

The 7th IEEE International Conference on
**Intelligent Data Acquisition and Advanced Computing
Systems:
Technology and Applications**
(IDAACS'2013)
September 12-14, 2013
Berlin, Germany

The IDAACS'2013 is organized by
Research Institute for Intelligent Computer Systems,
Ternopil National Economic University
and
V.M. Glushkov Institute of Cybernetics,
National Academy for Sciences of Ukraine
in cooperation with
University of Applied Sciences,
Hochschule für Technik und Wirtschaft (HTW) Berlin, Germany.

Conference Timetable

Wednesday, September 11, 2013 (HTW - Campus, Wilhelminenhof)				
5:00 PM	H(FKI) Entrance Area Registration			
7:00 PM	Welcoming Reception			
Thursday, September 12, 2013 (HTW - Campus, Wilhelminenhof)				
8:00 AM – 9:00 AM	H(FKI) Entrance Area Registration			
9:00 AM – 10:00 AM	Room A (H001) Opening			
10:00 AM – 11:00 AM	Room A (H001) Plenary Session T1 Hermann Heßling The Challenge of Managing and Analysing Big Data			
11:00 AM – 11:20 AM	G Foyer Coffee Break			
11:20 AM – 1:00 PM	Room A H001 Session TA1: Advanced Instrumentation and Data Acquisition Systems	Room B G007 Session TB1: Data Analysis and Modeling	Room C G008 Session TC1: Special Stream in Wireless Systems	Room D H106 Session TD1: Information Computing Systems for Education and Commercial Applications
1:00 PM – 2:00 PM	G Mensa - Cafeteria Lunch:			
2:00 PM – 3:00 PM	G Foyer Poster session TP – 1(6), 7(7), 10(3), 11(3), 12(4) – 23			
3:00 PM – 4:40 PM	Room A H001 Session TA2: Special Stream in Intelligent Robotics and Components	Room B G007 Session TB2: Pattern Recognition and Digital Image and Signal Processing	Room C G008 Session TC2: Special Stream in Project Management	Room D H106 Session TD2: Intelligent Information Systems, Data Mining and Ontology
4:40 PM – 5:00 PM	G Foyer Coffee Break			
5:00 PM – 8:00 PM	City Tour			

Friday, September 13, 2013
(HTW - Campus, Wilhelminenhof)

8:00 AM – 8:30 AM	H(FKI) Entrance Area Registration			
8:30 AM – 9:30 AM	Room A (H001) Plenary Session F1 Wolfgang Gentsch Paving the way to HPC as a Service – The UberCloud HPC Experiment			
9:30 AM – 11:10 AM	Room A H001 Session FA1: Advanced Instrumentation and Data Acquisition Systems	Room B G007 Session FB1: Special Stream in High Performance Computing	Room C G008 Session FC1: Special Stream in Cyber Security,	Room D H106 Session FD1: Special Stream in eLearning Management
11:10 AM – 11:30 AM	G Foyer Coffee Break			
11:30 AM – 1:10 PM	Room A H001 Session FA2: Special Stream in Advanced Information Technologies in Ecology	Room B G007 Session FB2: Data Analysis and Modeling	Room C G008 Session FC2: Special Stream in Wireless Systems	Room D H106 Session FD2: Intelligent Distributed Systems and Remote Control
1:10 PM – 2:10 PM	G Mensa - Cafeteria Lunch			
2:10 PM – 3:00 PM	G Foyer Poster Session FP 2(5), 5 (4), 6(8), 8(3), 9(4) – 24			
3:00 PM – 4:40 PM	Room A H001 Session FA3: Special Stream in Intelligent Robotics and Components	Room B G007 Session FB3: Pattern Recognition and Digital Image and Signal Processing	Room C G008 Session FC3: Special Stream in Project Management	Room D H106 Session FD3: Artificial Intelligence and Neural Networks for Advanced Data Acquisition and Computing Systems
4:40 PM – 5:00 PM	G Foyer Coffee Break			
7:00 PM- 10:00 PM	Conference Dinner			

Saturday, September 14, 2013
(HTW - Campus, Wilhelminenhof)

8:00 AM – 8:30 AM	H(FKI) Entrance Area Registration			
8:30 AM – 9:30 AM	Room A (H001) Plenary Session S1 Serge Demidenko Taming the Electronic Beast: New and Not-so-New Problems in Modern Semiconductor Testing			
9:30 AM – 11:10 AM	Room A H001 Session SA1: Advanced Instrumentation and Data Acquisition Systems	Room B G007 Session SB1: Special Stream in High Performance Computing	Room C G008 Session SC1: Special Stream in Cyber Security	Room D H106 Session SD1: Advanced Mathematical Methods for Data Acquisition, Diagnostics, and Networking
11:10 AM – 11:50 AM	G Foyer Coffee Break + Poster Session SP 3(2), 4(2), 13(3), 14(3), 15(8) – 18			
11:50 AM – 1:30 PM	Room A (H001) Round Table and Closing Ceremony			
1:30 PM – 2:30 PM	G Mensa - Cafeteria Lunch:			

Workshop Technical Program

Wednesday, September 11, 2013

HTW - Campus, Wilhelminenhof

5:00 PM **Registration:** H(FKI) Entrance Area

7:00 PM **Welcoming Reception**

Thursday, September 12, 2013

HTW - Campus, Wilhelminenhof

8:00 AM – 9:00 AM **Registration:** H(FKI) Entrance Area

Room A (H001)

