



## Student Scientific Conference Modernization of Railway Transport – IRICoN 2017 Project SGS – SVK 44/17/F6

### Organisational Framework:

<b>Event Venue:</b>	Congress Centre - U Hájků, hotel Grandior, Na Poříčí 42, Prague 1
<b>Language:</b>	Czech, English
<b>Dates:</b>	10. 05. 2017
<b>Schedule:</b>	09:00 to 10:00 - Registration 10:00 to 17:30 - Lectures, forum of discussion
<b>Organizer:</b>	Czech Technical University in Prague
<b>Guarantor of the conference:</b>	Prof. Dr. Ing. Miroslav Svítek, dr.h.c., the Dean of FTS CTU in Prague

### Programme of the conference:

09.00 – 10.00 Registration

10.00 **prof. Ing. Josef Jíra, CSc.**  
Opening the Conference

#### Invited Lectures

**Moderator :** Doc. Ing. Otto Plášek, Ph.D., Ing. Martin Jacura, Ph.D.

10.00 – 10.20 **Doc. Ing. Lukáš Týfa, Ph.D. (ČVUT)**  
High Speed Railway Lines – Future Part of Czech Railway Network

10.20 – 10.40 **Mgr. Ing. Radek Čech, Ph.D. (SŽDC)**  
Actual State of the High Speed Lines Preparation

10.40 – 11.00 **Ing. Petr Červinka (ČD Cargo)**  
Freight Railway Transport Tracking Using the ISR Application

11.00 – 11.20 **Coffee break**

## **Section A**

**Moderator:** Ing. Jaroslav Vašátko

- 11.20 - 11.35 **Dana Procházková, Jan Procházka, Tomáš Kertis**  
Domains of Railway Traffic in the Czech Republic, which Need the Safety Improvement
- 11.35 - 11.50 **Martin Kobosil, Jan Novák**  
Level Crossing Safety in the Czech Republic
- 11.50 – 12.05 **Tomáš Brandejský, Vít Fábera**  
Comparison of Language Subset and Language Extension by Safe Related Information  
Approach to Safe System Development
- 12.05 – 12.20 **Martin Leso**  
ITS on Railway
- 12.20 – 12.35 **Václav Cempírek, Petr Novák**  
Factors Influencing the Fee for Use of the Railway Infrastructure
- 12.35 - 12.50 **Petr Guziur**  
Friction Buffer Stop Design
- 12.50 – 13.30 Lunch**

## **Section B**

**Moderator:** Ing. Zdeněk Kaufmann

- 13.30 - 13.45 **Přemysl Šrámek, Tatiana Molková,**  
The Detailed Priority of International Freight Expresses in the Overlapping Section of RFC 7  
and RFC 9 Kolín – Choceň
- 13.45 – 14.00 **Daniela Vukušičová**  
Analysis of Dynamic Effects Acting on Railway Crossing
- 14.00 - 14.15 **Jan Valehrach, Erik Dušek , Tomáš Říha**  
Cant Excess and Cant Deficiency Evaluation in Relation to Train Speed
- 14.15 – 14.30 **Petr Vnenk, Bohumil Culek**  
Measurement Methods of Internal Stress in Continuous Welded Rail

- 14.30 - 14.45 **Tomáš Kučera, Jan Antoš**  
Rationalization of the Use of Energy Recovery
- 14.45 - 15.00 **Zdeněk Michl, Michal Drábek, Rudolf Vávra**  
Netgraph – an Efficient Toll for Periodic Timetabling and Capacity Planning

**15.00 - 15.20 Coffee break**

### **Section C**

**Moderator :** Doc. Ing. Lukáš Týfa, Ph.D.

- 15.20 – 15.35 **Pavel Purkart, David Vodák, Tomáš Hoření, Tomáš Javořík, ČVUT Praha, Metroprojekt Praha**  
Possible Ways of Improving Railway Operation and Infrastructure in Area between Děčín and Rumburk
- 15.35 – 15.50 **Adam Hlubuček**  
Railtopomodel and Railml 3 in Overall Context
- 15.50 - 16.05 **Vít Janoš, Rudolf Vávra**  
Analysis of Competitiveness of Railway Passenger Transport between Rakovník and Prague
- 16.05 – 16.20 **Ondřej Bret, Petra Čížková**  
Development of the Municipal Noise-absorbing Screen and Test Section Construction Technology
- 16.20 – 16.35 **Josef Jíra, Jitka Jírová, Michal Micka, Jitka Řezníčková**  
Comparative Analysis of Bearing Capacity of Reinforced and Non-Reinforced Railway Embankment
- 16.35 – 16.50 **Tomáš Brandejský, Vít Fábera, Valerii Gopak , Dušan Kamenický**  
Railway Traffic Optimization

### **Final Section**

**Moderator :** Doc. Ing. Vít Fábera, Ph.D.

- 16.50 – 17.30 Discussion, Close of the Conference