



International Scientific  
and Professional Conference

**Politehnika  
2025**

**AGENDA**

**28<sup>th</sup> November 2025**

**Sava Center | Belgrade, Serbia**

## Supported by

Ministry of Education

Ministry of Science, Technological Development and Innovation

Republic of Serbia – The Office for Dual Education and

The National Qualifications Framework

Directorate for Occupational Safety and Health

Chamber of Commerce of Belgrade

Institute for Standardization of Serbia

Serbian Automotive Cluster – AC Serbia

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THE ACADEMY  
OF APPLIED STUDIES  
**POLYTECHNIC**

### Organizer

Academy of Applied Studies Polytechnic

Katarine Ambrozić 3, Belgrade

[www.politehnika.edu.rs](http://www.politehnika.edu.rs)



International Scientific  
and Professional Conference

# **Politehnika 2025**

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# International Scientific and Professional Conference Politehnika 2025

28<sup>th</sup> November 2025

Sava Centar, 9 Milentija Popovića Street, Belgrade, Serbia



## PROGRAMME

09:00 – Registration of participants

10:00 – 11:15 Official opening of the Conference – *Amphitheater hall*

Address by the organizers and representatives of institutions, official supporters of the International Scientific and Professional Conference **Politehnika 2025**

11:15 – 11:45 Coffee Break

11:45 – 14:15 Work in separate scopes

- Scope 1. Environment and Sustainable Development – *Room 23*
- Scope 2. Occupational Health and Safety and Fire Safety – *Room 22*
- Scope 3. Smart Management Systems – *Room 24*
- Scope 4. Graphic Engineering – *Room 27*
- Scope 5. Design – *Room 29*

**Round Table: Human + Machine: Co-creating the Future of Design – How AI is Shaping Tomorrow's Creativity**

- Scope 7. Biotechnology, Pharmacy and Healthcare – *Room 20*

**Round Table 1: Food Safety Control – Remote Auditing**

**Round Table 2: Agriculture of the Republic of Serbia in the Context of Climate Change**

- Scope 8. Mechanical Engineering – *Room 25*
- Scope 9. Ecotourism and Rural Development – *Room 26*
- Scope 10. Mechatronics – *Amphitheater hall*

12:45 – 14:15

**Panel discussion: Robotics – To What Extent Will Robots Replace Humans?**

12:00 – 12:35 Associated programme – *Amphitheater Hall*

**Panel discussion:**

**AI Banking – The Future of Banking: Humans, AI or Neobanking?**

14:15 – 14:45 Cocktail / Light lunch break

**14:45 – 17:00 Work in separate scopes**

- Scope 3. Smart Management Systems – **Room 24**
- Scope 4. Graphic Engineering – **Room 27**
- Scope 5. Design – **Room 29**
- Scope 6. Traffic Engineering – **Room 26**
- Scope 7. Biotechnology, Pharmacy and Healthcare – **Room 20**
- Scope 8. Mechanical Engineering – **Room 25**
- Scope 9. Ecotourism and Rural Development – **Room 26**

**17:00 – 17:15 Coffee Break**

**17:15 – 18:30 Work in separate scopes**

- Scope 4. Graphic Engineering – **Room 27**
- Scope 5. Design – **Room 29**
- Scope 6. Traffic Engineering – **Room 26**
- Scope 7. Biotechnology, Pharmacy and Healthcare – **Room 20**
- Scope 10. Mechatronics – **Room 25**

**17:45 – 18:30 Poster Presentations – live interaction with authors**

All posters will be presented in digital format and accessed by scanning **QR codes** with mobile devices during the Conference, in the conference rooms corresponding to each scope.

**18:30 Concluding remarks and official closing of the Conference – Room 27**

**19:00 Official Dinner – Atrium Hall**



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## Conference Scopes

Environment and  
Sustainable Development

Occupational Health  
and Safety and Fire Safety

Smart Management Systems

Graphic Engineering

Design

Traffic Engineering

Biotechnology, Pharmacy  
and Healthcare

Mechanical Engineering

Ecotourism and  
Rural Development

Mechatronics

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## Associated programme

AI Banking

# DETAILED PROGRAMME OF THE CONFERENCE

## Scope 1. Environment and Sustainable Development

*The allocated time for Invited Speakers' presentations is up to 20 minutes.  
The allocated time for Speakers' presentations is up to 10 minutes.*

### 11:45 – 12:45 Invited Speakers' Presentation – Chair: Ana Popović

**Srećko Stopić, Zixi Gao, Hanwen Chung, Bernd Friedrich, Mulbah Forkpayea, Duško Kostić, Nenad Nikolić, Vladimir Damjanović, Dragana Životić**

*The importance of using hydrometallurgical treatment of different raw materials at high pressures for environmental protection and sustainable development*

### 12:15 – 14:15 Paper Presentations – Chair: Ivana Matić Bujagić

**Nevena Purić, Marija Popović, Darko Đorđević, Maja Đolić**

*Biowaste as a resource: Challenges and opportunities for biowaste management and sustainable infrastructure in Serbia*