9:00 AM – 10:00 AM **Opening**

10:00 AM – 11:00 AM **Hermann Heßling** – “The Challenge of Managing and Analysing Big Data”
Room A (H001)

11:00 AM – 11:20 AM **Coffee Break:** G Foyer

11:20 AM – 1:00 PM

Session TA1: Instrumentation and Data Acquisition Systems

Room: A H001

1. i13-073. ADC Non-linearity Correction Based on $INL(n)$ Approximation – experimental verification. *Petr Suchanek, Vladimir Haasz, David Slepicka*. Czech Republic.
2. i13-075. Measurement Time as a Limiting Factor for the Accurate Acquisition of Repeatable Waveforms. *He Yin, Mohammad Mani, Omar Sonbul, Alexander N. Kalashnikov*. United Kingdom.
3. i13-100. Methods of Electrical Appliances Identification in Systems Monitoring Electrical Energy Consumption. *Robert Łukaszewski, Krzysztof Liszewski, Wiesław Winiecki*. Poland.
4. i13-145. An Automated Measurement Bench for Vibration-based Energy Harvesting Systems. *Ioannis Kosmadakis, Vasileios Konstantakos, Theodore Laopoulos, Stylianos Siskos*. Greece.
5. i13-122. DAQ Systems for Smartphones and Tablets: Advanced Design Approach. *Sergey Y. Yurish, Javier Cañete*. Spain.

Session TB1: Data Analysis and Modeling

Room: **B G007**

1. i13-206. Adaptive Model of Fermentation Processes under Uncertainty Conditions. *Yuriy Pigovsky, Roman Pasichnyk, Su Jun, Pavlo Bykovyy*. Ukraine.
2. i13-096. Perspectives in Science. *Miki Sirola*. Finland, Espoo.
3. i13-163. Designing a Polynomial Regression Experiment at Researching Into Decision Rules of Signal Recognition by Modeling. *Alexey V. Fedorov, Anatoliy V. Omelchenko*. Ukraine.
4. i13-215. Improvement to Approaches to the Problem of Ethernet Networks Traffic Modeling. *Eugene A. Rozdimakha, Anatoliy V. Omelchenko, Alexey V. Fedorov*. Ukraine.
5. i13-224. Natural Development of the Resources in Design and Testing of the Computer Systems and Their Components. *Julia Drozd, Alexander Drozd, Svetlana Antoshchuk, Vyacheslav Kharchenko*. Ukraine.

Session TC1: Special Stream in Wireless Systems

Room: **C G008**

1. i13-117. Radio-Based Human Tracking for Large Indoor Environments using Distributed Centroid Location Estimation. *Andreas Fink, Helmut Beikirch*. Germany.
2. i13-065. Pedestrian Smartphone Based Localization for Large Indoor Areas. *Mircea Strutu, Daniel Caspari, Johannes Pickert, Uwe Grossmann, Dan Popescu*. Romania.
3. i13-151. The Impact of NLOS Components in Time-of-Flight Networks for Indoor Positioning Systems. *Alex Moschevikin, Alexandr Galov, Sergey Reginya, Alexander Volkov, Axel Sikora*. Russian Federation.
4. i13-139. Safe@Home – A Wireless Assistance System with Integrated IEEE 802.15.4a Localisation Technology. *Angela Lottis, Daniel Heß, Torben Bastert, Christof Röhrig*. Germany.
5. ? i13-269. Accelerated Learning in Machine Learning-based Resource Allocation Methods for Heterogenous Networks. *Jonathan R. Tefft, Nicholas J. Kirsch*. United States.

Session TD1: Information Computing Systems for Education and Commercial Applications

Room: **D H106**

1. i13-192. A Gesture Controlled Game for a Media Facade. *Uwe Gropengießer, Marcus Sellmann, Fokke Vermeulen, Michael Thiele-Maas, Jürgen Sieck*. Germany.
2. i13-321. Business Intelligence as a Service for Cloud-based Applications. *Volker Herwig*. Germany.

3. i13-217. Integration of a SocialMedia Platform into University Information Architecture. *Christian Neumann, Ontje Helmich, Michael Herzog*. Germany.
4. i13-293. Advanced Analytics Methods and Intelligent Applications in Education. *Vladimir Jotsov*. Bulgaria.
5. i13-240. The Problem of Data Persistency in Distributed Real-Time Interactive Applications. *Max Knemeyer, Alexander Ploss, Frank Glinka, Mohammed Nsaif, Sergei Gorlatch*. Germany.

1:00 PM – 2:00 PM **Lunch:** G Mensa - Cafeteria

2:00 PM – 3:00 PM **Poster Session TP:** G Foyer

1. Wireless Systems

1. i13-153. Wireless Sensor Network Based on Multilevel Femtocells for Home Monitoring. *Andrei Maciuca, Dan Popescu, Mircea Strutu, Grigore Stamatescu*. Romania.
2. i13-243. MICARES: Mote Expansion Module for Gas Sensing Applications. *Grigore Stamatescu, Dan Popescu and Valentin Sgârciu*. Romania.
3. i13-251. Packet Loss Concealment using Piggybacking for Speech over IP Network Services. *Fatiha Merazka*. Algeria.
4. i13-302. Using the Modified Correction Code Based on Residue Number System in WSN. *Vasyl Yatskiv, Nataliya Yatskiv, Su Jun, Anatoly Sachenko, Hu Zhengbing*. Ukraine.
5. i13-208. A Distributed Middleware for Applications of the Internet of Things. *Eileen Kühn, Matthias Prellwitz, Maurus Rohrer, Jürgen Sieck*. Germany.
6. i13-074. Adaptive Control Method of Network Data Flow for QoS Providing. *Olena Slavko*. Ukraine.

