



14th International Scientific Conference on Manufacturing Engineering

14. međunarodna naučna konferencija o proizvodnom inženjerstvu

SCHEDULE OF EVENTS / PROGRAM RADA

Hotel Hills, Sarajevo, Bosna i Hercegovina

SCHEDULE OF EVENTS / PROGRAM RADA

Hotel Hills, Sarajevo, Bosna i Hercegovina

Wednesday / Srijeda – 20. sep. 2023. godine			
do 20 ⁰⁰	Arrival of participants / Dolazak učesnika		
<i>Hall / Sala</i>			
20 ⁰⁰ - 22 ⁰⁰	Welcome cocktail / Koktel dobrodošlice		
Thursday / Četvrtak – 21. sep. 2023. godine			
8 ³⁰ – 10 ⁰⁰	Registration of participants / Registracija učesnika		
<i>Big Hall / Velika sala</i>			
10 ⁰⁰ - 10 ³⁰	Opening ceremony / Otvaranje konferencije		
10 ³⁰ - 12 ⁰⁰	Plenary session / Plenarna sjednica		
Invitation papers (5 presentations) / Pozivni radovi (5 prezentacija)			
12 ⁰⁰ - 12 ³⁰	Coffee break / Kafe pauza		
12 ³⁰ - 14 ³⁰	Virtual presentations / Virtualne prezentacije Big Hall/ Velika sala (7 presentations) / (7 prezentacija)	Section B/ Sekcija B Hall 1/ Sala 1 (10 presentations) / (10 prezentacija)	Section E / Sekcija E Hall 2/ Sala 2 (13 presentations) / (13 prezentacija)
14 ³⁰ - 16 ⁰⁰	Break / Pauza		
16 ⁰⁰ - 19 ⁰⁰	Section C/ Sekcija C Big Hall/ Velika sala (12 presentations) / (12 prezentacija)	Section A/ Sekcija A Hall 1/ Sala 1 (9 presentations) / (9 prezentacija)	Section D / Sekcija D Hall 2/ Sala 2 (8 presentations) / (8 prezentacija)
20 ⁰⁰ - 24 ⁰⁰	Gala Dinner / Svečena večera		
Friday / Petak – 22. sep. 2023. godine			
9 ⁰⁰ - 12 ⁰⁰	Section A/ Sekcija A Big Hall/ Velika sala (10 presentations) / (10 prezentacija)	Section G/ Sekcija G Hall 1/ Sala 1 (12 presentations) / (12 prezentacija)	Section C / Sekcija C Hall 2/ Sala 2 (7 presentations) / (7 prezentacija)
12 ⁰⁰ - 12 ³⁰	Coffee break / Kafe pauza		
12 ³⁰ - 15 ⁰⁰	Section D/ Sekcija D Big Hall/ Velika sala (10 presentations) / (10 prezentacija)	Section G/ Sekcija G Hall 1/ Sala 1 (9 presentations) / (9 prezentacija)	Section F/ Sekcija F Hall 2/ Sala 2 (11 presentations) / (11 prezentacija)
15 ⁰⁰ - 16 ³⁰	Lunch for all participants / Ručak za sve učesnike		
16 ³⁰ -	Departure of participants / Odlazak učesnika		

**SCHEDULE OF PAPER PRESENTATION /
RASPORED PREZENTACIJA**

Thursday / Četvrtak– 21. sep. 2023.

Conference moderator/Voditelj konferencije: Vildana Pečenković

Big Hall / Velika sala		10³⁰ – 12⁰⁰
Plenary session / Plenarna sjednica		
Chairman / Voditelji : Damir Hodžić, Aladin Crnkić, Fatka Kulenović		
1.	Marko Petrič	Instrumented microindentation – a versatile technique in the field of wood science and technology
2.	Galia Marinova	IoT for Green Transformation in the Western Balkans
3.	Naida Ademović	How fragile are buildings in Bosnia and Herzegovina once exposed to earthquake motion?
4.	Slavenka Petrak	Digital fashion innovation and sustainability
5.	Benjamin Muhammedbegović Enes Hasić	Challenges in implementing the recommendations of the enqa panel

Thursday / Četvrtak– 21. sep. 2023.

