



# INFORMATION TECHNOLOGIES: THEORETICAL AND APPLIED PROBLEMS (ITTAP-2023)

The 3rd International Workshop

**November 22-24, 2023**  
**Ternopil, UKRAINE**  
**Opole, POLAND**  
<https://ittap.tntu.edu.ua/>

## CONFERENCE PROGRAMME



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



Scientific Platform - SciView.Net

**Journal of Sustainable  
Development of  
Transport and  
Logistics**  
A Peer-Reviewed Open  
Access Journal  
<https://jsdtl.sciview.net/>  
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Українське  
науково-освітнє ІТ товариство  
Ukrainian  
Scientific and Educational IT Society

FAAI: The Future is in Applied Artificial Intelligence Erasmus+ project 2022-1-PL01-KA220-HED-000088359

**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

# ITTAP 2023 General Timetable

<b>November 22</b>		
	<b>9:50-10:00 (10)</b>	<b>Conference opening</b>
1	10:00-10:10	<b>Zsuzsanna Nagy and Ágnes Werner-Stark</b> Visualization Methods to Support Real-time Process Monitoring
2	10:10-10:20	<b>Vladyslav Vasylenko, Serhii Zaitsev, Vasyl Trysnyuk and Taras Trysnyuk</b> Adaptive method for assessing information reliability under uncertainty for 5G and IoT systems
3	10:20-10:30	<b>Olena Sorokivska, Iaroslav Lytvynenko, Oleksandr Sorokivskyi, Halyna Kozbur and Iryna Strutynska</b> Methodology of the Formation of Sports Matches Statistical Information Using Neural Networks
4	10:30-10:40	<b>Artur Zaporozhets, Ganna Kostenko and Oleksandr Zgurovets</b> Preconditions and Main Features of Electric Vehicles Application for Frequency Regulation in the Power System
5	10:40-10:50	<b>Serhii Vladov, Ruslan Yakovliev, Oleksandr Hubachov and Juliia Rud</b> Neuro-Fuzzy System for Detection Fuel Consumption of Helicopters Turboshift Engines
6	10:50-11:00	<b>Oleh Yasniy, Nadiia Lutsyk, Vladyslav Demchyk, Halyna Osukhivska and Olha Malyshevska</b> The prediction of structural properties of Ni-Ti shape memory alloy by the supervised machine learning methods
7	11:00-11:10	<b>Vasyl Martsenyuk, Svitlana Nykytyuk, Yuri Palaniza, Oksana Bahrii-Zaiats and Sofiia Sverstiuk</b> Stages of cluster analysis in the diagnosis of Lyme disease in children
8	11:10-11:20	<b>Oleksii Duda, Andrii Mykytyshyn, Mykola Mytnyk and Andrii Stanko</b> Information technology sets formation and "TNTU Smart Campus" services network support
9	11:20-11:30	<b>Andriy Palamar, Mykhaylo Palamar and Halyna Osukhivska</b> Real-time Health Monitoring Computer System Based on Internet of Medical Things
10	11:30-11:40	<b>Volodymyr Halchenko, Ruslana Trembovetska, Volodymyr Tychkov and Natalia Tychkova</b> MODELING of the MEASUREMENT CONTROL PROCESS in EDDY-CURRENT STRUCTROSCOPY USING APRIORI INFORMATION ABOUT OBJECTS
	<b>11:40-12:00 (20)</b>	<b>Coffee brakes</b>
11	12:00-12:10	<b>Khrystyna Lipianina-Honcharenko, Ivan Kit, Diana Zahorodnia and Oleksandr Osolinskyi</b> Optimization Method of Advertising Texts Based on Generative Models