**Miodrag Stanisavljević, Ana Stojković, Ivan Krstić**

*Comparative analysis of conventional and non-conventional systems for electroplating wastewater treatment*

**Jelena Andrić**

*Towards sustainable development in infrastructure projects*

**Bensedira Noureddine, Milles Abdessmad, Aggoune Mohammed-Salah**

*Photovoltaic supplied MHD desalination system for agricultural uses*

**Aleksandar Petković, Jovan Ilić**

*Numerical simulations of transient operation of SHPP with Pelton turbines and selection of protective measures. Case study of SHPP Velika Ploča*

**Radule Tošović**

*Managerial-economic aspects of the participation of environmental costs in the cost price of mineral raw materials in the mineral sector*

**Zorica Baroš, Olivera Jovanović**

*Monitoring ionizing radiation in the Republic of Serbia*

**Aleksandra Pavlović, Andrea Ivanišević**

*Is Serbia becoming a pollution haven? The impact of FDI on air pollution and public health*

**Ana Popović, Nebojša Ćurčić, Aleksandra Božić**

*Managing environmental disasters: The role of environmental risk assessment*

14:15 – 14:45 Cocktail / Light lunch break

17:45 – 18:30 Poster Section

**Đorđe Ogrizović, Milica Delić, Ivana Matić Bujagić, Maja Đolić**  
*Adaptive water management and pathways toward urban resilience*

**Đorđe Ogrizović, Milica Delić, Maja Đolić, Ivana Matić Bujagić**  
*Recent advances in removal of emerging contaminants from wastewaters*

**Natalija Nedić, Tamara Tadić, Sandra Bulatović, Aleksandra Nastasović, Bojana Marković**  
*Efficient removal of aniline from aqueous solution using a hydroxyl methacrylate-based sorbent*

**Natalija Nedić, Tamara Tadić, Sandra Bulatović, Bojana Marković, Aleksandra Nastasović**  
*Optimization of orange G sorption using gma-based polymer through response surface methodology and box-behnken design*

**Marija Tasić, Milica Petković, Sofija Miljković, Žarko Vranjanac**  
*Application of the Serbian water quality index in the assessment of the Jerma, Gaberska River, and Great Timok (2019–2023)*

**Grozdanka Bogdanović, Dragan Radulović, Dragana Marilović, Jovica Stojanović, Sanja Petrović, Vladimir Simić**  
*From waste to resource: Leaching metals from flotation tailings at the "Rudnik" mine for sustainable development*

**Jelena Gligorijević Sokolović, Vesna Krstić, Ana Petrović, Zoran Štirbanović, Jovica Sokolović**  
*The role of solid recovered fuel (SRF) in waste reduction, resource management and carbon footprint mitigation within the circular economy*

**Lea Komerički Kotnik, Katrin Školnik Škrabe, Anja Bubik**  
*Erasmus+ projects as the opportunity to improve youth awareness on microplastics*

**Anja Bubik, Klara Hohkraut**  
*From isolation to detection of microplastics in natural and industrially processed honey*

**Aleksandar Petković, Jovan Ilić**  
*Numerical simulations of long-term annual energy generation of SHPP Kresaja*

**Nataša Palić, Marina Maletić, Ana Kalijadis, Anita Lazić, Katarina Trivunac, Marija Vukčević**  
*Comparative analysis of chemically and thermally modified potato starch for the adsorption of brilliant green dye*

**Tijana Radojičić, Nataša Palić, Marina Maletić, Nataša Mladenović Nikolić, Daniela Popović, Marija Vukčević, Katarina Trivunac**

*Alkali-activated material: A sustainable approach for adsorbing heavy metals and rare earth elements from water*

**Tijana Spasojević, Marina Maletić, Ana Kalijadis, Nataša Mladenović, Katarina Trivunac, Marija Vukčević**

*Carbonization and activation of flax fibers for the removal of bromazepam from water*

**Tijana Spasojević, Marina Maletić, Dušan Trajković, Isabel Gria, Mirjana Čujić, Nevena Prlainović, Maja Đolić**

*Enhanced arsenic removal using an iron-modified sandy clay and biochar*

**Andrea Petanova, Marija Prosheva, Jadranka Blazhevaska Gilev**

*Towards sustainable carbon nanomaterials: Pulsed laser-assisted synthesis approach*

**Marija Prosheva, Teodora Stojanovska, Andrea Petanova, Jadranka Blazhevaska Gilev**

*Degradation behavior of lignin/TiO<sub>2</sub> waterborne polymers*

**Milica Vlahović, Miljan Vlahović, Nenad Vušović, Darja Žarković**

*Radium contamination of groundwater and remediation approaches*

**Vesna Alivojvodić, Niko Samec, Filip Kokalj**

*Standards-based value creation for modern waste-to-energy facilities*

**Vesna Alivojvodić, Aleksandra Vučinić, Nela Vujović**

*Bridging policy gaps through ISO 59000 standards in European waste management transitions*

**Nataša Radić, Ana Popović, Vesna Alivojvodić**

*Practices and attitudes toward food waste in the Republic of Serbia – pilot survey*

