IDAACS'2021 Conference Timetable*

Wednesday, September 22, 2021				
16:00 – 16:30	**Opening** Chair: George Markowsky			
16:30 – 17:15	Room **A** **Plenary Session W1** **Antonio Luque "Monitoring of microfluidic systems for biomedical applications"** Chair: Kurosh Madani			
17:15 – 17:30	**Coffee Break**			
17:30 – 19:00	Room **A** **Session WA1:** 2. Advanced Instrumentation and Data Acquisition Systems Chair: Theodore Laopoulos	Room **B** **Session WB1:** 27. Special Stream in Quantum Computing Co-Chairs: Anatoliy Melnyk, Avah Banerjee	Room **C** **Session WC1:** 7. Data Analysis and Modeling Chair: Piotr Milczarski	Room **D** **Session WD1:** 23. Special Stream in Intelligent Robotics and Sensors Co-Chairs: Roman Kuc, Yuriy Kondratenko

*CET time zone

Thursday, September 23, 2021				
8:00 – 9:30	Room **A** **Session TA1:** 17. Special Stream in 5G Networks Technologies and Security Co-Chairs: Sergiy Gnatyuk, Roman Odarchenko, Maksim Iavich, Razvan Bocu	Room **B** **Session TB1:** 20. Special Stream in Cyber Security Co-Chairs: Igor Kotenko, Oleksandr Letychevskyi	Room **C** **Session TC1:** 14. Internet of Things Chair: Piotr Bilski	Room **D** **Session TD1:** 24. Special Stream in Intelligent Software Systems and Tools Co-Chairs: Tetiana Hovorushchenko, Lukasz Scislo
9:30 – 9:45	**Coffee Break**			
9:45 – 11:15	Room **A** **Session TA2:** 10. Information Computing Systems for Education and Commercial Applications Chair: Agata Manolova	Room **B** **Session TB2:** 12. Intelligent Information Systems, Data Mining and Ontology Chair: Sergii Lysenko	Room **C** **Session TC2:** 18. Special Stream in Advanced Automatic Control and Information Technology Co-chairs: Janusz Goldasz, Sergii Telenyk	Room **D** **Session TD2:** 25. Special Stream in Machine Learning Co-Chairs: Yevgeniy Bodyanskiy, Eduard Petlenkov
11:15 – 11:30	**Coffee Break**			
11:30 – 12:30	**Poster session TP1** Co-Chairs: Krzysztof Tomczyk, Igor Galelyuka			
12:30 – 13:30	**Lunch**			

	Room **A** **Session TA3:** 3. Advanced Mathematical Methods for Data Acquisition and Computing Systems Chair: Nataliia Kussul	Room **B** **Session TB3:** 8/9. High Performance and Embedded Systems Co-Chairs: Robert Hiromoto, Vadym Mukhin	Room **C** **Session TC3:** 22. Special Stream in Human-Computer Interaction Co-Chairs: Peter Arras, Jürgen Sieck, Galyna Tabunshchyk	Room **D** **Session TD3:** 26. Special Stream in Project Management Co-Chairs: Carsten Wolf, Sergey Bushuyev
13:30 – 15:00				
15:00 – 16:00	**Poster session TP2** Co-Chairs: Pierre Fiorini, Arūnas Lipnickas			
16:00 – 16:15	**Coffee Break**			
16:15 – 17:00	Room **A** **Plenary Session T1** **Szymon Lukasik "Nature-inspired Metaheuristics in Unsupervised Learning"** Chair: Zbigniew Kokosinski			

Friday, September 24, 2021				
	Room **A** **Session FA1**: 30. 4th Workshop on Cyber Physical Systems and IoT Dependability and Resilience (CyberIoT 2021) Co-Chairs: Vyacheslav Kharchenko, Andrzej Rucinski	Room **B** **Session FB1:** 28. Special Stream in Smart Buildings and Smart Cities Co-Chairs: Grigore Stamatescu, Ioana Fagarasan	Room **C** **Session FC1:** 7. Data Analysis and Modeling Chair: Miki Sirola	Room **D** **Session FD1:** 15. Pattern Recognition, Digital Image and Signal Processing Chair: John Kalomiros
8:00 – 9:30				
9:30 – 9:45	**Coffee Break**			
9:45 – 11:15	Room A **Session FA2:** 6. Computer Systems for Healthcare and Medicine Chair: Kondo Hloindo Adjallah	Room **B** **Session FB2:** 20. Special Stream in Cyber Security Co-Chairs: Igor Kotenko, Yuriy Lakh	Room C **Session FC2:** 29. Special Stream in Wireless Systems Co-Chairs: Uwe Grossmann, Kai-Oliver Detken	Room D **Session FD2:** 15. Pattern Recognition, Digital Image and Signal Processing Co-Chairs: Linas Svilainis, Iurii Krak
11:15 – 11:30	**Coffee Break**			
11:30 – 12:30	**Poster session FP** Co-Chairs: Ivo Draganov, Oleksandra Yeremenko			
12:30 – 13:30	**Lunch**			

	Room **A** **Session FA3:** 21. Special Stream in Design and Testing of Advanced Computer Systems Co-Chairs: Miroslav Kvassay, Vladimir Hahanov	Room **B** **Session FB3:** 5. Computational Intelligence for Instrumentation and Data Acquisition Systems Chair: Dan Popescu	Room **C** **Session FC3:** 19. Special Stream in Big Data Co-Chairs: Natalya Shakhovska, Thierry Oscar Edoh
13:30 – 15:00			
15:00 – 15:15	**Coffee Break**		
15:15 – 16:30	**Round Table and Closing Ceremony** Co-Chairs: George Markowsky, Anatoliy Sachenko, Zbigniew Kokosinski		

Wednesday, September 22, 2021

16:00 – 16:30
Opening
Room **A**
Chair: George Markowsky

16:30 – 17:15
Room **A**   **Plenary Session W1**
Antonio Luque "Monitoring of microfluidic systems for biomedical applications"
Chair: Kurosh Madani

17:15 – 17:30
Coffee Break

17:30 – 19:00
Session WA1: 2. Advanced Instrumentation and Data Acquisition Systems
        Room: **A**
Chair: Theodore Laopoulos
1. #63. Resource Tradeoff Analysis of Plant Physiological Status Sensor with Cloud Connectivity. Linas Svilainis, Zilvinas Nakutis, Paulius Tervydis, Andrius Chaziachmetovas and Arturas Aleksandrovas.
2. #102. Quality Assurance and Control of Steel Blade Production Using Full Non-Contact Frequency Response Analysis and 3D Laser Doppler Scanning Vibrometry System. Lukasz Scislo.
3. #29. Aerosol in the Upper Atmosphere of the Earth Study. Petro Nevodovskyi, Anatoliy Vid'machenko, Orest Ivakhiv, Olexsandr Zbrutskyi, Mykhaylo Geraimchuk and Yurii Hirniak.
4. #269. Development of CCTV-camera-based system for detection of anomalous behaviors in penitentiary institutions. Piotr Bilski, Andrzej Buchowicz, Konrad Jędrzejewski, Marcin Lewandowski and Paweł Mazurek.

