Official Language: English
Duration of oral presentation: 15 min
Duration of plenary presentation: 30 min

IEEE UKRAINE SECTION

26.09.2023

OPENING CEREMONY
ZOOM meeting link
Topic: OPENING CEREMONY AND PLENARY SESSION Time: Sep 26, 2023 10:00 AM Kyiv Join Zoom Meeting https://us02web.zoom.us/j/87595087184?pwd=QjBIS1Q3MFZxSVZvd00xdGNVeHpNUT09 Meeting ID: 875 9508 7184 Passcode: 071961
(10:00 – 10:30)
Vitaliy Kukharskyy Vice-Rector for Research, Teaching and IT-Development
Serhiy Velhosh Conference Chairman

PLENARY SESSION
ZOOM meeting link (same as Opening Ceremony)
(10:30 – 12:30)

Bohdan Pavlyshenko	Analysis of Disinformation and Fake News Detection Using Fine-Tuned Large Language Model
William Longhurst	Application of a Partitioned Nonlinear Controller for Crane Lifting Operations in Manufacturing
Fedir Abramov	Vector Ant Algorithm

BREAK TIME
(12:30 – 14:00)

SESSION 1 "Computational Intelligence"
ZOOM meeting link

Topic: SESSION 1
Time: Sep 26, 2023 02:00 PM Kyiv
Join Zoom Meeting
https://us02web.zoom.us/j/89758480809?pwd=UGNMbUNNVlJValMyVjNTNE16dDU3Zz09
Meeting ID: 897 5848 0809
Passcode: 207862

(14:00 – 17:00)

	Presenter	Title
14:00 – 14:20	Gennady Chuiko	Attribute Selection, Outliers Impact Study, and Visualization within Breast Cancer Detection
14:20 – 14:40	Oleh Vietrov	Machine Learning Methods for Predicting Parkinson's Disease Progression
14:40 – 15:00	Oleh Vietrov	Real-time Classification, Localization and Tracking System (Based on Rhythmic Gymnastics)
15:00 – 15:20	Yuriy Korchak	Features of Using the Prophet Package for Forecasting the Local Weather Situation

15:20 – 15:40	Roman Mysiuk	Detection of Surface Defects Inside Concrete Pipelines Using Trained Model on JetRacer Kit
15:40 – 16:00	Yurii Bezkorovainyi	Application of Neural Networks for Processing Information in Redundant Rate Gyroscopes
16:00 – 16:20	Yuriy Golovaty	Optimization Problems on Complex Networks: Method of Gravitational Potentials
16:20 – 16:40	Yuriy Golovaty	SIR Models on Complex Networks and Impact of Vaccination
16:40 – 17:00	Mykhailo Moroz	Optimizing Neural Network Wavefunctions Using Variational Monte Carlo with Evolution Strategies

SESSION 2 "Computer Science"

ZOOM meeting link

Topic: SESSION 2
Time: Sep 26, 2023 02:00 PM Kyiv
Join Zoom Meeting
https://us02web.zoom.us/j/86853966283?pwd=R2JrcjdNRDM0WFdZOUFaYjdNVzdCZz09
Meeting ID: 868 5396 6283
Passcode: 579479

(14:00 – 16:20)

	Presenter	Title
14:00 – 14:20	Oleksii Holubnychyi	Gaussian Mixture Model Based Machine Learning Approach for Detection of Threat Types in Communication Networks
14:20 – 14:40	Ivan Ursul	Unsupervised Detection of Anomalous Running Patterns Using Cluster Analysis
14:40 – 15:00	Dmytro Myronyuk	Nvidia Jetson NanoPlatform Using for Accelerating Image Recognition
15:00 – 15:20	Saeed Mian Qaisar	Machine Learning Assistive State of Charge Estimation of Li-Ion Battery

15:20 – 15:40	Saeed Mian Qaisar	Hybradization of Emperical Mode Decomposition and Machine Learning for Categorization of Cardiac Diseases
15:40 – 16:00	Ahed Alboody	Artificial Intelligence Assistive Fire Detection and Seeing the Invisible Through Smoke using Hyperspectral and Multi-spectral Images
16:00 – 16:20	Yaroslav Marchuk	Performance Analysis of Database Access: A Comparison of direct connection, ORM, REST API and GraphQL Approaches

27.09.2023

SESSION 3 "Computational Intelligence"

ZOOM meeting link

Topic: SESSION 3
Time: Sep 27, 2023 10:00 AM Kyiv
Join Zoom Meeting
https://us02web.zoom.us/j/83917284619?pwd=b3RnUk9JUFUwUW5JTUNYTUd5eGpDQT09
Meeting ID: 839 1728 4619
Passcode: 345223

(10:00 – 13:00)

