



УНИВЕРЗИТЕТ У БАЊОЈ ЛУЦИ
UNIVERSITY OF BANJA LUKA
МАШИНСКИ ФАКУЛТЕТ
FACULTY OF MECHANICAL ENGINEERING



ICAS 2022 BANJA LUKA
INTERNATIONAL CONFERENCE ON APPLIED SCIENCES
25 - 28 MAY 2022

up UNIVERSITY OF BANJA LUKA

University of Banja Luka
**Faculty of Mechanical Engineering
and**
Polytechnic University of Timisoara
Faculty of Engineering, Hunedoara

ICAS 2022 CONFERENCE

PROGRAM

Banja Luka 2022

10th INTERNATIONAL CONFERENCE OF APPLIED SCIENCE

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CONFERENCE PROGRAM

Thursday, the 26th May

TIME	PLACE	ACTIVITY
8:00 -9:00	Entrance hall	REGISTRATION OF THE PARTICIPANTS
9:00 –10:00	Amphitheater	CONFERENCE OPENING
10:00 –10:30	Entrance hall	GROUP PHOTO AND COFFEE BREAK

10:30-12:30	Amphitheater	Keynote Lectures:	
		MIROSLAV PRŠA 5G FIFTH GENERATION OF MOBILE PHONE NETWORK	
		RADOVAN HOLUBEK THE CASE STUDY OF NEW APPROACH TO ROBOT PROGRAMMING AND LAYOUT DESIGN BY SUPPORTING VIRTUAL AND AUGMENTED REALITY	
		ZLATAN AKSAMIJA NANOTECHNOLOGY ADVANCES IN NOVEL MATERIALS FOR ENERGY AND ELECTRONICS APPLICATIONS	
10:30-12:30	Amphitheater	DORIAN NEDELICU PYDIGITIZER – A PYTHON MODULE FOR DIGITIZING 2D CURVES	
12:30-14:00	Entrance hall	WELCOME COCKTAIL AND CATERING	
14:00-19:00 With coffee break	Amphitheater, Room 11, Room 19, Room 21, Room 29		Work in Section
			Thursday, the 26th of May
	19:00 – 20:30 Free Time		
20:30	<p align="center">Gala Dinner</p> <p align="center">Restaurant “AQUANA”</p> <p align="center">Address: Aleja Svetog Save 80 78000 Banja Luka, Republika Srpska, BiH</p>		

Work in Section – Thursday, the 26th of May

14:30-16:00 With coffee break	Room 19	Section I FUNDAMENTAL SCIENCE
		Moderators: Muhammed Kamil ÖDEN Technical assistant: Srđan Vujasin
1.	MULTI CRITERIA DECISION MODELING: CRUCIAL ISSUE IN BACKCASTING SCENARIO DEVELOPMENT ASSESSMENT Djordje Vojinovic, Petar Gvero and Srdjan Vaskovic	
2.	METALLOGRAPHIC ANALYSIS OF PRECIPITATION-HARDENED STATE RH950 STEEL 17-7PH OF MODIFIED DJORDJE VOJINOVIC, PETAR GVERO AND SRDJAN VASKOVIC	
3.	A NEW SOLUTION FOR SOLVING CERTAIN CLASS OF NEGATIVE PELL'S EQUATIONS AND BINARY TREES, Jovan Mikić	
4.	DROP OUT ANALYSIS IN STEAM DISCIPLINES AT UNIVERSITY OF BANJA LUKA , D Preradovic Kulovac	
5.	THE MATHEMATICS APPROACHES IN THE ANALYSIS OF MATHEMATICS SYLLABUSES SIMILARITIES AMONG JAPANESE AND BOSNIA AND HERZEGOVINA UNIVERSITIES Mirjana Milijević, Dragana Preradović Kulovac	
6.	TREATMENT OF SALT WATER FORMED DURING DRILLING OPERATIONS BY ELECTROCOAGULATION Muhammed Kamil ÖDEN	