5. #209. IoT-enabled Smart Energy Metering Solution with Soft-UPS for Developing Countries. Mahnoor Aftab, Muhammad Adeel Pasha, Aamna Nasir Hameed, Ali Samiq, Muhammad Bilal Shah, Nauman Zaffar, Amrut Dant and Axel Sikora.

17:30 – 19:00 PM
Session WB1: 27. Special Stream in Quantum Computing
    Room: **B**
Co-Chairs: Anatoliy Melnyk, Avah Banerjee
1. #69. DMQC Project: Design Technologies, Implementation, and Research of the Properties of a Digital Multi-Qubit Coprocessor. Anatoliy Melnyk and Valerii Hlukhov.
2. #79. Digital Qubits for Based on FPGA Homogenous Quantum Coprocessor. Valeriy Hlukhov.
3. #252. Passive Eavesdropping Attack of Several Intruders on Deterministic Protocol with Pairs of Entangled Qubits. Yevhen Vasiliu, Tetiana Okhrimenko, Andriy Fesenko and Sergiy Dorozhynskyy.
4. #229. Hybrid (Classic-Quantum) Neural Networks for Image Classification. Yevhenii Trochun, Sergii Stirenko, Oleksandr Rokovyi, Oleg Alienin and Yuri Gordienko.
5. Discrete Quantum Walks on Non-abelian Cayley Graphs (invited talk). Avah Banerjee.

17:30 – 19:00 PM
Session WC1: 7. Data Analysis and Modeling
    Room: **C**
Chair: Piotr Milczarski
1. #1. Multilevel Flow Model of an Espresso machine. Miki Sirola and Harald Thunem.
2. #66. Lattice-Based Technique to Visualize and Compare Regional Terrorism Using the Global Terrorism Database. Linda Markowsky and George Markowsky.
3. #89. Modelling of Plaszow WWTP on the basis of BSM1 model. Pawel Krol, Tadeusz Uhl and Alberto Gallin.
4. #138. The Testing Mechanism for Software and Services Based on Mike Cohn's Testing Pyramid Modification. Vadym Mukhin,

Yaroslav Kornaga, Yurii Bazaka, Ievgen Krylov, Andrii Barabash, Alla Yakovleva and Oleg Mukhin.
5. #197. Finite element analysis of a magnetocell for MR elastomers. Zuzanna Mielnik and Denys Gutenko.

17:30 – 19:00
Session WD1: 23. Special Stream in Intelligent Robotics and Sensors
    Room: **D**
Co-Chairs: Roman Kuc, Yuriy Kondratenko
1. #169. RGB-D Sensors Extrinsic Calibration In Known Environment. Krasimir Tonchev, Agata Manolova, Nikolay Neshov and Vladimir Poulkov.
2. #99. Artificial neural network architecture models human perception. Roman Kuc.
3. #133. Comprehensive Approach to Optimization of Linguistic Terms: Application to Fuzzy Control System of a Quadrotor Drone. Oleksiy Kozlov, Yuriy Kondratenko and Oleksandr Skakodub.
4. #135. Development of an intelligent robotic system for plasma processing of industrial products with complex shape. Alexander Krasavin, Assel Kussaiyn-Murat, Darya Alontseva, Albina Kadyroldina, Alexandr Khozhanov, Iurii Krak and Patricia Muñoz de Escalona.
5. #150. Soil Moisture Estimation based on the RSSI of RFID Modules. Roberta Avanzato, Francesco Beritelli, Giacomo Capizzi, Christian Napoli and Corrado Rametta.
6. #291. Issues of intelligent data acquisition and quality for manufacturing decision-support in an industry 4.0 context. Tangxiao Yuan, Kondo H. Adjallah, Alexandre Sava, Huifen Wang and Linyan Liu

Thursday, September 23, 2021

8:00 – 9:30
Session TA1: 17. Special Stream in 5G Networks Technologies and Security
    Room: **A**

Co-Chairs: Sergiy Gnatyuk, Roman Odarchenko, Maksim Iavich, Razvan Bocu

1. #110. Research and development of Quality of Service (QoS) methods based on Software-Defined Networks in 5G/IMT-2020. Behrooz Daneshmand.
2. #255. Permutation-Based Frame Synchronisation Method.Emil Faure, Anatoly Shcherba and Bohdan Stupka.
3. #263. Analysis of Anomaly Detection and Identification Methods in 5G Traffic. Tamara Radivilova, Lyudmyla Kirichenko, Oleksandr Lemeshko, Dmytro Ageyev, Oksana Mulesa and Andrii Ilkov.
4. #125. Simulated Test Laboratory for 5G Test Patterns. Maksim Iavich, Sergiy Gnatyuk, Roman Odarchenko, Giorgi Iashvili and Sergei Simonov.
5. #202. Intrusion Detection System for 5G. Maksim Iavich, Giorgi Iashvili, Razvan Bocu, Roman Odarchenko and Sergiy Gnatyuk.
6. #9. 7-GHz Measurement System for in-situ Space/Material Channel Characterisation. Tanbir Bakth Nabil, Per Ängskog and Jose Chilo.
7. #278. Optimal Feature Selection for Deep Learning-Based Anomaly Detection in 5G. Taras Maksymyuk, Nazarii Lutsiv, Bohdan Shubyn, Mykola Beshley, Longzhe Han and Juraj Gazda.

