



**UNIVERSITY OF NOVI SAD**  
**Technical faculty "Mihajlo Pupin"**  
**Zrenjanin, Republic of Serbia**



Department of Mechanical Engineering and  
Department of Environmental Protection  
are organizing

**XII International Conference**

# **INTERNATIONAL CONFERENCE INDUSTRIAL ENGINEERING AND ENVIRONMENTAL PROTECTION 2022**



**IN COOPERATION WITH PARTNERS:**



**UNIVERSITY POLITEHNICA TIMISOARA,  
FACULTY OF ENGINEERING,  
HUNEDOARA, ROMANIA**



**UNIVERSITY «St. KLIMENT OHRIDSKI»,  
TECHNICAL FACULTY, BITOLA, MACEDONIA**



**„AUREL VLAICU” UNIVERSITY OF ARAD,  
FACULTY OF ENGINEERING, ARAD, ROMANIA**



**UNIVERSITY OF EAST SARAJEVO,  
FACULTY OF MECHANICAL ENGINEERING  
EAST SARAJEVO, REPUBLIC OF SRPSKA, B&H**



**UNIVERSITY OF GİRESUN,  
FACULTY OF ENGINEERING, GİRESUN, TURKEY**

<http://www.tfzr.uns.ac.rs/iizs/index.php>

[www.tfzr.uns.ac.rs](http://www.tfzr.uns.ac.rs)



## ORGANIZING COMMITTEE

- PhD Višnja Mihajlović, president, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Snežana Filip, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Ljiljana Radovanović, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Slavica Prvulović, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Eleonora Desnica, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Bogdana Vujić, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Jasmina Pekez, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Vladimir Šinik, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Snežana Jokić, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Zoran Čepić, Faculty of Technical Sciences, Novi Sad, Serbia
- PhD Jasna Tolmač, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Mića Đurđev, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Nina Đapić, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Marina Naodović, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- MSc Una Marčeta, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- MSc Borivoj Novaković, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- MSc Luka Đorđević, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- BSc Dejan Bajić, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- MSc Ivan Palinkaš, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia

## SCIENTIFIC COMMITTEE

- PhD Slavica Prvulović, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Ljiljana Radovanović, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Bogdana Vujić, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Eleonora Desnica, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Vladimir Šinik, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Jasmina Pekez, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Snežana Filip, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Višnja Mihajlović, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Zoran Čepić, Faculty of Technical Sciences, Novi Sad, Serbia
- PhD Nina Đapić, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Jasna Tolmač, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia
- PhD Mića Đurđev, Technical faculty “Mihajlo Pupin”, Zrenjanin, Serbia

## INTERNATIONAL SCIENTIFIC COMMITTEE

- PhD James G. Speight, CD&W Inc., Laramie, Wyoming, USA  
PhD. dr Hosam E.A.F. Bayoumi Hamuda, Obuda Univerzity, Budapest, Hungary  
PhD Svetlana Lilkova, University of Architecture, Civil Engineering and Geodesy (UACEG), Faculty of Hydraulic Engineering, Sofia, Bulgaria  
PhD Dimitar G. Petrov, , Technical University Sofia, branch Plovdiv, Bulgaria  
PhD Valentina Emilia Balas, „Aurel Vlaicu” University of Arad, Faculty of Engineering, Arad, Romania  
PhD Imre Kiss, University Politehnica Timisoara, Faculty of engineering, Hunedoara, Romania  
PhD Francisc Popescu, University Politehnica Timisoara, Timisoara, Romania  
PhD Mukrimin Şevket Guney, University of Giresun, Faculty of Engineering, Giresun, Turkey  
PhD Mustafa Serkan Soylu, University of Giresun, Faculty of Engineering, Giresun, Turkey  
PhD Yalçın Tepe, University of Giresun, Faculty of Engineering, Giresun, Turkey  
PhD Mustafa Türkmen, University of Giresun, Faculty of Engineering, Giresun, Turkey  
PhD Aysun Turkmen, University of Giresun, Faculty of Engineering, Giresun, Turkey  
PhD Muharrem Hilmi Aksoy, Konya Technical University, Faculty of Engineering and Natural Sciences  
PhD Alexander Salnikov, Ukhta State Technical University (USTU), Ukhta, Republic of Komi, Russia  
PhD Hrvoje Glavaš, Josip Juraj Strossmayer University of Osijek, Faculty of Electrical Engineering, Computer Science and Information Technology, Osijek, Croatia  
PhD Tomislav Barić, Josip Juraj Strossmayer University of Osijek, Faculty of Electrical Engineering, Computer Science and Information Technology, Osijek, Croatia  
PhD Silva Lozančić, Josip Juraj Strossmayer University of Osijek, Faculty of Civil Engineering, Osijek, Croatia  
PhD Marijana Hadzima-Nyarko, Josip Juraj Strossmayer University of Osijek, Faculty of Civil Engineering, Osijek, Croatia  
PhD Mirko Karakašić, University of Slavonski Brod, Faculty of Mechanical Engineering Slavonski Brod, Slavonski Brod, Croatia  
PhD Vangelce Mitrevski, University «sv. Kliment Ohridski», Technical Faculty, Bitola, Macedonia  
PhD Milija Krašnik, University of East Sarajevo, Faculty of Mechanical Engineering, Republic of Srpska, Bosnia and Herzegovina  
PhD Mirjana Vojinović Miloradov, professor emeritus, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia  
PhD Bratislav Blagojević, University of Niš, Faculty of Mechanical Engineering, Niš, Serbia  
PhD Blaža Stojanović, University of Kragujevac, Faculty of Engineering, Kragujevac, Serbia  
PhD Dragan D. Milanović, University of Belgrade, Faculty of Mechanical Engineering, Belgrade, Serbia  
PhD Mijodrag Milošević, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia  
PhD Dejan Lukić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia  
PhD Milan Rackov, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia  
PhD Jasmina Radosavljević, University of Niš, Faculty of Occupational Safety, Niš, Serbia  
PhD Amelija Đorđević, University of Niš, Faculty of Occupational Safety, Niš, Serbia  
PhD Snežana Dragičević, University of Kragujevac, Faculty of Technical Sciences, Čačak, Serbia  
PhD Ivona Radović, University of Belgrade, Faculty of Technology and Metallurgy, Belgrade, Serbia  
PhD Mirjana Kijevčanin, University of Belgrade, Faculty of Technology and Metallurgy, Belgrade, Serbia  
PhD Aleksandra Sretenović, University of Belgrade, Faculty of Mechanical Engineering, Belgrade, Serbia  
PhD Aleksandra Mihailović, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia  
PhD Nebojša Ralević, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia  
PhD Maja Petrović, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia  
PhD Zoran Čepić, University of Novi Sad, Faculty of Technical Sciences, Novi Sad, Serbia  
PhD Aleksandar Ašonja, University Business Academy in Novi Sad, Faculty of Economics and Engineering Management in Novi Sad, Serbia  
PhD Marina Milovanović, University “Union – Nikola Tesla”, Faculty for entrepreneurial business and real estate management, Belgrade, Serbia  
PhD Jasmina Perišić, University “Union – Nikola Tesla”, Faculty for entrepreneurial business and real estate management, Belgrade, Serbia  
PhD Jordana Ninkov, Senior Research Associate, Institute of Field and Vegetable Crops, Novi Sad, Serbia  
PhD Tamara Ivetić, Senior Research Associate, University of Novi Sad, Faculty of Sciences, Department of Physics, Novi Sad, Serbia  
PhD Marko Ristić, Research Associate, Institute Mihajlo Pupin, Belgrade, Serbia



