



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



**Co-funded by
the European Union**

University of Bielsko-Biala, Poland

14-16, June, 2023, Ternopil, Ukraine

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

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10	11:50-12:00	<i>Pavlo Tymkiv, Aleksandra Klos-Witkowska and Igor Andrushchak</i> 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	<i>Taras Dubyniak, Oleksandra Manziy, Tomasz Gancarczyk, Andriy Senyk and Yurii Futryk</i> Specialized Information System of Support in the Process of Recruiting Securities
12	12:40-12:50	<i>Mykhailo Fryz, Leonid Scherbak, Bogdana Mlynko and Taras Mykhailovych</i> Linear Random Process Model-Based EEG Classification Using Machine Learning Techniques
13	12:50-13:00	<i>Nataliia Zhukovska, Viktor Moshynskiy, Viktor Zhukovskyy, Andriy Sverstiuk and Oleg Pinchuk</i> 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	<i>Yuliya Averyanova and Yevheniia Znakovska</i> Decision-Making Automation for UAS Operators Using Operative Meteorological Information
15	13:10-13:20	<i>Oleh Shkodzinsky, Aleksandra Klos-Witkowska, Mykhailo Lutskiv and Denys Sas</i> Analysis of Approaches to Identity Verification During Knowledge Assessment in E-Learning Systems
16	13:20-13:30	<i>Grigorii Shymchuk, Iaroslav Lytvynenko, Roman Hromyak, Sergii Lytvynenko and Volodymyr Hotovych</i> 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	<i>Andriy Palamar and Mykhaylo Palamar</i> Fire Safety Monitoring System Based on Internet of Things
2	11:10-11:20	<i>Liliia Khvostivska, Mykola Khvostivskiy, Iryna Dediv, Vasyl Yatskiv and Yuri Palaniza</i> Method, Algorithm and Computer Tool for Synphase Detection of Radio Signals in Telecommunication Networks with Noises
3	11:20-11:30	<i>Mykhaylo Petryk, Dmytro Mykhalyk, Jacques Fraissard and Oksana Petryk</i> Information System for Adsorption Parameters Identification in NanoPorous Media

4	11:30-11:40	<i>Ihor Prots'ko, Yuriy Bilas and Vasyl Teslyuk</i> Visualization of the Structure of DCT Based on the Synthesized Algorithm Using Cyclic Convolutions
5	11:40-11:50	<i>Bohdan Zimchenko and Anatoliy Melnyk</i> 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	<i>Bohdan Trembach, Rostyslav Trembach, Mykhailo Palasyuk, Roman Kochan and Volodymyr Savkiv</i> Optimization of Schematic and Technical Tools for the Determination of Spatial Acoustic Signal Source Location on the Polygon Given in the Hamming Space
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9	12:50-13:00	<i>Vadym Koval, Serhii Martsenko and Myroslav Zin</i> Designing and Implementing Intelligent Lighting Control System
10	13:00-13:10	<i>Taras Lechachenko, Tomasz Gancarczyk, Taras Lobur and Andrii Postoliuk</i> Cybersecurity Assessments Based on Combining TODIM Method and STRIDE Model for Learning Management Systems
11	13:10-13:20	<i>Leonid Dediv, Oksana Dozorska, Volodymyr Kukuruza, Vyacheslav Nykytyuk and Serhii Kovalyuk</i> Computer Simulation Modeling of Voice Signals in the Matlab Environment for the Task of Computerized Diagnostic Systems Testing
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13	13:30-13:40	<i>Vidushi Parashar, Tanya Bhadouria and Vivek Sharma</i> IoT Based LPG Gasbooking and Sensor Alert System Through SMS and E-mail

June 16

10:45-11:00

Final session

Attention!

During the workshop, changes are possible in accordance with the situation in Ukraine. In particular, in the case of air alarms, there will be breaks and continuation of the workshop will be after the air alarms are over

TIME FOR PRESENTATIONS

Paper presentation at the regular session – 5 min.

Discussion, questions – 5 min.



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June 14

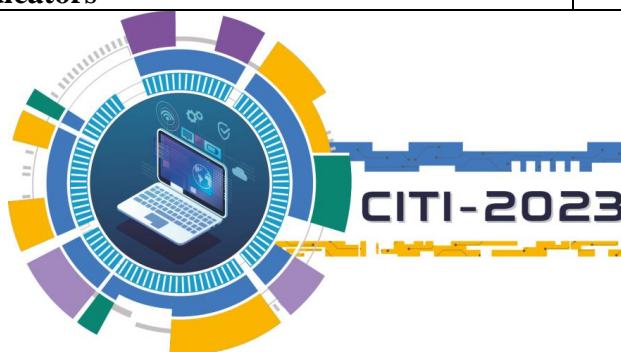
Link Conference:

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

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14	13:00-13:10	<i>Yuliya Averyanova and Yevheniia Znakovska</i> Decision-Making Automation for UAS Operators Using Operative Meteorological Information	https://youtu.be/tJ-F6Y5hNGQ
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