8:00 – 9:30
Session TB1: 14. Special Stream in Cyber Security
    Room: **B**
Co-Chairs: Igor Kotenko, Oleksandr Letychevskyi

1. #33. A SIEM Architecture for Multidimensional Anomaly Detection. Kai-Oliver Detken, Tim Laue and Carsten Kleiner.
2. #45. Predicting the Mental State of the Social Network Users based on the Latent Dirichlet Allocation and fast Text. Igor Kotenko, Yash Sharma and Alexander Branitskiy.
3. #70. Visualization of Data Cubes for Anomaly Detection in Network Traffic Data Streams. Volker Ahlers, Tim Laue, Nils Wellermann and Felix Heine.
4. #15. Approach for DNS Tunneling Botnet Detection. Bohdan Savenko, Sergii Lysenko, Kira Bobrovnikova, Oleg Savenko and George Markowsky.
5. #49. Modern Fake Detection Algorithms in Scope of Information Warfare. Yevhenii Shtefaniuk and Ivan Opirskyy.

8:00 – 9:30
Session TC1: 14. Internet of Things
        Room: **C**
Chair: Piotr Bilski
1. #10. IoT Aroma Sensor Module to Determine Beverage Alcohol Grade. Jorge Javier Mendoza Montoya, Germán Torregrosa Penalva, Ernesto Àvila Navarro, Kevin Huanca Zea, Javier Alvaro Rivera Suaña and Jose Chilo.
2. #191. Ontological-based ABAC and Blockchain Organizational Cooperation Framework for Security Management in AmI environment. Lamri Manel, Sabri Lyazid and Boubetra Abdelhak.
3. #239. Real-Time Patient Ailment Monitoring Framework Collaborating Enhanced CNN Architectures. Yeaminur Rahman, Rezwana Mahfuza, Md. Abdul Hai, Rafsan Shartaj Uddin and Muhammad Iqbal Hossain.
4. #17. Development of equipment monitoring system with use of Digital Twins and IoT technologies. Vyacheslav Kharchenko, Olga Morozova and Yaroslav Abarnikov.
5. #262. Lov Asawa and Karpagavalli Subramanian. Neural Network Based Intelligent Traffic System. Saathvik B. M., Vinayak Gupta, Ayush Kedia, Lov Asawa and Karpagavalli Subramanian.

8:00 – 9:30
Session TD1: 24. Special Stream in Intelligent Software Systems and Tools
        Room: **D**
Co-Chairs: Tetiana Hovorushchenko, Lukasz Scislo
1. #43. A Toolkit for Modeling and Simulation of Dynamic Virtual Machine Consolidation Approach. Eduard Zharikov, Sergii Telenyk and Yevhenii Serdiuk.
2. #77. OMEx-DriveTrain: An Open, Modular Experimental Platform for the Electric Powertrain. Daniel Fruhner, Robert Kleinert, Carsten Wolff, Friedbert Pautzke, Heinrich Zöllner, Shubhangi Sisodiya and Vipul Shrikant Deshpande.
3. #120. Agglomerative Clustering of Data Collected by Honeypots. Antonina Kashtalian, Oleg Savenko and Anatoliy Sachenko.

4. #129. Intelligent Multi-Agent System for Improving the Quality of Software by Taking into Account the Information of the Subject Area at All Stages of Its Development. Ivan Lopatto, Tetiana Hovorushchenko, Peter Popov and Olga Pavlova.
5. #167. Search of the Deviation from the Natural Process Using Stepanets Approach for Classification of Functions. Oleg Chertov, Ivan Zhuk and Anatolii Serdyuk.
6. #179. The Approach for IoT Malware Detection Based on Opcodes Sequences Pattern Mining. Dmytro Denysiuk, Kira Bobrovnikova, Sergii Lysenko, Oleg Savenko, Piotr Gaj, Roman Havryliuk and Yaroslav Boichuk.
7. #206. PER-COVID (PEople pRoximity based on Certified and coOperative VIDeo-intelligence): A Software Tool for Physical Distancing and PPE Monitoring. Michele Russo, Roberta Avanzato and Francesco Beritelli.

9:30 – 9:45
Coffee Break

9:45 – 11:15
Session TA2: 10. Information Computing Systems for Education and Commercial Applications
    Room: **A**
Chair: Agata Manolova
1. #38. Information Technology for Adaptive Semantic Testing of Knowledge Level of Educational Materials. Olexander Mazurets, Olexander Barmak, Iurii Krak, Maryna Molchanova and Olena Sobko.
2. #97. A Natural Language Processing Tool to Support the Electronic Invoicing Process in Italy. Luigi Di Puglia Pugliese, Francesca Guerriero, Giusy Macrina and Enza Messina.
3. #126. Development of recommendation system in e-commerce using emotional analysis and machine learning methods. Oleksandr Dluhopolskyi, Taras Mykhalchuk, Tetiana Zatonatska, Alina Zhukovska, Tetiana Dluhopolska and Larysa Liakhovych.
4. #273. Intelligent Method of Predicting the Discount Rate Trend. Viktor Koziuk and Hrystyna Lipyanina-Goncharenko

5. #71. Automation of scheduling training sessions in educational institutions using genetic algorithms. Evgenii Fedkin, Natalya Denissova, Iurii Krak and Irina Dyomina.

9:45 – 11:15
Session TB2: 12. Intelligent Information Systems, Data Mining and Ontology
        Room: **B**
Chair: Sergii Lysenko
1. #183. Indentifying the Behaviors of an Industrial Plant: Application to Industry 4.0. Dylan Molinie, Kurosh Madani and Corentin Amarger.
2. #13. Data Mining to Achieve Quality of Life for Home Automation Users. Myroslav Zadoian, Yulii Horichenko, Artem Tulenkov and Anzhelika Parkhomenko.
3. #155. Modeling datasets in distributed monitoring systems. Yana Bekeneva.
4. #205. Construction and Performance Analysis of a Groomed Polarity Lexicon Derived from Product Review Source Datasets. Derek Colley and Md Asaduzzaman.
5. #221. Estimation of key bifurcation zones in the information and analytical system of geotechnical monitoring. Nikolay Dorofeev, Ekaterina Pankina and Maxim Goryachev.
6. #241. NILM application for Real Time monitoring of appliances energy consumption. Krzysztof Dowalla, Piotr Bilski, Robert Łukaszewski, Augustyn Wójcik and Ryszard Kowalik.
7. #83. Automatic Deforestation Detection based on the Deep Learning in Ukraine. Leonid Shumilo, Mykola Lavreniuk, Nataliia Kussul and Bella Shevchuk.

