



PROGRAM

XVII SCIENTIFIC-EXPERT CONFERENCE ON RAILWAYS RAILCON '16



October 13 - 14, 2016, Niš, Serbia



- ① Faculty of Mechanical Engineering
- ② Downtown
- ③ Bus Station
- ④ Fortress
- ⑤ University of Niš

**The XVII Conference RAILCON '16
Faculty of Mechanical Engineering,
Aleksandra Medvedeva 14, Niš, Serbia
(GPS: 43°19'49.7"N+21°53'42.6"E)**



The Faculty of Mechanical Engineering Niš, Serbia wishes you a pleasant welcome to the

INTERNATIONAL XVII SCIENTIFIC-EXPERT CONFERENCE ON RAILWAYS - RAILCON '16.

The Conference on Railways continues the tradition through its seventeenth anniversary. As in previous years, the RAILCON mission is to gather scientists and experts from the region, to observe the ongoing changes in developed railways and suggest directions for further railway development in Serbia and the region.

According to this year's Conference Program there are 71 papers written by 153 authors from Railway, University and Industry, from 13 countries, dealing with trending topics from fields of rolling stock, traffic, infrastructure, maintenance, informatics, economics, strategy, railway automation, policy and other aspects related to Railway.

We would like to recommend presentations of companies from 6 countries, who supported the organization of the Conference.

We wish the participants a successful event and a pleasant stay in Niš.

Organizing Committee of RAILCON '16

Patrons

Ministry of Education, Science and Technological Development of Republic of Serbia

Serbian Chamber of Engineers

Co-financiers

ALTPRO d.o.o.
KRAIBURG STRAIL GmbH & Co. KG
PANDROL UK Ltd
THALES Austria GmbH
INSTITUTE "MIHAJLO PUPIN"
GOŠA Rolling Stock Company Ltd.
ŠINVOZ d.o.o.
MIN DIV
CEREN ELEKTRONIKS DOOEL
OPEN TRACK

Program Committee

Prof. Miloš Milošević, Presid., Fac.of Mech.Eng. Niš, SRB
Prof. Boban Anđelković, Fac.of Mech.Eng. Niš, SRB
Prof. Dobrinka Atmadžova, Todor Kableshkov Uni of Transport Sofia, BG
Prof. Branislav Bošković, Fac. of Traffic Eng. Belgrade, SRB
Prof. Miroslav Đurđanović, Fac.of Mech.Eng. Niš, SRB
Prof. Dragan Đurđanović, Uni Texas, USA
Prof. Ratko Đuričić, Fac. of Traffic Eng. Doboj, R. Srpska
Prof. Daniel Kalinčak, Uni Žilina, SK
Prof. Dragutin Kostić, Fac. of Traffic Eng. Belgrade, SRB
Prof. Stjepan Lakušić, Faculty of Civil Eng. Zagreb, CRO
Prof. Vojkan Lučanin, Fac.of Mech.Eng. Belgrade, SRB
Prof. Dragomir Mandić, Fac. of Traffic Eng. Belgrade, SRB
Prof. Dragan Marinković, TU Berlin, GER
Prof. Dragan Milčić, Fac.of Mech.Eng. Niš, SRB
Rešad Nuhodžić, PhD, Ministry of Transport and Maritime Affairs, MNE
Prof. Nenad T. Pavlović, Fac.of Mech.Eng. Niš, SRB
Prof. Snežana Pejčić Tarle, Fac. of Traffic Eng. Belgrade, SRB
Prof. Dragan Petrović, Fac.of Mech.Eng. Kraljevo, SRB
Prof. Mihaela Popa, Uni Bucharest, RO
Prof. Zdenka Popović, Fac. of Civil Eng. Belgrade, SRB
Priv. doz. Andreas Schoebel, TU Wien, AUT
Prof. Dušan Stamenković, Fac.of Mech.Eng. Niš, SRB
Prof. Kiril Velkov, TU Sofia, BG

Organizing Committee

Milan Banić, PhD, President
Miroslav Mijajlović, PhD
Aleksandar Miltenović, PhD
Srđan Stojičić, MSc
Miodrag Milčić
Srđan Mladenović
Nikola Petrović
Dušanka Nikolić
Vesna Grozdanović