7. Advanced Instrumentation and Data Acquisition Systems

1. i13-222. Software VLBI correlator - Practical Approach. *Marcin Lawenda, Norbert Meyer, Jan Weglarz, Rafal Sarniak*. Poland.
2. i13-126. Qualitative and Quantitative Research on Pesticide Chemical Admixture in Liquids. *Maryna Mikhalieva, Mykola Mykyichuk, Tetiana Bubela, Taras Boyko, Olha Malyk*. Ukraine.
3. i13-170. Possibilities of Precision Ohmmeter Calibration in the Exploitation Condition. *Vasyl Yatsuk, Roman Yanovych, Yuriy Yatsuk, Volodymyr Zdeb*. Ukraine.
4. i13-175. Measurement of relative quality ratios using the immitance parameters. *Yevgen Pokhodylo, Stepan Ostapchak*. Ukraine.
5. i13-204. Method of Microprocessors Average Energy Consumption Measurements. *Oleksandr Osolinskiy, V. Kochan, O. Kochan*. Ukraine.
6. i13-106. Experimental Stress Assessment in Biomedical Measurement Class. *Ondřej Bruna, Jan Holub, Pavel Pačes*. Czech Republic.

7. i13-284. Modeling Of Alive Neural Network Memory As Glushkov Developing System Of Neuron Interaction By Differential Equation With Delay. *Valery Pisarenko, Alexandr Koval*. Ukraine.

10. Advanced Mathematical Methods for Data Acquisition, Diagnostics, and Networking

1. i13-116. Application of Lattice Neural Networks for Modeling of Stationary Physical Fields. *Nikolai Korsunov, Vladimir Mikhelev, Alexei Lomakin*. Russian Federation.
2. i13-232. Fuzzy Data Processing Method. *Lesia Dubchak, Nadiya Vasylykiv, Volodymyr Kochan, Andrij Lyapandra*. Ukraine.
3. i13-274. Neural Network Software Diagnosis System of Telemetry Data. *Valentin Ganchenko, Alexander Doudkin, Alexander Inyutin, Yauheni Marushko, Leonid Podenok, Rauf Sadykhov*. Belarus.

11. Pattern Recognition and Digital Image and Signal Processing

1. i13-212. Algorithm of Face Angle Estimation in the Image. *Igor Frolov, Rauf Sadykhov, Andrew Osipov*. Belarus.
2. i13-083. Distributed data acquisition and control system for an scaled autonomous vehicle. *Tilman Happek, Uwe Lang, Torben Bockmeier, Dimitrji Neubauer, Alexander Kuznietsov*. Germany.
3. i13-158. A novel 3D Face Recognition Algorithm in the Presence of Facial Expressions: An Approach Using Curvature-Based Representation and PCA and LDA. *Agata Manolova, Krasimir Tonchev*. Bulgaria.

12. Data Analysis and Modeling

1. i13-129. Developing Text and Speech Databases for Speech Recognition of Vietnamese. *Nguyen Thien Chuong, Josef Chaloupka*. Czech Republic.
2. i13-196. Adaptation of the Multi-Layer Allocation Problem for Warehouse Layout Optimization: a Case Study. *Giovanni Mirabelli, Teresa Pizzuti, Demetrio Laganà*. Italy.
3. i13-210 Interpolation Method of Nonlinear Dynamical Systems Identification Based on Volterra Model in Frequency Domain. *Vitaliy Pavlenko, Sergei Pavlenko, Viktor Speransky*. Ukraine.
4. i13-253. Computer Diagnosing the Control Object Emergency Conditions Using Cluster Analysis. *Nadiya Shyrmovska, Yaroslav Nykolaychuk, Arthur Voronych, T. Zavedyuk*. Ukraine.

3:00 PM – 4:40 PM

Session TA2: Special Stream in Intelligent Robotics and Components

Room: A H001

1. i13-150. Policy-based Self-configuration of Autonomous Systems Information Inputs. *Michal Podpora, Aleksandra Kawala-Janik, Mariusz Pelc*. United Kingdom.
2. i13-090. Common Framework Model for Multi-purpose Underwater Data Collection Devices Deployed with Remotely Operated Vehicles. *Mitruț Corneliu Caraivan, Valentin Dache, Valentin Sgarciu*. Romania.
3. i13-121. Artificial Curiosity Driven Autonomous Knowledge Discovery Based on Learning by Interaction. *Dominik Rmik, Christophe Sabourin, Kurosh Madani*. France.
4. i13-225. Slip Displacement Sensors For Intelligent Robots: Solutions and Models. *Yuriy P. Kondratenko, Leonid P. Klymenko, Volodymyr Y. Kondratenko, Galyna V. Kondratenko, Eduard A. Shvets*. Ukraine.
5. i13-239. A Multi-Agent Reinforcement Learning Approach for the Efficient Control of Mobile Robot. *Uladzimir Dziomin, Anton Kabysh, Vladimir Golovko, Ralf Stetter*. Belarus.