**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

12	12:10-12:20	<b>Serhii Tsyurulnyk, Tromsiuk Volodymyr, Ilona Bogach, Maksym Tsyurulnyk and Nadiia Potapova</b> Programmable Power Unit Supplies Based on Quick Charge Technology
13	12:20-12:30	<b>Igor Boyko, Stepan Balaban and Vasyl Kovbashyn</b> Mathematical model of diffusion in a layered zeolite medium with spherical symmetry
14	12:30-12:40	<b>Serhii Lupenko, Roman Butsiy, Oleksandr Volyanyk and Nataliia Stadnyk</b> Advanced Signal Processing and Classification of EEG Patterns in Neurointerface Systems
15	12:40-12:50	<b>Volodymyr Shanaida, Ruslan Skliarov and Valeriy Lazaryuk</b> Mathematical Models For The Analysis Of The Parameters Of Channels In The Planning Of Mechanical Processing And Welding Operations
16	12:50-13:00	<b>Dawid Pawuś and Szczepan Paszkiel</b> The use of the Emotiv EPOC Flex kit in applications involving artificial intelligence
17	13:00-13:10	<b>Michał Tomaszewski and Jakub Osuchowski</b> Effectiveness of Data Resampling in Mitigating Class Imbalance for Object Detection
18	13:10-13:20	<b>Alexandr Kuznetsov, Yelyzaveta Kuznetsova, Oleksii Smirnov, Oleksii Kostenko and Volodymyr Zvieriev</b> Evaluating Hashing Algorithms in the Age of ASIC Resistance
19	13:20-13:30	<b>Alexandr Kuznetsov, Natalia Kryvinska, Oleksii Ilchenko, Tetyana Smirnova and Yuliia Ulianovska</b> Comparative Analysis of Cryptocurrency Trading Platforms Using the Analytic Hierarchy Process
20	13:30-13:40	<b>Boryslav Selskyi, Andriy Sverstiuk, Petro Selskyi, Sviatoslav Kostiv and Ihor Venher</b> Multiparametric neural network clustering in prediction the risk of surgical complications after revascularization on main arteries of the lower limbs
21	13:40-13:50	<b>Olga Solovei and Tetyana Honcharenko</b> Optimal bin number for histogram binning method to calibrate binary probabilities.
22	13:50-14:00	<b>Serhii Vladov, Ruslan Yakovliev, Oleksandr Hubachov and Juliia Rud</b> On-board Hybrid Neural Network Classifier of Helicopters Turboshift Engines Operational Status

23	14:00-14:10	<b>Mykhaylo Bachynskiy, Mykhalo Petryk, Vitaly Brevus, Ivan Mudryk and Bohdan Glova</b> 3D-hybrid mathematical model for analysis of abnormal neurological movements for the purposes of diagnosis and treatment of limb tremor
24	14:10-14:20	<b>Roman Yuzefovych, Ihor Javorskyj, Oleh Lychak and Pavlo Semenov</b> Method of Periodically Non-stationary Random Signals Demodulation with Hilbert Transform
25	14:20-14:30	<b>Volodymyr Semchyshyn and Dmytro Mykhalyk</b> Automated processing and analysis of medical texts
26	14:30-14:40	<b>Oleksandr Karnaukhov, Oleksii Duda, Serhii Martsenko and Vasyl Yatsyshyn</b> Cyber-physical systems at “Digital University”

<b>November 23</b>		
1	10:00-10:10	<b>Oleh Pihnastyi, Maksym Sobol and Anna Burduk</b> Development of a Method for Generating Material Input Flow for Transport Conveyor Using Experimental Data
2	10:10-10:20	<b>Vasyl Kryven, Lubov Tsymbaliuk, Volodymyr Valiashek, Andriy Boyko and Nadija Kryva</b> The Degree of Non-parabolicity of the Surface, Close to a Rotational Paraboloid
3	10:20-10:30	<b>Oleh Pastukh, Volodymyr Stefanyshyn, Ihor Baran, Ihor Yakymenko and Vasyl Vasykiv</b> Mathematics and software for controlling mobile software devices based on brain activity signals
4	10:30-10:40	<b>Roman Pasko, Andrey Klochko, Oleksii Petrochenko, Vitalii Ploskyi and Bohdan Volokh</b> Intelligent Supporting System to Building-Technical Expertise Process
5	10:40-10:50	<b>Vitalii Mocharskyi, Bogdan Kovalyuk, Oksana Sitkar, Volodymyr Hutsaylyuk and Marcin Wachowski</b> The Method of Materials Surface Defects Analysis Created by Laser Processing
6	10:50-11:00	<b>Mohit Lalit, Alankrita Aggarwal, Shiraz Khurana and Kalpana Singh</b> IoT Evolution: Unleashing Cloud-Fog-Edge Computing Synergy for Enhanced Applications