16:00-18:00 With coffee break	ROOM 19	Section II MATERIALS
		Moderators: Borut Kosec Dragoslav Dobraš Technical assistant: Srđan Vujasin
1.	APPLICATION OF LASER SURFACE WELDING IN TOOL REPAIRING Dragoslav Dobraš, Milisav Marković, Jovan Marić	
2.	SURFACE WELDING TECHNOLOGY IN REPAIR OF CAST IRON CASTINGS G42CRMO4 Milisav Marković, Dragoslav Dobraš, Slaviša Savić	
3.	GEOMETRY AND COMPOSITION OF DUST PARTICLES IN DENTAL LABORATORIES Borut Kosec, Zorana Tanasić, Milana Ilić Mićunović, Valentina Veselinović, Goran Janjić, Aleš Nagode	
4.	HEAT TRANSFER PARAMETERS IN THE MELT-SPINNING PROCESS Blaž Karpe, Borut Kosec, Mirko Gojić, Milan Bizjak	
5.	THERMAL PROPERTIES OF METAL DENTAL MATERIALS Borut Kosec, Mateja Vodlan, Blaž Karpe, Alenka Pavlič, Aleš Nagode	
6.	ANALYSIS OF YELBEYI (BOZKIR – TURKEY) MANGANESE MINERALIZATION WITH GEOSTATISTICAL METHODS Alican Ozturk, Bilgehan Yabgu Horasan, Abdülhekim Demir	
7.	STUDY OF DISC-SHAPED ZNO BASED VARISTORS DOPED WITH V ₂ O ₅ , SB ₂ O ₃ , CO ₃ O ₄ , SNO ₂ , AND CR ₂ O ₃ M. V. Lungu, A. Caramitu, D. Pătroi, V. Marinescu, G. Sbarcea, M. Lucaci, M. Mari, D. Tălpeanu and P. Godeanu	
8.	SPARK PLASMA PROCESSING OF ALCOCRFENI _{2.1} HIGH ENTROPY ALLOY M. Lucaci, M. V. Lungu, D. Tălpeanu, V. Tsakiris, V. Marinescu, G. Sbarcea, M. Marin, D. Cirstea	

14:30-19:00 With coffee break	AMPHITHEATER	Section III MECHANICAL ENGINEERING
		Moderators: Stevo Borojević Petar Gvero Technical assistant: Dragan Milivojša
1.	DEPENDENCE OF THERMAL STRESS ON PERFORATION OF PREMIXED CYLINDRICAL GAS BURNER Biljana Prochaska, Sreten Lekic, Petar Gvero	
2.	MULTI-CRITERIA DECISION MODELING OF THE OPTIMAL COMBINATION FOR ENERGY SUPPLY SCENARIO: TEST MODEL FOR DANISH ENERGY SECTOR DATA Maja Mrkić Bosančić, Petar Gvero , Srđan Vasković	
3.	STEREO VISION BASED ROBOT WELDING D Erceg, B Z Knezevic and Z Grahovac	
4.	CONTROL ALGORITHM OF THE UNSTABLE 3DOF SYSTEM D Erceg, Z Grahovac and B Z Knezevic	
5.	METHODOLOGIES FOR DETERMINING SUSTAINABLE TRANSPORT IN TOURISM Snežana Petković , Valentina Golubović Bugarski , Gordana Globočki Lakić , Željko Đurić	
6.	EXAMINATION OF DILATATION WITH COLD WATER TESTING IN STEEL AND COMPOSITE SCBA BOTTLES Aleksandar Majstorović , Mladen Todić , Tihomir Latinović , Vinko Babić	
7.	INVESTIGATION OF DYNAMIC BEHAVIOUR OF ONE COMPLEX STEEL STRUCTURE Valentina Golubović-Bugarski, Branislav Sredanović, Snezana Petković, Mladen Todić	
8.	TRIBOLOGICAL ASPECTS OF NANO-PARTICLE FLUID BASED COOLING AND LUBRICATION IN MILLING PROCESS	