Session TB2: Pattern Recognition and Digital Image and Signal Processing

Room: **B G007**

1. i13-094. Addressing the Training Problem in Cellular Automata based Hyperspectral Image Segmentation. *Blanca Priego, Daniel Souto, Francisco Bellas, Richard Duro*. Spain.
2. i13-110. Optimization of a Scale-Invariant Feature Detector using Scale-Space Scans. *John A. Kalomiros*. Greece.
3. i13-203. Comparative Analysis of 3D Face Recognition Algorithms using Range Image and Curvature-Based Representations. *Krasimir Tonchev, Agata Manolova, Ihor Paliy*. Bulgaria.
4. i13-161. Implementation of an Inexpensive EEG Headset for the Pattern Recognition Purpose. *Aleksandra Kawala-Janik, Michal Podpora, Mariusz Pelc*. United Kingdom.
5. i13-159. Adaptive Trained Filters With SSIM Optimization and Pixel Value Truncation for Video Upscaling. *Zenoviy Veres, Adrian Nakonechny*. Ukraine.

Session TC2: Special Stream in Project Management

Room: **C G008**

1. i13-086. Innovation Management Processes for Academic Research. *Carsten Wolff, Burkhard Igel, Uwe Lauschner*. Germany.
2. i13-082. Sustainable Procurement Extending Project Procurement Concepts and Processes Based on PMBOK. *Omarlyn Ojeda, Peter Reusch*. Germany.
3. i13-119. Perception of Complexities in Development Projects. *Bassam A. Hussein, Pedro P. Silva, Giedre Pigagaite*. Norway.
4. i13-061. Recent Developments in Risk Management in Projects. *Wolfgang Tysiak*. Germany.

5. i13-098. How to Develop Lean Project Management? *Peter J.A. Reusch, Pascal Reusch*. Germany.

Session TD2: Intelligent Information Systems, Data Mining and Ontology

Room: **D H106**

1. i13-245. A Data Mining Approach to Reduce the Number of Maintenance Visits in the Medical Domain. *Markus Ullrich, Klaus ten Hagen, Jörg Lässig*. Germany.
2. i13-205. Data - Based Scheduling Production with Simulation and Optimization Methods. *Tadeusz Witkowski*. Poland.
3. i13-256. Decision Support System of Software Architect. *Alexandr Harchenko, Ihor Bodnarchuk, Iryna Halay*. Ukraine.
4. i13-108. An Online System for Neuroelectromagnetic Source Imaging. *Christof Pieloth, Jorge M. Pizarro, Thomas Knösche, Burkhard Maess, Mirco Fuchs*. Germany.
5. i13-237. The Program of Hepatorenal Syndrome at the Persons Abusing Alcohol Screening Carrying out. *Alexey Lagunov, Darina Lagunova, Irina Berdennikova*. Russian Federation.

4:40 PM – 5:00 PM **Coffee Break:** G Foyer

5:00 PM – 8:00 PM **City Tour**

Friday, September 13, 2013

HTW - Campus, Wilhelminenhof

8:00 AM – 8:30 AM **Registration:** H(FKI) Entrance Area

Room A (H001)

8:30 AM – 9:30 AM **Wolfgang Gentsch** - “Paving the way to HPC as a Service – The UberCloud HPC Experiment”

Room **A (H001)**

9:30 AM – 11:10 AM

Session FA1: Advanced Instrumentation and Data Acquisition Systems

Room: **A H001**

1. i13-069. An Autonomous Scale Ship Model for Towing Tank Testing. *Fernando Lopez Peña, Marcos Miguez Gonzalez, Alvaro Deibe, Daniel Pena, Felix Orjales*. Spain.
2. i13-107. Design and implementation of Virtual Security Appliances (VSA) for SME. *Kai-Oliver Detken, Marcel Jahnke, Henk Birkholz, Christoph Dwertmann*. Germany.
3. i13-064. A Low Latency and Accurate Procedure for Sine-Wave Frequency Estimation. *Daniel Belega, Dario Petri, Dominique Dallet*. Romania.
4. i13-133. Investigation of the Ultrasonic Transducer Suitability for Spread Spectrum Systems. *Linas Svilainis, Vytautas Dumbrava, Andrius Chaziachmetovas, Darius Kybartas, Valdas Eidukynas*. Lithuania.
5. i13-109. Computer Devices and Mobile Information Technology for Precision Farming. *Olexander Palagin, Volodymyr Romanov, Igor Galelyuka, O. Voronenko, Dmytro Artemenko, Oleksandra Kovyrova, Yevgeniya Sarakhan*. Ukraine.

Session FB1: Special Stream in High Performance Computing

Room: **B G007**

1. i13-103. A Novel Partitioning and Tracing Approach for Distributed Systems Based on Vector Clocks. *Robert Hoettger, Burkhard Igel, Erik Kamsties*. Germany.
2. i13-171. A Big Data File Transfer Tool for Tablet-Class Machines. *Tevaganthan Veluppillai, Brandon Ortiz, Robert E. Hiromoto*. United States.
3. i13-186. Partitioning and mapping a fast level-set algorithm on the GPU. *Julian Lamas-Rodriguez, Dora B. Heras, Francisco Argüello, Stefan Zachow, Dagmar Kainmueller*. Spain.
4. i13-211. Scaling of Parallel Multiple Sequence Alignment on the Supercomputer JUQUEEN. *Plamenka Borovska, Veska Gancheva, Soon-Heum Ko*. Bulgaria.
5. i13-037. Efficient Parallelization of Batch Pattern Training Algorithm on Many-core and Cluster Architectures. *Volodymyr Turchenko, G. Bosilca, A. Bouteiller, J. Dongarra*. United States.

