Current problems in logistics and freight forwarding in the SR in the European context)

*František Komora, president of Association of Logistics and Freight Forwarding of the Slovak Republic (SK)*

## **Elektromobilita v MHD na Slovensku**

(Electromobility in urban public transport in the SR)

*Peter Janus, chairman of Association of operators of public passenger transport in urban agglomerations in the SR (SK)*

## **Economic characteristics of urban public transport fares**

*Grzegorz Dydkowski – Robert Tomanek, University of Economics in Katowice (PL)*

## **Aktualní trendy inteligentní mobility a logistiky**

(Current trends of smart mobility and logistics)

*Roman Srp, ERTICO – ITS EUROPE (CZ)*

**12:00 – 13:00**

**Lunch**

**13:00 – 15:00**

**Conference programme**

## **Príprava nového zákona o podmienkach prevádzky vozidiel v cestnej premávke**

(Preparation of a new law on conditions of vehicle operation in road traffic)

*Lubomír Moravčík, Ministry of Transport, Construction and Regional Development of the SR (SK)*

## **Road safety measures for professional drivers**

*Francisco Alonso, University of Valencia (E)*

## **Possibilities and limitations for the clarification of insurance fraud relating to road transport (damage assessment)**

*Klaus-Dieter Brösdorf, Westsächsische Hochschule Zwickau (D) – Marco Goertz, Unfallanalysen Götz (D) – Tibor Kubjatko, Žilinská univerzita v Žiline (SK) – Jens Mehnert, West Sachsen Zwickau University, Faculty of Automotive Technology (D)*

## **Podnikanie v cestnej doprave**

(Business in road transport)

*Hana Jurkovičová, Ministry of Transport, Construction and Regional Development of the SR (SK)*

## **Konkurencieschopnosť slovenských dopravcov v kontexte daní a poplatkov**

(Competitiveness of Slovak carriers in relation to taxes and fees)

*Vladimir Konečný – Jozef Gnap, University of Žilina (SK)*

## **The economics of using biofuels in transport**

*Zdeněk Říha – František Dolský – Jan Tichý, Czech Technical University in Prague (CZ)*

## **Administratívno-právna zodpovednosť za porušenie povinnosti podrobiť vozidlo technickej alebo emisnej kontrole** (Administrative and legal liability for breach of duty to undergo the technical or emission vehicle inspection)

*Jana Moravčíková, Ministry of Transport, Construction and Regional Development of the SR (SK)*

**15:00 – 15:30**

**Coffee break**

**15:30 – 16:30**

**Excursion in Laboratory of Department of Road and Urban Transport**

**Section: Sustainable mobility in cities and regions**

**Room: Hall BG2A1 Datalan**

**16:30 – 17:30**

**Conference programme**

## **Výsledky OPD 2007-2013 a nové ciele Integrovaného dopravného systému Košického kraja na roky 2014 - 2020**

(The results of OPD 2007-2013 and new goals of Integrated Transport System of Košice region for the programming period 2014 - 2020)

*Ladislav Olexa - Miroslav Fazekaš - Peter Šmihula - Radovan Hužník, KSK (SK)*

## **Využiteľnosť dát v podmienkach verejnej osobnej dopravy**

(Utilization of data capture in the conditions of public passenger transport)

*Andrej Čačko, TransData (SK)*

**Pôsobnosť orgánov verejnej správy pri povoľovaní osobnej cestnej dopravy**

(Competence of public authorities in licensing for road passenger transport)

*Martin Čiferský, Ministry of Transport, Construction and Regional Development of the SR (SK)*

**Development of a road toll system based on the example of Katowice city centre**

*Jerzy Mikulski, University of Economics in Katowice (PL) – Alica Kalašová – Ján Palúch, University of Žilina (SK)*

**Section: Road transport and logistics**

**Room: BF227**

**16:30 – 17:30**

**Conference programme**

**Zodpovednosť a postavenie zasielateľa**

(Responsibilities and a role of a freight forwarder)

*Miloš Poliak, University of Žilina (SK)*

**Úspornejšie návesové súpravy v cestnej doprave**

(More efficient articulated vehicles for road freight transport)

*Jozef Gnap – Tomáš Skrúcaný, University of Žilina (SK)*

**Evaluation of GPS Data to Create Outputs Usable in Transport and Logistics**

*Ján Zámečník – Juraj Jagelčák – Erika Hoferíková – Jana Barošová, University of Žilina (SK)*