PROGRAM

THURSDAY, October 13, 2016

8³⁰ – Application of Participants
(Lobby)

10⁰⁰ – 10⁴⁵ Opening Ceremony
(Amphitheatre A)

10⁴⁵ – 11³⁰ Welcome Cocktail
(Lobby)

11³⁰ – 13⁰⁰ Plenary Session
(Amphitheatre A)

Chairmen:

Prof. Dragomir Mandić, Prof. Ljiljana Radović, Prof. Miloš Milošević

- **TOWARDS AUTONOMOUS OBSTACLE DETECTION IN FREIGHT RAILWAY**
Danijela RISTIĆ-DURRANT, Adrian LEU,
University of Bremen, Institute of Automation (IAT), Bremen, Germany
Ivan ĆIRIĆ, Miloš SIMONOVIĆ, Vlastimir NIKOLIĆ,
University of Niš, Faculty of Mechanical Engineering, Niš, Serbia
Branislav BRINDIĆ, Harder Optoelectronic Group, Niš, Serbia
- **PRESENT STATE OF THE RAILWAY INDUSTRY IN SERBIA** Dušan STAMENKOVIĆ, Miloš MILOŠEVIĆ, Milan BANIĆ, University of Niš, Faculty of Mechanical Engineering, Niš, Serbia
- **ASSISTED, AUTOMATED AND AUTONOMOUS DRIVING (“TRIPLE A”) FOR RAILWAY TRAFFIC**
Florian ESSER, Christian SCHINDLER,
RWTH Aachen University, Institute of Rail Vehicles and Transport Systems (IFS), Aachen, Germany

13⁰⁰ – 15⁰⁰ Break

15¹⁵ Kick-off meeting of the Shift2Rail funded project SMART
Ceremonious hall of University of Niš
(Univerzitetski trg 2, Niš)
(GPS: 43°19'23"+N 21°53'36"E)

15¹⁵ – 17⁰⁰ Session 1 - Rolling stock I
(Amphitheatre B)

Chairmen:

Prof. Daniel Kalinčak, Prof. Vojkan Lučanin

- 1.1. **REVIEW OF PROPERTIES OF COLLISION ENERGY ABSORBERS - EXPERIMENTAL AND NUMERICAL RESEARCHES**
Jovan TANASKOVIĆ, Vojkan LUČANIN, Dragan MILKOVIĆ,
University of Belgrade, Faculty of Mechanical Engineering, Belgrade, Serbia
Aleksandar ŽIVKOVIĆ,
GOŠA Machinery and Equipment, Smederevska Palanka, Serbia
- 1.2. **BASIC ASPECTS OF PROBLEM OF CONTINUOUS MEASUREMENT OF WHEEL-RAIL CONTACT FORCES**
Milan BIŽIĆ, Dragan PETROVIĆ,
University of Kragujevac, Faculty of Mechanical and Civil Engineering in Kraljevo, Serbia
Dušan STAMENKOVIĆ,
University of Niš, Faculty of Mechanical Engineering, Serbia
- 1.3. **ENERGY CONSUMPTION AND TRAVEL TIME - IMPORTANT FACTORS FOR DECISION ON PROPER TRANSPORT MODE SELECTION**
Juraj GREŇČÍK, Peter VOLNA, Martin MIKOLAJČÍK,
University of Žilina, Faculty of Mechanical Engineering, Žilina, Slovakia
- 1.4. **OPERATIONAL REGIMES OF MOTIVE POWER UNITS AND THEIR UNCONVENTIONAL TRACTION DRIVES**
Daniel KALINČÁK, Martin MIKOLAJČÍK, Juraj GREŇČÍK,
University of Žilina, Faculty of Mechanical Engineering, Žilina, Slovakia
- 1.5. **RUNNING RESISTANCE FROM FULL-SCALE MEASUREMENTS OF PASSENGER DIESEL MOTOR UNIT 711**
Marija VUKŠIĆ POPOVIĆ,
–, Belgrade, Serbia
Ivana ATANASOVSKA,
Mathematical Institute of SASA, Belgrade, Serbia
Milan PĽAVŠIĆ,
–, Belgrade, Serbia