Session FC1: Special Stream in Cyber Security

Room: **C G008**

1. i13-242. Strong Passwords: Practical Issues. *Keisuke Kato, Vitaly Klyuev*. Japan.
2. i13-207. Computer Attack Modeling and Security Evaluation based on Attack Graphs. *Igor Kotenko, Andrey Chechulin*. Russian Federation.
3. i13-228. A Novel Scheme for Privacy Preserving in RBAC. *Vladimir Oleshchuk*. Norway.
4. i13-314. Was the 2006 Debian SSL Debacle a System Accident? *George Markowsky*. United States.
5. i13-118. Concept of Parallel Code Refactoring System For Safety Standards Compliance. *Peter Jurnecka, Peter Hanáček, Matej Kačič*. Czech Republic.

Session FD1: Special Stream in eLearning Management

Room: **D H106**

1. i13-068. On the Scope and the Structure of E-learning Platforms at Universities. *Peter Reusch*. Germany.
2. i13-070. E-learning Concept for the Properties of Materials Remote Study. *Peter Arras, Galyna Tabunshchik, Tomáš Kozík*. Belgium.
3. i13-221. LeMo: a Learning Analytics Application Focussing on User Path Analysis and Interactive Visualization. *Albrecht Fortenbacher, Liane Beuster, Margarita Elkina, Leonard Kappe, Agathe Merceron, Andreas Pursian, Sebastian Schwarzrock, Boris Wenzlaff*. Germany.
4. i13-312. Maturity and Customer Centricity of “Knowledge Management Maturity Models” (KMMM). *Clemens Siegfanz*. Germany.
5. *i13-282. Massive Open Online Courses in Ukraine. *Vladimir Kukharenko*. Ukraine.

* remote talk

11:10 AM – 11:30 AM **Coffee Break: G Foyer**

11:30 AM – 1:10 PM

Session FA2: Special Stream in Advanced Information Technologies in Ecology

Room: **A H001**

1. i13-313. A Smart Control to Operate the Lighting System in the Road Tunnels. *Domenico Luca Carnì, Domenico Grimaldi, Francesco Lamonaca, Luigi Martirano, Giuseppe Parise*. Italy.
2. i13-162. New Paradigm for Lifecycle Data Collection for Eco-Management of Distributed Units of a Multi-Sources Renewable Energy System. *Kondo H. Adjallah, Zhouhang Wang, Maen Atli, Wenjie He*. France.
3. i13-091. Environmental Safety of Pulse Energy Conversion. *Yury Kolokolov, Anna Monovskaya*. Russian Federation.
4. i13-092. Computational Researches: Reasoning on Evolution of Technical and Biological Systems. *Yury Kolokolov, Anna Monovskaya*. Russian Federation.
5. i13-080. Multiagent Aerial Vehicles System for Ecological Monitoring. *Alexey A. Bobtsov, Alexandr S. Borgul*. Russian Federation.

Session FB2: Data Analysis and Modeling

Room: **B G007**

1. i13-244. Implementation of Search Mechanism for Implicit Dependences in Process Mining. *Olga Kalynychenko, Sergii Chalyi, Yevgeniy Bodyanskiy, Vira Golian, Nataliia Golian*. Ukraine.

2. i13-140. Using F - Test for the Indirect Detecting of the Autocorrelation of Random Observations. *Mykhaylo Dorozhovets*. Poland-Ukraine.
3. i13-311. Assigning Tolerances by Normalization Method. *Galina Shilo*. Ukraine.
4. i13-218. Wavelet Transform Domain Adaptive Clustering for Electronic Product Quality Inspection. *Galina Shcherbakova, Viktor Krylov, Radmila Pisarenko, Vadym Kuzmenko*. Ukraine.
5. i13-182. The Conditional Least Squares Method for Thermocouples Error Modeling. *Valeriy Yeromenko, Orest Kochan*. Ukraine.

Session FC2: Special Stream in Wireless Systems

Room: **C G008**

1. i13-250. Ad-hoc Media Facade. *Pavlo Ilin, Jürgen Sieck, Volodymyr Brovko*. Germany.
2. i13-268. Using Prior Measurements to Improve Probabilistic-based Indoor Localization Methods. *Ranita Bera, Nicholas J. Kirsch, and Tat S. Fu*. United States.
3. i13-079. Malware Injection in Wireless Networks. *Matej Kacic, Petr Hanacek, Martin Henzl, Peter Jurnecka*. Czech Republic.
4. i13-270. Machine-to-Machine Communication for Optimization of Information Chain in Agricultural Business. *Sebastian Gansemer, Uwe Grossmann, Bettina Horster, Thomas Horster-Möller, Christian Rusch*. Germany.
5. i13-078. GPRS and UMTS Services for Ultra Low Energy M2M-Communication. *Axel Sikora, Amalia Yunitasari, Martin Dold*. Germany.