**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

7	11:00-11:10	<b>Viktor Antonyuk, Kateryna Barandych, Maksym Gladskyi, Sergii Vysloukh and Oksana Voloshko</b> Cyclic Durability Modeling of Parts During Finish-Turning
8	11:10-11:20	<b>Igor Boyko and Julia Nestor</b> Mathematical model of coherent the electron transfer for nanostructures with an applied magnetic field of constant strength
9	11:20-11:30	<b>Yurii Palianytsia, Vasyl Dunets and Liliia Khvostivska</b> Modeling of Phased Array Antenna for Data Transmission in Urban Environment
10	11:30-11:40	<b>Mykhailo Fryz, Serhii Kharchenko and Leonid Scherbak</b> Ergodicity and Mixing of Conditional Linear Random Processes in the Problems of Information Signal Modelling and Analysis
	<b>11:40-12:00 (20)</b>	<b>Coffee brakes</b>
11	12:00-12:10	<b>Andriy Sverstiuk, Taras Dubynyak, Oleksandra Manziy, Andriy Senyk and Pavlo Ohloblin</b> Bayesian click model and methods of estimating its parameters
12	12:10-12:20	<b>Vitalii Babak, Oleg Dekusha, Svitlana Kovtun, Sergiy Kobzar and Leonid Shcherbak</b> Computer Model of the Building Envelope the Thermophysical Characteristics Determining Process
13	12:20-12:30	<b>Taras Lechachenko, Ruslan Kozak, Yuriy Skorenkyy, Oleksandr Kramar and Olena Karelina</b> Cybersecurity Aspects of Smart Manufacturing Transition to Industry 5.0 Model
14	12:30-12:40	<b>Bogdan Pryymak, Mykola Zhelinskyi, Mykola Ostroverkhov and Oleksiy Khalimovskyy</b> NEURAL NETWORK BASED ESTIMATOR OF THE ELECTRODE DEVIATION IN ROBOTIC WELDING WITH ARC OSCILLATIONS
15	12:40-12:50	<b>Mykhailo Petryk, Vitaly Brevus, Dmytro Mykhalyk and Oleh Kyshkevych</b> Advancing Computational Architectures for Analyzing and Simulation of Systems of nanoporous particles filtration Software
16	12:50-13:00	<b>Oleksandr Ponomarenko, Mykola Vinogradov, Svitlana Kovtun and Anna Krymska</b> Application of Radon Fan Transform in Systems of Correlation Analysis and Localization of Acoustic Noises
17	13:00-13:10	<b>Inna Rozlomii, Andrii Yarmilko and Serhii Naumenko</b> Analysis of Information Security Issues in Balancing Multiple Independent Containers on a Single Server

**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

18	13:10-13:20	<b>Adam Ilnicki and Mariusz Rzasa</b> Numerical modelling of engine operation with a variable state of compression
19	13:20-13:30	<b>Iлона Dumanska, Olga Pavlova and Houda El Bouhissi</b> Information System for Logistical Support of Volunteer Tasks: Basics and Functionality
20	13:30-13:40	<b>Sergiy Fedak, Yuriy Skorenkyy, Marco Dautaj, Roman Zoloty and Oleksandr Kramar</b> Digital Twins for Optimisation of Industry 5.0 Smart Manufacturing Facilities
21	13:40-13:50	<b>Mykola Khvostivskyy, Evhenia Yavorska, Roman Kinash and Roman Boyko</b> Mathematical, Algorithmic and Software Support for Phonocardiographic Signal Processing to Detect Mitral Insufficiency of Human Heart Valves
22	13:50-14:00	<b>Oleg Lyashuk, Mykola Stashkiv, Iaroslav Lytvynenko, Volodymyr Sakhno and Roman Khoroshun</b> Information Technologies Use in the Study of Functional Properties of Wheeled Vehicles
23	14:00-14:10	<b>Boris Zlotenko, Oleg Synuyk, Dmytro Statsenko and Serhiy Horiashchenko</b> Room Climate Control Using Arduino Microcontrollers With Radio Communication Modules
24	14:10-14:20	<b>Tetiana Hovorushchenko and Yurii Voichur</b> Method for Determining the Number of Lines of Manually Written Source Code
25	14:20-14:30	<b>Bouchra Mouffi, Souheyla Ferouani, Djalale Dziani Kerarti and Fatima Zahra Moussa</b> Terahertz rectangular antenna for biomedical application
26	14:30-14:40	<b>Vasyl Ustimenko and Oleksandr Pustovit</b> On families of stream ciphers based on the approximations of regular forests.