- 1.6. **STATIC STRENGTH STUDY OF BODY OF UNIVERSAL FLAT WAGON**
Valeri STOILOV, Svetoslav SLAVCHEV, Sanel PURGIĆ,
Technical University Sofia, Bulgaria
- 1.7. **METHODOLOGY FOR DETERMINING THE PARAMETERS OF THE BRAKING SYSTEM OF RECONSTRUCTED FREIGHT WAGONS**
Kiril VELKOV, Oleg KRASSTEV, Sanel PURGIĆ,
Technical University Sofia, Bulgaria
- 1.8. **DESIGN SPECIFICITY OF EAMS-Z SELF-PROPELLED WAGON**
Saša RADULOVIĆ, Goran SIMIĆ, Snežana GOLUBOVIĆ,
University of Belgrade, Faculty of Mechanical Engineering, Belgrade
Serbia
Dražen VIDOVIĆ,
Railway carriages factory Čakovec, Croatia
- 1.9. **INFLUENCE OF MEASUREMENT METHOD AND DATA PROCESSING ON THE RESULTS OF BRAKE PERFORMANCE TEST**
Saša RADULOVIĆ, Goran SIMIĆ, Dragan MILKOVIĆ, Vojkan LUČANIN,
University of Belgrade, Faculty of Mechanical Engineering, Belgrade,
Serbia

15¹⁵ – 17⁰⁰ Session 3 – Infrastructure I
(Ceremonious Room)

Chairmen:

Prof. Zdenka Popović, Prof. Boban Anđelković

- 3.4. **RAILWAY INFRASTRUCTURE DEVELOPMENT IN SERBIA - CHALLENGES AND OPPORTUNITIES**
Nebojša BOJOVIĆ, Dragana MACURA,
University of Belgrade, Faculty of Transport and Traffic Engineering,
Belgrade, Serbia
- 3.5. **REGISTER OF RAILWAY INFRASTRUCTURE**
Milan POPOVIĆ, Mirjana DŽUDOVIĆ,
Directorate for railways, Belgrade, Serbia
- 3.6. **DETERMINATION OF SLEEPER SUPPORT CONDITIONS**
Luka LAZAREVIĆ, Zdenka POPOVIĆ, Milica VILOTIJEVIĆ,
University of Belgrade, Faculty of Civil Engineering, Belgrade, Serbia

- 3.7. **PERFORMANCE REQUIREMENTS FOR RAIL FASTENING SYSTEMS ON EUROPEAN RAILWAY NETWORK**
Milica VILOTIJEVIĆ, Zdenka POPOVIĆ, Luka LAZAREVIĆ,
University of Belgrade, Faculty of Civil Engineering, Belgrade, Serbia
- 3.8. **CERTIFICATION OF RAILWAY SIGNALLING SYSTEMS ACCORDING TO EU LEGISLATIVE AND CENELEC STANDARDS**
Vladimir HABUŠ,
ALTPRO d.o.o, Zagreb, Croatia
Dejan TOŠIĆ,
Directorate for Railways, Belgrade, Serbia
- 3.9. **RELOCATION OF THE NIS - PRESEVO RAILWAY LINE BETWEEN STATIONS PREDEJANE AND DZEP FOR THE PURPOSE OF THE CONSTRUCTION OF THE HIGHWAY E75 ON CORRIDOR 10**
Aleksandar NAUMOVIĆ, Milivoj SIRADOVIĆ,
Corridors of Serbia, Belgrade, Serbia
Siniša MARIĆ,
Infrastructure of Serbian Railways, Belgrade, Serbia
- 3.10. **SPATIAL CRITERIA FOR EVALUATION IN GENERAL DESIGN OF RECONSTRUCTION AND MODERNIZATION OF RAILWAY LINES**
Ana VULEVIĆ,
Institute of Transportation CIP, Belgrade, Serbia
Vidoje JOVIČIĆ,
Serbian Railways, Belgrade, Serbia
- 3.11. **LOCATION OPTIMALITY EVALUATION OF TRACK RADIO STATIONS IN SERBIAN RAILWAY NETWORK**
Ranko BABIĆ,
The Railway College of Vocational Studies, Belgrade, Serbia
Nenad PETROVIĆ,
Infrastructure - Serbian Railways, Belgrade, Serbia
- 3.12. **STRATEGY IMPLEMENTATION IN THE RAILWAY PROJECTS**
Tatjana SIMIĆ, Tatjana MIKIĆ,
CeSCOWI, Belgrade, Serbia