Session FD2: Intelligent Distributed Systems and Remote Control

Room: **D H106**

1. i13-197. Interactive Media Facade Web Application with ClusterGL. *Andreas Buff, Thomas Gerlach, René Helbig, Toralf Kampe, Gyuzel Kasimova, Arend Müller, Markus Paeschke, Jürgen Sieck*. Germany.
2. i13-209. Precise Synchronization In Large Distributed Systems. *Vojtech Vigner, Jan Breue*. Czech Republic.
3. i13-213. Application Infrastructure Management System for Media Facades. *Stephan Bergemann, Jürgen Sieck*. Germany.
4. i13-067. Low Cost Ultrasonic Wireless Distributed Security System for Intrusion Detection. *Omar Sonbul, Alexander N. Kalashnikov*. Saudi Arabia.
5. i13-165. Decentralized Energy Equalizer for a Balancing Aggregation of Production and Consumption of Energy in Scalable Units. *Kilian Henneboehle, Nursi Karaoglan, Markus Kuller, Ingo Kunold*. Germany.

1:10 PM – 2:10 PM **Lunch:** G Mensa - Cafeteria

2:10 PM – 3:00 PM **Poster Session FP:** G Foyer
2. Project Management

1. i13-286. Knowledge Base as Informatization Project. *Sergey Rippa, Nataliia Kasatkina*. Ukraine.
2. i13-288. Prescription for Poland: Disruptive Innovative e-Health Ecosystem for Regenerative Medicine in Poland. *Miroslaw Miller, Andrzej Rucinski*. Poland.
3. i13-300. Model of Project Management Based on System Approach. *Zbyshek Dombrovsky, Oleg Sachenko*. Ukraine.
4. i13-141. O Impact of Organizational Factors on Information System Project. *Bassam Hussein, Kristin Hafsel*. Norway.
5. i13-298. Determination of Enterprise Value by Using the Fuzzy Pay-Off Method for Real Option Valuation. *Marian Turek, Adam Sojda*. Poland.

5. eLearning Management

1. i13-184. Simulation of Computer Adaptive Learning and Improved Algorithm of Pyramidal Testing. *Taras Lendyuk, Sergey Rippa, Svitlana Sachenko*. Ukraine.
2. i13-276. Web-Based Notation of Mathematical Text Preserving Semantics for Scientific and Educational Communication. *Anatolii Vovk, Denys Girnyk*. Ukraine.
3. i13-279. Web Analytics in e-Learning: Agent-based and Neural Network Approaches. *Viktor Artemenko*. Ukraine.
4. i13-281. Using of Social Networks in Educational Process. *Nataliya Kalinenko, Vladimir Krasnopolskyi, Vladimir Kukharenko Alexander Serebryakov*. Ukraine.

6. Advanced Information Technologies in Ecology

1. i13-085. Monitoring of Karst-Suffusion Formation in Area of Nuclear Power Plant. *Ruslan Sharapov, Oleg R. Kuzichkin*. Russian Federation.
2. i13-105. Automation and Intellectualization to Control the Ecological Situation in the Urbanized Territories. *Olga A. Ivashchuk, Orest D. Ivashchuk*. Russian Federation.
3. i13-111. Method of Determining the Epicenter of Geomagnetic Disturbance. *Nikolay Dorofeev*. Russian Federation.
4. i13-146. Development of Geographical Information - analytical system for magnetotelluric geodynamic monitoring. *Roman Romanov*. Russian Federation.
5. i13-190. Approaches to Creating Environment Safety Automation Control System of the Industrial Complex. *Igor Konstantinov, Olga A. Ivashchuk*. Russian Federation, Belgorod.
6. i13-193. Study of Multiple-Stage Continuous-Discrete Port Overload Systems. *Alexander Prokhorenkov, Roman. Istratov, V.M Sharapov, Alexander Sovlukov*. Russian Federation.
7. i13-199. Study of Operation Regimes in Thermal Power Supply Systems for Objects of Far North Municipal Power Engineering. *Alexander M. Prokhorenkov, Alexander S. Sovlukov, Alexei V. Ovseichik*. Russian Federation.

8. i13-077. Seismoelectric Control of Geodynamic Processes in Natural-Technical Systems. *Artem Bykov, Oleg R. Kuzichkin*. Russian Federation.

8. Intelligent Distributed Systems and Remote Control

1. i13-072. Cloud Traffic Monitoring and Control. *Vladimir Hahanov, Wajeb Gharibi, Baghdadi Ammar Awni Abbas, Svetlana Chumachenko, Olesya Guz, Oleh Filippenko*. Ukraine.
2. i13-095. Distributed Computer System for Monitoring and Control of Thermoacoustic Processes. *Yuriy P. Kondratenko, Volodymyr V. Korobko, Oleksiy V. Korobko*. Ukraine.
3. i13-173. Temperature Field Control Method Based On Neural Network. *Hryhoriy Sapojnyk, Orest Kochan, Roman Kochan*. Ukraine.

