June 14-16, 2023
Ternopil, Ukraine
https://citi.tntu.edu.ua/

COMPUTER INFORMATION TECHNOLOGIES IN INDUSTRY 4.0

(CITI-2023)

The 1st International Workshop

WORKSHOP   PROGRAMME

Organizers

Ternopil Ivan Puluj National Technical University
**Member Of European
University Association**

Partners

FAAI - 2022-1-PL01-KA220-HED-000088359

University of Bielsko-Biala, Poland

The workshop will be held in the Zoom environment according to the schedule of participants' performances shown below

Join a Zoom meeting

https://us02web.zoom.us/j/88593098889?pwd=SVRON3A4M1hrUEhZcGJmajdpRjgrUT09

YouTube:
https://www.youtube.com/@Citiworkshop/featured

Conference ID: 885 9309 8889

Access code: 2023

Attention!

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CITI-2023 General Timetable

	June 14	
	9:45-10:00	**Registration of workshop participants**
	10:00	**Workshop opening**
	10:00-10:20	**Welcome speech of the workshop organizers**
1	10:20-10:30	*Vasyl Martsenyuk, Oksana Bahrii-Zaiats, Andriy Sverstiuk, Sergei Dzyadevych and Borys Shelestovskyi.* **Mathematical and Computer Simulation of the Responce of a Potentiometric Biosensor for the Determination of α-chaconine**
2	10:30-10:40	*Yuriy Skorenkyy, Roman Zolotyy, Sergiy Fedak, Oleksandr Kramar and Ruslan Kozak* **Digital Twin Implementation in Transition of Smart Manufacturing to Industry 5.0 Practices**
3	10:40-10:50	*Kateryna Merkulova and Yelyzaveta Zhabska* **Input Data Requirements for Person Identification Information Technology**
4	10:50-11:00	*Olena Sorokivska, Halyna Kozbur, Iryna Strutynska, Liliya Melnyk and Roman Sherstiuk* **Methodology for Evaluating the Performance of Websites and its Optimization Using Data Mining Techniques**
5	11:00-11:10	*Oleksandr Dobrzhanskyi, Martin Bogdanovskyi, Andrii Tkachuk and Tetiana Vakaliuk* **Software Development for Field Level Industrial Process Control Network System**
6	11:10-11:20	*Myhaylo Petryk, Oleh Pastukh, Mykhaylo Bachynskyi, Ivan Mudryk and Volodymyr Stefanyshyn* **Processing of Cerebral Cortex Neurosignals from EEG Sensors and Recognizing Specific Types of Mechanical Movements Elements of Pacient Limbs under the Cognitive Feedback Influenses**
7	11:20-11:30	*Serhii Vladov, Yurii Shmelov, Ruslan Yakovliev, Tatyana Kozlovskaya and Maryna Petchenko* **Helicopters Turboshaft Engines Intelligent Control Algorithms Synthesis, Taking into Account Required Quality Provision**
8	11:30-11:40	*Marcin Bernas, Andrii Mykytyshyn, Vitalii Kartashov, Vitalii Levytskyi and Dmytro Martjanov* **The Role of Cyber-Physical Systems and Internet of Things in Development Smart Cities for Industry 4.0**
9	11:40-11:50	*Vasyl Martsenyuk, Ostap Boiko and Iryna Kramar* **Peculiarities of the Universal SQL Programming Toolkit for Increasing the Competitiveness of Enterprises**

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10	11:50-12:00	*Pavlo Tymkiv, Aleksandra Kłos-Witkowska and Igor Andrushchak* **Optimization Methods for Determining Coefficients of Mathematical Model of Electroretinosignal for Detection of Neurotoxicity Risks**
12:00-12:30		**Coffee brakes**
11	12:30-12:40	*Taras Dubyniak, Oleksandra Manziy, Tomasz Gancarczyk, Andriy Senyk and Yurii Futryk* **Specialized Information System of Support in the Process of Recruiting Securities**
12	12:40-12:50	*Mykhailo Fryz, Leonid Scherbak, Bogdana Mlynko and Taras Mykhailovych* **Linear Random Process Model-Based EEG Classification Using Machine Learning Techniques**
13	12:50-13:00	*Nataliia Zhukovska, Viktor Moshynskyi, Viktor Zhukovskyy, Andriy Sverstiuk and Oleg Pinchuk* **Development of a Model Predictive Control Algorithm for Managing the Deformation of a Multilayered Soil Massif Under Mass and Heat Transfer**
14	13:00-13:10	*Yuliya Averyanova and Yevheniia Znakovska* **Decision-Making Automation for UAS Operators Using Operative Meteorological Information**
15	13:10-13:20	*Oleh Shkodzinsky, Aleksandra Kłos-Witkowska, Mykhailo Lutskiv and Denys Sas* **Analysis of Approaches to Identity Verification During Knowledge Assessment in E-Learning Systems**
16	13:20-13:30	*Grigorii Shymchuk, Iaroslav Lytvynenko, Roman Hromyak, Sergii Lytvynenko and Volodymyr Hotovych* **Gas Consumption Forecasting Using Machine Learning Methods and Taking Into Account Climatic Indicators**