17⁰⁰ – 17¹⁵ Coffee Break
(Lobby)

17¹⁵ – 19⁰⁰ Session 2 / 3**Traffic and Transport I / Infrastructure II
(Amphitheatre B)***Chairmen:**Priv. doz. Andreas Schoebel, Prof. Milan Banić***2.1. MAINTENANCE OPTIMISATION OF CAPILLARY RAILWAY NETWORK WITH CLUSTERING METHOD**Danijela ĐORIĆ, Abdessamad AIT EL CADI, Abdelhakim ARTIBA, Said HANAFI, Nenad MLADENOVIĆ,
Université de Valenciennes et du Hainaut-Cambrésis, France**2.2. IMPLEMENTING THE GOOGLE MAPS API TO IMPROVE VEHICLE ROUTING PROBLEM: DISTANCE/TRAVELTIME MATRIX**Teodor BEROV,
Todor Kableskov University of Transport, Sofia, Bulgaria**2.3. RAIL TRAFFIC FLOW OPTIMISATION BY KRONECKER ALGEBRA FOR IRISH RAIL**Andreas SCHÖBEL, Jelena AKSENTIJEVIĆ,
OpenTrack Railway Technology, Vienna, Austria**2.4. RAILWAY AS A SUSTAINABLE MODE OF TRANSPORT**Nikola PETROVIĆ, Vesna JOVANOVIĆ,
University of Niš, Faculty of Mechanical Engineering, Niš, Serbia
Jelena PETROVIĆ,
University of Niš, Faculty of Science and Mathematics, Niš, Serbia**2.5. QUALITY OF TRANSPORT SERVICE AT SERBIAN RAILWAYS**Ljubislav VASIN,
The Railway College of Vocational Studies, Belgrade, Serbia
Dušan STAMENKOVIĆ, Miroslav MIJAJLOVIĆ, Miloš MILOŠEVIĆ,
University of Niš, Faculty of Mechanical Engineering, Niš, Serbia**3.1. A NOVEL DESIGN OF CATENARY MAST SYSTEM**Hirut GROSSBERGER, Frank MICHELBERGER,
Carl Ritter von Ghega Institute for Integrated Mobility Research,
St. Pölten, Austria
Jan RÖHL,
Ing. Karl & Albert KRUCH Ges.m.b.H. & Co KG, Vienna, Austria**3.2. DETERMINING THE REACTION OF RELIANCE HYDRAULIC EXCAVATORS AT WORK AND THE MOVEMENT ON RAILWAY**Vesna JOVANOVIĆ, Dragoslav JANOŠEVIĆ, Jovan PAVLOVIĆ,
University of Niš, Faculty of Mechanical Engineering, Niš, Serbia**3.3. METHODS FOR DETECTION OF OBSTACLES ON THE RAILWAY LEVEL CROSSING**Milan PAVLOVIĆ,
College of Applied Technical Sciences, Niš, Serbia
Nenad T. PAVLOVIĆ, Vukašin PAVLOVIĆ,
University of Niš, Faculty of Mechanical Engineering, Niš, Serbia**17¹⁵ – 19⁰⁰ Session 6 / 4****Other Railway Aspects / Vehicle and Infrastructure Maintenance I
(Ceremonious Room)***Chairmen:**Prof. Dragan Petrović, Prof. Dragutin Kostić***6.1. SERBIAN NATIONAL PROVERBS AND SHORT WISDOM SAYINGS AS THE BASIS OF „SERBIA RAIL A.D“ ETHICAL CODEX**Aleksandar BLAGOJEVIĆ,
Srbija Voz a.d., Belgrade, Serbia**6.2. IMPLEMENTATION OF NEW MODEL FOR REGISTRATION CUSTOMER-BASED TECHNOLOGIES INTERNET INTELLIGENT DEVICE**Zoran PAVLOVIĆ,
Srbija Voz a.d., Belgrade, Serbia**6.3. ASSESSMENT EFFECTIVENESS OF TECHNICAL MEASURE ON SERBIAN RAILWAY CROSSINGS**Sandra KASALICA, Dušan JEREMIĆ, Jovan TANASKOVIĆ, Goran TRIČKOVIĆ,
Railway College of Vocational Studies, Belgrade, Serbia**6.4. INFLUENCE OF BOZIC BRAKE ON DEVELOPMENT OF RAIL TRAFFIC**Dragan PETROVIĆ, Milan BIŽIĆ,
University of Kragujevac, Faculty of Mechanical and Civil Engineering
in Kraljevo, Serbia