9. Artificial Intelligence and Neural Networks for Advanced Data Acquisition and Computing Systems

1. i13-160. Neuro-Fuzzy Sensor's Linearization Based FPGA. *Mounir Bouhedda*. Algeria.
2. i13-157. Use of artificial neural networks for identifying risk factors for recurrent falls. Comparison with other prediction models (Data from cross-sectional elderly population-based study). *Anastasiia Kabeshova, Cyrille Launay, Vasilii Gromov, Cédric Annweiler, Olivier Beauchet*. France.
3. i13-290. Control System of Robot Movement. *Yuriy Hirnyak, Orest Ivakhiv, Markiyan Nakonechnyi, Taras Repetylo* Ukraine.
4. i13-183. GNU Prolog-PHP Multi-Tier Integration. *Rafal Szklarczyk*. Poland.

Session FA3: Special Stream in Intelligent Robotics and Components

Room: A H001

1. i13-291. Designing a Modular Robotic Architecture for Industrial Applications. *Andrés Faiña, Félix Orjales, Daniel Souto, Francisco Bellas, Richard Duro*. Spain.
2. i13-294. Polymetric Sensing of Intelligent Robots. *Yuriy D. Zhukov, Boris N. Gordeev, Aleksey V. Zivenko*. Ukraine.
3. i13-198. The Method of Identification of Underwater Vehicle Mathematical Model Parameters. *Vladimir Filaretov, Dmitry Yukhimets, Eduard Mursalimov*. Russian Federation.
4. i13-220. The Simple Behavioral Model of Autonomous Mobile Robot for Territory Cleaning. *Dmytro Medzaty, Oksana Pomorova, Dmytro Ivanchishin*. Ukraine.
5. i13-260. Mobile Autonomous University Robots AMUR: technology and applications to extreme robotics. *Vladimir Filaretov, Valentin Pryanichnikov*. Russian Federation.

Session FB3: Pattern Recognition and Digital Image and Signal Processing

Room: **B G007**

1. i13-289. Application of the Artificial Neural Network for Blood Pressure Evaluation with Smartphones *Francesco Lamonaca, Kurt Barbe, Yuriy Kurylyak, Domenico Grimaldi, Wendy Van Moer, A. Furfaro, Vincenzo Spagnuolo*. Italy.
2. i13-154. Investigation of the Time of Flight Estimation Errors Induced by Neighboring Signals. *Linas Svilainis, Arturas Aleksandrovas, Kristina Lukoseviciute, Valdas Eidukynas*. Lithuania.
3. i13-164. Human Gaze Tracking in 3D Space With An Active Multi-Camera System. *Stanislav Panev, Plamen Petrov, Ognian Boumbarov, Krasimir Tonchev*. Bulgaria.
4. i13-136. Background Substraction in Grayscale Images Algorhythm. *Rauf Sadykhov, Siarhei Kuchuk*. Belarus.
5. i13-326 Image de-noising based on optimized NLM algorithm *Volodymyr Fedak, Adrian Nakonechny*. Ukraine.

Session FC3: Special Stream in Project Management

Room: **C G008**

1. i13-174. Event Management – a Special Kind of Project Management. *Peter J. A. Reusch, Pascal Reusch*. Germany.
2. i13-177. Towards Measuring the Country Specific Project Risks. *Konrad Spang, Rao Aamir Khan*. Germany.
3. i13-101. Factors Influencing Project Success Criteria. *Bassam A. Hussein*. Norway.
4. i13-249. Adapting American ERP Systems for China: Cross-Cultural Issues and a Case Study. *Yiqi Lin, Linda Markowsky, Shuanxi Liu, George Markowsky*. United States.
5. i13-125. Selection Method of the Project Management Methodology and its Application. *Igor Kononenko, Anna Kharazii, Nadia Iranik*. Ukraine.

Session FD3: Artificial Intelligence and Neural Networks for Advanced Data Acquisition and Computing Systems

Room: **D H106**

1. i13-194. A Study on an Efficiency of New Exponential Evolutionary Programming. *Kohei Mukaihara, Hirotaka Inoue*. Japan.
2. i13-148. Multiclass Amber Gemstones Classification With Various Segmentation and Committee Strategies. *Saulius Sinkevicius, Arūnas Lipnickas, Kęstas Rimkus*. Lithuania.
3. i13-223. Odor Classification by Neural Networks. *Sigeru Omatu*. Japan.

4. i13-039. Multisensors Signal Processing Using ANFIS. *Oleksiy Roshchupkin, Nataliya Roshchupkina, Radislav Smid, Anatoly Sachenko, Volodymyr Kochan.* Ukraine.
5. i13-195. Self-Organizing Neural Grove. *Hiroataka Inoue, Kyoshiro Sugiyama.* Japan.

4:40 PM – 5:00 PM **Coffee Break:** G Foyer

7:00 PM – 10:00 PM **Conference Dinner**

Saturday, September 14, 2013

HTW - Campus, Wilhelminenhof

8:00 AM – 8:30 AM **Registration:** H(FKI) Entrance Area

Room A (H001)

8:30 AM – 9:30 AM **Serge Demidenko** - “Taming the Electronic Beast: New and Not-so-New Problems in Modern Semiconductor Testing”

9:30 AM – 11:10 AM

Session SA1: Advanced Instrumentation and Data Acquisition Systems

Room: **A H001**

1. i13-292. Diagnostic Metodology for the Primary Coxarthrosis based on Objective Measures. *Domenico Carni, Francesco Lamonaca, F. Nastro, Alfonso Nastro, Monica. Vasile.* Italy.
2. i13-216. Near Surface Soil Characterizations Through Soil Apparent Resistivity: a Case Study. *S. M. Taohidul Islam, Chik, Z. & Islam, T.* Malaysia.
3. i13-033. Composite Materials Nondestructive Testing System Based on Low Frequency Acoustic Methods. *Volodymyr Eremenko, Anton Pereidenko, Evgeniy. Suslov, Tetyana Lutsenko.* Ukraine.
4. i13-149. Development of an Odor-discriminating Sensor-Array for the Detection of the Aroma of Ascomycete Tuber. *Despoina Zampioglou, John Kalomiros.* Greece.
5. i13-007. Approaches of Voltage Divider Development for Metrology Verification of ADC. *Roman Kochan, Orest Kochan, Mykhaylo Chyrka, Su Jun, Pavlo Bykovyy.* Ukraine.