November 24		
	10:00-12:30	Final session
1	10:00-10:10	<b>Nadiia Marchenko, Hanna Martyniuk, Olena Monchenko, Larysa Chubko and Tetiana Scherbak</b> Intellectual processing of information of multi-level monitoring and diagnostics systems of complex technical objects

**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

2	10:10-10:20	<b>Oleh Palka and Lesia Dmytrotsa</b> System Analysis Methodology for Determining the City Smartness
3	10:20-10:30	<b>Taras Dubynyak, Lesia Dmytrotsa, Myroslava Yavorska, Nadia Shostakivska and Oleksandra Manziy</b> Methods and Means of Automatic Statistical Assessment of Information Measuring Systems
4	10:30-10:40	<b>Marek Szyndler</b> An algorithm that minimizes cloud computing costs
5	10:40-10:50	<b>Vasyl Ustimenko</b> Schubert cells and quadratic public keys of Multivariate Cryptography
6	10:50-11:00	<b>Oleh Yasniy, Andriy Mykytyshyn, Iryna Didych, Vitalii Kubashok and Andriy Boiko</b> Application of artificial intelligence to improve the work of educational platforms
7	11:00-11.10	<b>Oksana Tur and Viktoriia Shabunina</b> Information Technologies of Digitization of Museum Collections: World Experience and Ukrainian Realities
8	11:10-11:20	<b>Oleksiy Yanenko, Kostiantyn Shevchenko, Tatyana Klochko, Roman Tkachuk and Vasyl Kuz</b> Computerized Radiometric System for Measuring Microwave Radiation of Biological Objects
9	11:20-11:30	<b>Nina Bąkowska and Krzysztof Zatwarnicki</b> Solving problems using the General Environment Description Language
10	11:30-11:40	<b>Roman Horbatiuk, Taras Sitkar, Roman Lutsyshyn, Stepan Sitkar and Mykhailo Ozhha</b> TEST AUTOMATIC GENERATION AN ALGORITHM FOR AN AUTOMATED TESTING SYSTEM
11	11:40-11:50	<b>Tetiana Hovorushchenko and Olga Pavlova</b> Method and system for choosing kinds of sport based on human morphofunctional indicators
12	11:50-12:00	<b>Bohdan Orobchuk, Ivan Sysak, Buniak Oleh, Serhii Babiuk and Vadym Koval</b> Development of the reactive power compensation laboratory bench and its integration into the training simulator of dispatch control system
13	12:00-12:10	<b>Liliia Babinets, Iryna Halabitska, Nadiia Gashchyn and Nataliia Botsyuk</b>

**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

		Creation of a Mathematical Model of Personalized Prediction of Osteodeficiency in Chronic Pancreatitis
14	12:10-12:20	<b>Mykola Stashkiv</b> Field Test Data Processing for the Implementation of Accelerated Rig Test of Sprayer Booms
15	12:20-12:30	<b>Volodymyr Pavlenko, Ihor Ponomarenko, Oksana Morhulets, Andrii Fedorchenko and Vladyslav Pylypenko</b> Use of Information Technologies and Marketing Tools for The Formation of An Educational Platform

### **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 Computer Information Systems and Software Engineering  
Opole University of Technology**