**Nastavenie riadiacej jednotky motora a prevádzkové parametre vozidla**

(Setting of an engine control unit and operating parameters of a vehicle)

*Vladimír Rievaj – Lenka Mokričková – Ján Kuňa – Ján Závodný, University of Žilina (SK)*

**18:00**

**Dinner**

**20. 10. 2016**

**Section: Sustainable mobility in cities and regions**  
**Room: Hall BG2A1 Datalan**

**08:30 – 10:30**

**Conference programme**

**Smart city – bezpečná a udržateľná mestská mobilita**  
(Smart city – safe and sustainable urban mobility)

*Alica Kalašová – Ján Kapusta, University of Žilina (SK) – Jerzy Mikulski, University of Economics in Katowice (PL)*

**Big data in urban public transport**

*Anna Urbanek, University of Economics in Katowice (PL)*

**Zavádzanie nových metód a najlepších praktík do plánovania udržateľnej mestskej mobility**

(Introduction of new methods and best practises into sustainable urban mobility planning)

*Jozef Gnap, University of Žilina (SK)*

**Public funding of urban public transport in Poland**

*Grzegorz Dydkowski - Barbara Kos, University of Economics in Katowice (PL)*

**Netradičné spôsoby financovania dopravnej obslužnosti hromadnou osobnou dopravou**

(Non-traditional ways of financing transport services in public passenger transport)

*Miloš Poliak – Peter Varjan, University of Žilina (SK)*

**Analysis of Hungarian Rail Transport sector**

*Gabor Szendro - Adam Torok, Budapest Univesity of Technology and Economics, BUTE (HU)*

**Section: Road safety**

**Room: BF227**

**08:30 – 10:30**

**Conference programme**

**Vliv stavebních úprav pozemních komunikací na bezpečnost silničního provozu**

(The influence of construction works of roads on road safety)

*Michal Turek – Ondřej Malínek, College of Logistics (CZ)*

**Dopravná nehodovosť a štatistická hodnota ľudského života v SR**

(Traffic accidents and the statistical value of a human life in the SR)

*Alica Kalašová – Simona Kubíková – Renáta Škulcová – Jozef Palo, University of Žilina (SK)*

**Interaktivní vozidlové simulátory a jejich využití v oblasti výzkumu chování řidičů**

(Interactive vehicle simulators and their use in the research into drivers' behaviour)

*Stanislav Novotný – Petr Bouchner – Josef Mik, Czech Technical University in Prague (CZ)*

**Prieskum postojov a názorov verejnosti na oblasť vedenia motorového vozidla pod vplyvom alkoholu**

(Survey of opinions and attitudes of the public to the issues of driving while drunk)

*Miroslava Mikušová – Ján Ondruš, University of Žilina (SK)*

**Využitie kamerového systému na analýzu dopravnej situácie**

(Utilization of a camera system to analyse the traffic situation)

*Ján Ondruš – Miroslava Mikušová, University of Žilina (SK)*

**Možnosti merania spotreby paliva na valcovej skúšobni Maha MSR**

(Possibilities for measuring fuel consumption using Maha MSR single-roller dynamometer)

*Branislav Šarkan – Tomáš Skručaný – Vladimír Rievaj – Ján Vrábel, University of Žilina (SK)*

**10:30 – 11:00**

**Coffee break**

**Section: Sustainable mobility in cities and regions**

**Room: Hall BG2A1 Datalan**

**11:00 – 13:30**

**Conference programme**

**Obstarávanie dopravnej obslužnosti územia hromadnou osobnou dopravou**

(Procurement of transport services in public passenger transport)

*Štefánia Semanová, University of Žilina (SK)*

**Informačný dopravný portál „Pokojné mesto“**

(Transport information portal “Calm city”)

*Marián Miko, ZTS Elektronika SKS s.r.o. (SK) – Ján Ondruš,  
University of Žilina (SK)*

**Experience with the operation of a partial trolleybus**

*Ivana Hurtová – Marie Sejkorová, University of Pardubice (CZ)*

**Čas zastávky ako významný prvok cestovného času v MHD**

(Time of stops as a significant element of travel time in urban public transport)

*Jana Kupčuljaková, University of Žilina (SK)*

**Modulárny mobilný systém dopravného manažmentu**

(Modular mobile system of traffic management)