9:45 – 11:15
Session TC2: 12. Special Stream in Advanced Automatic Control and Information Technology
        Room: **C**
Co-chairs: Janusz Goldasz, Sergii Telenyk

1. #131. 7 Level New Modified Cascade H Bridge Multilevel inverter with Modified PWM controlled technique. Shivinder Mehta and Vinod Puri.
2. #156. Online identification of magnetic flux in MR actuators. Janusz Goldasz.
3. #130. Efficient Floating-Point Square Root and Reciprocal Square Root Algorithms. Leonid Moroz, Volodymyr Samotyy, Mariusz Węgrzyn and Ulyana Dzelendzyak.
4. #185. Real-time human pose trajectory tracking – preliminary research. Adam Surówka.
5. #184. Exploiting VPN Bonding for Time Critical Video Transmission on Board Drone. Roberta Avanzato, Francesco Beritelli, Corrado Rametta and Michele Russo.

9:45 – 11:15
Session TD2: 19. Special Stream in Machine Learning
    Room: **D**
Co-Chairs: Yevgeniy Bodyanskiy, Eduard Petlenkov
1. #168. Deep Neural Network Models for the Recognition of Traffic Signs Defects. Amr M. Nagy and László Czúni.
2. #90. Manipulator's Control System with Application of the Machine Learning. Yuriy Kondratenko, Stanislav Sichevskyi, Galyna Kondratenko and Ievgen Sidenko.
3. #141. Data Augmentation using GAN for Sound based COVID 19 diagnosis. Nishant Yella and Bina Rajan.
4. #194. Machine Learning Methods in Energy Consumption Optimization Assessment in Food Processing Industry. Piotr Milczarski, Bartosz Zielinski, Artur Hłobaż, Zofia Stawska, Pawel Maslanka and Piotr Kosiński.
5. #258. Forecasting Day-Ahead Electricity Price with Artificial Neural Networks: a Comparison of Architectures. Milutin Pavicevic and Tomo Popovic.
6. #217. The Reduction of Fully Connected Neural Network Parameters Using the Pre-training Technique. Aliaksandr Kroshchanka and Vladimir Golovko.
7. Intelligent Solutions for Building Automation (invited talk). Eduard Petlenkov.

11:15 – 11:30
Coffee Break

11:30 – 12:30
Poster Session TP1
Co-Chairs: Krzysztof Tomczyk, Igor Galelyuka (to be confirmed)
Video-presentations*

1. #37. Automated measuring system for studying the temperature dependence of dielectric spectra of ferroelectrics. Alexander Molnar, David Gal, Henrietta Bán, Vitaly Gerasimov and Andriy Haysak.
2. *#55. Improvment of measurement systems for relative quality indicator by immitance parameters. Vasyl Yatsuk, Tetiana Bubela, Yevhen Pokhodylo and Volodymyr Zdeb.
3. *#109. Measuring Amplifier Based on Hamon Resistors and Dynamic Element Matching Technology. Mykhaylo Dorozhovets.
4. #172. Application of a Laser Total Station to Control the Shape of the Mirror Antenna Reflector. Igor Zelinskyi, Mykhaylo Palamar and Myroslava Yavorska.
5. *#215. Air Quality Sensor Data Collection and Analytics With IoT for an Apartment With Mechanical Ventilation. Lukasz Scislo and Nina Szczepanik-Scislo.
6. #139. A Band Selection Method for Hyperspectral Image Based on Binary Coded Hybrid Rice Optimization Algorithm. Zhiwei Ye, Shiqin Liu, Xinlu Zong and Zhe Shu.
7. *#210. A Super-resolution Method of Remote Sensing Image Using Transformers. Chongjun Ye and Lingyu Yan.
8. *#40. Multidimensional Neuro-fuzzy System and Fuzzy Coding for a Constant Length Facial Landmark Set Formation. Yevgeniy Bodyanskiy and Nonna Kulishova.
9. #86. Efficient ECG Analysis with High F1 Score and Low Computation Complexity. Andrii Yavorskyi, Bohdan Tyshchenko and Taras Panchenko.
10. #95. Generating and numbering permutations with the use of chaotic maps. Marcin Lawnik and Arkadiusz Banasik.
11. #117. An Approach to Scene Change Detection. Igor Bieda, Anton Kisil and Taras Panchenko.

23. #4. Research on face detection and face attribute recognition based on deep learning. Wendong Zhang, Sha Guan and Chunzhi Wang.
24. #14. The Methods and Means of Efficiency Increasing the Linear Optimization Problems Solving in Project Management. Sergii K. Chernov, Sergey D. Titov, Ludmila S. Chernova, Lubava S. Chernova, Diana Zahorodnia and Taras Lendiuk.
25. #219. Fault Detection Depends on Validated Model of Data Filtering Based RLS Algorithm for Box-Jenkins Systems. Nasar Aldian Shashoa.

12:30 – 13:30
Lunch

1:30 – 15:00
Session TA3: 3. Advanced Mathematical Methods for Data Acquisition and Computing Systems
    Room: **A**
Chair: Nataliia Kussul
1. #287. On Visualization of Regulatory and Evolutionary Processes Towards Climate Changes. Yury Kolokolov, Anna Monovskaya, Kondo Adjallah and Anatoly Sachenko
2. #84. Towards a Formal Verification of Seamless Cryptographic Rekeying in Real-Time Communication Systems. Heiko Bühler, Andrzej Zbrzezny, Agnieszka M. Zbrzezny, Andreas Walz and Axel Sikora.
3. #220. The estimate of informative parameters based on the neural network approach during monitoring of the geotechnical system. Nikolay Dorofeev, Ekaterina Pankina and Maxim Goryachev.
4. #180. Optimization of UAV-Femtocell Systems Positioning via Game Theory to Geolocate Mobile Terminals in a Post-Earthquake Scenario. Roberta Avanzato, Francesco Beritelli, Fabio Raciti and Enrica Spataro.
5. #226. Lanchester's Equations and Cyberwarfare. George Markowsky and Linda Markowsky.

