



POLITEHNICA UNIVERSITY OF TIMIȘOARA
FACULTY OF ENGINEERING HUNEDOARA
AND
UNIVERSITY „VITEZ” TRAVNIK



would like to invite you to the

INTERNATIONAL CONFERENCE ON APPLIED SCIENCES

ICAS2024



30.05 – 01.06.2024



University „VITEZ”, Travnik
Bosnia and Herzegovina

SECTIONS:

-  Fundamental Sciences
-  Computers Engineering
-  Electrical Engineering
-  Mechanical Engineering
-  Materials Engineering

CONTACT:

icas@fih.upt.ro 

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PARTICIPATION IS OPEN TO EVERYONE
INTERESTED IN THIS CONFERENCE!

University "VITEZ"
Faculty of Information Technology

CONFERENCE PROGRAM

Travnik May 2024

14th INTERNATIONAL CONFERENCE OF APPLIED SCIENCE

Organizer:

UNIVERSITY "VITEZ"
FACULTY OF INFORMATION TECHNOLOGY

Co-organizer:

UNIVERSITY OF TIMISOARA
FACULTY OF ENGINEERING HUNEDOARA

Publisher of Conference Program and Book of Abstracts:

Prof. Ibrahim Obhodjas, PhD

Editor-in-chief for Conference Program and Book of Abstracts:

Prof. Tihomir Latinović, PhD

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 Zsoter Brigitta, University of Szeged

CONFERENCE PROGRAM		
Friday, the 31 st May		
TIME	PLACE	ACTIVITY
8:00 –8:30 CET		CONFERENCE OPENING Tihomir Latinovic Ovidiu Tirian Sorin Ratiu Daniela Alic Amra Kraksner
8:30 –10:10 CET or UTC+2, Romanian UTC+3	20 minutes each	Keynote Lectures:
		Holubek Radovan A NEW APPROACH FOR CREATING AND TESTING SAFETY COMPONENTS INTEGRATED INTO A ROBOTIC CELL SIMULATION SCENARIO IN A VIRTUAL REALITY ENVIRONMENT
		Holubek Radovan ENHANCING PRODUCTION AND LOGISTICS EFFICIENCY THROUGH DYNAMIC SIMULATION: A CASE STUDY IN TRANSPORT SYSTEM OPTIMIZATION
		Nedelcu Dorian THE VIRTUAL RECONSTRUCTION OF THE OBJECTS GEOMETRY THROUGH PHOTOGRAMMETRY
		Kasaš-Lažetić Karolina DETERMINATION OF ELECTROMAGNETIC FIELD PRODUCED BY BURIED 3-PHASE HIGH VOLTAGE CABLE SYSTEM

Work in Section		
10:30-15:00 CET 15 minutes include questions	Speaker Title Authors	Section I COMPUTERS AND ELECTRICAL ENGINEERING
		Moderators: Tihomir Latinovic Dorian Nedelcu
1.	Dorian Nedelcu	
	USING STREAMLIT AND BASIC4ANDROID (B4A) TO CREATE THE SAME APPLICATION - STREAMLIT VERSION	
	Dorian Nedelcu, Tihomir Latinovic, Ljilja Sikman, Mladen Todici, Aleksandar Majstorovic	
2.	Ahmad Tashfeen	
	USE OF TECHNOLOGY AND ARTIFICIAL INTELLIGENCE IN MANAGEMENT: ARE WE PREPARING STUDENTS FOR THE FUTURE?	
	Ahmad Tashfeen	
3.	Kamal Sehairi	
	EMBEDDED GPU ACCELERATION OF OBJECT DETECTORS USING NVIDIA CUDA	
	Kamal Sehairi, Abdelkader Bouhafs, Ibtissam mama Boucherit, Fatima Chouireb	
4.	Hrvacic Adis	
	APPLICATION OF ARTIFICIAL INTELLIGENCE (AI) FOR THE CONTROL OF THE COVID-19 PANDEMIC: CURRENT STATUS AND FUTURE PROSPECTS	
	Hrvacic Adis	
5.	Dorian Nedelcu	
	USING STREAMLIT AND BASIC4ANDROID (B4A) TO CREATE THE SAME APPLICATION - B4A VERSION	
	Dorian Nedelcu, Tihomir Latinovic, Ljilja Sikman, Mladen Todici, Aleksandar Majstorovic	
6.	Latinovic Tihomir	
	ARTIFICIAL INTELLIGENCE IS LIKE AN ENGINE OF THE FUTURE DEVELOPMENT OF HIGHER EDUCATION	
	Tihomir Latinovic, Ljilja Sikman, Aleksandar Majstorovic, Mladen Todici	

