Programme of the 5th International Workshop on Intelligent Information Technologies & Systems of Information Security (IntelITSIS-2024)

Khmelnytskyi, Ukraine, March 28, 2024

Time regarding the Kyiv

Countries which represent authors	Time in countries regarding the time of Ukraine
United States of America	- 6
United Kingdom	- 2
Poland	- 1
Czech Republic	- 1
Slovakia	- 1
Austria	- 1
Algeria	- 1
Serbia	- 1
Egypt	The same
Lithuania	The same
Estonia	The same

IMPORTANT!!! All Ukrainian participants of Workshop should be connected to all sessions from shelters in order to ensure uninterrupted work during air alarms! We will not stop the Workshop's sessions in case of an air alarm!

All workshop participants should have a backup connection option (charged mobile phone with a connected mobile internet) to ensure uninterrupted operation in case of emergencies – power outages, etc.

Timetable of the Workshop

Time (Kyiv)	March 28th 2024
9.30	**Welcome & Plenary Session**
9.45	Section Session 1 Intelligent Information Technologies
11.45	Coffee Break
12.00	Section Session 1 Intelligent Information Technologies
13.45	Coffee Break
14.00	Section Session 2 Systems of Information Security
17.15	Coffee Break
17.30	**Awards and Close Ceremony**

Presentation timing:
Session presentations – 10 minutes + 5 minutes Q&A **(15 minutes for 1 speaker!)**.

Testing of Connection:
March 28th, 2024, 09.15-09.30 (9.15 AM – 09.30 AM), Kyiv time

Zoom links:

Plenary session	**https://us02web.zoom.us/j/89579767497?pwd=bWFFYThQbm1VSlM3SVdnRDNOampBZz09** Meeting ID: 895 7976 7497 Password: 123456
Session 1 Intelligent Information Technologies	**https://us02web.zoom.us/j/89579767497?pwd=bWFFYThQbm1VSlM3SVdnRDNOampBZz09** Meeting ID: 895 7976 7497 Password: 123456
Session 2 Systems of Information Security	**https://us02web.zoom.us/j/89579767497?pwd=bWFFYThQbm1VSlM3SVdnRDNOampBZz09** Meeting ID: 895 7976 7497 Password: 123456

Plenary Sessions' Schedule

Plenary sessions	Invited presentations
Welcome & Plenary Session **March 28th 2024** **09.30-09.45** Moderators: Tetiana Hovorushchenko, Sergii Lysenko	**09.30-09.40** *Greetings from the IntelITSIS Organizers:* **Tetiana Hovorushchenko**, Khmelnytskyi National University, Ukraine (General Chair of the Workshop) **Oleg Syniuk**, Vice-Rector of Khmelnytskyi National University, Ukraine **Sergii Lysenko**, Khmelnytskyi National University, Ukraine (International Program Committee Chair) **Yelyzaveta Hnatchuk**, Khmelnytskyi National University, Ukraine (Organizing Committee Chair) **09.40-09.45** *Trends of the IntelITSIS-2024* **Tetiana Hovorushchenko**, Khmelnytskyi National University, Ukraine
Awards and Close Ceremony **March 28th 2024** **17.30-17.45** Moderators: Tetiana Hovorushchenko, Sergii Lysenko	**17.30-17.45** *Awards and Close Ceremony*

Section Sessions' Schedule

Section Sessions	Presentations
Section Session 1 Intelligent Information Technologies **March 28th 2024** 09.45-11.45 Moderators: **Tetiana Hovorushchenko**, Yelyzaveta Hnatchuk, Olga Pavlova	Eugene Fedorov, Olga Nechyporenko, Oleg Grygor and Maryna Leshchenko *Creation of Supply Chain Management Methods Based on Multi-Agent Systems and Metaheuristics*
	Sergii Babichev, Maksym Korobchynskyi, Myhailo Rudenko and Hanna Batenko *Applying Biclustering Technique and Gene Ontology Analysis for Gene Expression Data Processing*
	Vira Liubchenko *Machine Learning Techniques for Predicting Software Code Properties Using Design Metrics*
	Oleksandr Romanyuk and Yevhen Zavalniuk *Deep Learning-Based Determination of Optimal Triangles Number of Graphic Object's Polygonal Model*
	Bohdan Kovalskyi, Myroslava Dubnevych, Tetyana Holubnyk, Lyudmyla Mayik and Zoryana Selmenska *The information technology for the formation of high-quality visual content of newspaper publications*
	Tetiana Hovorushchenko, Yurii Voichur, Dmytro Medzatyi, Artem Boyarchuk and Alina Hnatchuk *Method for Determining the Security Level of Software*
	Oleksandr Tymchenko, Bohdana Havrysh, Orest Khamula, Bohdan Kovalskyi and Igor Bagniuk *Informationally-technological provision of environmental nature reserves monitoring*
	Tetiana Tereshchenko, Olena Khytra, Yelyzaveta Hnatchuk, Alina Hnatchuk and Houda El Bouhissi *Decision support system for assessing the economic development potential of a territorial community*
Section Session 1 Intelligent Information Technologies **March 28th 2024** 12.00-13.45 Moderators: Tetiana Hovorushchenko, Yelyzaveta Hnatchuk, **Olga Pavlova**	Vitaliy Pavlyshyn, Eduard Manziuk, Olexander Barmak, Iurii Krak, Robertas Damasevicius *Modeling Environment Intelligent Transport System for Eco-Friendly Urban Mobility*
	Olexander Ryzhanskyi, Eduard Manziuk, Olexander Barmak, Iurii Krak, Nebojsa Bacanin *An Approach to Optimizing CO2 Emissions in Traffic Control via Reinforcement Learning*
	Liudmyla Gryzun, Olexiy Lytovchenko *Predicting COVID-19 incidences based on machine learning*