**Nataša Radić, Andreja Stojić, Mirjana Perišić**

*Analysis of the effects of social and industrial changes on air quality during the Covid-19 pandemic in Belgrade*

**Ivana Rvović, Aleksandra Davidović**

*Forest fires in Serbia – spatial analysis of the impact of forest ownership and prevention measures*

**Darja Žarković, Ana Aleksić, Milica Vlahović, Nenad Vušović**

*Information technologies in municipal solid waste management – from public participation to powerful software tools*

**Darja Žarković, Milica Vlahović, Žaklina Todorović, Miljan Vlahović, Milica Prelić**

*Application of information systems in water resources monitoring and management*

**Nikola Stojković**

*Determination of heavy metal content in river fish*

**Nikola Stojković**

*Digital ecology and the environmental impact of digital platforms*

## **Scope 2. Occupational Health and Safety and Fire Safety**

*The allocated time for Speakers' presentations is up to 15 minutes.*

**11:45 – 14:15 Paper Presentations – Chair: Marta Trinić**

**Dragan Jovanović**

*The role of experts in court proceedings of the Republic of Serbia*

**Marko Miletić, Aleksandar Pantović, Marko Milošević,  
Marko Đapan, Ivan Mačužić**

*The improvement of lockout/tagout compliance in manufacturing through digitalization*

**Maja Đikić**

*From paper to practice: How employees use personal protective equipment and perceive occupational health and safety training*

**Nebojša Ćurčić, Novak Milošević**

*Real-time monitoring of workplace environmental factors using smart devices – an overview on vibration exposure evaluation*

**Daniela Ristić, Ognjen Ristić**

*The impact of work stress on employees' performance and job satisfaction*

**Nikola Tanasić, Radenko Rajić, Ivan Arandelović**

*A novel tabular method for estimation of heat extraction factor*

**Darko Marković, Nebojša Ćurčić, Novak Milošević**

*Research on impact of cultural diversity on occupational safety and health culture in multinationals teams based on Hofstede's cultural dimensions theory*

**14:15 – 14:45 Cocktail / Light lunch break**

**17:45 – 18:30 Poster Section**

**Snežana Knežević, Snežana Milanović, Marijana Jandrić Kočić, Tamara Gajić**

*Work-life balance among higher education employees*

**Ana Aleksić, Darja Žarković**

*Application of GIS technology in the education of engineers of fire protection*

**Milivoje Filipović, Marina Milovanović Arandžević**

*An extended tabular method for estimation of water flow rate at the hydrant nozzle*

**Barbara Vidaković Ristić**

*Understanding intentional fires: From 'how' to 'why' through an interdisciplinary lens*

**Barbara Vidaković Ristić**

*Fire risk management in nightclubs: Regulatory framework, practice and recommendations*

**Jelena Andrić, Xi'an Jiaotong**

*The analysis of occupational accidents on construction sites in Hong Kong*

### Scope 3. Smart Management Systems

*The allocated time for Speakers' presentations is up to 10 minutes.*

**11:45 – 14:15 Paper Presentations – Chair: Koviljka Banjević**

**Dragana Gardašević, Koviljka Banjević, Milanka Gardašević Filipović, Vladan Radivojević**

*AHP and PROMETHEE II methods in selecting candidates for the position of strategic planning manager*

**Goran Nestorović**

*Development of teaching staff through the introduction of professional doctoral studies*

**Predrag Janković, Dragana Miletić, Suzana Pavlović**

*The place and perspectives of the development of dual education in higher education in the Republic of Serbia*

**Ivan Mačužić**

*Demo-didactic systems for practical training in Industry 4.0*

**Dragana Rošulj, Aleksandra Nastasić, Dejan Petrović**

*The culture of knowledge management and its impact on the implementation of knowledge management processes*

**Aleksandra Nastasić, Dragana Rošulj, Aleksandra Božović**

*Influence of artificial intelligence on organisational culture*

**14:15 – 14:45 Cocktail / Light lunch break**

## 14:45 – 17:00 Paper Presentations – Chair: Aleksandra Nastasić

**Đorđe Dihovični, Dragan Kreculj, Nada Ratković Kovačević, Goran Vorotović**  
*XML approach to the creation of a database for the alumni project*

**Marko Pavlović, Dragana Đurić, Miloš Lučić**  
*The role of CRM systems in the revitalization of an artistic brand:  
A study on consumer's perception of the NASLIKATI brand*

**Đorđe Dihovični**  
*Programs and their applications in web design and web management*

**Marija Simonović, Snežana Tadić, Mladen Krstić, Miloš Veljović**  
*Space logistics: How to get into space?*

## 17:45 – 18:30 Poster Section

**Dušan Trajković, Nevena Purić, Aleksandar Kojović, Dragana Živojinović**  
*Global market and standardization in biofuel industry*

**Saša Marković, Marko Pavlović**  
*Possibilities of improving business processes and business efficiency  
in the automotive industry*