13:30 – 15:00

Session TB3: 8/9. High Performance and Embedded Systems
    Room: **B**

Co-Chairs: Robert Hiromoto, Vadym Mukhin (to be confirmed)

1. #31. The Robin Soft-Core: A Paradigm for Studying VHDL and Computer Architecture. John Kalomiros and John Vourvoulakis.
2. #237. An Implantable Bipolar Active Charge Balancing Circuit with Six Adjustment Current levels for Facial Paralysis Patients. Ganesh Lakshmana Kumar Moganti, Naga Siva Praneeth Velagapudi and Siva Rama Krishna Vanjari.
3. #161. A low-complexity FPGA-based MPPT circuit for wide range light-energy harvesting. Konstantinos Kozalakis, Vasiliki Gogolou, Vasileios Konstantakos, Kostas Siozios, Stylianos Siskos and Theodore Laopoulos.
4. #52. Analyzing the busy period of the M/M/1 queue via order statistics and record values. Pierre Fiorini.
5. #119. A Load Factor and its Impact on the Performance of a Multicore System with Shared Memory. Dmytro Nedzelsky, Maryna Derkach, Inna Skarga-Bandurova, Larisa Shumova, Svitlana Safonova and Volodymyr Kardashuk.
6. #211. A CNN-based Audio Sensor for Rainfall Estimation: Implementation on Embedded Board. Michele Russo, Valerio Francesco Puglisi, Roberta Avanzato and Francesco Beritelli.
7. #285. Distributed diagnostics system for pump maintenance. Paweł Orkisz and Krzysztof Polak

13:30 – 15:00

Session TC3: 22. Special Stream in Human-Computer Interaction
    Room: **C**

Co-Chairs: Peter Arras, Jürgen Sieck, Galyna Tabunshchyk (to be confirmed)

1. #61. OrchestraBox: RFID Music Box for Musical Education at Schools. Andrey Borisov, Jürgen Sieck and Elisabeth Thielen.
2. #78. A Comparison of Kubernetes and Kubernetes-compatible platforms. Sergii Telenyk, Oleksii Sopov, Eduard Zharikov and Grzegorz Nowakowski.
3. #163. Implementation of the Language Processing Tools for the Digital Transformation of the University Ecosystem. Galyna

Tabunshchyk, Peter Arras, Daria Tabunshchyk, Sergy Subbotin and Yevhenii Shendrikov.
4. #65. Augmentation of Printed Content with Web-based Technologies. Sophie Schauer, Julien Letellier and Jürgen Sieck.
5. #230. Convolutional and Recurrent Neural Networks for Physical Action Forecasting by Brain-Computer Interface. Kostiantyn Kostiukevych, Sergii Stirenko, Nikita Gordienko, Oleksandr Rokovyi, Oleg Alienin and Yuri Gordienko.

13:30 – 15:00
Session TD3: 26. Special Stream in Project Management
    Room: **D**
Co-Chairs: Carsten Wolf, Sergey Bushuyev
1. #106. Agile-Transformation Organizational Development based on Portfolio Management. Sergey Bushuyev, Victoria Bushuieva, Svitlana Onyshchenko and Natalia Pavlova.
2. #289. Competences Management for the Digital Transformation: Development of an Assessment Method. Nargiza Mikhridinova, Carsten Wolff and Bassam Hussein.
3. #91. Models and Methods of Project Administration in 4P-environment. Nataliia Yehorchenkova, Oleksii Yehorchenkov, Yevheniia Kataieva, Serhii Mitsenko, Oleksandr Mohylnyi, Svitlana Odokienko and Nataliya Babina.
4. #137. Knowledge and trust nexus support the link among six-sigma and project success: A case of developing country. Asadullah, Wajid Shakeel Ahmad and Rao Aamir Ali Khan.
5. #290. Adaptive Management of Digitalization Projects for Efficiency Increasing. Michael Dombrowski, Zbyshek Dombrowski, Jacek Woloszyn, Anatoliy Sachenko, Oleg Sachenko and Inna Melnychuk.
6. #64. A Hybrid Method for Managing Agile Team in a Distributed Environment. Valentyn Domanskyi, Carsten Wolf, Anatoliy Sachenko, and Anna Badasian.

15:00 – 16:00
Poster Session TP2
Co-Chairs: Pierre Fiorini, Arūnas Lipnickas
Video-presentations*

1. *#104. Cost Efficient Audio Spectrum Analyzer: Design and Study. Yevheniia Zhyvaha, Halyna Klym and Roman Dunets.
2. #198. Silvia Munteanu, Viorica Sudacevschi, Victor Ababii, Olesea Borozan, Multi-Agent Decision Making System based on Membrane Computing. Constantin Ababii and Victor Lasco.
3. #204. A Personnel Rating Optimization Algorithm. Jianyu Yuan, Chunyan Yan and Zhiwei Ye.
4. #42. The Optimization of the Critical Resource Protection System of a Mineral Fertilizers Manufacturing Facility. Bogdan Korniyenko, Vladyslav Zabolotnyi and Liliya Galata.
5. #72. Ransomware prevention system design based on file symbolic linking honeypots. Danyil Zhuravchak, Valery Dudykevych, Taras Ustyianovych, Bogdan Vennyk and Khrystyna Ruda.
6. #76. Protection of biometric data transmission and storage in the human state remote monitoring tools. Anatoliy Melnyk, Yurii Morozov, Bohdan Havano and Petro Hupalo.
7. #115. Comment on "Particle Swarm Optimization Based Highly Nonlinear Substitution-Boxes Generation for Security Applications". Alexandr Kuznetsov and Kateryna Kuznetsova.
8. #111. Message concealing in vector images. Alexandr Kuznetsov and Anna Kononchenko.
9. #128. An Intrusion Detection Model Based on Improved Whale Optimization Algorithm and XGBoost. Ruicheng Li, Xinlu Zong and Zhiwei Ye.
10. #174. Performance Evaluation of the Classic McEliece Key Encapsulation Algorithm. Alexandr Kuznetsov, Maria Lutsenko and Mykhaylo Bagmut.
11. #164. Protective characteristics of films against laser system acoustic solutions on the example of a single-layer reflective coating of hafnium dioxide. Valerii Dudykevych, Nazarii Dzianyi, Ivan Opirskyy, Larysa Rakobovchuk and Petro Haraniuk.
12. #233. The hybrid research stand based LabView within IoT. Oleksandr Osolinskyi, Volodymyr Kochan, Liubomyr Kolodiichuk, Grygoriy Sapozhnyk and Agnieszka Molga.
13. #178. Generalized Approach to Modelling Architecture of Transaction Processing Information Systems. Kateryna Yalova and Kseniia Yashyna.