6.5. MEASURES AT THE STATIONS (STOPS/POSITIONS) AS THE WAY TO IMPROVE THE SERVICE IN PASSENGER TRANSPORT BY RAIL

Dragutin JOVANOVIĆ

University for Applied Sciences - Belgrade Polytechnic, Serbia

Jasmin HODŽIĆ, Denis LUKAČ,

Faculty of Traffic, Communication and Logistics, Budva, Montenegro

4.4. APPLICATION OF FMEA FOR ESTIMATION OF RISK IN FREIGHT WAGONS MAINTENANCE

Milovan SLAVKOVIĆ, Ružica SOFRANIĆ, Sreten ĐURIĆ,

GOŠA FŠV d.o.o., Smederevska Palanka, Serbia

4.5. MONITORING SYSTEMS FOR ROLLING STOCK MAINTENANCE

Života ĐORĐEVIĆ,

Serbian Railways, Belgrade, Serbia

Jovan TEPIĆ, Gordan STOJIĆ

University of Novi Sad, Faculty of Technical Science, Novi Sad, Serbia

4.6. PROTECTING BRAKE MECHANISM OF EXCESSIVE FORCE IN LOCOMOTIVE

Erdinč RAKIPOVSKI

SAK DOOEL Skopje, Macedonia

Tasko SMILESKI, Nikola STOJKOV

Wabtec MZT, Skopje, Macedonia

4.7. ELECTRICITY CONSUMPTION MONITORING IN ELECTRIC LOCOMOTIVES CLASS ŽS 441-700

Miloš CVETANOVIĆ, Bojan KOJIČIĆ, Novica JOVANOVIĆ,

R&D Center „Alfatec“ Ltd. Niš, Serbia

Sladjan ARSIĆ,

Srbija Voz a.d., Belgrade, Serbia

Dragoslav PEJČIĆ,

Srbija Kargo, Belgrade Serbia

4.8. STATIC ANALYSIS BEHAVIOUR AXLE ASSEMBLY FREIGHT WAGONS

Vladimir BLANUŠA, Branko MILISAVLJEVIĆ,

The Higher Education Technical School of Professional Studies,

Novi Sad, Serbia

Milan ZELJKOVIĆ, Aleksandar ŽIVKOVIĆ,

University of Novi Sad, Faculty of Technical Science, Novi Sad, Serbia

20⁰⁰ Dinner Party

(Restaurant *Crystal light*)

(Dimitrija Tucovića 186, Niš)

(GPS: 43°19'00.6"N+21°50'55.1"E)



FRIDAY October 14, 2016

9⁰⁰ – Application of Participants
(Lobby)

9¹⁵ – 11⁰⁰ Session I
Rolling Stock II
(Amphitheatre B)

Chairmen:

Prof. Dobrinka Atmadžova, Prof. Miroslav Mijajlović

1.10. COMPUTER ANALYSIS OF A WAGON BOGIE RUNNING WITH A FLEXIBLE FRAME

Ján DIŽO, Miroslav BLATNICKÝ,

University of Žilina, Faculty of Mechanical Engineering, Slovakia

1.11. A METHODOLOGY FOR DETERMINING THE CAUSES OF ROLLING STOCK DERAILMENT

Dobrinka ATMADZHOVA,

Todor Kableshkov University of Transport, Sofia, Bulgaria

1.12. BAGGAGE TRANSPORT SYSTEM – PASSENGER'S REQUIREMENTS

Petra MATZENBERGER, Volker HARTL-BENZ, Bernhard RÜGER,

Vienna University of Technology, Vienna, Austria

- 1.13. RAIL VEHICLE INTERIORS - DESIGN MISTAKES TO BE AVOIDED
Bernhard RÜGER,
Vienna University of Technology, Vienna, Austria
- 1.14. COMPARATIVE STRENGTH ANALYSIS OF UNDERFRAMES OF FLAT WAGON VARIANTS WITH WOODEN AND STEEL FLOOR
Svetoslav SLAVCHEV, Valeri STOILOV,
Technical University Sofia, Bulgaria
- 1.15. DETECTION OF TORSIONAL OSCILLATIONS IN DRIVING AXLES OF ELECTRICAL VEHICLES BY APPLICATION OF SPECTRAL ANALYSIS
Petar MARKOVIĆ, Dragutin KOSTIĆ,
University of Belgrade, Faculty of Transport and Traffic Engineering, Belgrade, Serbia
- 1.16. ANALYSIS OF VEHICLE DIAGNOSTIC OUTPUTS GENERATED BY THE SYSTEM RV07
Jana GALLIKOVÁ, Ľubomír KAŠIAR, Peter ZVOLENSKÝ,
University of Žilina, Faculty of Mechanical Engineering, Žilina, Slovakia
- 1.17. DETERMINATION OF RESIDUAL STRESS IN RAIL WHEEL DURING QUENCHING PROCESS WITH FEM SIMULATION
Miloš MILOŠEVIĆ, Aleksandar MILTENOVIĆ,
Milan BANIĆ, Miša TOMIĆ,
University of Niš, Faculty of Mechanical Engineering, Niš, Serbia
- 1.18. COMPARASION OF CLASSICAL BRAKE FOR FREIGHT WAGONS WITH THE NEW INTEGRATED BOGIE BRAKE IBB 10 FOR FREIGHT WAGONS
Tasko SMILESKI,
Wabtec MZT, Skopje, Macedonia
Erđinč RAKIPOVSKI,
SAK DOOEL Skopje, Macedonia
Miodrag MILČIĆ,
University of Niš, Faculty of Mechanical Engineering, Niš, Serbia

9¹⁵ – 11⁰⁰ Session 2 / 5
Traffic and Transport II / Strategy and Policy I
(Ceremonious Room)

Chairmen:

Prof. Dragomir Mandić, Prof. Branislav Bošković

- 2.6. FUZZY DECISION SUPPORT SYSTEM FOR PLANNING ROBUST TIMETABLE
Predrag JOVANOVIĆ, Dragomir MANDIĆ,
University of Belgrade, Faculty of Traffic and Transport Engineering, Belgrade, Serbia
Snežana JOSIPOVIĆ,
–, Belgrade, Serbia
- 2.7. A FUZZY NEW MULTI-CRITERIA METHODOLOGY FOR PROVIDER SELECTION BASED ON COMPARISON OF REAL AND IDEAL PROVIDER'S PARAMETERS
Dragan PAMUČAR, Srđan LJUBOJEVIĆ,
University of Defense, Military Academy, Belgrade, Serbia
- 2.8. ACCIDENTAL RISK ANALYSIS FOR RAIL TRANSPORT OF DANGEROUS GOODS
Goran TEPIĆ, Mirko ĐELOŠEVIĆ, Nenad SIMEUNOVIĆ,
University of Novi Sad, Faculty of Technical Science, Novi Sad, Serbia
Zoran BUNDALO,
The Railway College of Vocational Studies, Belgrade, Serbia
- 2.9. APPLICATION OF FUZZY AHP METHOD FOR PROFIT ANALYSIS OF RAILWAY OPERATORS WITH PSO
Slavko VESKOVIĆ, Gordan STOJIĆ,
University of Belgrade, Faculty of Transport and Traffic Engineering, Belgrade, Serbia
Željko STEVIĆ, Marko VASILJEVIĆ,
University of East Sarajevo, Faculty of Transport and Traffic Engineering, Doboј, Bosnia and Herzegovina
Snježana RAJILIĆ,
Novi Grad Municipality, Serbia
- 2.10. TIMETABLE INTEGRATION ON THE BALKANS
Kornél NAGY,
Business School - MBA, Central European University, Budapest, Hungary

5.4. COTIF INTERNATIONAL RAILWAY LAW TO CONNECT DIFFERENT NETWORKS

Bas LEERMAKERS, Dragan NEŠIĆ,
OTIF, Bern, Switzerland

5.5. TRAIN PATH ALLOCATION ON CONGESTED RAILWAY INFRASTRUCTURE – IS A SERVICE PRIORITY CRITERIA LIMITING DEVELOPMENT OF COMPETITION?