	B. Sredanovic, G. Globocki-Lakic, P. Dugic, A. Sinik, D. Dobras
9.	HARMFULNESS DURING TECHNICAL INSPECTION OF ROAD VEHICLES Mladen Todić, Snežana Petković, Biljana Vranješ
10.	HEAT PUMP EXERGY EFFICIENCY COMPARISON WITH USE OF DIFFERENT WORKING SUBSTANCES N Koruga, N Dobrnjac, M Dobrnjac, I Alic
11.	DEFORMATION STATE OF THE LOAD-BEARING STRUCTURE OF A FOUR-COLUMN PRESS Mladen Todić, Valentina Golubović-Bugarški, Mirsad Merdanić, Tihomir Latinović
12.	MATHEMATICAL MODELS FOR PV MODULE TEMPERATURE USING WEATHER DATA Danijela Kardaš Ančić, Mirko Komatina
13.	ENERGY EFFICIENCY OF THE PROCESS PLANNING DESIGN IN THE SCOPE OF INDUSTRY 4.0 Stevo Borojević, Branislav Sredanović, Mijodrag Milošević, Milenko Sekulić, Sergej Janković
14.	PRESSURE AND FLOW CONTROL LOOP FOR SERIAL AND PARALLEL HYDRAULIC SYSTEMS POWERED BY THE FREQUENCY CONVERTERS Z Klincov, B Z Knezevic, D Erceg, Z Grahovac
15.	ANALYSIS OF CONTROL MODES IMPLEMENTED IN FREQUENCY CONVERTERS FROM THE ASPECT OF INCREASING ENERGY EFFICIENCY Z Klincov, B Z Knezevic, Z Grahovac, D Erceg
16.	MULTI-PURPOSE STAND IN THE FIELD OF HYDROSTATIC DRIVES

	Radu Rădoi, Marian Blejan, Liliana Dumitrescu, Dorin Bordeasă, Cristian Ghera
17.	APPLICATION OF INDIRECT RAPID TOOLING PROCESS FOR FABRICATION OF SHEET METAL FORMING TOOL Jovica Ilić, Mladomir Milutinović, Milija Krašnik , Dejan Movrin
18.	FABRICATION OF DEEP DRAWING TOOL COMPONENTS USING AN INDIRECT RAPID TOOLING PROCEDURE Jovica Ilić, Mladomir Milutinović, Milija Krašnik , Dejan Movrin
19.	INCREASING THE FATIGUE STRENGTH OF THREADED JOINTS OF OIL AND GAS EQUIPMENT BY PLASTIC DEFORMATION OF THE THREAD UNDER HIGH LOAD BEFORE MAKE-UP V B Kopei, O R Onysko, V G Panchuk, Z M Odosii, T V Lukan
20.	INFLUENCE OF SIDE RAKE ANGLE OF A LATHE CUTTER ON THE THREAD PITCH DIAMETER ACCURACY. THEORETICAL INVESTIGATION Oleh Onysko, Volodymyr Kopei, Cristian Barz, Vesna Rodic
21.	SINGLE BUBBLE IN VERTICAL UPWARD TURBULENT BUBBLY FLOWS M. Raković, D. Radenković, A. Čočić, M. Lečić
22.	PLATFORM INDEPENDENT INDUSTRIAL CONTROL Zoran Grahovac, Bojan Knezevic, Dragan Erceg
23.	DESIGN CONTROL SYSTEM BASED ON OPTIMAL CRITERION Zoran Grahovac, Dragan Erceg, Bojan Knezevic
24.	INFLUENCE OF AGING HEAT TREATMENT DURATION AT 180°C UPON CAVITATION EROSION OF LAMINATED 5083 ALUMINUM ALLOY I Bordeasă, C Ghera, L M Micu, C L Salcianu, I Dionisie, B Ghiban, A Luca, D Gubencu
25.	PROGRAMMABLE LOGICAL CONTROLLER (PLC) IN MANUFACTURING EXECUTION SYSTEM (MES) SYSTEM MILOŠ BOŽIĆ, BOGDAN SAVKOVIĆ, SREĆKO ĆURČIĆ
26.	Computing the value of uneven raising of building consisting of nine segments deflected from vertical due to mining exploitation Krzysztof Gromysz, Justyna Orwat