# November 22

Link Conference: <https://tube5.tntu.edu.ua/rooms/lh8-51q-xh5-pha/join>

YouTube: <https://www.youtube.com/channel/UCn3iBiVcrCCDooKSJTD2pww>

## Conference opening

9:50-10:00 (10)

Time		Report	YouTube link
1	10:00-10:10	<b>Zsuzsanna Nagy and Ágnes Werner-Stark</b> Visualization Methods to Support Real-time Process Monitoring	<a href="https://youtu.be/9E4VdsRWOug">https://youtu.be/9E4VdsRWOug</a>
2	10:10-10:20	<b>Vladyslav Vasylenko, Serhii Zaitsev, Vasyl Trysnyuk and Taras Trysnyuk</b> Adaptive method for assessing information reliability under uncertainty for 5G and IoT systems	<a href="https://www.youtube.com/watch?v=0qn97JQu2KA">https://www.youtube.com/watch?v=0qn97JQu2KA</a>
3	10:20-10:30	<b>Olena Sorokivska, Iaroslav Lytvynenko, Oleksandr Sorokivskyi, Halyna Kozbur and Iryna Strutynska</b> Methodology of the Formation of Sports Matches Statistical Information Using Neural Networks	<a href="https://youtu.be/GxGqMCG2UQI">https://youtu.be/GxGqMCG2UQI</a>
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5	10:40-10:50	<b>Serhii Vladov, Ruslan Yakovliev, Oleksandr Hubachov and Juliia Rud</b> Neuro-Fuzzy System for Detection Fuel Consumption of Helicopters Turboshift Engines	<a href="https://youtu.be/P3kaKEFXEk8">https://youtu.be/P3kaKEFXEk8</a>
6	10:50-11:00	<b>Oleh Yasniy, Nadiia Lutsyk, Vladyslav Demchyk, Halyna</b>	<a href="https://youtu.be/4Wzox8vqSJY">https://youtu.be/4Wzox8vqSJY</a>

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	<b>11:30-12:00 (30)</b>	<b>Coffee brakes</b>	

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11	12:00-12:10	<b>Khrystyna Lipianina-Honcharenko, Ivan Kit, Diana Zahorodnia and Oleksandr Osolinskyi</b>	<a href="https://youtu.be/Q2DgOXjE1sg">https://youtu.be/Q2DgOXjE1sg</a>

		Optimization Method of Advertising Texts Based on Generative Models	
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17	13:00-13:10	<b>Michał Tomaszewski and Jakub Osuchowski</b>	<a href="https://youtu.be/zvNazgNPG5E">https://youtu.be/zvNazgNPG5E</a>

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**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

# November 23

Link Conference: <https://tube5.tntu.edu.ua/rooms/lh8-51q-xh5-pha/join>

YouTube: <https://www.youtube.com/channel/UCn3iBiVcrCCDooKSJTD2pww>

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3	10:20-10:30	<b>Oleh Pastukh, Volodymyr Stefanyshyn, Ihor Baran, Ihor Yakymenko and Vasyl Vasykiv</b> Mathematics and software for controlling mobile software devices based on brain activity signals	<a href="https://youtu.be/PX0usJKX13g">https://youtu.be/PX0usJKX13g</a>
4	10:30-10:40	<b>Roman Pasko, Andrey Klochko, Oleksii Petrochenko, Vitalii Ploskyi and Bohdan Volokh</b> Intelligent Supporting System to Building-Technical Expertise Process	
5	10:40-10:50	<b>Vitalii Mocharskyi, Bogdan Kovalyuk, Oksana Sitkar, Volodymyr Hutsaylyuk and Marcin Wachowski</b> The Method of Materials Surface Defects Analysis Created by Laser Processing	<a href="https://youtu.be/zhjRP-GjOws">https://youtu.be/zhjRP-GjOws</a>