Big Hall / Velika sala		12³⁰ – 14³⁰
Virtual video presentations / Virtualne video prezentacije		
Chairman / Voditelji: Ajna Jodanović, Una Drakulić		
1.	Leila Fathi Redžo Hasanagić Aldin Bjelić Mohsen Bahmani	Performance of Coconut Wood in Timber Structures: A Review of Its Properties and Applications
2.	Redžo Hasanagić Leila Fathi Mostafa Sefidruh Mohsen Bahmani	Natural Alternatives to Chemical Wood Preservatives: A Review of Recent Research
3.	Bahrija Čuturić Budimir Mijović	Use of Autodesk Inventor in numerical analysis of stress concentration factor of stepped shaft
4.	Adnan Ramakić	Analysis of Different Machine Learning and Deep Learning Approaches for Face Recognition
5.	Marsida Ibro	A literature review of FPGA-based e-learning technologies
6.	Đulaga Hadžić Enes Saletović Zinaid Kapić	Software system for automatic reading, storing, and evaluating scanned paper Evaluation Sheets for questions with the choice of one correct answer from several offered
7.	Slavica Bogović Mislav Majdak Iva Rezić	3D modelling of personalized medical devices
8.	Blerim Zylfiu Galia Marinova Edmond Hajrizi	Design of an Online Platform EDA-DYVI to study the Dynamics and Forecast the Viability of EDA Companies

Thursday / Četvrtak– 21. sep. 2023.		
Hall 1/ Sala1		12³⁰ – 14³⁰
Section B / Sekcija B		
Chairman / Voditelji: Nebojša Todorović, Minka Čehić		
1.	Umejr Šljivo Adem Hasanagić Aida Kopljar Husein Rošić	Factors Affecting the Strength of Finger-Jointed Wood Bonded Joints
2.	Umejr Šljivo Redžo Hasanagić Leila Fathi Mohsen Bahmani	Comparative Analysis of Bending Strength Properties between Glued and Un-Glued Finger Joints in Beech and Fir Wood Species
3.	Elena Jevtoska Gjorgi Gruevski	Analysis of the required dimensions in the standard EN 1729-1:2015 its connection with anthropometry of the children in growth and development
4.	Mimica Stefanović Nebojša Todorović Goran Milić Aleksandar Lovrić	Antifungal protection of beech wood using plant extracts
5.	Hasan Talić Melisa Haurdić Fatka Kulenović	Use of the Lagrange interpolation polynomial to estimate the bending strength value of plywood
6.	Fatka Kulenović Nedim Hurem Amra Talić-Čikmiš	Numerical analysis of wood beam bending with verification of breaking force
7.	Atif Hodžić Aldin Bjelić Damir Hodžić	Mathematical model of the influence of some parameters of solid wood workability on the roughness of the processed surface Ra during planing
8.	Minka Čehić Hasan Talić Salah Eldien Omer	Eco-friendly adhesives for wood-based composite production
9.	Violeta Jakimovska Popovska Borche Iliev	Water absorption and thickness swelling during prolonged water exposure of plywood overlaid with fiberglass prepreg
10.	Husein Rošić Aldin Bjelić Atif Hodžić Miran Merhar	Optimization of solid wood workability parameters in the planing process

Thursday / Četvrtak– 21. sep. 2023.		
Hall 2/ Sala 2		12³⁰ – 14³⁰
Section E / Sekcija E		
Chairman / Voditelji: Blaženka B. Šajatović, Dejlja Ramić		
1.	Snježana Kirin Anica Hursa Šajatović	Evaluation of the workload of workers in the technological sewing process using the OWAS method
2.	Adnan Hajrulahović Slavenka Petrak Maja Mahnić Naglić	Feredža as an inspiration for the design and computer development of contemporary women's clothing

