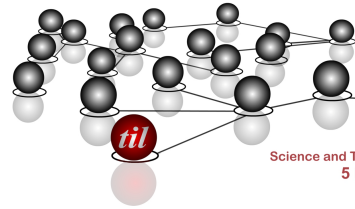




UNIVERSITY OF NIŠ
Faculty of Mechanical Engineering in Niš
Department of Transport Engineering and Logistics



Niš, Serbia
Science and Technology Park Niš
5 December 2025



TIL 2025 Conference Program

09:00 – 10:00 Participant Registration

10:00 – 10:30 Conference Opening

10:30 – 11:30 Plenary Session (Main Hall)

PARTICIPATORY TECHNOLOGY GAP ASSESSMENT FOR SMART MOBILITY: EVIDENCE FROM SIX PILOT TERRITORIES

Marijana PETROVIĆ, Stanko BAJČETIĆ, University of Belgrade-Faculty of Transport and Traffic Engineering, Belgrade, Serbia, Innovation Center of the Faculty of Mechanical Engineering, Belgrade, Serbia, **Barbara MONACO, Silvia ZAMPESE**, Area Science Park, Trieste, Italy, **Katerina NIKOLOPOULOU, Hara LIAKOU**, CIVINET Greece-Cyprus, Athens, Greece.

APPLICATION OF COMPUTATIONAL AND EXPERIMENTAL METHODS IN THE ANALYSIS AND DESIGN OF MODERN VERTICAL-ROPE TRANSPORT SYSTEMS

Radomir ĐOKIĆ, Jovan VLADIĆ, Tanasije JOJIĆ, University of Novi Sad, Faculty of Technical Sciences, Department for Mechanization and Engineering Design

11:30–12:10 Panel Discussion: "Cooperation Between Science and Industry – Challenges for Companies in the Context of Transport and Logistics in Global Conditions"

Panel participants: Philip Morris International, Naftna industrija Srbije, ZF, Aerodrom Konstantin Veliki Niš, Zumtobel Lighting, Milšped.

12:10 – 12:25 Pause (15 minutes, Coffee Break)

12:25 – 15:00 Paper Presentations:

The academic community will present scientific papers, followed by company representatives showcasing their research and practical solutions, with a focus on university–industry collaboration, practical ideas, challenges, and solutions. (**Leoni, Naftna Industrija Srbije, Constantine the Great Airport Niš, and Tigar Tyres**)

- **Room 1 (Main Hall): LOGISTICS SYSTEMS**

- **OPTIMIZATION OF FLEXIBLE JOB SHOP SCHEDULING WITH MACHINE TOOL BREAKD**
Katarina BRENJO, Aleksandar JOKIĆ, Milica PETROVIĆ, University of Belgrade – Faculty of Mechanical Engineering, Department of Production Engineering.

- **ANFIS-BASED PREDICTION OF ENERGY GENERATION INFLUENCE ON ELECTRICAL DEMAND AND PRICE IN SMART ENERGY LOGISTICS**
Miloš MILOVANČEVIĆ, Faculty of Mechanical Engineering, Niš, Ljubomir VRAČAR, Faculty of Electronic Engineering, Niš.

