



WORKSHOP PROGRAMME



SECOND INTERNATIONAL WORKSHOP OF YOUNG SCIENTISTS ON ARTIFICIAL INTELLIGENCE FOR SUSTAINABLE DEVELOPMENT

AISD.WUNU.EDU.UA



GENERAL AISD 2025 TIMETABLE

Kyiv Time		May 8 (Ternopil)
9:30 – 10:00		Registration
10:00 – 10:10		Workshop opening
10:10 – 11:00		Keynote speakers
11:00 – 15:00		Section 1 (audience 1209)
15:00 – 15:20		Summary of the first day of the workshop (audience 1209)

Kyiv Time		May 9 (Skomorokhy)
9:30 – 10:00		Registration
10:00 – 13:00		Section 2
13:00 – 14:00		Summary of the second day of the workshop

TIME FOR PRESENTATIONS

Paper presentation – 7 min.

Discussion, questions – 3 min.

Online/Offline

ZOOM: <https://wunu-edu-ua-ternopil.zoom.us/j/83310684003>

Meeting ID: 833 1068 4003



Second International Workshop of Young Scientists on
Artificial Intelligence for Sustainable Development

May 8

Conference opening

Chairman: Hanna Poperechna

10:00 – 10:30
Kyiv Time

Oksana Desyatnyuk – Rector of West Ukrainian National University
Mykola Dyvak – Vice-Rector for Scientific Research of West Ukrainian National University

Keynote speakers

10:10 – 11:00
Kyiv Time

Artur Skoczylas – *KGHM*



Cuprum Research and Development Centre Ltd. and a PhD candidate at the Wroclaw University of Economics and Business.

«APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN MINING PROCESSES: INSIGHTS FROM SELECTED PROJECTS»

Mykola Striletskyi – *Director at*



Apiko Software

«LARGE LANGUAGE MODEL SECURITY: WHAT TO TAKE INTO CONSIDERATION TO BUILD SECURE AI APPLICATIONS?»



<https://wunu-edu-ua-ternopil.zoom.us/j/83310684003>

Meeting ID: 833 1068 4003

May 8-9, 2025, Ternopil - Skomorokhy, Ukraine

Session 1 (Ternopil)
May, 8

Chairman: Hanna Poperechna, Oleh Pitsun

11:00 – 11:10	Network Visualization of Criminal Co-offending Patterns Using GPT-4: Analysis of Social Connections in Organized Crime <i>Olha Kovalchuk, Serhiy Banakh, Nadiya Khoma, Sofiia Chudyk, Mariia Masonkova and Solomia Savrii</i>
11:10 – 11:20	Real-time method of detection wood defects using YOLOv8 model <i>Vitalii Tkachuk, Sava Kostyuk, Olga Pavlova, Vitalii Alekseiko, Mariia Kostyuk</i>
11:20 – 11:30	Establishing Patterns of the Urban Transport Flows on Clustering Analysis <i>Vitaliy Pavlyshyn, Oleksander Ryzhanskyi, Eduard Manziuk, Pavlo Radiuk, Oleksander Barmak and Iurii Krak</i>
11:30 – 11:40	Application of Machine Learning for Water Pollution Monitoring <i>Leonid Bytsyura, Lesia Dubchak, Maksym Palka and Nazar Vivchar</i>
11:40 – 11:50	Fuzzy Compliance Risk Monitoring System <i>Nadiia Vasylykiv, Mykhailo Luchko, Oleh Boberskyi and Mykhailo Khliboyko</i>
11:50 – 12:00	AI-Driven Traffic Signal Control System to Reduce CO2 Emissions <i>Oleksander Ryzhanskyi, Vitaliy Pavlyshyn, Pavlo Radiuk, Eduard Manziuk, Oleksander Barmak and Iurii Krak</i>
12:00 – 12:10	Intelligent Sensor Data Processing Algorithm for Mobile Robot Stabilization <i>Dmytro Panchak and Vasyl Koval</i>
12:10 – 12:20	A Framework Model for Evaluating Smart City Implementation Through the Lens of Sustainable Development <i>Ruslan Shevchuk, Larysa Khokhlova, Nadiia Dzhugla, Vladyslav Paiuk, Olha Kovalchuk and Anhelina Banakh</i>
12:20 – 12:30	Assessment of the Potential and Forecasting by Carbon Sequestration in Agricultural Crops Using Artificial Intelligence <i>Ivan Senyk, Olena Borysiak, Yurii Semenenko, Kateryna Pryshliak, Nina Petrukha and Olena Pavlova</i>
12:30 – 12:40	Review of GIS Architecture for Environmental Monitoring: from Standalone Monoliths to AI-Ready Systems <i>Vasyl Faifura, Volodymyr Manzhula, Andriy Tsiaputa and Mykola Striletskyi</i>
12:40 – 12:50	Development and Evaluation of an Adaptive Routing Algorithm for C2C Logistics