14:30-15:30 With coffee break	ROOM 11	Section IV ELECTRICAL ENGINEERING
		Moderators: Prša Miroslav Deaconu Sorin Technical assistant: Nikola Šobot
1.	ANALYSIS OF THE PERFORMANCE OF PHOTOVOLTAIC SYSTEMS IN THE NORTH-WEST REGION Zoltan Erdei, Cristian Barz, Alexandru Grib, Tamasan Cristina	
2.	USING 3D BUILDER IN DESIGNING A 3D PUZZLE Cristian Barz, Zoltan Erdei, Živković Predrag, Oleh Onysko, Mihali Maria	
3.	REDUCTION OF AC MAGNETIC FIELD APPLYING DIFFERENT SCREENS Karolina Kasaš-Lažetić, Teodora Gavrilov, Gorana Mijatović, Miroslav Prša	
4.	ROMANIA IN THE ENERGY TRANSITION, FOR SMALL PROSUMERS - POST PANDEMIC AND THE UKRAINE WAR Mihai Alexandru BLAJ, Sorin Ioan Deaconu	
5.	COMPUTER AIDED DESIGN OF LOW VOLTAGE ELECTRICAL INSTALLATIONS M.F Predus, C.M Muscai, C Popescu, C Hatiegan	
5.	ABOUT IMPROVING THE ENERGY PERFORMANCE OF BUILDINGS BY USING SOLAR PANELS AUTHOR: SĂRĂCUȚ ARDELEAN ANDREI	

15:30-16:30 With coffee break	ROOM 11	Section V COMPUTER ENGINEERING
		Moderators: Tihomir Latinović Mădălin-Dorin Pop Technical assistant: Nikola Šobot
1.	A COMPARISON BETWEEN SMART CITY INITIATIVES FROM ROMANIA AND BOSNIA AND HERZEGOVINA IN IMPROVING ROAD TRAFFIC MANAGEMENT M D Pop, T Latinovic	
2.	KEY ELEMENTS IN THE INTEGRATION OF URBAN INFRASTRUCTURE WITH INTELLIGENT TRANSPORTATION SYSTEMS IN SMART CITIES Mădălin-Dorin Pop	
3.	AGILE SOFTWARE DEVELOPMENT: MODEL, METHODS, ADVANTAGES AND DISADVANTAGES A Džanić, A Toroman, A Džanić	
4.	ANALYSIS OF THE PROBLEMS OF ACQUISITION OF DIGITAL PHOTOGRAPHS INTENDED TO DETERMINE THE REQUIRED DIMENSIONAL ACCURACY OF THE PRODUCT D. Turinski, I. Svalina, T. Šarić, R. Lujčić, S. Havrlišan	
5.	A MODEL OF A SUSTAINABLE INFORMATION SECURITY MANAGEMENT SYSTEM IN HIGHER EDUCATION INSTITUTIONS Ljilja Sikman, Tihomir Latinovic, Nermin Sarajlic, Goran Sikanjic, Adina Pop Vaden	

VIDEO SESSION

Thursday, the 26 th May		
17:30 – 19:00 With coffee break	ROOM 21 Join Zoom Meeting https://zoom.us/j/96443288387	Section VI VIDEO SESSION FUNDAMENTAL SCIENCE
		Moderators: Jovica Ilić Muscalagiu Ionel Technical assistant: Jovan Čalić
1.	WATER PURIFYING FROM THE WELLS OF THE LOWER WATER AQUIFERS, Trišović Zaga	
2.	ELECTROCHEMICAL DISINFECTION OF WATER BY INSITU OBTAINING HYPOCHLORITE FROM DILUTE CHLORIDE SOLUTIONS IN A FLOWING ELECTROCHEMICAL CELL WITH SPIRAL ELECTRODES Trišović Tomislav, Trišović Zaga	
3.	TOXICITY OF DRINKING WATER – ASSESSMENT OF THEIR POTENTIAL RISK TO HUMAN HEALTH IR Suica-Bunghez, RM Senin, R Stoica, ID Dulama, IA Bucurica, AL Banica	
4.	NUMERICAL STUDIES ON AERODYNAMIC PERFORMANCE OF NACA 0018 PROFILE IN FUNDAMENTAL AND RESEARCH APPLICATION OF THE AEROSPACE INDUSTRY, Eliza Ioana Apostol, Aurel Mihail Titu	
5.	SPECIFIC ASPECTS OF QUALITY AND SAFETY MANAGEMENT IN AEROSPACE FIELD ELIZA IOANA APOSTOL, PETRICĂ TERTEREANU, IULIANA MOISESCU, AUREL MIHAIL TITU	
6.	Unpolarized Raman spectra shift in solidified Oil-Water-Saltwater SH Dhobi, B Koirala, R Waiba, K Paudel, K Yadav, AK Shah, JJ Nakarmi	
	R Waiba, SH Dhobi, B Koirala, K Paudel, K Yadav, AK Shah, JJ Nakarmi	