- **GREEN LOGISTICS AND THE CIRCULAR ECONOMY: DYNAMIC IMPACTS ON LOGISTICS SYSTEM PERFORMANCE AND ENVIRONMENTAL FOOTPRINT**
Aleksandra ANDJELKOVIĆ, Faculty of Economics, University of Niš, Serbia
- **AUTOMATIC DETERMINATION OF THE ARRANGEMENT OF GOODS ON A PALLET**
Vladislav BLAGOJEVIĆ, Saša RANĐELOVIĆ, Srđan MLADENOVIĆ, Faculty of Mechanical Engineering, University of Niš
- **DISCRETE EVENT SIMULATION MODEL FOR EXPECTED CYCLE TIME OF AS/RS WITH DOUBLE DEEP PALLET RACK**
Marko TODOROVIĆ, Predrag MLADENOVIĆ, Goran MARKOVIĆ, Mile SAVKOVIĆ, Nebojša B. ZDRAVKOVIĆ, Goran PAVLOVIĆ Faculty of Mechanical and Civil engineering in Kraljevo, University of Kragujevac, Kraljevo (Serbia)
- **HYBRID SWARA–MULTIMOORA FRAMEWORK FOR CUTTING TOOL MATERIAL SELECTION IN TURNING OF STEEL COMPONENTS**
Aleksandar TRAJKOVIĆ, Aleksandar STANKOVIĆ, Miloš MADIĆ, Goran PETROVIĆ, University of Niš, Faculty of Mechanical Engineering, Niš, Serbia
- **PRODUCTION SCHEDULING OPTIMIZATION FOR THE MANUFACTURING OF POWER PLUG ADAPTERS USING A FLEXIBLE JOB SHOP APPROACH**
Rajko TURUDIJA, Aleksandar STANKOVIĆ, Miloš STOJKOVIĆ, Goran PETROVIĆ, Predrag MILIĆ, Faculty of Mechanical Engineering, University of Niš, Serbia
- **INTEGRATING SMART INFORMATION SYSTEMS AND THE INDUSTRIAL METAVERSE IN MEDICAL DEVICE PRODUCTION AND LOGISTICS**
Nikola VITKOVIĆ, Faculty of Mechanical Engineering, University of Niš, Serbia, **Milan MITKOVIĆ**, Faculty of Medicine, University of Niš, Serbia, **Marek CHODNICKI**, Gdańsk University of Technology, Poland, **Milica BARAĆ, Aleksandar TRAJKOVIĆ** Faculty of Mechanical Engineering, University of Niš, Serbia.
- **EVALUATION OF COLD SUPPLY CHAIN CHALLENGES USING THE q-RUNG ORTHOPAIR FUZZY SUBJECTIVE WEIGHTING APPROACH: THE CASE OF ORDU PROVINCE**
Ahmet AYTEKIN, Samsun University, Department of International Trade and Business, Faculty of Political Sciences, **Selçuk KORUCUK**, Giresun University, Department of Logistics Management.
- **EVALUATION OF PRIORITY ENVIRONMENTAL ISSUES IN PORT OPERATIONS USING THE q-ROF-SWARA METHOD: THE CASE OF SAMSUN**
Selçuk KORUCUK, Giresun University, Department of Logistics Management, **Ahmet AYTEKİN**, Samsun University, Department of International Trade and Business, Faculty of Political Sciences
- **OPTIMIZATION OF DRIVE-IN RACKING STORAGE SOLUTION**
Rodoljub VUJANAC, Nenad MILORADOVIĆ, Mirjana PISKULIĆ, Mechanical Construction and Mechanization, Faculty of Engineering University of Kragujevac
- **ARTIFICIAL INTELLIGENCE AND SUSTAINABILITY IN LAST-MILE DELIVERY**
Ivana JANKOVIĆ, Ana KITIĆ, Faculty of Mechanical Engineering, University of Niš, Department of Engineering management, **Jelena RUZIĆ**, Technical Faculty in Bor, University of Belgrade: Engineering management.
- **AERODROM KONSTANTIN VELIKI KAO LOGISTIČKI CENTAR – PERSPEKTIVA RASTA I BUDUĆI INFRASTRUKTURNI PROJEKAT**
Dušan KNEŽEVIĆ, Aerodrom Konstantin Veliki Niš – Direktor Sektora Aerodrom Konstantin Veliki Niš, **Marijana STAMENKOVIĆ**, Aerodrom Konstantin Veliki Niš – Rukovodilac zemaljskog opsluživanja
Sanja MILOŠEVIĆ, Aerodrom Konstantin Veliki Niš – Saradnik za bezbednost vazdušnog saobraćaja
- **LOGISTICS NETWORK GLOBAL SERVICE**
Miloš ANĐELKOVIĆ, LEONI Wiring Systems Southeast d.o.o – Head of Logistic Management, LEONI Serbia, **Bojana STAMENKOVIĆ**, LEONI Wiring Systems Southeast d.o.o – Lead Specialist Communications, Serbia

12:25 – 15:00 Paper Presentations:

- **Room 2 (Motorola Hall): AUTOMOTIVE ENGINEERING**
- **MODELING THE DRIVING RANGE OF ELECTRIC VEHICLES: A TECHNICAL CONTRIBUTION**
Goran Radoičić Faculty of Economics and Engineering Management in Novi Sad University Business Academy in Novi Sad, **Siniša ŠKRBIĆ**, The Academy of Applied Studies Polytechnic Belgrade, **Miroslav VULIĆ**, Faculty of Economics and Engineering Management in Novi Sad University Business Academy in Novi Sad.
- **COMPUTATIONAL ANALYSIS OF THE VEHICLES COLLISION**
Nadica STOJANOVIĆ, **Ivan GRUJIĆ**, University of Kragujevac, Faculty of Engineering, **Željko ĐURIĆ**, Faculty of Mechanical engineering, University of Banja Luka, **Bojana BOŠKOVIĆ**, Academy of professional studies Šumadija, Department in Trstenik, Trstenik, Serbia.
- **BRAKING ENERGY RECUPERATION IN PASSENGER VEHICLES USING A COMPRESSED AIR STORAGE SYSTEM**
Vojislav STEFANOVIĆ, **Miloš MILOŠEVIĆ**, **Aleksandra CVETKOVIĆ**, Department of Mechatronics and Control, Faculty of Mechanical engineering, University of Niš
- **OPTIMIZATION OF FULL-CAR MODEL PASSIVE SUSPENSION DYNAMICS USING GENETIC ALGORITHMS**
Marko MILOJKOVIĆ, Department of Control Systems, Faculty of Electronic Engineering, University of Niš, Serbia, **Jianxun CUI**, Harbin Institute of Technology, School of Transportation Science and Engineering, Harbin, China, **Dragan ANTIĆ**, **Saša S. NIKOLIĆ**, **Staniša PERIĆ**, Department of Control Systems, Faculty of Electronic Engineering, University of Niš, Serbia.
- **THERMAL CONDITIONS IN THE PASSENGER COMPARTMENT OF MICROCARS**
Dragan RUŽIĆ, University of Novi Sad, Faculty of Technical Sciences, Department for Mechanization and Engineering Design, Chair for Motor Vehicles and IC Engines
- **UTICAJ PNEUMATIKA NA POTROŠNJU GORIVA KOD KOMERCIJALNIH VOZILA**
Dr Milan SAVIĆEVIĆ, **Dragan RADOVANOVIĆ**, Naftna Industrija Srbije d.o.o.
- **TRANSPORT U PREDUZEĆU TIGAR TYRES D.O.O. – MICHELIN SRBIJA**
Sladana SOKOLOVIĆ, Tigar Tyres d.o.o. – Michelin Srbija

15:00 – Gala Lunch at Aleksić Restaurant

(Address: Bulevar Nikole Tesle BB, Niš 18000)

17:00 – 17:30 – Poster Session

- **APPLYING THE GOAL PROGRAMMING MODEL TO STRATEGIC PLANNING FOR SUSTAINABLE BUSINESS PRACTICES**
Zoran POPOVIĆ University of Belgrade, Faculty of Economics and Business, **Đorđe KOTARAC**, University of Belgrade, Department of Economics, Faculty of Agriculture.
- **INFLUENCE OF SELECTED BIODIESEL PROPERTIES ON FUEL CONSUMPTION**
Boban NIKOLIĆ, Faculty of Mechanical Engineering, University of Niš, Serbia, **BREDA KEGL**, Faculty of Mechanical Engineering, University of Maribor, Slovenia, **Jovan DORIĆ**, Faculty of Technical Sciences, University of Novi Sad, Serbia, **Dragan MARINKOVIĆ**, Department of Structural Analysis, Berlin Institute of Technology, Berlin, Germany, Institute of Mechanical Science, Vilnius Gediminas Technical University, Lithuania, **Nikola PETROVIĆ**, Faculty of Mechanical Engineering, University of Niš, Serbia.
- **THE ROLE OF DRONES AND ROBOTIC DOGS IN TACTICAL SUPPLY CHAINS USING A MODEL FOR LOGISTICAL SUPPORT PLANNING**
Nikola SIMIĆ, University of Kragujevac, Faculty of Engineering, **Aleksandar STANKOVIĆ**, University of Niš, Faculty of Mechanical Engineering
- **STABILITY OF FLOATING CRANES FOR LIFTING SUNKEN OBJECTS AND STEEL PILES**
Rade VASILJEVIĆ, School of Railroad Transport, Academy of Technical and Art Applied Studies.