14. #181. An object-oriented architecture of the information system for solving the protein folding problem. Iryna Fefelova, Andrey A. Fefelov, Oleksii K. Tyshchenko and Volodymyr I. Lytvynenko.
15. #44. Customer intent prediction using sentiment analysis techniques. Say Hong Lye and Phoey Lee Teh.
16. *#212. Artificial Neural Networks in Export and Import Forecasting: An Analysis of Opportunities. Mykhailo Luchko, Nataliia Dziubanovska and Oksana Arzamasova.
17. #22. Improved Seagull Optimization Algorithm to Optimize Neural Networks with Gated Recurrent Units for Network Intrusion Detection. Sen Ma, Chunzhi Wang and Aijun Liu.
18. #54. Decision Support System for Efficient Energy Management of Hybrid Power Grid. Sergii Shendryk, Vira Shendryk, Yuliia Parfenenko, Oleksii Drozdenko and Sergii Tymchuk.
19. #145. Modeling an Intelligent Solar Power Plant Control System Using Colored Petri Nets. Aleksandr Gozhyj, Irina Kalinina, Vladyslav Nechakhin, Victor Gozhyi and Victoria Vysotska.
20. #248. Sentiment analysis of movie reviews based on RoBERTa and two-channel coding. Wang Feihong, Liu Gang, Hu Yanzhong and Wu Xinyun.
21. *#235. Biometric Identification via Oculomotor Based on the Volterra Model. Vitaliy Pavlenko, Tetyana Shamanina and Vladislav Chori.
22. *#148. Critical IT Infrastructure Resource Distribution Algorithm. Yaroslaw Dorogyy, Vasyl Tsurkan, Olena Doroha-Ivaniuk and Volodymyr Mokhor.
23. *#260. Modeling an Enhancement of Optical Effect of Nano sphere on Organic Light Emitting Diode. Chaya B M, Megha M, Namratha Shetty T. G. and Divya V.
24. #243. Path Planning Based on Improved Ant Colony Optimization in Congestion. Ying Ma, Zhiwei Ye and Yangyong Ou.

16:00 – 16:15
Coffee break

16:15 – 17:00
Room **A**   **Plenary Session T1**

Szymon Lukasik "Nature-inspired Metaheuristics in Unsupervised Learning"
Chair: Zbigniew Kokosinski

8:00 – 9:30

Session FA1: 30. 4th Workshop on Cyber Physical Systems and IoT Dependability and Resilience (CyberIoT 2021)

Room: **A**

Co-Chairs: Vyacheslav Kharchenko, Andrzej Rucinski (to be confirmed)

1. Big safety and global trusted dependability in time of Covid-19 pandemic (invited talk). Andrzej Rucinski.
2. #93. Automated Charge Control Method for Supercapacitors with Using of Relaxation Characteristics. Oleg Savenko, Valeriy Martynyuk, Fedula Mykola, Koretska Liudmyla and Denis Makaryshkin.
3. #277. Features of information support for safe maneuvering in different road conditions in an unmanned semi-trailer road train with a traffic control system. Oleksandr Piskachov and Maryna Kolisnyk.
4. #275. FPGA Project Verification Flow. Oleg Odarushchenko, Viktoriia Moskalets, Serhii Naumenko, Elena Odarushchenko, Larysa Degtyareva, Volodymyr Peschanenko and Oleksandr Letychevskyi.
5. #140. Optimal decomposition of control of distributed cyber-physical system. Volodymyr Dubovoi, Demian Sembrat and Mariia Yukhymchuk.
6. #279. Availability Assessment of a Cloud Server System: Comparing Markov and Semi-Markov Models. Oleg Ivanchenko.

8:00 – 9:30

Session FB1: 28. Special Stream in Smart Buildings and Smart Cities

Room: **B**

Co-Chairs: Grigore Stamatescu, Ioana Fagarasan (to be confirmed)

1. #80. Agile Systems Engineering in Complex Scenarios. Carsten Wolff, Philipp Tendyra and Carsten Wiecher.
2. #113. Building Occupancy Classification from Indirect Sensing with Heterogeneous Datasets. Georgiana Cretu, Iulia Stamatescu and Grigore Stamatescu.
3. #154. Smart Care in Smart Cities – Scenario Analysis for an Innovative Care Platform. Jelena Bleja, Lars Engelmann, Dominik Wiewelhove and Uwe Grossmann.

4. #207. Optimizing occupant actions to enhance his comfort while reducing energy demand in buildings. Boulmaiz Fateh, Amr Alyafi, Stephane Ploix and Patrick Reignier.
5. #272. General considerations about simulating energy communities. Mircea Stefan Simoiu, Ioana Fagarasan, Stephane Ploix, Vasile Calofir and Sergiu Stelian Iliescu.

8:00 – 9:30
Session FC1: 7. Data Analysis and Modeling
    Room: **C**
Chair: Miki Sirola
1. #200. Analyzing PPI Network of Malaria Genes using Markov Clustering Algorithms. Mamata Das, Pja Alphonse and Selvakumar Kamalanathan.
2. #242. Accurate Modelling of Temperature Sensors using the Polynomial Method. Krzysztof Tomczyk, Grzegorz Nowakowski and Bartłomiej Ligęza.
3. #256. Application of Machine Learning Methods in Carbon Footprint Optimization. Piotr Milczarski.
4. #30. A Modified Grasshopper Optimization Algorithm. Hui Xu, Man Gao, Jun Su and Lingyu Yan.
5. #118. Efficient Near-Optimal t-Closeness With Low Information Loss. Vikas Thammanna Gowda, Rajiv Bagai, Gerald Spilinek and Spandana Vitalapura.

8:00 – 9:30
Session FD1: 10. Pattern Recognition, Digital Image and Signal Processing
    Room: **D**
Chair: John Kalomiros
1. #143. CNN-based Tree Model Generation. László Czúni and Karim Ben Alaya.
2. #159. Gas Discrimination & Quantification using Sensor Array with 3D Convolution Regression Dual Network. Vishakha Pareek, Santanu Chaudhury and Sanjay Singh.

3. #94. FPGA Implementation of CORDIC Algorithms for Sine and Cosine Floating Point Calculations. Anatoliy Sergiyenko, Leonid Moroz, Volodymyr Samotyy and Lesya Mychuda.
4. #122. Vessels Detection Based on Neural Network with Application in Wood Recognition. Pavel Todorov and Nicole Christoff.
5. #127. Variational Model for the Restoration of Background Surface in Clouds Corrupted Satellite Optical Images. Peter Kogut, Pavel Khanenko and Mykola Uvarov.
6. #170. Semantic Segmentation of 3D Facial Models Using 2D Annotations. Krasimir Tonchev, Radostina Petkova, Nikolay Neshov and Agata Manolova.
7. #195. Abnormality Detection and Segmentation in Breast Digital Mammography Images Using Neural Network. Nixon Dutta and Basabi Chakraborty.