7.	Magneto-Optical Properties of Water and Saltwater in Presence of Magnetic Field
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9.	GREEN'S FUNCTION IN QUANTUM STATISTICAL PHYSICS – CONDENSED MATTER PHYSICS Jovan P. Šetrajčić, Stevo K. Jaćimovski, Siniša M. Vučenović
10.	MICROSTATES OF ELEMENTARY EXCITATIONS IN SANDWICH NANO-STRUCTURES Jovan P. Šetrajčić, Siniša Vučenović

14:30-19:00 With coffee break	ROOM 29 Join Zoom Meeting https://zoom.us/j/98636834967	Section II VIDEO SESSION MATERIALS
		Moderators: Milisav Markovic Technical assistant: Radovan Jalić
1.	INSIGHT INTO THE ELECTRO-OPTICAL BEHAVIOR OF CARBAZOLE-BASED DONOR-ACCEPTOR OLIGOMERS M. Soroceanu, C.-P. Constantin and M.-D. Damaceanu	
2.	CHANGES IN THE MECHANICAL AND DIELECTRICAL PROPERTIES OF SOME DIELECTRIC ELASTOMERS A Soroceanu	
3.	ORGANIC-INORGANIC POLYMERIC SILOXANES FILLED WITH SCHIFF-BASE METAL COMPLEXES A Soroceanu	
4.	RADIOGRAPHIC FILM WASTE MANAGEMENT AND RECOVERY Ardelean Erika, Ardelean Marius, Galfi Corina, Socalici Ana, Josan Ana	
5.	MEASUREMENT OF THERMAL CONDUCTIVITY OF THE CORTICAL BONE: EXPERIMENTAL STUDIES AND COMPARATIVE ANALYSIS Paweł Zawadzki, Adam Patalas , Remigiusz Łabudzki, Rafał Talar	
6.	SCIENCE OF METALS THROUGH STORY OF TTT DIAGRAMS AND MICROSTRUCTURES Belma Fakić, Adisa Burić, Edib Horoz	
7.	METALLOGRAPHIC ANALYSIS OF PRECIPITATION HARDENED STATE RH950 STEEL 17-7PH OF MODIFIED CHEMICAL COMPOSITION Belma Fakić, Diana Čubela	

8.	CHEMICAL PROCESSES FOR THE SYNTHESIS OF PVDF-CNT-CO ₃ O ₄ NANOCOMPOSITE V. Țucureanu, G. Crăciun, C. Romanițan, C. Mihăilescu, A. Matei
9.	TECHNOLOGICAL DETAILS ABOUT THE DEOXIDATION OF STEELS ON AN EBT-LF-MTC TECHNOLOGICAL FLOW Radu, Heput, Erica Ardelean, Marius Ardelean
10.	STUDY OF THE CAVITATION BEHAVIOR OF THE 7075 ALUMINUM ALLOY STRUCTURE BY AGING TREATMENT N. Luca, I Bordeasu, L M Micu, C Ghera, B. Ghiban, A.M. Demian and A .D. Buzatu
11.	AGEING MAINTAINING TIME INFLUENCE OF CAVITATION RESISTANCE OF 6082 ALUMINUM TYPE ALLOY C Ghera, I Dionisie, I Bordeășu, B Ghiban, O P Odagiu, CL Salcianu, M L Micu, A Luca
12.	RESEARCH ON THE IMPROVEMENT OF THE PHYSICAL AND MECHANICAL CHARACTERISTICS OF STEELS FOR CONICAL GEARING THROUGH NITROCARBURATION G Mihuț, M Ardelean
13.	EXPERIMENTAL MODELING OF ABRASIVE WATER-JET CUTTING PROCESSES OF KEVLAR FIBER-REINFORCED POLYMER COMPOSITES D. Gubencu, C. Lazăr
14.	LOW COST SYNTHESIS OF HYDROXYAPATITE USING A RENEWABLE MARINE SOURCE OF CALCIUM Radu Banica, Alexandra Ioana Bucur, Raul Alin Bucur, Cristina Mosoarca, Mihai-Cosmin Pascariu, Zoltan Szabadai