*Juraj Kotrik - Nik Widman - Michael Uschnigg, PRISMA solutions EDV-Dienstleistungen GmbH (A), Klaus Pollhammer - Thomas Novak, SWARCO FUTURIT (A)*

**Analysis and evaluation of existing systems for the collection  
and use of data for the creation of a database for integrated  
transport plans**

*Milan Veterník – Marián Gogola, University of Žilina (SK)*

# **Kapacitná výkonnosť zastávok na území mesta Žilina**

(Capacitive performance of stops in the territory of Žilina city)  
*Lubomír Černický – Jozef Gnap – Peter Ihnát, University of Žilina  
(SK)*

**13:30 – 13:45 Evaluation and the end of the Conference**

13:50 – 14:30 Lunch

## Papers published in the Conference Proceedings

### **Risk Modeling in Dangerous Goods Transportation**

*Helena Binová – Filip Ge, Czech Technical University in Prague (CZ)*

### **Trolleybus Transport Benefit for the Environment**

*Jiří Čejka, VŠTE České Budějovice (CZ)*

### **Využitie dát o cestujúcich pri plánovaní MHD**

*(Usage of data about passengers when planning public urban transport)  
Marián Gogola, University of Žilina (SK)*

### **European Road Safety Tunes - Innovative Educational Method Addressed to Young Drivers (15–24) to Improve Road Safety in the EU**

*Dagmara Jankowska-Karpa – Justyna Wacowska-Ślęzak, Motor Transport Institute (PL)*

### **Situational Assessment as a Tool for Road Safety Improvement**

*Dagmara Jankowska-Karpa, Motor Transport Institute (PL) – Miroslava Mikušová, University of Žilina (SK) – Justyna Wacowska-Ślęzak, Motor Transport Institute (PL)*

### **Tests of Drivers on a Car Simulator**

*Rafał Jurecki – Marek Jaśkiewicz, Kielce University of Technology (PL) – Miloš Poliak, University of Žilina (SK)*

### **Experimental Research of Drivers in Crash Tests with the Use of 3 Types of Safety Belts**

*Marek Jaśkiewicz – Rafał Jurecki, Kielce University of Technology (PL) – Branislav Šarkan – Ján Vrábel, University of Žilina (SK)*

### **Hierarchization of Choice Criterions in Daily Trips in the Case of Szczecin**

*Zuzanna Kłos-Adamkiewicz, University of Szczecin (PL)*

**Bezpečnosť cestnej dopravy v Slovenskej republike**  
**(Road safety in the Slovak Republic)**

*Lenka Komačková – Miloš Poliak, University of Žilina (SK) –  
Marek Jaśkiewicz – Rafał Jurecki, Kielce University of  
Technology (PL)*

**Skladovanie ako riziková činnosť zasielateľa**  
**(Storage as a risky activity of a freight forwarder)**  
*Jaroslava Kubáňová, University of Žilina (SK)*

**Plánovanie doby odpočinku vodiča ako dôležitý prvok  
bezpečnej prepravy**  
**(Planning of driver's rest periods as an important element of safe transport)**  
*Jaroslava Kubáňová, University of Žilina (SK)*

**Subsystémy integrácie ako základné piliere integrovaného  
dopravného systému**  
**(Subsystems of the integration as fundamental pillars of the Integrated  
Transport System)**  
*Michaela Mrníková – Miloš Poliak, University of Žilina (SK)*

**Strategic Document in Transport and Their Importance for  
Strategic Analysis of Transport Companies**  
*Iveta Oborilová – Vlastimil Melichar, University of Pardubice  
(CZ)*

**Markovove procesy v ekonomike**  
**(Markov processes in economy)**  
*Adela Poliaková, Tomas Bata University in Zlín – Štefánia  
Semanová, University of Žilina (SK)*

**Využitie modelovania prepravného procesu v dopravnej  
spoločnosti**  
**(The use of transport process modelling in a transport company)**  
*Bibiána Poliaková, University of Žilina (SK) – Milan Hrehor*

**Monitorovanie teploty ako dôležitá súčasť prepravného  
reťazca pri distribúcii potravín**  
**(Temperature monitoring as an important part of the transport chain in food  
distribution)**  
*Dominika Rovňaníková, University of Žilina (SK)*

**Nákladové indexy v silniční nákladní dopravě**

(Cost indexes in road freight transport)