**Goran Vojnović**  
*Augmented reality in academic libraries: Implementing affordable tools*

**Marija Mićanović**  
*The analysis of writing style and the application of tools for academic writing*

**Saša Marković, Marko Pavlović**  
*Strategic forms of business internationalization*

**Jasmina Đurašković, Ana Slavković, Brankica Pažun**  
*Web transparency of CSR activities in Belgrade municipalities:  
A content analysis of official websites*

**Aleksandra Pavlović**  
*Economic growth in Serbia – does inflation matter?*

**Srđan Barzut, Dragana Sajfert, Ana Bašić, Milica Jevremović**  
*The main cyber treats in modern e-business*

**Lav Leskur**  
*Is personality the missing key for boosting sales? A fresh perspective for  
marketing strategists on Serbian consumer's organic food attitudes*

## Scope 4. Graphic Engineering

*The allocated time for Speakers' presentations is up to 20 minutes.*

### 11:45 – 14:15 Companies' Presentations

#### **Newsmax Balkans**

*Creativity, media, and artificial intelligence – a new synergy of education and practice*

#### **Smurfit Westrock**

*Advanced multipack solutions for a sustainable future*

#### **Conatus**

*ESKO CDI crystal quartz edition  
Print Clone*

#### **Omni projekt**

*How Industry 4.0 is transforming the packaging process – from machine design and customization to production optimization and increased efficiency*

### 14:15 – 14:45 Cocktail / Light lunch break

### 14:45 – 17:00 Companies' Presentations

#### **Popular**

*The use of artificial intelligence in design and marketing*

#### **Aran**

*The use of traditional media in design and marketing*

#### **Papirprint**

*Positive changes in Papirprint*

#### **Publikum**

*Presentation of the Publikum printing house*

#### **Triopack**

*Presentation of the company Triopack*

#### **Pulsec**

*Cybersecurity in production systems: How cyberattacks can halt the packaging supply chain – and how to prevent it*

#### **Bluestormai**

*AI agents as a strategic advantage for graphic enterprises: More precise communication, faster responses, greater capacity*

## 17:15 – 18:30 Companies' Presentations

### Reputeo

*Connecting consumers and brands through visual elements that 'speak' using AI-generated content*

### MM Board and Paper

*Presentation of new types of board*

### FireBird

*From idea to interaction – how campaigns become experiences*

## 17:45 – 18:30 Poster Section

### Andrijana Đorđević, Danijela Kovačević, Nenad Đorđević, Aleksandra Krstić

*An investigation into the mechanical properties of corrugated fiberboard packaging boxes*

### Dejan Miljković, Danijela Kovačević, Andrijana Đorđević, Nenad Đorđević, Aleksandra Krstić

*Comparative analysis of transport packaging manufactured using flat and rotary die-cutting tools*

## Scope 5. Design

### 11:45 – 13:45 Round Table

### Human + Machine: Co-creating the Future of Design – How AI is Shaping Tomorrow's Creativity

#### Moderator:

**Željko Zdravković**

Academy of Applied Studies Polytechnic

#### Panelists:

**Ljubiša Bojić**

Senior Research Fellow, Institute for Artificial Intelligence Research and Development of Serbia, Institute for Philosophy and Social Theory, University of Belgrade

**Branko Lukić**

Logitech's first AI Fellow and co-founder of their Creative & Design AI Lab, Silicon Valley, California, USA

**Dušanka Komnenić**

Professor of Applied Studies, Academy of Applied Studies Polytechnic

## 14:15 – 14:45 Cocktail / Light lunch break

*The allocated time for Speakers' presentations is up to 10 minutes.*

## 14:45 – 17:00 Paper Presentations – Chair: Željko Zdravković

**El Hadj Mimoune Arezki, Khattabi Lahcene, Berkani Dalila**

*Eternal geometry: Zellij as a bridge between islamic heritage and modern design*

**Katarina Nikolić**

*Oblique strategies and projector cards – fostering creativity in design through randomness and material engagement*

**Ivan Erkić**

*The power of the new 3D material in visual merchandising*

**Dejan Vračarević**

*The future of 3D additive technologies in an artificial intelligence environment for industrial designers and artists*

**Jelena Ivanović Vojvodić, Goran Vojvodić**

*Reconstruction of the Building Palace of Science in Belgrade –  
The Miodrag Kostić Foundation Endowment*

**Duško Radaković, Nebojša Andrijević, Dragana Gardašević, Nenad Živanović**

*An assessment of diverse generative AI applications*

**Duško Radaković, Danijela Živojinović**

*Implicit modeling and the future of next gen CAD*

**Fedor Rakić**

*Will artificial intelligence ever replace the UX designer?*

**Jasna Jelić Obradović**

*The influence of art theory in the field of design*

**Predrag Maksić**

*Foundations and principles of interdisciplinary design:  
Towards a holistic approach to creative practice*

## 17:45 – 18:30 Poster Section

**Dušanka Komnenić**

*AI and the aesthetic of imperfection: Defining the visual signature of machine-made art*

**Maja Milinić Bogdanović**

*How additive manufacturing can enhance contemporary fashion and footwear design*