Nikola STOJADINOVIĆ, Branislav BOŠKOVIĆ,
University of Belgrade, Faculty for Transport and Traffic Engineering,
Belgrade, Serbia

5.6. CHALLENGES OF CABLEWAYS REGULATION PROCESS

Nataša CERVIĆ,
Directorate for Railways, Belgrade, Serbia
Branislav BOŠKOVIĆ,
University of Belgrade - Faculty of Transport and Traffic Engineering,
Belgrade, Serbia
Rešad NUHODŽIĆ,
Ministry of Sustainable Development and Tourism of Montenegro,
Podgorica, Montenegro

5.7. NETWORK STATEMENT LEGISLATION AND IMPLEMENTATION

Branka NEDELJKOVIĆ, Zorica RADOVIĆ,
Directorate for Railways, Belgrade, Serbia

5.8. SWOT ANALYSIS OF THE MINISTRY OF TRANSPORT AS A COMPETENT AUTHORITY FOR PSO CONTRACTS

Slobodan ROSIĆ,
Infrastructure - Serbian Railways, Belgrade, Serbia

**11⁰⁰ – 11¹⁵ Poster Presentation / Coffee Break
(Lobby)**

P.1. THE EFFECT OF AGING TEMPERATURE ON CARBON BLACK REINFORCED TERNARY RUBBER BLEND IN RAILWAY INDUSTRY

Slaviša JOVANOVIĆ,
Mitas d.o.o, Ruma, Serbia
Vojislav JOVANOVIĆ,
University of Priština, Faculty of Natural Science and Mathematics,
Kosovska Mitrovica, Serbia
Gordana MARKOVIĆ,
Tigar, Pirot, Serbia
Milena MARINOVIC-CINCOVIĆ,
Institute of Nuclear Science Vinča, Belgrade, Serbia
Jaroslava BUDINSKI-SIMENDIĆ,
University of Novi Sad, Faculty of Technology, Novi Sad, Serbia

P.2. SURVEY AND FORECASTING THE ATTENDANCE OF RILA MONASTERY FOR THE PURPOSE OF "PROJECT ON CONSTRUCTION OF INNOVATIVE TRANSPORT INFRASTRUCTURE"

Mirena TODOROVA,
Todor Kableshkov University of Transport, Sofia, Bulgaria

**11¹⁵ – 12³⁰ Session 4 / 5
Vehicle and Infrastructure Maintenance II / Strategy and Policy II
(Amphitheatre B)**

Chairmen:

Prof. Kiril Velkov, Prof. Aleksandar Miltenović

4.1. ACCUMULATION OF CONTACT FATIGUE DAMAGES IN CAR WHEELS WHEN RAILING OVER RAIL JOINTS

Elena EVTUKH, Galina NEKLYUDOVA,
Bryansk State Technical University, Bryansk, Russia