3.	Hatidže Burnić	Semantic adaptation of German expressions in a fashion and design context
4.	Katarina Zmeskal Slavenka Petrak Maja Mahnic Naglic	Female medical uniforms design and development of virtual prototypes according to functional and psychological preferences
5.	Ksenija Doležal Renata Hrženjak Blaženka B. Šajatović	The importance of the clothing size system for the production of women's clothing
6.	Irena Šabarić Jana Filipčić Ana Sutlović Franka Karin	A collection of sustainable fashion from the flora
7.	Bosiljka Šaravanja Anica Hursa Šajatović Paula Milošević	The calculation of the time norms for the medical protective work blouse model "Sara"
8.	Ammar Selmanović	Antibacterial properties of nano silver
9.	Blaženka Brlobašić Šajatović Ksenija Doležal Renata Hrženjak	The influence of anthropometric research on the fit of clothing
10.	Kristina Vinčar Anita Ibukić	Migration and clothing: a piece of home on the road – the resurgence of traditional clothing in modern fashion industry
11.	Belma Kapić Dejla Ramić	Redefining Sustainability in High-Street Fashion: Integrating Zero-Waste Approach and Virtual Clothing Production
12.	Dejla Ramić	Wool as a sustainable medium for creative expression in art
13.	Kristina Vinčar Irfan Hošić	Art, clothes and Yugoslavia: design of a working man in SFRJ

Thursday / Četvrtak – 21. sep. 2023.		
Big Hall / Velika sala Section C / Sekcija C		16⁰⁰ – 19⁰⁰
Chairman / Voditeljji: Jasna Hamzabegović, Tihomir Brusev		
1.	Gordana J Dolecek Gabriel A Martinez	Design and FPGA Implementation of Compensator for Sharpening CIC Filter
2.	Georgi Kunov Tihomir Brusev Elissaveta Gadjeva	Power losses in the MOSFET transistors of switching-mode converters
3.	Jasna Hamzabegović Emina Junuz Indira Hamulić	Girls in programming: confronting the challenges
4.	Enes Saletović Elmir Babović Đulaga Hadžić Nevzudin Buzadžija	A method for maintaining a stable ISM band point-to-point wireless communication link in the presence of interference
5.	Zinaid Kapić Aladin Crnkić	Interpolation on the unit hypersphere using the n-dimensional generalized Kuramoto model

6.	Aladin Crnkić Zinaid Kapić Šejla Jusić Melisa Haurdić	Averaging data on the unit hypersphere
7.	Una Drakulić	Performance comparison of bilateral teleoperation control of direct control, PID control, and fuzzy logic control for water tank system
8.	Amel Toroman Una Drakulić Amel Džanić Azra Kapić	Raspberry Pi based Web Monitoring Smart Security System
9.	Azra Kapić Admir Midžić	Fuzzy Expert System for Research Paper Classification and Recommendation
10.	Amel Toroman Aljo Mujčić	Adaptive Fuzzy PID Car Control using a Bilateral Teleoperator
11.	Una Drakulić Branko Blanusa	The use of a fuzzy logic controller in photovoltaic power systems for maximizing PV array efficiency
12.	Azra Kapić Amel Toroman	Control of a Smart Security Object using an Arduino Platform and a GSM Controller