	<i>Danylo Kovalenko and Iryna Zamrii</i>
12:50 – 13:00	Can Artificial Intelligence help to identify privacy paradox: case of CBDC <i>Viktor Koziuk, Nataliia Dziubanovska and Ivan Tsegelnyy</i>
13:00 – 13:30	Coffee Break
13:30 – 13:40	Concept of an Adaptive IoT Platform for Smart Cities <i>Ivan Tsiupa, Oleksandr Osolinskyi, Oleh Makara, Dmytro Diih, Andriy Semeshkin</i>
13:40 – 13:50	Modeling the Biogas Production Process in Biogas Plants Using Regression Analysis <i>Mykola Dyvak, Maksym Pasichnyk, Andriy Melnyk, Nataliia Petryshyn, Artur Rot and Roman Pasichnyk</i>
13:50 – 14:00	Context-Based Higher-Order Relation-Aware Denoising GNN for Recommendations <i>Haijun Liu</i>
14:00 – 14:10	Application of Machine Learning and Recommendation Systems for Analyzing User Sentiments on Social Media and Identifying Socially Significant Topics <i>Mykola Brych, Lesia Brych, Zoriana Dvulit, Tetiana Helzhynska and Oleksandra Hotra</i>
14:10 – 14:20	Analysis and Comparison of Modern CNN Architectures for Wood Defect Detection <i>Semen Kovalskyi, Vasyl Koval</i>
14:20 – 14:30	Analysis of key parameters for choosing a kind of sport based on human morphofunctional indicators using statistical and machine learning methods <i>Olga Pavlova, Vitalii Alekseiko, Valeriia Shvaiko, Nikita Vusatyi and Houda El Bouhissi</i>
14:30 – 14:40	Modeling Vegetation Index Dynamics in GIS Based on Remote Observations <i>Roman Pasichnyk, Ludmila Babala, Mykhaylo Machulyak and Yurii Yakymenko</i>
15:00 – 15:20	Summary of the first day of the workshop (audience 1209)
Session 2 (Skomorokhy) May, 9	
Chairman: Hanna Poperechna, Oleh Pitsun	
10:00 – 10:10	Web-Oriented Application for Student Attendance Accounting with a Module for Automatic Parsing of Class Schedules <i>Yurii Huk, Libor Dostalek, Jan Owedyk, Hamlet Harutyunyan and Andriy Yushko</i>
10:10 – 10:20	NetTimeFormer: An Easily Deployable Network Traffic Prediction Model

	<i>Licheng Zhou</i>
10:20 – 10:30	Improving the quality of biomedical images using neural networks <i>Petro Liashchynskyi, Vadym Fayerchuk, Bohdan Halunka, Vadym Nadvynychnyy, Liudmyla Savanets</i>
10:30 – 10:40	Method for Determining the Sentiment of Foreign News about Ukraine <i>Khrystyna Lipianina-Honcharenko, Ihor Ihnatiev, Gena Boguta, Tetiana Drakokhrust and Mykola Telka</i>
10:40 – 10:50	Emotion-Based Voice Control for IoT: Enhancing Smart Device Interaction with Speech Emotion Classification <i>Ihor Shevhuk, Iryna Dumyn</i>
10:50 – 11:00	Intelligent Methods and Means of Supporting User-System Interaction Based on its Pattern Analysis <i>Myroslav Komar, Vladyslav Poidych, Viktor Fedorovych, Tetiana Nadvynychna , Vadym Vitenko</i>
11:00 – 11:10	Adaptive Influence Diffusion Graph Neural Networks for Recommendation <i>Zhiyong Hu, Tao Shang</i>
11:10 – 11:20	Online information system for monitoring the state of water and soil resources in the region <i>Vasyl Morokhovych, Olexander Levchuk, Bohdan Morokhovych, Valentyn Riabinchak and Vasylyna Leheta</i>
11:20 – 11:30	Prospects for using artificial intelligence in interpreting the study of student's values <i>Anatolii V. Furman, Anatolii A. Furman, Oksana Furman, Arsen Lypka</i>
11:40 – 11:50	Comparative analysis of the value-semantic sphere of Ukrainian volunteers using AI <i>Oleh Pitsun, Yaroslav Dyky, Maria Lysyk, Anastasiia Sobchak, Hanna Poperechna and Olena Konoplitska</i>
11:50 – 12:00	<i>Analysis of state register data to identify anomalies and corruption threats in tenders and procurements</i> <i>Kyrylo Chorny, Galina Shilo and Anastasiia Lebedieva-Dychko</i>
12:00 – 12:10	The role of digital influence in the transformation of human capital in the agrosphere <i>Olena Ptashchenko, Fedir Tkachyk, Bohdana Shuliuk, Ihor Krysovaty, and Kateryna Korsunova</i>
12:10 – 12:20	Automatic Generation of Test Tasks Using ChatGPT API <i>Andriy Melnyk, Vasyl Tymchyshyn, Andriy Pukas, Liubomyr Matiichuk, Iurii Shcherbiak, Tetiana Yurchyshyn and Tiande Pan</i>

Close ceremony
Room 1

12:30 – 13:00	Hanna Poperechna – Head of scientific society of WUNU students, postgraduates, doctoral students and young scientists Oleh Pitsun - secretary of scientific society of WUNU students, postgraduates, doctoral students and young scientists
An invitation to a buffet	

INTERNATIONAL PROGRAM COMMITTEE

Honorary Chairmen

Oksana Desyatnyuk – Rector of West Ukrainian National University (Ukraine)

Andriy Krysovaty – Chairman of the Academic Council of WUNU (Ukraine)

Mykola Dyvak – Vice-Rector for Scientific Research, WUNU, Ukraine

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