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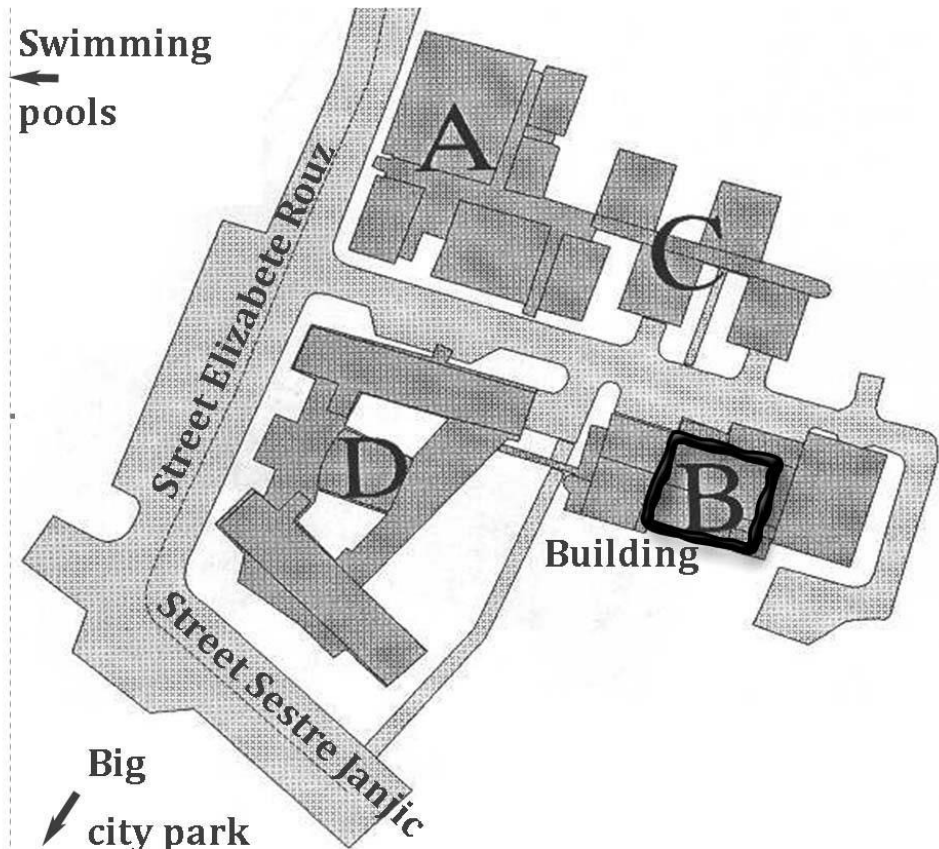


**International Congress  
Motor Vehicles & Motors 2024  
Kragujevac, Serbia  
October 10<sup>th</sup> - 11<sup>th</sup>, 2024**



## Congress Programme

The 10<sup>th</sup> International Congress Motor Vehicles & Motors will be held from 10<sup>th</sup> to 11<sup>th</sup> October at the Faculty of Engineering University of Kragujevac, in Halls B and B-I-12 which are in the Building B of the Faculty of Engineering University of Kragujevac (see the Picture below).



The shedule of the Congress sections is given on the following pages.



**International Congress  
Motor Vehicles & Motors 2024  
Kragujevac, Serbia  
October 10<sup>th</sup> - 11<sup>th</sup>, 2024**



Thursday, October 10th, 2024

09:00 am to 09:50 pm

Registration for participants

**Plenary section**

Thursday, October 10<sup>th</sup>, 2024

10:00 am to 13:00 pm

Hall B

**OPENING CEREMONY**

Prof. Jasna Glišović, President of the Scientific board of the Congress

Prof. Slobodan Savić, Dean of the Faculty of Engineering of the University of Kragujevac

Prof. Vladimir Ranković, Rector of the University of Kragujevac

**INTRODUCTORY LECTURES**

Ralph Pütz

**EU ENERGY AND PROPULSION TRANSITIONS IN THE MOBILITY SECTOR OF GERMANY – A  
REALIZABLE STRATEGY OR EVEN RATHER IDEOLOGICAL ASTRAY?**