Thursday / Četvrtak – 21. sep. 2023.		
Hall 1 / Sala 1 Section A / Sekcija A		16⁰⁰ – 19⁰⁰
Chairman / Voditeljji: Fuad Hadžikadunić, Husein Rošić		
1.	Mersida Manjgo Senada Pobrić Tomaž Vuherer Darko Bajić Eldar Pirić	Testing of quality reliability of the conveyor belt in exploitation under variable load
2.	Sebastian Žibert Elvis Hozdić Maša Mamić	The use of modern 3D technologies for the development of a prototype mountain bike brake lever within the concept of personalized production
3.	Amir Ćoralić Mersida Manjgo Anel Maslo Mirza Manjgo Vesna Raspudić Tomaz Vuherer	Testing of Mechanical Properties of Polymer PA6 – 30% Glass Fibres
4.	Hasan Cinac Sanel Gredelj	Modeling of Stainless Steel Bending Force on CNC Press Brake
5.	Ermin Bajramović Fadil Islamović	Testing the impact energy and determination of the brittleness temperature of the welded joint of steel A516 Gr.70
6.	Andrej Lipej Matej Štefanič	Design of hydraulic machines with the use of the numerical methods
7.	Šefik Behrem Bahrudin Hrnjica	Calculation of heat transfer coefficient during quenching of cylindrical samples in thermal oils

8.	Fadil Islamović Ermin Bajramović Belma Islamović Esad Bajramović	Comparative Analysis of the Mechanical Exploitation Properties of the Steel Sheet Welded Joint of New and Old Materials
9.	Fuad Hadžikadunić Ahmed Mujkanović Nedeljko Vukojević Amna Bajtarevic-Jelec	Numerical analysis of the construction integrity on the example of a prosthetic device

Thursday / Četvrtak – 21. sep. 2023.		
Hall 2 / Sala 2 Section D / Sekcija D		16⁰⁰ – 19⁰⁰
Chairman / Voditelji: Sanin Džidić, Dženana Gačo		
1.	Lamija Balić Ahmed El Sayed Sanin Džidić Adnan Novalić	Evaluation of reality and standards for fire evacuation routes in buildings – case study
2.	Sanin Džidić Irfan Bidžević	Spalling of concrete caused by ASR
3.	Sanin Džidić Arnel Poprženović	One experimental research with cement substitution by fly ash
4.	Damir Hodžić Elma Veladžić	Experimental and Analytical Deformation Analysis of Truss Members
5.	Hata Milišić Emina Hadžić	Calibration of channel and flood plain roughness using HEC-RAS model: A case study of the Veseočica River, Bosnia and Herzegovina
6.	Budimir Mijović Zenun Skenderi Kirin Snježana Petra Brać	Air Permeability of Melt Electrospun Fibrous Architectures With Target Geometries
7.	Asmin Veladžić Dženana Gačo Aida Veladžić	Analysis of foundation solution for the noise protection walls on the reinforced earth
8.	Emina Hadžić Merima Šahinagić Isović Milan Gocić Marija Jevrić Aladin Crnkić Atif Hodžić Aida Husetić Mili Selimotić Hata Milišić Suada Sulejmanović Marko Čečez	Innovation in education in order to increase opportunities for climate smart urban development for the Western Balkans region

Friday / Petak– 22. sep. 2023.		
Big Hall / Velika sala Section A / Sekcija A		9⁰⁰ – 12⁰⁰
Chairman / Voditelji: Šefik Behrem, Sanel Gredelj		
1.	Almir Osmanović Belma Dedić Salko Čosić Elvedin Trakić Mirza Bećirović	Modeling and analysis of a cartesian coordinate robot
2.	Nenad Lorković Marina Tevčić	Strength verification of non-standard piping support construction
3.	Sanel Gredelj Hasan Cinac	Vibration in Metal Rolling Process
4.	Emine Hozdić	Additive manufacturing technologies as mechanisms for implementing the paradigm of personalized production
5.	Asmir Halilović Tarik Turanović Džejlan Eljazović Izudin Abdijanović	Application of software package CATIA v5 in modeling and construction
6.	Edin Čaušević Sanel Gredelj	Analysis of the surface roughness on the notched element machined on the universal lathe machine and CNC turning machine
7.	Rok Selan Franc Majdić Elvis Hozdić	Sealing of hydraulic blocks holes with threaded pins
8.	Aladin Begić	Contribution to the analysis of the mechanical characteristics of composite materials in civil engineering
9.	Belma Islamović Husein Rošić Tina Hušidić Dženana Hušidić	Application of the program package SOLIDWORKS2020 in the construction of machine elements
10.	Naila Odošajić	Testing of welded structures using the impermeability and penetrant method