15.	<p>PLANT – MEDIATED GREEN SYNTHESIS OF SILVER NANOPARTICLES: TUSSILAGO FARFARA VS. HELICHRYSUM ARENARIUM VS. ARTEMISIA ABSINTHIUM</p> <p>Sorescu Ana – Alexandra, Suica – Bunghez Ioana Raluca, Senin Raluca, Stoica Rusandica, Ganciarov Mihaela</p>
16.	<p>AN OVERVIEW OF METHODS AND TECHNOLOGIES FOR THE PRODUCTION OF ALTERNATIVE DIESEL FUEL FROM USED ENGINE OIL</p> <p>Rațiu Sorin Aurel, Armioni Diana Miruna</p>
17.	<p>MECHANOCHEMICAL DESTABILIZATION OF MGH₂-V NANOCOMPOSITES FOR HYDROGEN STORAGE</p> <p>Z. Sekulić, I. Milanović, B. Babić, M. Prvulović, J. Grbović. Novaković, V. Asanović</p>
18.	<p>On the modification of the cavitation resistance of the aluminum alloy 2017 A, through the parameters of the heat treatment of aging.</p> <p>Z. CL Salcianu, C Ghera, I Bordeasu, B Ghiban, M L Micu, I Dionisie, O.P. Odagiu and A Luca</p>
19.	<p>Sustainable Development Indicators in the Steel Industry</p> <p>AUTHORS: I., FĂRCEAN, G., PROȘTEAN, AND A., SOCALICI</p>
20.	<p>NEW METHODS OF WELDING THIN STEEL PLATES USING PULSED CURRENT</p> <p>L. ZGRIPCEA, M. ARDELEAN, V. PUTAN AND C. BIRTOK BĂNEAȘĂ</p>
21.	<p>Compositional and Microscopic Characterizations of a Sri Lankan Brick Clay Variety towards Some Advanced Chemical Catalytic Applications</p> <p>Suresh Aluvihara, C.S.Kalpage and P.W.S.K. Bandaranayake</p>

14:30-19:00 With coffee break	ROOM TRONDHEIM Join Zoom Meeting https://zoom.us/j/92057569027	Section II VIDEO SESSION MECHANICAL ENGINEERING
		Moderators: Branislav Sredanović Technical assistant Marija Balaban
1.	CALCULATION OF OPTIMAL STRUCTURES MADE OF ARTICULATED BARS Itu Razvan Bogdan, Apostu Susana Ecaterina and Marc Bogdan Ioan	
2.	SOLVING PRACTICAL ENGINEERING PROBLEMS OF STRUCTURAL STRENGTH-APPLICATION OF DYNAMIC REANALYSIS METHOD AND MODEL TESTING Petrović Ana, Wei Li, Trišović Nataša, Momčilović Nikola	
3.	MANAGEMENT OF THE PROCESS OF MOULDING-CASTING A STEEL PART IN ORDER TO OPTIMIZE IT A Josan, E Ardelean, M Ardelean	
4.	STUDY CONCERNING CONNECTING SYSTEM BETWEEN LOCOMOTIVE BODY AND THE BOGIE AT CFR 060-EA 5100KW LOCOMOTIVE Luisa Izabel Dungan, Mircea Adrian Dungan, Adrian Cioablă, Una Maceta	
5.	DYNAMIC STUDY THROUGH NUMERICAL SIMULATIONS OF MACPHERSON TYPE SUSPENSION AND STATIC ANALYSIS OF SHOCK ABSORBER COMPONENTS C Preda, R M Bleotu, C Pinca-Bretotean	
6.	X-RAY ANALYSIS OF WELDING PARAMETERS INFLUENCE ON PRESSURE VESSEL STEEL P355 N Cioroagă Bogdan-Dorel, Cioată Vasile George	