Nenad Miljić, Slobodan Popović

**HYDROGEN AND INTERNAL COMBUSTION ENGINES – STATUS, PERSPECTIVES AND CHALLENGES  
IN PROVIDING HIGH EFFICIENCY AND CO2 FREE POWERTRAIN FOR FUTURE**

Hakan Kaleli, Selman Demirtaş, Veli Uysal

**NANOSCALE TRIBOLOGICAL INFLUENCE OF NBA ADDED IN ENGINE OIL FOR FRICTION AND WEAR  
BEHAVIOUR IN DIESEL ENGINE CYLINDER LINER SURFACE RUBBED UNDER 1ST AND 2ND PISTON  
RINGS**

**COCKTAIL**

13:05 pm to 13:50 pm



**International Congress  
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**CHAIRMAN**

**Assoc. prof. dr Aleksandar Davinić**

**Prof. dr Jovan Dorić**

**Power Train Technology**

**Thursday, October 10<sup>th</sup>, 2024**

**14:00 pm to 16:00 pm**

**Hall B**

<b>Paper number</b>	<b>Authors</b>	<b>Paper title</b>
MVM2024-010	Miloš Maljković Ivan Blagojević Branko Miličić Dragan Stamenković	<b>TOWARDS AN ENERGY EFFICIENT OPERATION OF A SUPERCAPACITOR ELECTRIC BUS</b>
MVM2024-013	Zoran Masoničić Siniša Dragutinović Aleksandar Davinić Slobodan Savić Radivoje Pešić	<b>SOME ASPECTS OF COMBUSTION MODEL VARIATION ONTO FLAME PROPAGATION AND EXHAUST EMISSIONS OF IC ENGINES</b>
MVM2024-016	Predrag Mrđa Marko Kitanović Slobodan Popović Nenad Miljić Nemanja Bukušić	<b>MATHEMATICAL MODELING OF AN ELECTRONIC THROTTLE VALVE USING NARX NEURAL NETWORKS</b>
MVM2024-018	Nemanja Bukušić Predrag Mrđa Marko Kitanović Nenad Miljić Slobodan Popović	<b>GASOLINE DIRECT INJECTION STRATEGY ANALYSIS FOR IMPROVED COMBUSTION</b>
MVM2024-020	Nenad Miljić Predrag Mrđa Mihailo Olđa Slobodan J. Popović Marko Kitanović	<b>THE METHOD AND INSTRUMENTATION FOR ENGINE POSITIONING ON A TESTBED WITH FAST SHAFT ALIGNMENT</b>
MVM2024-031	Miroljub Tomić Dragan Knežević Miloljub Štavljanin	<b>CYLINDER DEACTIVATION IN IC ENGINES IN CYLINDER PROCESS SIMULATION</b>
MVM2024-037	Marko Nenadović Dragan Knežević Željko Bulatović	<b>CHARACTERISTICS OF TORSIONAL OSCILLATIONS OF PERKINS 1104 ENGINE CRANKSHAFT</b>
MVM2024-038	Marko Nenadović Dragan Knežević Željko Bulatović	<b>ANALYSIS OF CRANKSHAFT TORSIONAL OSCILLATION DUMPER FOR ENGINE V-46-6</b>