**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

6	10:50-11:00	<b>Mohit Lalit, Alankrita Aggarwal, Shiraz Khurana and Kalpana Singh</b> IoT Evolution: Unleashing Cloud-Fog-Edge Computing Synergy for Enhanced Applications	
7	11:00-11:10	<b>Viktor Antonyuk, Kateryna Barandych, Maksym Gladskyi, Sergii Vysloukh and Oksana Voloshko</b> Cyclic Durability Modeling of Parts During Finish-Turning	<a href="https://youtu.be/0MyuPBdTfXg">https://youtu.be/0MyuPBdTfXg</a>
8	11:10-11:20	<b>Igor Boyko and Julia Nestor</b> Mathematical model of coherent the electron transfer for nanostructures with an applied magnetic field of constant strength	<a href="https://youtu.be/EQ1bgYYYYrY">https://youtu.be/EQ1bgYYYYrY</a>
9	11:20-11:30	<b>Yurii Palianytsia, Vasyl Dunets and Liliia Khvostivska</b> Modeling of Phased Array Antenna for Data Transmission in Urban Environment	<a href="https://www.youtube.com/watch?v=PknZ3AgORUE">https://www.youtube.com/watch?v=PknZ3AgORUE</a>
10	11:30-11:40	<b>Mykhailo Fryz, Serhii Kharchenko and Leonid Scherbak</b> Ergodicity and Mixing of Conditional Linear Random Processes in the Problems of Information Signal Modelling and Analysis	<a href="https://youtu.be/Ff6IcTyq83g">https://youtu.be/Ff6IcTyq83g</a>
	<b>11:40-12:00 (20)</b>	<b>Coffee brakes</b>	

Time	Report	YouTube link
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**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

11	12:00-12:10	<b>Andriy Sverstiuk, Taras Dubynyak, Oleksandra Manziy, Andriy Senyk and Pavlo Ohloblin</b> Bayesian click model and methods of estimating its parameters	<a href="https://www.youtube.com/watch?v=hctIz-iucsg&amp;feature=youtu.be">https://www.youtube.com/watch?v=hctIz-iucsg&amp;feature=youtu.be</a>
12	12:10-12:20	<b>Vitalii Babak, Oleg Dekusha, Svitlana Kovtun, Sergiy Kobzar and Leonid Shcherbak</b> Computer Model of the Building Envelope the Thermophysical Characteristics Determining Process	<a href="https://youtu.be/fZ3E9at9k3k">https://youtu.be/fZ3E9at9k3k</a>
13	12:20-12:30	<b>Taras Lechachenko, Ruslan Kozak, Yuriy Skorenkyy, Oleksandr Kramar and Olena Karelina</b> Cybersecurity Aspects of Smart Manufacturing Transition to Industry 5.0 Model	<a href="https://youtu.be/w0YYUINWdYo">https://youtu.be/w0YYUINWdYo</a>
14	12:30-12:40	<b>Bogdan Pryymak, Mykola Zhelinskyi, Mykola Ostroverkhov and Oleksiy Khalimovskyy</b> NEURAL NETWORK BASED ESTIMATOR OF THE ELECTRODE DEVIATION IN ROBOTIC WELDING WITH ARC OSCILLATIONS	<a href="https://cutt.ly/3wYQTrja">https://cutt.ly/3wYQTrja</a>
15	12:40-12:50	<b>Mykhailo Petryk, Vitaly Brevus, Dmytro Mykhalyk and Oleh Kyshkevych</b> Advancing Computational Architectures for Analyzing and Simulation of Systems of nanoporous particles filtration Software	
16	12:50-13:00	<b>Oleksandr Ponomarenko, Mykola Vinogradov, Svitlana Kovtun and Anna Krymska</b> Application of Radon Fan Transform in Systems of Correlation Analysis and Localization of Acoustic Noises	<a href="https://www.youtube.com/watch?v=DcCW-vBvInk">https://www.youtube.com/watch?v=DcCW-vBvInk</a>