	Presenter	Title
10:00 – 10:20	Serhiy Sveleba	Influence of the Input Array on the Learning Error of a Multilayer Neural Network
10:20 – 10:40	Serhiy Sveleba	Influence of Sampling Parameters on the Learning Error of a Multilayer Neural Network
10:40 – 11:00	Fedir Abramov	Increasing the Efficiency of Robot Swarm Navigation with the Help of Virtual Pheromone Direction Labels
11:00 – 11:20	Oleh Zanevych	Novel Genetic Algorithm with Enhanced Gene Correction for Optimal Class Scheduling in Higher Education Institutions
11:20 – 11:40	Vasyl Mandziy	Processing Sensor Signal Under Low Values of Signal to Noise Ratio
11:40 – 12:00	Iryna Mysiuk	Automating Web Scraping of User Comments for Sentiment Analysis in Social Networks
12:00 – 12:20	Nadiia Petrenko	Crowdfunding in Ukraine: Problems and Prospects for the Development of an Alternative Way of Financing Science

12:20 – 12:40	Liudmyla Koliechkina	Modeling of Bank Performance Indicators Based on Business Intelligence and Data Analysis
12:40 – 13:00	Anastasiia Shenderova	Modeling the Dynamics of the EU Stock Indices Based on the Analysis of Structural Market Data

SESSION 4 "Computer Science"

ZOOM meeting link

Topic: SESSION 4
Time: Sep 27, 2023 10:00 AM Kyiv
Join Zoom Meeting
https://us02web.zoom.us/j/88065482381?pwd=TnlkSlJ6ZWZmVUovbTJLUW0vc0pBQT09
Meeting ID: 880 6548 2381
Passcode: 760275

(10:00 – 12:40)

	Presenter	Title
10:00 – 10:20	Mykola Stasiuk	Augmentation in a Binary Text Classification Task
10:20 – 10:40	Artem Kazarian	Development of a Virtual Cloud-Based Traffic Rules Learning Simulator Using Spherical Video Streams
10:40 – 11:00	Volodymyr Franiv	Investigation into the Efficiency of Specific Databases for Tracking Purposes in Scope of IT Startup
11:00 – 11:20	Oleh Sinkevych	Comparative Study of ABC and GWO Implementations on Raspberry Pi 3
11:20 – 11:40	Yurii Opotyak	Implementation of Base Components of Neuro-like Cryptographic Data Protection Systems on FPGA
11:40 – 12:00	Oleh Chaplia	An Approach for Automated Code Deployment between Multiple Node.js Microservices
12:00 – 12:20	Nazar Karpiuk	Identity Verification and Detection System Through Facial Recognition Technology

12:20 – 12:40	Markiian Tsymbalista	Approaching Quantum Utility by Leveraging Quantum Software Stack

BREAK TIME
(13:00 – 14:00)

SESSION 5 "Computational Intelligence"
ZOOM meeting link

Topic: SESSION 5
Time: Sep 27, 2023 02:00 PM Kyiv
Join Zoom Meeting
https://us02web.zoom.us/j/87211210924?pwd=YURIQ3p1L1ltbklxL1NqOW93SzZhQT09
Meeting ID: 872 1121 0924
Passcode: 039149

(14:00 – 17:20)

	Presenter	Title
14:00 – 14:20	Olena Domanska	Density-Based Outlier Detection: A Supervised Approach Based on Virtual Points
14:20 – 14:40	Oleh Buhrii	Continuous Time Neural Networks
14:40 – 15:00	Ivan Izonin	Modification of Combined Unsupervised-Supervised Cascade Scheme for Small Biomedical Data Classification
15:00 – 15:20	Oksana Boyko	Intelligent Expert Systems Application for Structuring Educational Materials to Enhance the Quality of Learning Outcomes
15:20 – 15:40	Anatolii Kargin	Goal-Driving Control as a Base Model of the Feeling Artificial Intelligence

16:00 – 16:20	Oleksandr Terletskyi	Development of a Ray Tracing Framework for Simulating Acoustic Waves Propagation Enhanced by Neural Networks
16:20 – 16:40	Ostap Hrytsyshyn	Smoothed Particle Hydrodynamics. Implementation Using Compute Shaders
16:40 – 17:00	Roman Karpiuk	Machine Learning as One of the Highly Effective Methods of Reducing the Load on CSOC's Analysts
17:00 – 17:20	Mariia Lyashkevych	Risks' Attribute Values Evaluation in Software Engineering by Monte Carlo Simulation

SESSION 6 " Micro- & Nanotechnology"
ZOOM meeting link

Topic: SESSION 6
Time: Sep 27, 2023 02:00 PM Kyiv
Join Zoom Meeting
https://us02web.zoom.us/j/81956791164?pwd=aXlEcG5UN0NCdmNpVXdjWWpLcS8yZz09
Meeting ID: 819 5679 1164
Passcode: 423720