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**Prof. dr Jasna Glišović**

**Assoc. prof. dr Boris Stojić**

**Vehicle Design and Manufacturing**

**Thursday, October 10<sup>th</sup>, 2024**

**14:00 pm to 16:00 pm**

**Hall B-I-12**

<b>Paper number</b>	<b>Authors</b>	<b>Paper title</b>
MVM2024-005	Gordana Bogdanović Dragan Čukanović Aleksandar Radaković Milan T. Đorđević Petar Knežević	<b>FUNCTIONALLY GRADED MATERIALS IN AUTOMOTIVE INDUSTRY-MODELLING AND ANALYSIS OF FG PLATE ON ELASTIC FOUNDATION</b>
MVM2024-006	Dušan Arsić Djordje Ivković Dragan Adamović Vesna Mandić Marko Delić Andjela Mitrović Nada Ratković	<b>APPLICATION OF HIGH STRENGTH STEELS IN AUTOMOTIVE INDUSTRY</b>
MVM2024-011	Saša Vasiljević Jasna Glišović Marko Maslač Milan Đorđević Sonja Kostić Dobrivoje Čatić	<b>TIRE WEAR: VEHICLE SAFETY AND ENVIRONMENTAL PROBLEM</b>
MVM2024-012	Zorica Đorđević Sonja Kostić Saša Jovanović Danijela Nikolić	<b>THE INFLUENCE OF FIBER ORIENTATION ANGLE ON THE STABILITY OF A COMPOSITE DRIVE SHAFT</b>
MVM2024-014	Vojislav Filipović Milan Matijević Dragan Kostić	<b>DIGITAL PREVIEW CONTROLLER DESIGN USING REINFORCEMENT LEARNING</b>
MVM2024-015	Milan Matijević Vojislav Filipović Dragan Kostić	<b>ITERATIVE LEARNING (ILC) IN MANUFACTURING SYSTEMS: DESIGN OF ILC ALGORITHMS AND OVERVIEW OF MODEL INVERSION TECHNIQUES FOR ILC SYNTHESIS</b>
MVM2024-023	Dániel Kecskés László Tóth István Péter Szabó	<b>STRENGTH TESTING OF 3D PRINTED SPECIMENS</b>
MVM2024-048	Isak Karabegović Ermin Husak Edina Karabegović Mehmed Mahmić	<b>DEVELOPMENT AND IMPLEMENTATION OF ADVANCED ROBOTICS IN THE AUTOMOTIVE AND ELECTRO- ELECTRONIC INDUSTRY OF CHINA</b>

**COFFEE BREAK**

**16:05 pm to 16:20 pm**



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**CHAIRMAN**

**Prof. dr Jovanka Lukić**

**Prof. dr Snežana Petković**

**Power Train Technology and Vehicle Dynamics and Intelligent Control Systems**

**Thursday, October 10<sup>th</sup>, 2024**

**16:30 pm to 18:30 pm**

**Hall B**

<b>Paper number</b>	<b>Authors</b>	<b>Paper title</b>
MVM2024-008	Vanja Šušteršič Vladimir Vukašinić Dušan Gordić Mladen Josijević	<b>APPLICATION OF HYDROSTATIC TRANSMISSION IN MOBILE MACHINE</b>
MVM2024-047	Attila Kiss Bálint Szabó Zoltán Weltsch	<b>THE SAFETY ISSUES OF HYDROGEN-GASOLINE DUAL-FUEL INJECTION IN NATURAL ASPIRATED INTERNAL COMBUSTION ENGINES</b>
MVM2024-026	Minja Velemir Radović Danijela Nikolić Nebojša Jurišević Saša Jovanović	<b>APPLICATION OF WASTE PLASTIC OIL IN THE MODERN AUTOMOTIVE INDUSTRY</b>
MVM2024-002	Mihai Blaga	<b>VOLVO FH POWERTRAIN, VEHICLE ENGINE DIAGNOSTICS</b>
MVM2024-007	Abdeselem Benmeddah Momir Drakulić Aleksandar Đurić Sreten Perić	<b>MODELING AND VALIDATION OF TRUCK SUSPENSION SYSTEMS USING ADAMS SOFTWARE</b>
MVM2024-034	Vasko Changoski Igor Gjurkov Vase Janushevska	<b>HANDLING AND STABILITY ANALYSIS OF AN AUTOMATED VEHICLE WITH INTEGRATED FOUR-WHEEL INDEPENDENT STEERING (4WIS)</b>
MVM2024-046	Andjela Mitrović Vladimir Milovanović Nebojša Hristov Damir Jerković Mladen Josijević Djordje Ivković	<b>ANALYSIS OF PLACING ADDITIONAL SUPPORTS OF THE INTEGRATED ARTILLERY SYSTEM CALIBER 130 MM</b>
MVM2024-022	Pál Hansággy Ferenc Palásti Péter Gerse Balázs Ádám László Tóth	<b>UV AGING EXAMINATION OF WINDSHIELD HOLDER RUBBER</b>



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**CHAIRMAN**  
Prof. dr Danijela Miloradović  
Prof. dr Dragan Ružić  
**Driver/Vehicle Interface, Information and Assistance Systems and Transport Challenges in Emerging Economies**  
Thursday, October 10<sup>th</sup>, 2024  
16:30 pm to 18:30 pm  
Hall B-I-12