4.2. CONCEPT OF PORTABLE INFORMATION SYSTEM FOR TRACING TRAIN DRIVE PROFILE

Ranko BABIĆ,
The Railway College of Vocational Studies, Belgrade, Serbia

- 4.3. ANALYSIS OF THE REASONS FOR EMERGENCY FAILURES IN THE BOGIES AND TRANSMISSION OF THE TRAMS IN SOFIA
Emil M. MIHAYLOV, Dobrinka ATMADZHOVA,
Todor Kableshkov University of Transport, Sofia, Bulgaria
- 5.1. COMPARATIVE ASSESSMENT OF EUROPEAN RAILWAYS BASED ON EU TRANSPORT SCOREBOARD DATA
Marijana PETROVIĆ, Nataša BOJKOVIĆ, Tanja PAREZANOVIĆ,
Snežana PEJČIĆ TARLE,
University of Belgrade, Faculty of Transport and Traffic Engineering,
Belgrade, Serbia
- 5.2. WHERE DOES COSTS COVERAGE AND TRACK ACCESS CHARGES STRUCTURE GO AFTER ADOPTION OF REGULATION 2015/909/EU?
Mirjana BUGARINOVIĆ, Branislav BOŠKOVIĆ,
University of Belgrade, Faculty of Transport and Traffic Engineering,
Belgrade, Serbia
- 5.3. KEY PERFORMANCE INDICATORS FOR FUTURE SUSTAINABLE BUSINESS DEVELOPMENT OF INFRASTRUCTURE MANAGERS
Jakša POPOVIĆ, Mirjana BUGARINOVIĆ,
University of Belgrade, Faculty of Transport and Traffic Engineering,
Belgrade, Serbia

11¹⁵ – 12³⁰ Session 7

***The Graduates and the Future of Railway
(Ceremonious Room)***

Chairmen:

Prof. Miloš Milošević

- 7.1. RESEARCH OF PRODUCTIVITY INDICATORS FOR RAILWAY WAGONS IN BUSINESS TRADE CONDITIONS OF RAILWAY COMPANIES
Student: Rade CVIJANOVIĆ,
Mentor: Branislav BOŠKOVIĆ
University of Belgrade, Faculty of Transport and Traffic Engineering,
Belgrade, Serbia

- 7.2. SIGNIFICANCE AND REGULATION OF SERVICES OF PUBLIC INTEREST
Student: Uroš STANIMIROVIĆ
Mentor: Branislav BOŠKOVIĆ
University of Belgrade, Faculty of Transport and Traffic Engineering,
Belgrade, Serbia
- 7.3. DINAMIC OF RESTRUCTURING PROCESS OF INCUMBENTS RAILWAY COMPANIES IN EUROPE
Student: Nikola STOJANOVIĆ
Mentor: Branislav BOŠKOVIĆ
University of Belgrade, Faculty of Transport and Traffic Engineering,
Belgrade, Serbia
- 7.4. CONCEPT OF INTEROPERABILITY OF THE RAILWAY SYSTEM IN EUROPE
Student: Miroslav PROKIĆ
Mentor: Branislav BOŠKOVIĆ
University of Belgrade, Faculty of Transport and Traffic Engineering,
Belgrade, Serbia
- 7.5. MODEL OF ACCESS CHARGES FOR THE USE OF RAILWAY INFRASTRUCTURE AS A MECHANISM OF SUSTAINABILITY OF RAILWAY COMPANIES ON TRANSPORT MARKET
Student: Vladimir MALČIĆ
Mentor: Ratko ĐURIČIĆ
University of East Sarajevo, Faculty of Transport and Traffic Engineering, Dobož, Bosnia and Herzegovina

12³⁰ Conference Closing

Conference Fee

The Registration Fees for the participants are:

- **12000 RSD** (10000 RSD + 20% VAT) or about **96 EUR**

The registration fee covers participation at the Conference, Conference material, welcome cocktail, coffee breaks and a Dinner party.

The Registration fee is payable by bank transfer to the account of the Conference according to the payment instructions that can be found on the web site of the Conference and in cash at the Registration Desk during the Conference.

Application of Participants

For the purpose of successful organization of the International XVII Scientific-expert Conference on Railways RAILCON '16 potential participants are asked to apply their participation on time. We suggest doing that by submitting the filled *Participation Registration Form*, which can be found on the web site of the Conference, to the e-mail address of the Conference Organizer.

Selected papers

Selected presented papers will be published in a thematic issue of the SCOPUS indexed International Journal of the University of Niš FACTA UNIVERSITATIS – Series: Mechanical Engineering:

<http://facta.junis.ni.ac.rs/me/me.html>

Organizing Secretariat

Faculty of Mechanical Engineering

RAILCON '16

Aleksandra Medvedeva 14

18000 Niš

Serbia

Phone: +381-18-500-642; Fax: +381-18-588-199

e-mail: zelkon@masfak.ni.ac.rs

www: <http://zelkon.masfak.ni.ac.rs/>