**Željko Zdravković**

*Designing the future: How AI platforms are transforming industrial design in our world today*

**Fedor Rakić**

*Real vs. synthetic users: The future of UX testing*

**Jelena Jocić, Maja Milinić Bogdanović**

*Contemporary creative approaches and technological tendencies in graphic art and fashion design communication*

**Milica Matović**

*Digital aesthetics and contemporary painting:  
The transformations of visual form in post-media art*

**Duško Trifunović**

*Werner Jeker – photography, typography, and grid in poster design*

**Natalija Gaković**

*Selection of contemporary synthetic polymeric organic materials for application in sustainable interior design*

## Scope 6. Traffic Engineering

*The allocated time for Speakers' presentations is up to 12 minutes.*

**15:15 – 16:15 Paper Presentations – Chair: Željko Ranković**

**Biljana Ranković Plazinić, Željko Ranković, Nemanja Deretić**

*A methodology to determine parking zone boundaries*

**Dejan Jovanov, Daniel Pavleski, Kosta Jovanov**

*Road safety action plan: data driven decision making approach*

**Željko Ranković, Biljana Ranković Plazinić, Nemanja Deretić**

*Comparison of road safety level on the "Miloš Veliki" motorway and two-lane state road IB no. 22 following the construction of the "Miloš Veliki" motorway*

**David Rilak, Boris Antić, Nenad Marković, Emir Smailović**

*Identification of characteristic road problems and deficiencies at locations, sections and streets of increased pedestrian risk in the territory of the Belgrade police department through the application of independent assessment*

**16:15 – 17:45 Paper Presentations – Chair: Biljana Ranković Plazinić**

**Aleksandra Obradović, Biljana Ranković Plazinić**

*The impact of signalization of pedestrian crossings on pedestrian safety*

**Dragana Velimirović, Milan Marković, Milan Velimirović**  
*Novelties in automotive industry sector in European countries*

**Dobrivoje Čatić, Vladimir Čatić**  
*Analysis of brake drum damage in motor vehicle braking systems*

**Filip Marković, Miroљub Nikolić, Maja Stošković**  
*Financial aspects of supply chain optimization in freight forwarding*

#### 17:45 – 18:30 Poster Section

**Nebojša Andrijević, Zoran Lovreković, Bojan Jovanović,  
Vlada Jevtić, Branko Petrović**  
*IOT architecture for a small modular traffic intersection control with real-time multi-sensor adaptation*

**Denis Lukač, Mirsad Veliu, Jasmin Hodžić**  
*Analysis of traffic safety at level crossings in Montenegro*

**Danijela Miloradović, Jasna Glišović, Jovanka Lukić**  
*Measuring instruments for vehicle technical inspection in technical regulations – a review*

**Nemanja Deretić, Saša Kukolj**  
*Human resource management and digital transformation in transport companies*

### Scope 7. Biotechnology, Pharmacy and Healthcare

#### 11:45 – 12:30 Round Table

##### Food Safety Control – Remote Auditing

###### Moderator:

**Marko Jauković**

Academy of Applied Studies Polytechnic

###### Panelists:

**Nenad Vujović**

Head of Department, Ministry of Agriculture, Forestry and Water Management

**Miroslav Cvetković**

Sanitary Inspector, Ministry of Health

**Aleksandra Janković**

Sanitary Inspector, Ministry of Health

**Nevena Milovanović**

Quality Control Manager, YUQS (IQNET member)

**Velibor Rakić**

*Expert Associate, SGS Serbia*

**Marina Vuković**

*Head of Quality Control Department, Retail chain IDEA (Mercator Serbia)*

**Nevena Ranđelović Dimić**

*Quality Assurance Supervisor, Confectionary company Bambi  
(Coca-Cola HBC Group)*

**13:00 – 14:15 Round Table**

### **Agriculture of the Republic of Serbia in the Context of Climate Change**

**Moderator:**

**Markola Saulić**

*Academy of Applied Studies Polytechnic*

**Panelists:**

**Rastislav Stojsavljević**

*Associate Professor, Faculty of Sciences, University of Novi Sad*

**Ivica Đalović**

*Principal Research Fellow, Advisor of Science, Institute of Field and Vegetable  
Crops Novi Sad, National Institute of the Republic of Serbia*

**Bojan Stević**

*Director of Agricultural Advisory and Expert Service, Požarevac*

**Marko Kovačević**

*Agricultural farm Kovačević*

**Aleksandar Stevanović**

*Lecturer, Academy of Applied studies Polytechnic*

**14:15 – 14:45 Cocktail / Light lunch break**

*The allocated time for Invited Speakers' presentations is up to 20 minutes.*

*The allocated time for Speakers' presentations is up to 10 minutes.*

**14:45 – 15:15 Invited Speakers' Presentation – Chair: Marko Jauković**

**Dragana Ilić Udovičić, Jelena Đuričić Milanković, Aleksandra Vasić Popović,  
Ivana Jevtić, Jelena Makević**

*Allergens as a parameter of food quality and safety control:  
Attitudes and awareness of medical school students*