June 15		
	10:45-11:00	**Registration of workshop participants**
1	11:00-11:10	*Andriy Palamar and Mykhaylo Palamar* **Fire Safety Monitoring System Based on Internet of Things**
2	11:10-11:20	*Liliia Khvostivska, Mykola Khvostivskyi, Iryna Dediv, Vasyl Yatskiv and Yuri Palaniza* **Method, Algorithm and Computer Tool for Synphase Detection of Radio Signals in Telecommunication Networks with Noises**
3	11:20-11:30	*Mykhaylo Petryk, Dmytro Mykhalyk, Jacques Fraisard and Oksana Petryk* **Information System for Adsorption Parameters Identification in NanoPorous Media**

4	11:30-11:40	*Ihor Prots'ko, Yurij Bilas and Vasyl Teslyuk* **Visualization of the Structure of DCT Based on the Synthesized Algorithm Using Cyclic Convolutions**
5	11:40-11-50	*Bohdan Zimchenko and Anatoliy Melnyk* **An Autonomous Serverless Fuzzy Logic-Based Decision Support System for Evaluating the Reliability of a Country's Electric Power System**
6	11:50-12:00	*Bohdan Trembach, Rostyslav Trembach, Mykhailo Palasyuk, Roman Kochan and Volodymyr Savkiv* **Optimization of Schematic and Technical Tools for the Determination of Spatial Acoustic Signal Source Location on the Polygon Given in the Hamming Space**
12:00-12:30		**Coffee brakes**
7	12:30-12:40	*Petro Onyskiv, Iaroslav Lytvynenko, Oleksandr Volianyk, Grigorii Shymchuk and Volodymyr Hotovych* **The Method of Computer Modeling of Heart Rhythm Based on the Vector of Stationary and Stationary-Related Random Sequences**
8	12:40-12:50	*Vasil Dozorskyi, Iryna Dediv, Sofiia Sverstiuk, Vyacheslav Nykytyuk and Andrii Karnaukhov* **The Method of Commands Identification to Voice Control of the Electric Wheelchair**
9	12:50-13:00	*Vadym Koval, Serhii Martsenko and Myroslav Zin* **Designing and Implementing Intelligent Lighting Control System**
10	13:00-13:10	*Taras Lechachenko, Tomasz Gancarczyk, Taras Lobur and Andrii Postoliuk* **Cybersecurity Assessments Based on Combining TODIM Method and STRIDE Model for Learning Management Systems**
11	13:10-13:20	*Leonid Dediv, Oksana Dozorska, Volodymyr Kukuruza, Vyacheslav Nykytyuk and Serhii Kovalyk* **Computer Simulation Modeling of Voice Signals in the Matlab Environment for the Task of Computerized Diagnostic Systems Testing**
12	13:20-13:30	*Halyna Franchevska, Mykola Khvostivskyy, Vasyl Dozorskyi, Evheniya Yavorska and Oleg Zastavnyy* **The Method and Algorithm for Detecting the Fetal ECG Signal in the Presence of Interference**
13	13:30-13:40	*Vidushi Parashar, Tanya Bhadouria and Vivek Sharma* **IoT Based LPG Gasbooking and Sensor Alert System Through SMS and E-mail**

June 16	
10:45-11:00	**Final session**

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TIME FOR PRESENTATIONS

Paper presentation at the regular session – 5 min.

Discussion, questions – 5 min.

Organized by:

Ternopil Ivan Puluj National Technical University,

Faculty of Applied Information Technologies and Electrical Engineering

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