Paper number	Authors	Paper title
MVM2024-001	Miroslav Demić Mikhail P. Malinovsky	<b>INVESTIGATION OF TORSIONAL VIBRATIONS OF THE STEERING SHAFT FROM THE ASPECT OF MINIMAL DRIVER-HAND FATIGUE IN HEAVY MOTOR VEHICLES</b>
MVM2024-009	Mikhail P. Malinovsky Miroslav Demić Evgeny S. Smolko	<b>TECHNICAL SOLUTIONS FOR CATASTROPHIC EXTENT OF THE HUMAN FACTOR IN DRIVERS TRAINING AND STRUCTURAL SAFETY OF BUSES AND HEAVY VEHICLES</b>
MVM2024-004	Slobodan Mišanović	<b>PERFORMANCES OF FAST CHARGERS FOR ELECTRIC BUSES IN BELGRADE ON THE EKO2 LINE</b>
MVM2024-019	Siniša Dragutinović Zoran Masonicic Aleksandar Davinić Slobodan Savić Radivoje Pešić	<b>APPLICATION OF THE AHP METHOD FOR THE ASSESMENT OF INFLUENTIAL CRITERIA IN RISK ANALYSIS OF ROAD TRANSPORT OF DANGEROUS GOODS</b>
MVM2024-021	Željko Đurić Snežana Petković Valentina Golubović Bugarski Nataša Kostić	<b>METHODS FOR CATEGORIZING ROAD TUNNELS ACCORDING TO DANGEROUS GOODS REGULATIONS</b>
MVM2024-025	Franci Pušavec Janez Kopač	<b>TRAFFIC HAZARD DUE TO HIGH CENTRE OF GRAVITY</b>
MVM2024-043	Alexander Koudrin Sergey Shadrin	<b>DEVELOPMENT OF AN ENERGY-EFFICIENT CONTROL SYSTEM FOR CONNECTED, HIGHLY AUTOMATED VEHICLES</b>
MVM2024-055	Marko Miletić Ivan Miletić Robert Ulewich Ružica Nikolić	<b>EV CHARGING STATIONS: CURRENT SITUATION AND FUTURE PERSPECTIVES</b>

**Gala dinner**  
**19:30 pm**  
**Restaurant Di Trevi**  
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Prof. dr Jasna Glišović  
Prof. dr Danijela Miloradović

**Vehicle Design and Manufacturing and Driver/Vehicle Interface, Information and Assistance Systems**  
Friday, October 11<sup>th</sup>, 2024  
10:00 am to 12:00 pm  
Hall B

Paper number	Authors	Paper title
MVM2024-017	Marko Delić Vesna Mandić Dragan Adamović Dušan Arsić Đorđe Ivković Nada Ratković	<b>ANALYSIS OF PHOTOGRAMMETRY APPLICATION POSSIBILITIES FOR REVERSE ENGINEERING OF COMPONENTS IN THE AUTO INDUSTRY</b>
MVM2024-027	Milan Stanojević Milan Bukvić Saša Vasiljević Lozica Ivanović Blaža Stojanović	<b>RESEARCH METHODS IN THE DESIGN PROCESS OF HYDRAULIC SYSTEMS WITH CYCLOID TEETH</b>
MVM2024-028	Dragan Adamovic Vesna Mandic Nada Ratkovic Dusan Arsic Djordje Ivkovic Marko Delic Marko Topalovic	<b>MODERN MATERIALS IN AUTOMOTIVE INDUSTRY - REVIEW</b>
MVM2024-029	Dragan Adamović Fatima Živić Nikola Kotorčević Nenad Grujović	<b>REVIEW OF THE USE OF NANOTECHNOLOGIES AND NANOMATERIALS IN THE AUTOMOTIVE INDUSTRY: DEVELOPMENT, APPLICATIONS AND FUTURE DIRECTIONS</b>
MVM2024-032	Nada Ratković Dragan Adamović Srbislav Aleksandrović Vesna Mandić Dušan Arsić Marko Deliće Živana Jovanović Pešić	<b>ADVANCED WELDING TECHNOLOGIES: FSW IN AUTOMOTIVE MANUFACTURING</b>
MVM2024-035	Milan Bukvić Sandra Gajević Slavica Miladinović Saša Milojević Momčilo Đorđević Blaža Stojanović	<b>CHARACTERISTICS AND APPLICATION OF POLYMER COMPOSITES IN THE AUTOMOTIVE INDUSTRY</b>
MVM2024-036	Gordana Bogdanović Aleksandar Radaković Dragan Čukanović Nikola Velimirović Petar Knežević	<b>SHAPE FUNCTION OPTIMIZATION FOR STATIC ANALYSIS OF COMPOSITE MATERIALS USED IN AUTOMOTIVE INDUSTRY</b>
MVM2024-039	Igor Saveljić Slavica Mačužić Saveljić Nenad Filipović	<b>THE MODERN APPROACH TO PROBLEM-SOLVING IN MECHANICAL ENGINEERING - APPLICATION OF ARTIFICIAL INTELLIGENCE</b>
MVM2024-050	Jovanka Lukić Danijela Miloradović Jasna Glišović	<b>MASKING EFFECTS UNDER DUAL AXIS WHOLE BODY VIBRATION</b>