7.	Militaru Gabriel
	ELECTRIC ARC DETECTION AT PANTOGRAPH-CATENARY SYSTEM FAILURE USING THE LABVIEW IMAGE PROCESSING TECHNIQUE Militaru Gabriel, Pănoiu Manuela, Pănoiu Caius
8.	Sorin Ioan Deaconu
	THE USE OF GEOTHERMAL WATERS IN THE ENERGY, RESIDENTIAL AND AGRICULTURAL FIELDS S I Deaconu , M Topor, F Bucur and M A Blaj
9.	Seghiour Rima
	DESIGN OF A RECONFIGURABLE ANTENNA FOR WLAN APPLICATIONS Elhadi Kenane, Khalfa Ali, Guernine Rania, Sila Amal
10.	Guernine Rania
	DESIGN OF EFFICIENT 2.45GHZ SINGLE-BAND RECTENNA SYSTEM FOR ISM APPLICATIONS Guernine Rania, Kenan el Hadi, Sahed Mohamed, Sila Amel, Seghiour Rima
11.	Soanda Naomi-Ionela
	ANALYSIS OF THE OPERATION OF A PHOTOVOLTAIC HYBRID SYSTEM, ELECTRIC GRID, DIESEL-GENERATOR GROUP N I Soanda, E Spunei, C P Chioncel , G S Matasaru, F Piroi
12.	Marius Lolea
	DATA ANALYSIS AND FUZZY LOGIC MODELLING REGARDING ELECTRICITY AVAILABILITY OF PHOTOVOLTAIC PANELS Olga Ioana Amariei, Andrea Amalia Minda, Marius Lolea, Emeric Szabo, Daniela Negrea
13.	Peić Tukuljac Emil
	APPLICATION OF RENEWABLE ENERGY SOURCES IN TRAFFIC - BUS STATION AS A GREEN ENERGY ISLAND Peic Tukuljac Emil, Anišić Zoran
14.	Vinčević Vernes
	QUALITY MODELS AND WEB APPLICATION VALIDATION METHODS Vinčević Vernes, Zajmović Mahir
15.	Sila Amal
	A WIDEBAND AND HIGH ISOLATION GYSEL POWER DIVIDER FOR WIRELESS COMMUNICATION Messaoud Garah, Elhadi Kenane, Rania Guernine, Rima Seghiour
16.	Milutinov Miodrag
	MEASUREMENT OF AC AND DC MAGNETIC FIELD REDUCTION Milutinov Miodrag, Gavrilov, Teodora, Kasaš-Lažetić Karolina and Prša Miroslav

10:30-15:00 CET 15 minutes include questions	Speaker Title Authors	Section II FUNDAMENTAL SCIENCE, MATERIALS AND MECHANICAL ENGINEERING
		Moderators: Sorin Ratiu Daniela Alic
1.	Újvári Gréta	
	THE MOST POPULAR NUTRITIONAL SUPPLEMENTS AMONG ATHLETES – EDUCATIONAL GUIDE FOR BEGINNER FREE TIME ATHLETES Újvári Gréta, Zsótér Brigitta, Veres Zoltán	
2.	Çakiroğlu Bekir	
	PEROXIDASE ACTIVITY OF COPPER OXIDE FILM ON GLASS SUBSTRATE Çakiroğlu Bekir	
3.	Paszek Justyna	
	THE VOLUMES OF STONES STACK CALCULATED BY DIFFERENT METHODS – A CASE STUDY Paszek Justyna	
4.	Arkhypova Liudmyla	
	SPATIAL-TEMPORAL PATTERNS OF CHANGES IN PM 2.5 IN ATMOSPHERIC AIR OF IVANO-FRANKIVSK REGION Adamenko S Y , Arkhypova L M , Adamenko Y O , Moskalchuk N M, Glibovytska N I	
5.	Sapta Doru	
	ANALYSIS OF THE LOAD STRUCTURE IN THE PROCESSING OF ALUMINUM ALLOYS FOR AUTOMOTIVE RIMS Doru Sapta, Ana Socalici, Corneliu Birtok Baneasa, Vasile Putan	
6.	Marzec Maksymilian	
	DETERMINING THE AIR RESISTANCE OF AN ELECTRIC CAR M Marzec, P Mackowiak, D Ziolkowski	
7.	Poenaru Iulia Olivia	
	MICROSTRUCTURE ANALYSE OF NON-METALLIC INCLUSIONS IN CONTINUOUS CASTED STEELS Poenaru Iulia Olivia, Ardelean Erika	
8.	Adriana Bobora	
	POSSIBILITIES OF RECYCLING OF SIDERITIC TAILINGS IN STEEL INDUSTRY Adriana Bobora, Ana Socalici, Adina Budiul Berghian, Marius Ardelean, Corneliu Birtok Baneasa	