- **FORMING OF ZIPLINE MATHEMATICAL MODEL**
Tanasije JOJIĆ, Jovan VLADIĆ, Radomir ĐOKIĆ, Department of Mechanization and Design Engineering, Faculty of Technical Sciences, University of Novi Sad.
- **RESISTANCES IN ELEVATOR TRANSMISSION SYSTEMS AND THE METHOD FOR THEIR DETERMINATION**
Radomir ĐOKIĆ, Jovan VLADIĆ, Tanasije JOJIĆ, Department of Mechanization and Design Engineering, Faculty of Technical Sciences, University of Novi Sad.
- **APPLICATION OF ENGINEERING ANALYSIS AND MODERN DESIGN TECHNIQUES IN FORMULA STUDENT RACE CAR CHASSIS DEVELOPMENT**
Dragan ŽIVANIĆ, Nikola ILANKOVIĆ, Jovan DORIĆ, Mirko KATONA, University of Novi Sad, Faculty of Technical Sciences, Department of Mechanization and Design Engineering
- **INTEGRATED MCDM MODEL FOR FORKLIFT SELECTION IN WAREHOUSE**
Jelena Mihajlović, Saša Marković, Goran Petrović, Predrag Milić, Faculty of Mechanical Engineering, University of Niš (Serbia), **Milica Ivanović**, The Academy of Applied Studies Polytechnic – Department in Požarevac,
- **FROM DATA TO GREEN IMAGE: SUSTAINABLE TRANSPORT REPORTING AS A MARKETING TOOL FOR STRENGTHENING COMPETITIVENESS**
Jelena STANKOVIĆ Faculty of Economics: Business management, University of Niš, **Jovana MILENOVIĆ** Faculty of Economics: Accounting, Audit and Business Finance, University of Niš.
- **CONTEMPORARY CHALLENGES AND TECHNOLOGICAL PROGRESS IN THE DEVELOPMENT OF ELECTRIC AND HYBRID ELECTRIC VEHICLES**
Ivan SAVIĆ, Miloš MILOŠEVIĆ, Predrag MILIĆ, Faculty of Mechanical Engineering, University of Niš
- **NOVEL I.C. ENGINE DESIGN**
Jovan DORIĆ, Faculty of Technical Sciences, University of Novi Sad, Serbia, **Boban NIKOLIĆ**, Faculty of Mechanical Engineering, University of Niš, Serbia, **Ivan GRUJIĆ**, Faculty of Engineering, University of Kragujevac, Serbia, **Nadica STOJANOVIĆ**, Faculty of Engineering, University of Kragujevac, Serbia

17:30 – 19:30 Paper Presentations:

- **Room 1 (Main Hall): MATERIAL HANDLING EQUIPMENT, CONSTRUCTIONS AND DESIGN ENGINEERING**
- **DESIGN OF HORIZONTAL AND SLIGHTLY INCLINED SCREW CONVEYORS – A CASE STUDY**
Saša MARKOVIĆ, Faculty of Mechanical Engineering, University of Niš, **Dragan MARINKOVIĆ**, Faculty of Mechanical Engineering and Transport Systems, TU Berlin, **Danijel MARKOVIĆ, Nikola PETROVIĆ, Boban NIKOLIĆ**, Faculty of Mechanical Engineering, University of Niš
- **SENSITIVITY ANALYSIS OF FLEXURE HINGE DYNAMICS USING TAGUCHI DESIGN, ANOVA, AND MONTE CARLO SIMULATION**
Teodor ĐORĐEVIĆ, Dušan STOJILJKOVIĆ, Ljiljana RADOVIĆ, Nenad T. PAVLOVIĆ, Faculty of Mechanical Engineering, University of Niš, 18000 Niš, Serbia
- **FEM-BASED ANALYSIS OF DELAMINATION EFFECTS ON THE BALLISTIC LIMIT OF A COMPOSITE PLATE**
Jovica TASIĆ, Department of Transport Engineering and Logistics, Faculty of Mechanical Engineering, University of Niš, Serbia, **Dragan MARINKOVIĆ**, Department of Structural Analysis, Institute of Mechanics, Berlin Institute of Technology, Germany, Department of Transport Engineering and Logistics, Faculty of Mechanical Engineering, University of Niš, Serbia
- **SELECTION OF THE OPTIMAL THREE STAGE PLANETARY GEAR TRAIN FOR APPLICATION AT ROAD VEHICLE WINCH**
Jelena STEFANOVIĆ-MARINOVIĆ, Faculty of Mechanical Engineering, University of Niš, Serbia, **Sanjin TROHA**, Faculty of Engineering, University of Rijeka, Croatia, **Marko PERIĆ**, Faculty of Mechanical Engineering, University of Niš, Serbia.