**15:15 – 17:00 Paper Presentations – Chair: Marko Jauković**

**Snežana Knežević, Aleksandar Stevanović, Snežana Milanović,  
Slavica Đorđević**

*Climate change impacts on bacterial foodborne infections and food safety*

**Miloš Purić**

*Apricot kernel oil as a new edible product processed from biowaste*

**Milica Jevtić, Goran Nestorović, Darko Stojićević**

*The rise of data-driven agriculture: Transforming farming through digital intelligence*

**Milica Ivanović, Predrag Rajković, Aleksandra Janković, Sandra Stanković**

*Optimization of the mixture composition and initial process parameters for composting grape pomace and co-substrates: Selection of an appropriate method*

**Nebojša Andrijević, Zoran Lovreković, Vladan Radivojević,  
Mihajlo Manojlović, Milica Velkovski**

*Implementation of IOT systems in modern agriculture: Optimization and automation of smart greenhouse functionality*

**Maja Antanasković**

*Treatment and management of medical waste in the Health Center Prokuplje*

**17:15 – 17:30 Student Paper Presentation – Chair: Marko Jauković**

**Tijana Pavlović, Aleksandra Stojićević, Marko Jauković**

*Influence of the storage conditions on the chemical composition and shelf life of potato tuber*

**17:45 – 18:30 Poster Section**

**Dubravka Mandušić**

*Artificial intelligence in the animal world*

**Tatjana Marinković, Dragan Marinković, Jovana Pavlović**

*Physical activity and microbiota: An overlooked link to health*

**Snežana Knežević, Snežana Milanović, Slavica Đorđević,  
Marijana Jandrić Kočić**

*Preventive medicine and healthy aging: Addressing population frailty prevention*

**Tanja Krunić**

*Reusing and improving food industry waste*

**Višnja Sikimić, Slavica Čabrilo, Nada Jelić**

*Formulations of gluten free biscuits with improved nutritional and functional properties*

**Marina Ivanović, Jasmina Bašić, Mila Filipović,  
Dragana Dragaš Milovanović, Bojana Luković**

*Utilization of lactic acid bacteria in food technology from bioprotection to sensory quality enhancement*

**Dragana Dragaš Milovanović, Jasmina Bašić, Mila Filipović,  
Marina Ivanović, Bojana Luković**

*Dose-response relationship between chronic exposure to trihalomethanes and haloacetic acids and adverse health outcomes*

**Dragana Dragaš Milovanović, Jasmina Bašić, Danijela Pecarski**  
*Current pharmacogenetics trends in depression treatment*

**Eleonora Gvozdić, Danijela Prokić, Marija Bajović,  
Svetlana Grujić, Tatjana Đurkić**

*Fungicide residues in apples: Analysis and health risk assessment*

**Marija Bajović, Eleonora Gvozdić, Tatjana Đurkić**

*Validation of a GC-MS/MS method for determining 200 pesticides in herbal tea infusions*

**Vladanka Stupar, Milica Jevtić**

*Sustainable innovation in plant production*

**Melita Zec Vojinović, Kristijan Jurišić, Slavica Dudaš,  
Martina Peršić, Marin Tomičić**

*The inhibitory potential of thyme essential oil (*Thymus vulgaris* L.) against the phytopathogenic fungus *colletotrichum acutatum**

**Milica Lučić, Andrijana Miletić, Jelena Vesković, Antonije Onjia**  
*LC-MS/MS analysis of Imazalil in lemons*

**Ana-Marija Valland, Tatjana Golubović**

*Exposure to antineoplastic pharmaceuticals and associated health effects*

**Tatjana Sekulić, Vladanka Stupar, Zlata Živković, Milica Blažić**  
*Microbial bioremediation strategies of environmental pollutants*

**Slavica Čabrilo, Višnja Sikimić, Nada Jelić**

*The role of antimicrobial packaging in the protection of cheese*

**Markola Saulić, Aleksandar Stevanović, Marko Kovačević, Snežana Knežević**  
*Integrated digital systems in pesticide control for safe food and agroecosystem conservation*

**Tanja Krunić**

*Impact of carrier composition and gastrointestinal digestion on the hydrogel sphericity and diameter*

**Danijela Pecarski, Dragana Dragaš Milovanović, Jasmina Bašić**

*Mycotoxin contamination in Serbia: Health implications and food safety challenges*

**Jasmina Rajić, Tanja Petrović, Aleksandra Stojićević, Dragana Mihajlović**

*Functional food: Concept, regulation, and public health significance*

**Jasna Savić, Aleksandra Božić, Dominik Brkić, Biljana Simić Polić**

*HDL functionality as a biomarker and therapeutic target in the era of new dyslipidemic drugs – a biochemical perspective*

**Jasmina Rajić, Tanja Petrović, Aleksandra Stojićević, Dragana Mihajlović**

*Technological challenges and innovations in the formulation of functional food products*

**Aleksandra Stojićević, Ana Alimpić Aradski, Smiljana Janković, Jasmina Rajić, Marko Jauković, Aleksandar Stevanović, Milica Blažić**