Friday / Petak– 22. sep. 2023.		
Hall 1/ Sala 1 Section G / Sekcija G		9⁰⁰ – 12⁰⁰
Chairman / Voditelji: Jasmina Ibrahimpasić, Esad Bajramović		
1.	Merima Toromanović Maida Delić Jasmina Ibrahimpasić	Coagulation activity of natural coagulants for removal of turbidity in wastewater treatment
2.	Ahmet Žalić	How to do business successfully
3.	Elvira Čatić – Kajtažović Suad Kurić Selma Šumar	Perceived importance of ethics and social responsibility for the economic development

4.	Aida Džaferović Jasmina Ibrahimpašić Samira Dedić	Physico-chemical properties of the Una River based on abiotic tests upstream and downstream of the city of Bihać
5.	Esad Bajramović	Continuous Quality Improvement in Higher Education Institutions
6.	Mehira Perviz Vojislav Trkulja Osman Perviz Fatima Muhamedagić	Morphological characteristics of the studied isolates <i>Alternaria</i> spp
7.	Mirsad Ičanović Vildana Jogić	Suitability of land for cultivation of apple (<i>Malus domestica</i>) in the area of Una-sana canton
8.	Asmin Veladžić Aida Veladžić Azra Kapetanović	The potentials of Solar Power Plant construction in Una-Sana Canton
9.	Hatidze Burnic	Foundations of theory of language contacts
10.	Jogić Vildana Ičanović Mirsad	LINUM USITATISSIMUM – forgotten and unterutilized culture
11.	Fatima Muhamedagić Mehira Perviz Osman Perviz Merjem Huskić	Monitoring of airpollutants of trees and grass in the urban ecosystem of the city of Bihać and their impact on human health
12.	Samira Dedić Halid Makić Toni Babić	Antioxidant properties of juice the green grass of the cereal spelled (<i>Triticum aestivum</i> ssp. Spelt)

Friday / Petak– 22. sep. 2023.		
Hall 2/ Sala 2		9⁰⁰ – 12⁰⁰
Section C / Sekcija C		
Chairman / Voditelji: Bernadin Ibrahimpašić, Melisa Haurdić		
1.	Ibrahim Ćehić Fatka Kulenović	Application of AHP method for multicriteria decision making on the example of ranking students
2.	Šejla Jusić	Elliptic Curve Cryptography and its applications
3.	Đulaga Hadžić Enes Saletović Nevzudin Buzađija Elmir Babović	Managing servlet variables in Java web applications built without and with the Spring framework
4.	Bernadin Ibrahimpašić	Comparison of Some Primality Tests
5.	Ibrahim Ćehić Budimir Mijović	Comparison of Single Page Application frameworks
6.	Melisa Haurdić Šejla Jusić	Approximation of Periodic Signals using Fourier Series
7.	Sajra Kasić	Maxwell's equations in integral and differential form

Friday / Petak– 22. sep. 2023.		
Big Hall/ Velika sala Section D / Sekcija D		12³⁰ – 15⁰⁰
Chairman / Voditelji: Edis Softić, Emir Bajramović		
1.	Medina Mešić Zlatan Talić	The occurrence and influence of discontinuities in the rock mass on the stability of the slope above the highway
2.	Faris Trešnjo Salko Kulukčija	Analysis of the bearing capacity of a reinforced concrete frame under the action of an earthquake that happened in Turkey in 2023
3.	Aida Husetić Anes Kurtović	Passive house, principles of design and construction
4.	Edis Softić Eldar Čurić	Introduction to OpenFOAM trough wind load analysis on a steel hall
5.	Hazmir Alivuk	Measurement of vibrations on a rotary excavator
6.	Hazmir Alivuk	The tradition of the old house and the new technology of building houses in Bosnia and Herzegovina
7.	Elma Veladžić	3D Animation of a Minimalistic House
8.	Husetić Aida Salkić Redžo	Reduction of the heat transfer through building windows
9.	Munir Jahić Edin Jahić Emir Bajramović	Municipal Wastewater Treatment
10.	Zlatan Talić Amila Isaković Nejra Beganović	Protection of the construction pit of an individual residential building in the street Kromolj no.76 in Sarajevo