- **EXPERIMENTAL AND MATHEMATICAL ANALYSIS OF STATIC TENSILE BEHAVIOR OF CONVEYOR BELTS AT DIFFERENT STRAIN RATES**
Nikola ILANKOVIĆ, Dragan ŽIVANIĆ, University of Novi Sad, Faculty of Technical Sciences, Department of Mechanization and Design Engineering, **Goran RADOJEV**, University of Novi Sad, Faculty of Sciences, Department of Mathematics and Informatics, **Mirjana BRDAR**, University of Novi Sad, Faculty of Technology, Department of Basic Engineering Disciplines.
- **EVALUATION OF LASER CUTTING CONDITIONS USING THE WASPAS METHOD**
Miloš MADIĆ, Milan TRIFUNOVIĆ, Dušan PETKOVIĆ, Predrag JANKOVIĆ, Department for Production and Information Technologies: University of Niš, Faculty of Mechanical Engineering in Niš, Serbia.
- **Room 2 (Motorola Hall): TRAFFIC ENGINEERING AND OTHER ASPECTS OF TRANSPORT AND LOGISTICS**
 - **EXPERIMENTAL INVESTIGATION OF VEHICLE DECELERATION USING THE TAGUCHI METHOD TO IMPROVE TRAFFIC SAFETY**
Bojana BOŠKOVIĆ, Academy of Professional Studies Šumadija, College Trstenik, **Nadica STOJANOVIĆ, Ivan GRUJIĆ, Jovanka LUKIĆ, Jasna GLIŠOVIĆ, Danijela MILORADOVIĆ**, Faculty of Engineering, University of Kragujevac, Kragujevac, Serbia
 - **EXPLAINABLE ARTIFICIAL INTELLIGENCE FOR TRUSTWORTHY EDGE-BASED ROAD INTERSECTION MANAGEMENT**
Žarko ČOJBAŠIĆ, Goran PETROVIĆ, Faculty of Mechanical Engineering, University of Niš, Serbia, **Dejan RANČIĆ, Emilija ČOJBAŠIĆ**, Faculty of Electronic Engineering, University of Niš, Serbia, **Nemanja MARKOVIĆ, Bratislav LUKIĆ**, Faculty of Mechanical Engineering, University of Niš, Serbia.
 - **PERFORMANCE COMPARISON OF EXPLAINABLE ARTIFICIAL INTELLIGENCE IMPLEMENTATION ON TWO EDGE DEVICES FOR A TRANSPORT ENGINEERING PROBLEM**
Emilija ČOJBAŠIĆ, Faculty of Electronic Engineering, University of Niš, Serbia, **Maša DESPENIĆ** Faculty of Mechanical Engineering, University of Niš, Serbia, **Dejan RANČIĆ, Dragan STOJANOVIĆ**, Faculty of Electronic Engineering, University of Niš, Serbia, **Ivan ĆIRIĆ, Žarko ČOJBAŠIĆ**, Faculty of Mechanical Engineering, University of Niš, Serbia
 - **GAUSS-NEWTON OPTIMIZATION METHOD AND ITS APPLICATIONS,**
Predrag RAJKOVIĆ, Faculty of Mechanical Engineering in Niš, Serbia, **Slađana MARINKOVIĆ, Jovan RAJKOVIĆ**, Faculty of Electronic Engineering, University of Niš, Serbia.