(14:00 – 17:40)

	Presenter	Title
14:00 – 14:20	Mykola Kukurudzyak	Study of the Morphology of Macroporous Silicon Obtained by Metal-Assisted Etching Using Chromium
14:20 – 14:40	Mykola Kukurudzyak	Degradation of Silicon Resistivity During Thermal Operations in p-i-n Photodiodes Technology
14:40 – 15:00	Mykola Kukurudzyak	Defect Formation on the Surface of Silicon Substrates After Various Technological Operations
15:00 – 15:20	Iryna Yaremchuk	Sensors Sensitive Element for Refractive Index Measuring based on Dielectric Grating on a Metal Substrate
15:20 – 15:40	Yana Suchikova	Porous Layers as a Buffer for Synthesizing CdO/por-CdS/CdS Heterostructures

15:40 – 16:00	Andrii Korotun	Optical Resonances and Enhancement of the Electric Fields in the Gap Between Two Spherical Metallic Nanoparticles
16:00 – 16:20	Eduard Lysenkov	Influence of Preparation Conditions on Structure and Properties of Nanocomposites Based on Polyethylene Oxide and Clay Nanoparticles
16:20 – 16:40	Yana Suchikova	Structural Features of porous-GaAs and its Potential in Heterostructural Buffer Layers
16:40 – 17:00	Yana Suchikova	Optimization of CdxTeyOz Synthesis Modes by the SILAR Method
17:00 – 17:20	Yuriy Tymkiv	Modeling of Ion Transfer Processes in CsPbBr3 Crystals
17:20 – 17:40	Yuriy Kostiv	Enhanced Nanostructure Evolution in Functional Spinel Ceramics Through Additional Phases

28.09.2023

SESSION 7 "Geoscience and Remote Sensing, Signal Processing, Electron Device "

ZOOM meeting link

Topic: SESSION 7
Time: Sep 28, 2023 10:00 AM Kyiv
Join Zoom Meeting
https://us02web.zoom.us/j/88370622570?pwd=cHNVZjViMW4yNkhFTmtaVXJpdXlwZz09
Meeting ID: 883 7062 2570
Passcode: 894080

(10:00 – 13:00)

	Presenter	Title
10:00 – 10:20	Ivan Ostroumov	Pitch and Heading Angles Estimation by Airplane Trajectory Data Available in ADS-B
10:20 – 10:40	Ivan Ostroumov	Performance Analysis of Compact Position Report for Geodata Storing and Transfering
10:40 – 11:00	Semen Zhyla	Algorithm for Selecting a Surface Model for Remote Sensing of Earth's Surfaces
11:00 – 11:20	Semen Zhyla	Analysis of Brightness Temperature Models for Describing Surfaces by Passive Remote Sensing Methods
11:20 – 11:40	Yaryna Kokovska	Application of Geoinformation Technologies for Modeling the Movement of Water in the River Network of the Selected Area
11:40 – 12:00	Oleksii Horiachev	Noise-immune Transfer of Decimal Data with Protection Based on Permutations
12:00 – 12:20	Roman Yuzefovych	Analysis of the Periodically Non-stationary Structure for Modulated Vibration Signal

12:20 – 13:00	Arkadiy Prodeus	The Accuracy of Speech Transmission Index Estimation under Conditions of Joint Action of Noise and Reverberation

BREAK TIME
(13:00 – 14:00)

SESSION 8 "Geoscience and Remote Sensing, Signal Processing, Electron Device "

ZOOM meeting link

Topic; SESSION 8
Time: Sep 28, 2023 02:00 PM Kyiv
Join Zoom Meeting
https://us02web.zoom.us/j/83058782449?pwd=U2Nic3l0aW9HWXFFUDRhcGFheHdCUT09
Meeting ID: 830 5878 2449
Passcode: 106657

(14:00 – 16:40)

	Presenter	Title
14:00 – 14:20	Andriy Fesiuk	Impact of Parameters on the Efficiency of Keypoints Detection and Description
14:20 – 14:40	Leonid Muravsky	Identification of Internal Planar Square Defects in Composite Panels Using Optoacoustic Technique
14:40 – 15:00	Volodymyr Sokolov	Bluetooth Low-Energy Beacon Resistance to Jamming Attack
15:00 – 15:20	Oleksandr Andreiev	Measuring Complex for Determination of Temperature Characteristics of Thermistors
15:20 – 15:40	Tetiana Ryzhenko	Development and Certification of ECG-pulsometric Devic

16:00 – 16:20	Vitalii Budnyk	Development of 9-channel Magnetocardiograph CARDIOMOX MCG-9
16:20 – 16:40	Vitalii Budnyk	Software development for Magnetocardiograph CARDIOMOX MCG-9