Friday / Petak– 22. sep. 2023.		
Hall 1/ Sala 1 Section G / Sekcija G		12³⁰ – 15⁰⁰
Chairman / Voditelji: Halid Makić, Husein Vilić		
1.	Emir Bajramovic Muamer Peljto	Significance and Role of CE Marking of Construction Products Windows and Doors on the European Union Market
2.	Haris Memić Šejla Ališić Zijad Džemić	Confirmation of laboratory competence
3.	Irnesa Kujundžić Dijana Vuković Hana Šiljdedić	Environmental management accounting as a function of socially responsible business
4.	Husein Vilić Refik Sahinovic	Application of the method of artificial regulation of the photoperiod in Pramenka sheep as a measure of sustainable development of sheep breeding in the Una-Sana canton
5.	Jasmin Toromanović Asmir Aldžić Ekrem Pehlić Emra Toromanović	Comparison of the amount of harmful compounds in the use of conventional cigarettes and tobacco heating devices

6.	Huska Jukić Aida Džaferović Amira Šahinović	Chemical and microbiological analysis of different samples of honey from Bosnia and Herzegovina
7.	Minela Čejvan Vedran Stuhli Jasmina Ibrahimpašić Ekrem Pehlić	Experimental investigation: possibility of phytoremediation with the aromatic plant lavender on soil contaminated by heavy metals lead and cadmium
8.	Samira Hotić Hana Demirović Osman Perviz Ifet Šišić	Analysis of air quality in the area of the city of Bihać
9.	Halid Makić Suzana Jahić Elvedin Miljković Ikbala Makić Husejin Keran	The importance of introducing recognizable marks and certificates for Bosnian-Herzegovinian agricultural and craft products and processes in order to promote it as tourist offer

Friday / Petak– 22. sep. 2023.		
Hall 2/ Sala 2 Section F / Sekcija F		12³⁰ – 15⁰⁰
Chairman / Voditelji: Jasmina Bešlagić, Ratko Knežević		
1.	Amir Bišćević	Strategic management and how to reduce the Bosnian and Herzegovinian "brain drain" of human resources as a critical development factor
2.	Jasmina Bešlagić Suan Islamović	Normative Activities of the International Labour Organization Regarding Employment at the Global level
3.	Asmira Bećiraj	Individual employment contracts – applicable law
4.	Nikola Findrik Suan Islamović	Legal Consequences of Conviction: Review of Legal Solutions in Montenegrin Law
5.	Lidija Jakšić Maja Vidović Marinela Vulić	Working from home – way to heaven or road to hell
6.	Selma Šumar Elvira Čatić-Kajtažović Suad Kurić	The primacy of the existential aspect in the potential reasons for entering into entrepreneurship
7.	Suan Islamović	Selected Opinions on Muslim Resolutions of 1941 – Continuity of Statehood
8.	Ljiljana Stošić Mihajlović Marija Mihajlović	The Importance of Digital Marketing in Creating an Interactive Relationship of Supply and Demand in the Market
9.	Jasmina Miljković Ratko Knezevic	Civilizational development of the script: RUNES
10.	Amel Džanić Alma Džanić Mirela Kljajić-Dervić Selma Šumar	Project management
11.	Ajna Jodanović Damir Muminović Jasmin Musić	Shaping the digital transformation of the European Union: Actions of the Union institutions and analysis of the European Declaration on Digital Rights and Principles