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**Prof. dr Aleksandar Davinić**

**Prof. dr Radivoje Pešić**

**Vehicle Design and Manufacturing and Vehicle Dynamics and Intelligent Control Systems**

**Friday, October 11<sup>th</sup>, 2024**

**10:00 am to 12:30 pm**

**Hall B-I-12**

<b>Paper number</b>	<b>Authors</b>	<b>Paper title</b>
MVM2024-040	Slavica Mačužić Saveljić Igor Saveljić Jovanka Lukić	<b>DETERMINATION OF THE SEAT-TO-HEAD TRANSFER FUNCTION AND INFLUENCING FACTORS ON COMFORT UNDER VERTICAL RANDOM VIBRATIONS</b>
MVM2024-041	Dobrivoje Čatić Saša Vasiljević Živana Jovanović Pešić Vladimir Čatić	<b>DISC BRAKE FAILURE ANALYSIS OF THE MOTOR VEHICLE BRAKING SYSTEM</b>
MVM2024-051	Jasna Glišović Saša Vasiljević Jovanka Lukić Danijela Miloradović	<b>SUBSYSTEM AND SYSTEM ANALYSIS OF BRAKE WEAR PARTICLES FOR PREDICTION AND CONTROL OF THE TRAFFIC NON-EXHAUST EMISSION</b>
MVM2024-052	Dobrivoje Čatić Vladimir Čatić	<b>DETERMINING THE RELIABILITY OF BRAKE BOOSTERS IN LIGHT COMMERCIAL VEHICLES</b>
MVM2024-053	Nikola Komatina Danijela Tadić Marko Džapan	<b>QUANTITATIVE ANALYSIS OF NONCONFORMING PRODUCTS: A CASE STUDY IN THE AUTOMOTIVE INDUSTRY</b>
MVM2024-054	Danijela Miloradović Jasna Glišović Jovanka Lukić Nenad Miloradović	<b>SUSPENSION RATIOS OF MACPHERSON STRUT SUSPENSION</b>
MVM2024-056	Nenad Miloradović Rodoljub Vujanac	<b>INFLUENCE OF SELECTION OF MATERIAL HANDLING DEVICES ON SOLUTION FOR WAREHOUSE SYSTEM IN AUTOMOTIVE INDUSTRY</b>
MVM2024-057	Nenad Petrović Strahinja Milenković Živana Jovanović Pešić Nenad Kostić Nenad Marijanović	<b>DETERMINING 3D PRINTED HOUSING DIAMETERS FOR PRESS-FITTING STANDARD BALL BEARINGS</b>
MVM2024-030	Vesna Ranković Andrija Đonić Tijana Geroski	<b>ROAD TRAFFIC ACCIDENTS PREDICTION USING MACHINE LEARNING METHODS</b>
MVM2024-042	Bojana Bošković Nadica Stojanović Ivan Grujić Saša Babić Branimir Milosavljević	<b>THE INFLUENCE OF THERMAL STRESS OF DISC BRAKES ON VEHICLE DECELERATION</b>

**CONGRESS CLOSING**

**12:35 pm to 13:00 pm**

**Hall B**