17	13:00-13:10	<b>Inna Rozlomii, Andrii Yarmilko and Serhii Naumenko</b> Analysis of Information Security Issues in Balancing Multiple Independent Containers on a Single Server	<a href="https://www.youtube.com/watch?v=EF8Xd3mQNZM">https://www.youtube.com/watch?v=EF8Xd3mQNZM</a>
18	13:10-13:20	<b>Adam Ilnicki and Mariusz Rzasa</b> Numerical modelling of engine operation with a variable state of compression	
19	13:20-13:30	<b>Ilona Dumanska, Olga Pavlova and Houda El Bouhissi</b> Information System for Logistical Support of Volunteer Tasks: Basics and Functionality	<a href="https://youtu.be/JSxfdZ0bN1o">https://youtu.be/JSxfdZ0bN1o</a>
20	13:30-13:40	<b>Sergiy Fedak, Yuriy Skorenkyy, Marco Dautaj, Roman Zoloty and Oleksandr Kramar</b> Digital Twins for Optimisation of Industry 5.0 Smart Manufacturing Facilities	<a href="https://youtu.be/KvGyBmLGFgI">https://youtu.be/KvGyBmLGFgI</a>
21	13:40-13:50	<b>Mykola Khvostivskyy, Evhenia Yavorska, Roman Kinash and Roman Boyko</b> Mathematical, Algorithmic and Software Support for Phonocardiographic Signal Processing to Detect Mitral Insufficiency of Human Heart Valves	<a href="https://youtu.be/A3aA6efXbGw">https://youtu.be/A3aA6efXbGw</a>
22	13:50-14:00	<b>Oleg Lyashuk, Mykola Stashkiv, Iaroslav Lytvynenko, Volodymyr Sakhno and Roman Khoroshun</b> Information Technologies Use in the Study of Functional Properties of Wheeled Vehicles	<a href="https://youtu.be/fEfJUQ91sOY">https://youtu.be/fEfJUQ91sOY</a>
23	14:00-14:10	<b>Boris Zlotenko, Oleg Synuyk, Dmytro Statsenko and Serhiy Horiashchenko</b> Room Climate Control Using Arduino Microcontrollers With Radio Communication Modules	

24	14:10-14:20	<b>Tetiana Hovorushchenko and Yurii Voichur</b> Method for Determining the Number of Lines of Manually Written Source Code	<a href="https://www.youtube.com/watch?v=RLsAimPCx5k">https://www.youtube.com/watch?v=RLsAimPCx5k</a>
25	14:20-14:30	<b>Bouchra Mouffi, Souheyla Ferouani, Djalale Dziani Kerarti and Fatima Zahra Moussa</b> Terahertz rectangular antenna for biomedical application	<a href="https://youtu.be/8Liqf6_OZuw">https://youtu.be/8Liqf6_OZuw</a>
26	14:30-14:40	<b>Vasyl Ustimenko and Oleksandr Pustovit</b> On families of stream ciphers based on the approximations of regular forests.	<a href="https://www.youtube.com/watch?v=E7vQw8NpYRcgj">https://www.youtube.com/watch?v=E7vQw8NpYRcgj</a>



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**22-24, November, 2023, Ternopil, UKRAINE, Opole, POLAND**

## November 24

Link Conference: <https://tube5.tntu.edu.ua/rooms/lh8-51q-xh5-pha/join>

YouTube: <https://www.youtube.com/channel/UCn3iBiVcrCCDooKSJTD2pww>

November 24			
Time		Report	YouTube link
1	10:00-10:10	<b>Nadiia Marchenko, Hanna Martyniuk, Olena Monchenko, Larysa Chubko and Tetiana Scherbak</b> Intellectual processing of information of multi-level monitoring and diagnostics systems of complex technical objects	<a href="https://youtu.be/dvaHOKk3Lms">https://youtu.be/dvaHOKk3Lms</a>
2	10:10-10:20	<b>Oleh Palka and Lesia Dmytrotsa</b> System Analysis Methodology for Determining the City Smartness	<a href="https://www.youtube.com/watch?v=jo3z1F6r0zw">https://www.youtube.com/watch?v=jo3z1F6r0zw</a>
3	10:20-10:30	<b>Taras Dubynyak, Lesia Dmytrotsa, Myroslava Yavorska, Nadia Shostakivska and Oleksandra Manziy</b> Methods and Means of Automatic Statistical Assessment of Information Measuring Systems	<a href="https://youtu.be/utWX7P6xsJU">https://youtu.be/utWX7P6xsJU</a>
4	10:30-10:40	<b>Marek Szyndler</b> An algorithm that minimizes cloud computing costs	
5	10:40-10:50	<b>Vasyl Ustimenko</b> Schubert cells and quadratic public keys of Multivariate Cryptography	<a href="https://www.youtube.com/watch?v=8ul_SdWt2ag">https://www.youtube.com/watch?v=8ul_SdWt2ag</a>
6	10:50-11:00	<b>Oleh Yasniy, Andriy Mykityshyn, Iryna Didych, Vitalii Kubashok and Andriy Boiko</b> Application of artificial intelligence to improve the work of educational platforms	<a href="https://youtu.be/n-TEVED_zwA?si=SgCLwkwsHIzIUZwY">https://youtu.be/n-TEVED_zwA?si=SgCLwkwsHIzIUZwY</a>