*Zdeněk Říha – Jan Tichý, Czech Technical University in Prague  
(CZ)*

**Analýza hodnôt emisií výfukových plynov vozidiel so zážihovým motorom zaznamenané v bežnej prevádzke emisných kontrol**

(Analysis of exhaust emissions of vehicles with spark-ignition engine recorded in normal operation of emission inspections)

*Branislav Šarkan, University of Žilina (SK) – Jacek Caban,  
University of Life Science in Lublin (PL) – Adriana Maňurová*

**Examination of the Influence of Selected Road Surface Types  
and Traffic speed on the Traffic Noise Level**

*Tomasz Figlus, Silesian University of Technology (PL) – Jozef Gnap – Tomáš Skrúcaný, University of Žilina (SK) (SK) – Piotr Szafraniec – Konrad Żuradzki, Silesian University of Technology (PL)*

## Organizational Instructions

**Conference languages:** Slovak, Czech, English

### Information for authors:

- confirmation of paper acceptance and its inclusion into the conference programme (or recommendation for its publication only in the Conference Proceedings)  
**till 19 August 2016**
- submission of the paper/poster electronically sent to [cmdtur@fpedas.uniza.sk](mailto:cmdtur@fpedas.uniza.sk) **till 23 September 2016**
- submission of the binding conference application form and payment of the **discounted conference fee**  
**till 14 September 2016**; send to [kcmd@fpedas.uniza.sk](mailto:kcmd@fpedas.uniza.sk)
- submission of the binding conference application form and payment of the increased conference fee **till 23 September 2016**; send to [kcmd@fpedas.uniza.sk](mailto:kcmd@fpedas.uniza.sk)

### Instructions for authors for preparation of papers:

Papers will be published in the Conference Proceedings with ISBN and they will be peer-reviewed by the members of the International Programme Committee and the members of Department of Road and Urban Transport.

Papers should be written in the range from 5 to 15 pages of format A4. Text must be written in Microsoft WORD (\*.doc), Times New Roman, size 12 pt.

**Conference fees (application form and payment till 14.9.2016):**

Active participation (lecturers) 160,- EUR including 20% VAT.

Active participation (co-authors of papers) 130,- EUR including 20% VAT.

Publication in the Conference Proceedings (without participation) regardless the number of co-authors: 110,- EUR including 20% VAT.

Passive participation in the Conference for two days: 170,- EUR including 20% VAT.

Passive participation in the Conference for one day: 100,- EUR including 20% VAT.

*The conference fee for members and internal PhD students of Department of Road and Urban Transport, and employees and members of cooperating organizations is decreased by 20,- EUR including 20% VAT.*

The conference fee for passive participation for two days for students of study programs Road Transport and Forwarding and Logistics: 60,- EUR including 20% VAT (the fee includes the Conference Proceedings and refreshment without lunch; organizers of the Conference reserve the right to limit the numbers of registered participants).

The conference fee for passive participation for two days for students with scholarship in study programs Road Transport and Forwarding and Logistics: 0,- EUR including 20% VAT (they are entitled to Conference Proceedings and refreshment without lunch).

***In case of binding application form and payment sent after 14 September 2016, the conference fees are increased by 20%.***

The conference fee is determined by the agreement according to Act No. 18/1996 Coll. on prices as amended by later regulations. It includes the costs on organizational and material provision of the Conference. In case of absence, the fee cannot be refunded. Another person on behalf of a registered participant may attend the Conference. Conference materials will be sent by post.

### **Accommodation:**

Conference participants should book and pay their accommodation by themselves. Accommodation is not included in the conference fee. Further information about accommodation can be found at <http://www.fpedas.uniza.sk/~cmdtur>

### **Price quotation for advertisement and presentation of companies:**

Participation fees for General and main sponsors of the Conference and company presentations are individual (except those listed below). This must be arranged with the guarantor of the Conference. E-mail: [jozef.gnap@fpedas.uniza.sk](mailto:jozef.gnap@fpedas.uniza.sk)

Price for publication of **one page of advertisement** in the Conference Proceedings (issued electronically) is **450,- EUR including VAT** including one participation fee.

Price for placing **an advertisement banner** at the Conference is **500,- EUR including VAT** including one participation fee.

Please, send the order for advertisement together with the template by email to [kcmd@fpedas.uniza.sk](mailto:kcmd@fpedas.uniza.sk)

**More information at the website of CMDTUR 2016:**

<http://www.fpedas.uniza.sk/~cmdtur>



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