7.	BROWN FIELD DIGITALIZATION AND DIGITAL TWIN Milovan Lazarević, Aco Antić, Gordana Ostojić, Mitar Jocanović, Mijodrag Milošević
8.	TOPOLOGICAL OPTIMIZATION OF VICE JAWS MODEL FOR PIPE CLAMPING M Mumović, N Šibalić, A Vujović, J Jovanović
10.	STUDY AND ANALYSIS OF SANDWICH PANELS FOR USE IN THE CONSTRUCTION OF CABIN ROOFS USED ON CONSTRUCTION EQUIPMENT R M Bleotu, C Preda
11.	THE INFLUENCE OF THERMAL STRESSES ON THE PHENOMENON OF THERMAL FATIGUE OF ROLLING CYLINDERS Pinca-Bretotean Camelia, Josan Ana, Arun Kumar Sharma
12.	MODELING OF INFLUENTIAL BENDING PARAMETERS OF NATURAL FIBER-BONDED HARDBOARD A Hodžić, D Hodžić, D Ramić, H Talić
13.	TENSILE STRENGTH OF HARDBOARD WITH WOOD AND NATURAL WOOL FIBRES A Hodžić, D Hodžić, D Ramić, H Talić
14.	Design and optimization study of a resistance structure for an industrial storage platform supporting injection molding tools for the automotive industry D Alic, C Pinca Bretotean
15.	MEASUREMENT OF STRAIN AND DETERMINATION OF STRESS STATE USING A MULTI-CHAMBER VERTICAL CYLINDRICAL TANK MODEL Islamović Fadil, Bajramović Ermin, Bajramović Esad, Bajramović Emir
16.	DETERMINING THE POSSIBILITIES OF OPTIMAL CONTROL OF THE PRODUCT ROUTING CONTROL SYSTEM AT THE GRAIN ELEVATOR S Tymchuk, V Mardziavko, M Syrotenko, A Piskarev, O Miroshnyk, T Shchur, W Kruszelnicka, A Tomporowski, R. Kasner

17.	DEVELOPMENT OF THE STRUCTURE AND METHODOLOGICAL SUPPORT OF THE SYSTEM FOR ANALYSIS OF THE DETAILS SHAPING USING THE TECHNOLOGICAL INHERITABILITY OF THEIR QUALITY PARAMETERS Yaroslav Kusyi, Oleh Onysko, Andrii Kuk, Olha Kostyuk Bohdan Solohub
18.	ANALYSIS OF THE POSSIBILITY OF THE DEVELOPMENT OF THE LIFE CYCLE OF FOOD PACKAGING CONSTRUCTION Patrycja Bałdowska-Witos
19.	ANALYSIS OF THE QUALITY MANAGEMENT OF THE FOOD PACKAGING LIFE CYCLE Patrycja Bałdowska-Witos
20.	ELECTRIC CARS - DIRECTIONS OF DEVELOPMENT AND CRITICAL POINTS A Crnkic, I Mikulic, A Hodzic and M Dobrnjac
21.	TECHNICAL AND ENVIRONMENTAL CHARACTERISTICS OF UTILIZING THE POTENTIAL OF THE "GORNJA DRINA" HYDROPOWER SYSTEM IN REPUBLIC OF SRPSKA O Kasikovic, N Dobrnjac, D Golubovic, M Dobrnjac, D Kalabic
22.	TECHNICAL AND ENVIRONMENTAL CHARACTERISTICS OF UTILIZING THE POTENTIAL OF THE "GORNJA DRINA" HYDROPOWER SYSTEM IN REPUBLIC OF SRPSKA O Kasikovic, N Dobrnjac, D Golubovic, M Dobrnjac, D Kalabic
23.	RESEARCH REGARDING THE INFLUENCE OF WATER INJECTION UPON THE COMBUSTION PROCESS IN A COMPRESSION IGNITION ENGINE C C Suci1[0000-0002-8754-534X], S V Igreť 2[0000-0001-5649-0617], I Ionel1[0000-0002-2999-1210]
24.	The dependance of breakage energy on the grain size for selected biomaterials W Kruszelnicka
25.	TECHNICAL DESIGN OF A PROTOTYPE OF A SPECIAL PURPOSE MILLING MACHINE Marcela Bučányová, Martina Kusá and Radovan Holubek
24.	INFLUENCE OF THE DRAG COEFFICIENT OF A SINGLE BUBBLE IN VERTICAL UPWARD TURBULENT BUBBLY FLOWS M. RAKOVIĆ, D. RADENKOVIĆ, A. ČOČIĆ AND M. LEČIĆ
26.	RESEARCH REGARDING THE INFLUENCE OF WATER INJECTION UPON THE COMBUSTION PROCESS IN A COMPRESSION IGNITION ENGINE AUTHORS: C C SUCIU1[0000-0002-8754-534X], S V IGREŢ 2[0000-0001-5649-0617], I IONEL1[0000-0002-2999-1210]