*The essential oil of *Satureja* species as a promising food ingredient*

## Scope 8. Mechanical Engineering

*The allocated time for Invited Speakers' presentations is up to 20 minutes.*

*The allocated time for Speakers' presentations is up to 10 minutes.*

**11:45 – 12:25 Invited Speakers' Presentations – Chair: Andrijana Đurđević**

**Kuznetsov Yu.A., Yakovlev D.D., Dobychin A.V., Gribakin A.A., Pichev V.S., Kravchenko I.N., Kalashnikova L.V.**

*Formation of protective coatings by high-velocity oxygen-fuel spraying*

**Milica Timotijević, Olivera Erić Cekić, Petar Janjatović, Stojko Biočanin, Dragan Rajnović**

*Quantification of niobium-rich and chromium-rich carbides in HP40Nb alloy after overheating*

**12:25 – 14:15 Paper Presentations – Chair: Andrijana Đurđević**

**Bojan Ivljanin, Uroš Kovačević, Vladeta Milenković**

*Comparative analysis of new systems for determining ratio and phase displacement errors on high-voltage current transformers without power interruption*

**Marko Milošević, Dragan Džunić, Živana Jovanović Pešić, Marko Miletić, Vladimir Kočović, Slobodan Mitrović**

*Tribo-mechanical characterization of epoxy-based composites reinforced with abaca fibers: A scratch test study*

**Miloš Milovančević, Marija Stevanović**

*ANFIS - based prediction of surface roughness and material removal rate in plasma arc cutting of Quard-400*

**Manuel Vite-Torres, Juan R. Laguna-Camacho, Ezequiel A. Gallardo-Hernández, Javier A. Frias-Flores**

*The contribution on solid particle erosion (SPE) of two tribology labs in Mexico*

**Marija Stevanović, Miloš Milovančević**

*Identification of key influential parameters for economic optimization of wastewater treatment systems using ANFIS*

**14:15 – 14:45 Cocktail / Light lunch break**

**14:45 – 17:00 Paper Presentations – Chair: Nikola Tanasić**

**Nada Ratković Kovačević, Miloš Jakovljević, Đorđe Dihovični, Milica Ivanović, Petar Jakovljević**

*Project based learning – building a scaled operating CNC mill model using 3D printed parts*

**Milan Milutinović, Nikola Matić, Uroš Ugrinić**

*Tool life of CBN cutting inserts during hard turning of 60WCrV7 steel*

**Marko Tasić, Žarko Mišković, Radivoje Mitrović**

*Appliance of the polymer material for construction of the conveyor belt carrying idler's shell*

**Đorđe Karić, Mirko Komatina, Goran Vorotović**

*Machine learning methods for predicting energy savings in building retrofits*

**Predrag Drobnyak, Đorđe Đurđević, Andrijana Đurđević**

*Analysis of the problem of deformation of the guides and rearing of the guide console from the wall of the passenger lift drive shaft*

**Milan Mišić, Nikolaj Velikinac, Strahinja Đurović, Dragan Lazarević, Bojan Stojčević, Martina Petković, Aleksandra Kokić Arsić**

*Influence of feed rate on surface roughness of 3D printed PLA parts after milling process*

**Nebojša Petrović, Goran Vorotović, Aleksandar Bengin, Miloš Januzović, Jela Burazer, Dejan Blagojević**

*High-resolution UAV analysis of urban heat islands*

**Milica Timotijević, Stojko Biočanin, Željko Bulatović**  
*Reliability model of the CNC hydraulic press DAGGT*

**17:45 – 18:30 Poster Section**

**Đorđe Đurđević, Nikola Tanasić, Andrijana Đurđević, Nina Anđelić**  
*Static calculation of smoke exhaust duct construction in fire conditions using FEM*

**Do Duc Trung, Hoang Tien Dung, Siniša Škrbić, Aleksandar Ašonja**  
*Applying the depart method for material selection in mechanical engineering*

**Milanka Plavšić**  
*Design of polymeric materials in function of unit (technological) operations for new industrial production methods*

**Andrijana Đurđević, Đorđe Đurđević**  
*Static calculation of the tank wall*

**Aleksandar Cvetković, Žaklina Tasić, Marija Petrović Mihajlović, Milan Radovanović, Ana Simonović, Milan Antonijević, Snežana Milić**  
*Carbon paste electrodes and ZnO/CPE sensors: A short review*

**Milan Vasić, Mirko Blagojević, Milan Banić, Miloš Josimović, Goran Nestorović**  
*Investigation of the influence of lubricant type on the efficiency of a cycloidal reducer*

**Obrad Aničić**  
*Integration of modern technologies and artificial intelligence into CNC manufacturing systems: From 3D modeling to the application of neural networks*

**Milanka Plavšić**  
*Some applications of polymer system scaling theory in design of processing industrial equipment*

**Milan Travica, Danilo Miljković, Nenad Mitrović**  
*Application of a mobile digital image correlation system for on-site structural integrity assessment*