	Volodymyr Kysil, Peter T. Popov, Olga Drachuk, Valentyna Hnenna and Inna Martyniuk *Concept of Information Technology for Diagnosis and Prognosis of Glaucoma Based on Machine Learning Methods* Serhiy Balovsyak, Olga Kroitor, Khrystyna Odaiska, Abdel-Badeeh M. Salem and Serhii Stets *Car Image Recognition using Convolutional Neural Network with EfficientNet Architecture* Olga Pavlova, Ivan Rudyk and Houda EL Bouhissi *Post-processing of video surveillance systems alarm signals using the YOLOv8 neural network* Tetiana Hovorushchenko, Oleg Voichur, Olha Hovorushchenko, Artem Boyarchuk and Iryna Zasornova *The Concept of Information Technology for Ensuring Accessibility to Art Objects for the Visually Impaired Persons*
Section Session 2 Systems of Information Security **March 28th 2024** **14.00-17.15** Moderators: Oleh Savenko, **Sergii Lysenko**, Andrii Nicheporuk	Vasyl Yatskiv, Elena Nyemkova, Serhii Kulyna, Halyna Kulyna and Stepan Ivasiev *Data Encryption Method Based on the Redundant Residue Number System* Viacheslav Kovtun and Oksana Kovtun *Service-Oriented Model for Handling mMTC Subscribers' Traffic in a 5G Cluster* Liubomyr Sikora, Nataliia Lysa , Olga Fedevych and Yurii Lysyi *Decision-making logic in operational emergency situations for hierarchical systems management* Mykola Stetsyuk, Viktor Cheshun, Yuriy Stetsyuk, Oleksandr Kozelskiy and Abdel-Badeeh M. Salem *A model of a DDoS attack scenario on elements of specialized information technology and methods of combating cybercriminals* Dmytro Denysiuk, Tomas Sochor, Mariia Kapustian, Antonina Kashtalian and Oleh Savenko *Methods for Detecting Software Implants in Corporate Networks* Artem Kachur, Sergii Lysenko, Oleh Bodnaruk and Piotr Gaj *Methods of improving security and resilience of VR systems' architecture* Volodymyr Sabat, Lyubomyr Sikora, Bohdan Durniak, Vitalii Matsiuk and Pavlo Hibey *Methods for assessing the risk of an emergency in the security system for the information complex of printing enterprises* Sergii Lysenko, Oleksandr Bokhonko, Volodymyr Vorobiyov and Piotr Gaj *Method for identifying cyberattacks based on the use of social engineering over the phone*

	Volodymyr Sabat, Bohdan Durniak, Myroslava Kulynych, Olena Havrylyshyn and Pavlo Hibey *Using semantic analysis of document text in building risk models in the threats system* Yevheniy Sierhieiev, Vadym Paiuk, Anatoliy Sachenko, Andrii Nicheporuk, , Andrzej Kwiecien *A graph-based vulnerability detection method* Olena Veprytska, Vyacheslav Kharchenko *Analysis of AI powered attacks and protection of UAV assets: quality model-based assessing cybersecurity of mobile system for demining* Serhii Danchuk, Olena Geidarova, Andrii Nicheporuk, Andrzej Kwiecien *Method of detecting cyberattacks on communication channels based on spectral clustering and machine learning methods* Pavlo Rehida, Oleg Savenko, Anatoliy Sachenko, Andriy Drozd, Petro Vizhevski *A trust model that ensures the correctness of computing in grid computing system*