16:30-17:00 With coffee break	ROOM 21 Join Zoom Meeting https://zoom.us/j/96443288387 Technical assistant: Jovan Čalić	Section IV VIDEO SESSION ELECTRICAL ENGINEERING
		Moderators: Prša Miroslav Bordeasu Ilare
1.	SOME ASPECTS REGARDING THE CONTRIBUTION OF HYDROELECTRIC PLANTS TO THE ELECTRICITY PRICE AT FINAL CONSUMERS IN ROMANIA Negrea Daniela, Szabo Emeric Remus, Lolea Savu, Gale Sorin	
2.	SEVERAL ISSUES ABOUT ASSESSMENT OF THE HYDROELECTRIC AGGREGATES AVAILABILITY Negrea Daniela, Szabo Emeric Remus, Lolea Savu, Gale Sorin	
3.	XILINX CONTROL CIRCUIT MADE TO HIGHLIGHT INJECTED FUEL FLOW Baciu I., Cuntan C.D., Popa G.N., Iagar A.	
5.	A FEW CONNECTIONS BETWEEN ELECTRICITY PRICES AND HYDROGEN PRODUCTION LOLEA MARIUS AND DZITAC SIMONA	
6.	FUZZY LOGIC APPLYING FOR ASSESSMENT ELECTRICITY AVAILABILITY IN CONVERSION SYSTEMS WITH RENEWABLE ENERGY SOURCES(RES) Lolea Marius and Dzitac Simona	
7.	A COMPARATIVE ANALYSIS OF THE EFFECTS OF INTEGRATING HEAT PUMPS INTO BUILDINGS ENERGY SYSTEMS WITH RENEWABLE ENERGY SOURCES AUTHOR: SARACUT- ARDELEAN ANDREI	
14:30-16:30 With coffee break	ROOM 21 Join Zoom Meeting https://zoom.us/j/96443288387 Technical assistant: Jovan Čalić	Section IV VIDEO SESSION COMPUTER ENGINEERING
		Moderators: Tihomir Latinovic

1.	CONDUCTING REUSABLE BIG DATA ANALYSES ON AIR POLLUTION AND PUBLIC HEALTH A Trisovic
2.	THE IMPORTANCE OF ACCOUNTING INFORMATION IN THE DECISION-MAKING PROCESS Tirean Gelu Ovidiu, Tuşa Ana
3.	THE IMPACT OF CLOUD MANUFACTURING ON IOT E. M. CIORTEA E. M. Ciortea
4.	MANAGEMENT OF EXPERIMENTAL DATA RESULTING FROM THE INVESTIGATION OF APPLICATIONS IMPLEMENTED THROUGH SAP UI TECHNOLOGIES A.D.Berdie, R.S.Rob, C.L.Rat, A.A.Berdie, A.Paun
5.	OPTIMIZING THE OPERATION OF PHOTOVOLTAIC PANELS USING MATHEMATICAL REGRESSION MODELS C L Rat, C I Ichim-Burlacu, D A Bistran
6.	A BRIEF SURVEY OF DIGITAL TWIN APPLICATIONS IN HUMAN-ROBOT COLLABORATION Ružarovský, Matúšová, Skýpala
7	DIGITAL TOOLS FOR PRODUCTION PLANNING AS PART OF DECISION-MAKING PROCESSES IN MANUFACTURING SYSTEMS Matúšová, Ružarovský, Delgado Sobrino, Hrušková

CONFERENCE PROGRAM

Friday, the 27th May

ROOM TRONDHAIM

10:00-10:30

Coffee break

10:30-12:30

ROUNDTABLE

Industry 4.0

12:30 – 16:00

Excursion