9.	Tihomir Latinovic
	STRESS CONDITIONS ON WALLS OF STEEL AND COMPOSITE SCBA BOTTLE DURING OF FILLING FROM „BANKS OF THE AIR“ Aleksandar Majstorović, Mladen Todić, Tihomir Latinović
10.	Armioni Diana Miruna
	OVERVIEW ON THE ENVIRONMENTAL IMPACT OF USED ENGINE OIL Armioni Diana Miruna, Ratiu Sorin Aurel, Benea Maria Laura, Putan Vasile
11.	Belma Islamović Čavkić
	TESTS AND ANALYSIS OF THE RESULTS OF THE MECHANICAL PROPERTIES OF VARIOUS ALUMINUM ALLOYS Belma Islamović Čavkić
12.	Dijana Cavic
	SYNTHESIS OF BIOMETRICS MECHANISMS: MOREY EEL PHARYNGEAL JAWS Dijana Cavic, Milan Rackov, Maja Cavic
13.	Guranov Iva
	RAREFIED GAS FLOW IN CONVERGENT AND DIVERGENT MICROTUBE Guranov I. Iva, Milićev S. Snežana and Stevanović D. Nevena
14.	Anghel Cernescu
	CAVITATION EROSION INFLUENCE ON FATIGUE LIFE OF A HIGH STRENGTH STRUCTURAL STEEL I Bordeasu, A Cernescu, C Ghera, C Opris, I Pirvulescu, A N Luca, D Bordeasu
15.	Kopei Volodymyr
	INFLUENCE OF MECHANICAL CHARACTERISTICS OF MATERIALS OF THREADED CONNECTIONS OF OIL AND GAS DOWNHOLE EQUIPMENT ON THEIR FATIGUE LIFE Kopei Volodymyr, Onysko Oleh, Kopei Ihor, Panchuk Vitalii, Bukatka Yurii, Goroshko Andrii
16.	Križan Peter
	COMPARASION OF SELECTED STATISTICAL METHODS AND THEIR USE IN SPECIFIC CASE OF ENGINEERING PRACTICE Križan Peter, Svatek Michaf, Hanko Lukas, Matuš Miloš
17.	Nicolae Pașca
	CONSIDERATIONS REGARDING THE USE OF TOOLS COATED WITH DLC IN THE PROCESSING OF ALUMINUM ALLOYS USED IN THE AERONAUTICAL INDUSTRY Nicolae Pașca

18.	Robert Sołtysiak
	DEVELOPMENT OF A TECHNOLOGY FOR PRODUCING AN ANGLE BAR WITH VARIABLE THICKNESS USING RESISTANCE WELDING AND ROLL FORMING Robert Sołtysiak
19.	Robert Sołtysiak
	ANALYSIS OF STRESSES AND FATIGUE LIFE OF THE BOLTS OF THE BRIQUETTING PRESS'S WORKING SYSTEM Robert Sołtysiak
20.	Talic Hasan
	THE INFLUENCE OF BASALT MESH ON THE STRENGTH OF PLYWOOD Talić Hasan, Cehic Milka
21.	Łykowski Wiktor
	DESIGN AND STRENGTH ANALYSIS OF THE MAIN FRAME OF AN INNOVATIVE GRAIN DRYER WITH DEFORMATION GAUGE MEASUREMENT OF THE MASS OF THE DRIED MATERIAL Łykowski Wiktor, Łukasz Gierz, Maciej Berdychowski, Boris Kostov, Grigor Stambolov
22.	Dawid Ziółkowski
	THE INFLUENCE OF LAYER HEIGHT AND NOZZLE DIAMETER ON THE STRENGTH OF ELEMENTS MANUFACTURED USING FDM TECHNOLOGY D Ziółkowski, P Maćkowiak, M Marzec
23.	Ljilja Sikman
	MODEL OF MEASURABLE ASPECTS OF INFORMATION SECURITY MANAGEMENT WITHIN THE FRAMEWORK OF HIGHER EDUCATION Šikman Ljilja, Latinović Tihomir, Sarajlić Nermin, Vranješ Biljana and Gaćina Aleksandar

16:00-17:00 CET, UTC+2

Romanian UTC+3

ROUNDTABLE

Intelligent Systems

Moderators:

Tihomir Latinovic