9:30 – 9:45
Coffee Break

9:45 – 11:15
Session FA2: 6. Computer Systems for Healthcare and Medicine
     Room: **A**
Chair: Kondo Hloindo Adjallah (to be confirmed)
1. #165. Development of sound identification system for domestic actions recognition. Artem Sazonov, Arūnas Lipnickas, Rytis Augustauskas, Anatolii Zhuchenko, Dmytro Kovaliuk and Anton Korotynskyi.
2. #157. Melanoma Detection using Two Neural Networks. A Comparison Study. Hakan Meva, Dan Popescu and Loretta Ichim.
3. #12. System Design of the Combined Action of Occupational Hazards on Human Health based on Neurocomperessor. Iryna Perova, Olena Litovchenko, Oleksandra Yeremenko, Igor Zavgorodnii, Nelia Miroshnychenko and Oleksandr Novytskyy.
4. #251. COVID-19 Lungs Assessment in Chest X-ray Images using Convolutional Neural Networks. Piotr Milczarski, Michał Beczkowski and Norbert Borowski.

5. *#48. An IoT-based Context-Aware Recommender System to Improve the Quality of Life of Elderly People. Areej Aldaghamin, Komal Shinde, Carsten Wolff, Iyad Tumar and Abdalkarim Awad.
6. AI-based approach for decision-making in Hybrid E-rehabilitation (invited talk). Oleksandr Palagin, Vitalii Velychko, Kyrylo Malakhov.

9:45 – 11:15
Session FB2: 14. Special Stream in Cyber Security
     Room: **B**
Co-Chairs: Igor Kotenko, Yuriy Lakh (to be confirmed)
1. #223. Analysis of Secure Routing Processes Using Traffic Engineering Model. Oleksandr Lemeshko, Oleksandra Yeremenko, Anastasiia Shapovalova, Maryna Yevdokymenko, Valentyn Lemeshko and Mykhailo Persikov.
2. #203. Applying an Improved DBSCAN Clustering Algorithm to Network Intrusion Detection. Hui Xu, Shunyu Yao, Lingyu Yan and Jun Su.
3. #100. Hiding Messages in Audio Files Using Direct Spread Spectrum. Alexandr Kuznetsov, Oleksii Smirnov, Alexander Onikiychuk and Olha Pieshkova.
4. #87. CPE and CVE based Technique for Software Security Risk Assessment. Roman Ushakov, Elena Doynikova, Evgenia Novikova and Igor Kotenko.
5. #214. Investigation of the Broken Authentication Vulnerability in WEB Applications. Yuriy Lakh, Elena Nyemkova, Andrian Piskozub and Viktor Yanishevskyi.

9:45 – 11:15
Session FC2: 23. Special Stream in Wireless Systems
     Room: **C**
Co-Chairs: Uwe Grossmann, Kai-Oliver Detken
1. #98. Extraction of Nonredundant Information from Sensor Networks. Zbigniew Kokosiński.
2. #176. Correction of the Uncertain Access Points Positions in Mines Using SLAM Approach. Dmitry Larionov, Oleg Lukashenko, Alex Moschevikin, Roman Voronov and Axel Sikora.

3. #136. WSN for Food Product Quality Control. Volodymyr Romanov, Igor Galelyuka and Oleksandr Voronenko.
4. #50. Path Selection Strategy for Network-Coded Cooperation with Decode-and--Forward Relay. Mokhtar Boteggui and Fatiha Merazka.

9:45 – 11:15
Session FD2: 15. Pattern Recognition, Digital Image and Signal Processing
        Room: **D**
Co-Chairs: Linas Svilainis, Iurii Krak
1. #28. A Workflow for Designing Video Processing Pipelines with PYNQ. John Kalomiros, John Vourvoulakis and Stavros Vologiannidis.
2. #7. Voxel Approach to the Shadow Formation Process in Image Analysis. Volodymyr Hnatushenko, Viktoriia Hnatushenko, Vita Kashtan, Oleksandr Reuta and Iryna Udovyk.
3. #82. 3D Adaptive SMCM Filtering of CT Images. Ivo Draganov and Rumen Mironov.
4. #36. Computer-aided Selection of the Optimal Gamma Correction Parameter for Image Enhancement in Video Analytics Systems. Oleksandr Golovin.
5. #32. Car engines diagnostics based on the evaluation of the mutual wavelet dependency. Adrian Nakonechnyi, Dmytro Horoshko and Rostyslav Nakonechnyi.
6. #75. Pixel-level Road Pavement Defects Segmentation Based on Various Loss Functions. Rytis Augustauskas and Arūnas Lipnickas.

11:15 – 11:30
Coffee Break

11:30 – 12:30
Poster Session FP
Co-Chairs: Ivo Draganov, Oleksandra Yeremenko (to be confirmed)
Video-presentations*

1. #151. Mathematical Model of the Basic Measuring Neuron in a Self-routing Analog-to-digital Converter. Anton Posyagin.
2. *#160. Extending the Multiphysics Modelling of Electric Machines in a Digital Twin Concept. Gabriel Dias Mendes and Ângela Ferreira.
3. #18. Application of deep neural networks for EEG signal processing in brain-controlled wheeled robotic platform. Ihor Mykytyn, Yuriy Khoma, Serhii Artemuk and Vitalii Brydinskyi.
4. #46. A Static and Dynamic Co-attention Network for Social Recommendation. Fan Bian and Lingyu Yan.
5. #142. Indoor Positioning Model Based on Support Vector Regression Optimized by the Sparrow Search Algorithm. Hua Li, Jun Su and Wufei Liu.
6. #144. A Feature Selection Method Based on Hybrid Natural Inspired Algorithms. Xiaoyu Xia, Zhiwei Ye, Shuang Sun and Ling Tang.
7. #162. A Hybrid Rice Optimization Algorithm with Ant System for Feature Selection. Zhiwei Ye, Zhe Shu and Shiqin Liu.
8. #182. Fault diagnosis of Communication Equipment gear based on deep learning. Yongjun Peng, Rui Guo, Anping Wan and Zhengbing Hu.
9. #236. Automated Defect Detection in Consumer Grade Knives using Active Planning. Keshav Kumar.
10. #238. Blockchain Model Testing and Implementation Based on Improved PBFT Consensus. Qianyu Zhang, June Su and Zhaohui Ma.
11. #228. On Geometric Properties of Adversarial Examples. Andrii Ivaniuk and Galyna Kriukova.
12. #19. Method of Selecting and Determining the Free Parameters of Swarm Intelligent Algorithms for Optimizing Solutions in GIS. Dmytro Uhryn, Vasyl Lytvyn and Taras Lendiuk.
13. *#246. An Artificial Intelligence Hearing Aid Based on Two-level Neural Network. Chun Liu and Chaoyang Zhao.
14. #26. Object-oriented models of high-speed electronic devices. Volodymyr Kudria, V. Sliusarenko and M Shulhin.
15. *#244. WiFi Indoor Location Method Based on RSSI. Xin Li, Zhongliang Deng, Fuxing Yang, Xinyu Zheng, Likai Zhang and Zheng Zhou.
16. *#213. Car Social Network: Contact a Driver Through the License Plate. Michele Russo, Giovanni Mirulla, Roberta Avanzato and Francesco Beritelli.