7	11:00-11:10	<b>Oksana Tur and Viktoriia Shabunina</b> Information Technologies of Digitization of Museum Collections: World Experience and Ukrainian Realities	<a href="https://youtu.be/VP-Jag8UHws">https://youtu.be/VP-Jag8UHws</a>
8	11:10-11:20	<b>Oleksiy Yanenko, Kostiantyn Shevchenko, Tatyana Klochko, Roman Tkachuk and Vasyl Kuz</b> Computerized Radiometric System for Measuring Microwave Radiation of Biological Objects	<a href="https://www.youtube.com/watch?v=MjUD4TJl5Pw">https://www.youtube.com/watch?v=MjUD4TJl5Pw</a>
9	11:20-11:30	<b>Nina Bąkowska and Krzysztof Zatwarnicki</b> Solving problems using the General Environment Description Language	<a href="https://www.youtube.com/watch?v=L6w8gZNIL0I">https://www.youtube.com/watch?v=L6w8gZNIL0I</a>
10	11:30-11:40	<b>Roman Horbatiuk, Taras Sitkar, Roman Lutsyshyn, Stepan Sitkar and Mykhailo Ozhha</b> TEST AUTOMATIC GENERATION AN ALGORITHM FOR AN AUTOMATED TESTING SYSTEM	<a href="https://youtu.be/dmInvZwvbJg">https://youtu.be/dmInvZwvbJg</a>
11	11:40-11:50	<b>Tetiana Hovorushchenko and Olga Pavlova</b> Method and system for choosing kinds of sport based on human morphofunctional indicators	<a href="https://youtu.be/SHmwMrw8WmU">https://youtu.be/SHmwMrw8WmU</a>
12	11:50-12:00	<b>Bohdan Orobchuk, Ivan Sysak, Buniak Oleh, Serhii Babiuk and Vadym Koval</b> Development of the reactive power compensation laboratory bench and its integration into the training simulator of dispatch control system	<a href="https://youtu.be/5QOv8RMBg4I">https://youtu.be/5QOv8RMBg4I</a>

13	12:00-12:10	<b>Liliia Babinets, Iryna Halabitska, Nadiia Gashchyn and Nataliia Botsyuk</b> Creation of a Mathematical Model of Personalized Prediction of Osteodeficiency in Chronic Pancreatitis	<a href="https://youtu.be/CQLwxZkBcIA">https://youtu.be/CQLwxZkBcIA</a>
14	12:10-12:20	<b>Mykola Stashkiv</b> Field Test Data Processing for the Implementation of Accelerated Rig Test of Sprayer Booms	<a href="https://youtu.be/XNjMUfuojnM">https://youtu.be/XNjMUfuojnM</a>
15	12:20-12:30	<b>Volodymyr Pavlenko, Ihor Ponomarenko, Oksana Morhulets, Andrii Fedorchenko and Vladyslav Pylypenko</b> Use of Information Technologies and Marketing Tools for The Formation of An Educational Platform	<a href="https://www.youtube.com/watch?v=rMsOLT-k54I">https://www.youtube.com/watch?v=rMsOLT-k54I</a>

**1. Conference summary. Discussion of the presented papers.**

**2. Meeting of the participants, Program and Organizing Committees. Feedbacks on the conference. Discussion on the possible ways of improvement for future.**



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