## Scope 9. Ecotourism and Rural Development

*The allocated time for Invited Speakers' presentations is up to 20 minutes.  
The allocated time for Speakers' presentations is up to 10 minutes.*

### 11:45 – 14:15 Invited Speakers' Presentations – Chair: Tatjana Sekulić

**Jelena Anđelković Grašar, Roksana Chowanec, Emilija Nikolić,  
Marija Jović, Ljubomir Jevtović, Stefan Stančić**

*Green heritage-archaeological parks as living labs for achieving sustainability*

**Slobodanka Stankov, Radomir Stojanović, Branko Radeljić**

*Digitalisation of cultural heritage and its impact on tourism development  
in Serbia*

**Radomir Stojanović**

*Tourism destination management in Serbia-selecting new management model*

**Marko Perić**

*Virtual or real? Does virtual reality have a chance in tourism?*

### 14:15 – 14:45 Cocktail / Light lunch break

### 14:45 – 15:15 Paper Presentations – Chair: Tatjana Sekulić

**Valentina Radoičić, Ivo Županović**

*Assessment of sustainable tourism development in Durmitor National Park*

**Biljana Ranković Plazinić, Svetlana Lekić**

*Transport accessibility as a driver of rural development*

### 17:45 – 18:30 Poster Section

**Marko Pavlović, Dragana Đurić, Saša Marković, Marija Perić, Ben Mladenović**

*Belgrade as a tourist brand – opportunities and development strategies*

## Scope 10. Mechatronics

### 12:45 – 14:15 Panel discussion – *Amphitheater Hall*

#### **Robotics – To What Extent Will Robots Replace Humans?**

**Moderator:**

**Nikola Slavković**

Academy of Applied Studies Polytechnic

**Panelists:**

**Radoslav Veselinović**

The owner of Galeb Company

**Dragan Šešlija**

Full Professor, University of Novi Sad

**Stefan Simić**

Chief Technology Officer, Voxellab, Belgrade

**Snežana Obradović**

Chief Executive Officer, Aledjo, Belgrade

**Ivan Mačužić**

Full Professor, University of Kragujevac

**Aleksandar Momčilović**

General Manager Sales & Service, DAIKIN, Belgrade

**Milan Mišćević**

Sales Engineer, Teximp, Belgrade

**Goran Kovačević**

IT Engineer, Sky Express Belgrade

*The allocated time for Speakers' presentations is up to 10 minutes.*

**17:00 – 18:30 Paper Presentations – Chair: Nikola Slavković**

**Goran Zajić, Milan Pavlović, Marija Zajeganović**

*Case study on generating configuration parameters for network devices and computers using generative AI agents*

**Đorđe Lazarević, Jovan Ćirić**

*Multisensor IoT system for detection and measurement of physical parameters of the work environment*

**Nastasija Nikolić, Marko Đapan, Ivan Mačužić, Carlo Caiazzo, Petar Todorović, Arso Vukićević**

*Identification of parameters affecting the implementation of robotic solutions in lean industrial systems*

**Nada Ratković Kovačević, Goran Vojnović, Đorđe Dihovični, Dragan Kreculj, Petar Jakovljević**

*Programming arduino to drive a stepper motor for positioning a scanner in a library automation system*

Đorđe Dihovični, Aleksandra Mitrović, Nada Ratković Kovačević,  
Dragan Kreculj

*Advances in 3D printing of electronics*

Dragan Kreculj, Đorđe Dihovični, Aleksandra Mitrović,  
Nada Ratković Kovačević, Miloš Vorkapić

*Artificial intelligence in digital twins*

Alper Şanlı, Alim Rüstem Aslan, Tuncay Yunus Erkeç, Musa Şen

*Misalignment effects on optical payload performance for small satellites*

## 17:45 – 18:30 Poster Section

Nikola Slavković, Mirjana Tomić, Dejan Đukić, Goran Zajić

*Human – machine interrelationship: Automatic sentence generation  
by rule-based systems*

Nebojša Andrijević, Zoran Lovreković, Vladan Radivojević,  
Milan Milanović, Milica Stojičević

*Cost-efficient smart building IoT architecture: Integration of arduino mega,  
ESP32 and real-time web control*

Aleksa Turudić, Siniša Škrbić, Uroš Ilić

*Impact of small distributed energy resources on voltage profiles  
and power flow in distribution networks*

Nela Vujović, Jelena Zarić Kovačević, Vesna Alivojvodić

*AI-driven resource efficiency balancing opportunities and constraints in mining*

## Associated Programme

### 12:00 – 12:35 Panel discussion – *Amphitheater Hall*

#### **AI Banking – The Future of Banking: Humans, AI or Neobanking?**

**Moderator:**

**Mirjana Tomić**

Zemun Gymnasium

**Panelists:**

**Joko-Lola Tomić**

Executive Director, Raiffeisen Bank, Belgrade

**Rade Bjelobaba**

Managing Director (CEO), Raiffeisen INVEST, Belgrade

**Aleksandar Smiljković**

Chief Innovation Officer, Raiffeisen Bank, Belgrade



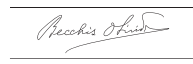




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