## CONFERENCE TOPICS AND SUB-TOPICS

---

### INDUSTRIAL ENGINEERING

#### **Mechanical Engineering:**

- Technology of machine processing
- Materials and technology
- Mechanization and constructions
- Transportation and storage
- Assembly technologies
- Computer engineering CAD/CAM
- Engineering education
- University and industry cooperation

#### **Energetics and Process Technique:**

- Thermal power plants
- Energy efficiency
- Rationalization of energy consumption
- Review of implemented projects in the economy
- Alternative energy sources
- Energetski menadžment
- Process plants
- Process engineering - development, state and perspectives
- Processes, operations and equipment
- Process management
- Solutions of problems from technical practice
- Biotechnology

#### **Designing and Maintenance:**

- Designing and construction of plants
- Designing, exploitations and maintenance of machines and plants
- Project Management
- Maintenance of technical systems in industry
- Computer integrated maintenance
- Technical diagnostics
- Organization of maintenance

#### **Oil and Gas Engineering:**

- Maintenance and repair of facilities and equipment
- Construction of oil and gas pipelines
- Transportation of oil and gas
- Oil and gas pipeline system and compressor stations
- Storage facilities and oil and gas petroleum products
- Project of installation and equipment for gas techniques for the production, storage, transport and use of natural and other flammable gases

### ENVIRONMENTAL ENGINEERING

#### **Health and environmental protection:**

- Monitoring of air, water and soil
- Emission sources
- The impact of process industry on the quality of the environment
- Flue gas treatment
- Protection of water resources
- Wastewater and sludge treatment
- Drinking water – current problems and possible solutions
- Protection of soil
- Remediation of polluted soil and ground water
- Noise, vibration and radiation
- Waste management
- Energy efficiency and alternative energy sources
- Climate changes
- Impact of pollution on the human health

#### **Environmental management:**

- Accident management
- Environmental policy and management
- Development of environmental protection through education and information activities
- Green economy and sustainable development
- Natural resource management
- Spatial planning and urban development
- Innovation in environmental protection

#### **Occupational safety:**

- Accidents in a workplace
- Personal protective equipment
- Handling of hazardous chemicals
- Alarm systems
- Indicators of quality of the working environment

## TIME AND PLACE OF SCIENTIFIC CONFERENCE

---

Technical faculty “Mihajlo Pupin”, Zrenjanin, October 6 - 7, 2022

### SUBMISSION OF PAPERS

---

Submission date: September 20, 2022.

### TECHNICAL PREPARATION OF PAPERS

---

Up to 8 pages (Times New Roman, 11 PT), A4 format, using English language. (Please prepare your papers according to the Guidelines in our website).

### REGISTRATION FEE

---

Participants: - 6.000 RSD per paper (with taxes),  
- 50 euro per paper for international participants.

### SPONSORSHIP AND ADVERTISEMENT

---

Presenting sponsors and advertisements at the conference: 6.000 RSD

Sponsor of the conference: 6.000 RSD (will be stated in the Proceedings).

### ACCOMMODATION

---

<http://www.zrenjanin.rs/en/visit-zrenjanin/hotels>

### REGISTRATION OF PARTICIPANTS AND CONFERENCE OPENING

---

Registration of participants: October 6 – 7, 2022.

Conference opening: October 7, 2022 at 10 am.

### INFORMATION

---

New e-mail adress: [iizs@tfzr.rs](mailto:iizs@tfzr.rs)