17.   *#149. Modeling of Multi-Core Power Consumption during Online Video Conference. Iryna Zhuravska and Kateryna Obukhova.
18.   #281. Rehabilitation According to the Biological Feedback. Aleksander Kurgaev and Oleksandr Palagin.
19.   #112. Fault Tolerance Computer System Structures Functioning in Residue Classes. Victor Krasnobayev, Alexandr Kuznetsov, Anastasiia Kiian and Kateryna Kuznetsova.
20.   #121. New Spreading Sequence Sets for Asynchronous CDMA. Alexandr Kuznetsov, Mykhaylo Bagmut and Tetiana Kuznetsova.
21.   *#92. The Wetland Map Validation for Ukraine. Andrii Shelestov, Hanna Yailymova, Bohdan Yailymov and Artem Chyrkov.
22.   *#114. A Discrete Missing Data Imputation Method Based on Improved Multi-layer Perceptron. Chunyan Yan, Jianyu Yuan, Zhiwei Ye and Zhiyong Yang.
23.   #177. Optimization Methods on the Wavelet Transformation Base for Technical Diagnostic Information Systems. Galina Shcherbakova, Viktor Krylov, Wan Qianqi, Anatoliy Sachenko, Pavlo Bykovyy, Diana Zahorodnia and Lukasz Kopania.
24.   #280. The Fault Tolerant Černý Finite State Machine: a Concept and VHDL Models. Vyacheslav Kharchenko, Herman Fesenko, Sergey Tyurin and Oleg Goncharovskij.
25.   #25. A Next Generation Data Language Proposal. Eugene Panferov.

12:30 – 13:30
Lunch

13:30 – 15:00
Session FA3: 25. Special Stream in Design and Testing of Advanced Computer Systems
     Room: **A**
Co-Chairs: Miroslav Kvassay, Vladimir Hahanov (to be confirmed)
1. #81. A Hybrid approach for the Mixed-Model Assembly Line Balancing problem Type-II. Lakhdar Belkharroubi and Khadidja Yahyaoui.

2. #16. Concept of Active Wireless Sensor Network in Checkability Aspect. Oleksandr Drozd, Anatoliy Sachenko, Volodymyr Kochan, Myroslav Drozd, Maciej Dobrowolski and Su Jun.
3. #105. Architecture of a Universal Monitoring System for Transport Infrastructure Facilities. Valery Myachin, Dmitry Efanov, German Osadchy, Igor Aganov and Valerii Khoroshev.
4. #245. Vector Simulation of Logic Faults Based on XOR-Relations. Vladimir Hahanov, Svetlana Chumachenko, Eugenia Litvinova and Hanna Khakhanova.
5. #270. Linear Fold and Tree Fold in Creation of Binary Decision Diagrams of Standard Benchmarks. Michal Mrena, Peter Sedlacek and Miroslav Kvassay.
6. #231. Particularities of Sync Monitoring in FPGA Components of Safety-Related Systems. Oleksandr Drozd, Anatoliy Sachenko, Robert Hiromoto, Kostiantyn Zashcholkin and Myroslav Drozd.
7. #208. FPGA implementation of interleaved modular multiplier with improved area-time efficiency. Radu-Mihai Coliban.
8. #286. Evolution of Models and Methods in the Field of Resilient Computing. Oleksandr Drozd, Adam Ustynowicz, Andrzej Rucinski, Anatoliy Sachenko and Julia Drozd.

13:30 – 17:00
Session FB3: 5. Computational Intelligence for Instrumentation and Data Acquisition Systems
     Room: **B**
Chair: Dan Popescu (to be confirmed)
1. Geospatial intelligence as a driver of digitalization (invited talk). Nataliia Kussul.
2. #188. A Simple Reinforcement Learning Algorithm for Stock Trading. Pierre Fiorini and Pierce-Gabriel Fiorini.
3. #158. Online Pattern Recognition of Time-series Gas Sensor data with Adaptive 2D-CNN Ensemble. Vishakha Pareek, Santanu Chaudhury and Sanjay Singh.
4. #186. The detection of inter-turn shorting in induction motor by means of using algorithm of decision tree. Maciej Sułowicz, Ryszard Mielnik and Marcin Tomczyk.
5. #171. Computational intelligence application to reproduce a map of surface deviations based on the results of remote measurements.

Mykhaylo Palamar, Myroslava Yavorska, Igor Zelinskyy and Mykhaylo Strembitskyi.

13:30 – 15:00
Session FC3: 19. Special Stream in Big Data
Room: **C**
Co-Chairs: Natalya Shakhovska, Thierry Oscar Edoh
1. Big Data Infrastructure and Technologies for Data Science Projects Operationalisation (Stream Keynote). Yuri Demchenko.
2. #20. The method of text tonality classification. Natalya Shakhovska and Dmytro Koziy.
3. #250. Bloom Filter Based Graph Database CRUD Optimization for Stream Data. Alisettar Hüseynli and M. Ali Akcayol.
4. Big Data driven personalized medicine, How and Why this should be? (invited talk) Thierry Oscar Edoh.

15:00 – 15:15
Coffee break

15:15 – 16:30
Round Table and Closing Ceremony
Co-Chairs: George Markowsky, Anatoliy Sachenko, Zbigniew Kokosinski