Session SB1: Special Stream in High Performance Computing

Room: **B G007**

1. i13-187. SI-based Scheduling of Scientific Experiments on Clouds. *Elina Pacini, Cristian Mateos, Carlos Garcia Garino.* Argentina.
2. i13-144. User Clients for Working with Medical Images in Ukrainian Grid Infrastructure. *Oleksandr Sudakov, Mikhail Kononov, Ievgen Sliusar, Andrii Salnikov.* Ukraine.
3. i13-016. Applications of Neural-based Spot Market Prediction for Cloud Computing. *Richard M. Wallace, Volodymyr Turchenko, Mehdi Sheikhalishahi,*

Iryna Turchenko, Vladyslav Shults, Jos'e Luis Vazquez-Poletti , Lucio Grandinetti. United States.

4. i13-246. Cloud Computing Platform within Grid Infrastructure. *Vladislav Falfushinsky, Olena Skarlat, Vadim Tulchinsky.* Ukraine.
5. i13-120. Hardware Models for Automated Partitioning and Mapping in Multi-core Systems. *Lukas Krawczyk, Erik Kamsties.* Germany.

Session SC1: Special Stream in Cyber Security

Room: **C G008**

1. i13-115. New possibilities for Memory Acquisition by enabling DMA using network card. *Štefan Balogh, Miroslav Mydlo.* Slovakia.
2. i13-202. Assessment of the Source Code Static Analysis Effectiveness for Security Requirements Implementation Into Software Developing Process. *Oksana V. Pomorova, Dmytro O. Ivanchyshyn.* Ukraine.
3. i13-233. Security Metrics for Risk Assessment of Distributed Information Systems. *Igor Kotenko, Elena Doynikova.* Russian Federation.
4. i13-277. Investigation of Payment Cards Systems Information Security Control. *Valeriy Dudykevych, Oleksandra Bakay, Yuriy Lakh.* Ukraine.
5. i13-188. Towards Reducing Human Effort in Network Intrusion Detection. *Carlos Catania, Carlos García Garino.* Argentina.

Session SD1: Advanced Mathematical Methods for Data Acquisition, Diagnostics, and Networking

Room: **D H106**

1. i13-185. Identifying Nodes in a Master-Slave-Fieldbus. *Klaus-Peter Kirchner, Christopher Huschka.* Germany.
2. i13-104. Automation of Automotive Integration Testing Process. *Jan Sobotka, Jiří Novák.* Czech Republic.
3. i13-137. Centralized Vehicle Diagnostics. *Miloš Okrouhlý, Jiří Novák.* Czech Republic.
4. i13-089. Opimal Data Fusion in Decentralized Stochastic Unknown Input Observers. *Leonid M. Lyubchik.* Ukraine.
5. i13-296. Botnet Detection Technique for Corporate Area Network. *Sergii Lysenko, Oleg Savenko, Andrii Kryshchuk, Yuriy Klots.* Ukraine.

11:10 AM – 11:50 AM **Coffee Break & Poster Session SP: G**
Foyer

3. Cyber Security

1. i13-071. Methods of Generic Attacks Infeasibility Increasing for Hash Functions. *Volodymyr Luzhetsky, Yurii Baryshev.* Ukraine.

2. i13-255. Development of Neural Network Immune Detectors for Computer Attacks Recognition and Classification. *Myroslav Komar, Vladimir Golovko, Anatoly Sachenko, Sergei Bezobrazov*. Ukraine.

4. High Performance Computing

1. i13-275. Face Detection Algorithm Using Haar-like Feature for GPU Architecture. *Dmitry Pertsau, Andrey Uvarov*. Belarus.
2. i13-176. Research Challenges and Prospective Business Impacts of Cloud Computing: A Survey. *Amin Keshavarzi, Abolfazl Haghighat, Mahdi Bohlouli*. Iran.

13. Intelligent Information Systems, Data Mining and Ontology

1. i13-097. FTTO: An example of Food Ontology for Traceability Purpose. *Teresa Pizzuti, Giovanni Mirabelli*. Italy.
2. i13-252. A Multi-Objective Genetic Algorithm for Community Discovery. *Ertan Bütün and Mehmet Kaya*. Turkey.
3. i13-254. Extraction of Classification Rules from Socio-demographics and Biochemistry Datasets of Schizophrenia Patients using Multi-Objective Genetic Algorithms. *Buket Kaya, İbrahim Türkoğlu*. Turkey.

14. Information Computing Systems for Education and Commercial Applications

1. i13-247. Indoor Infotainment: Guidance and Visualization for Research Projects and its Relations. *Maurus Rohrer, Marco Kuhn, Eileen Kühn, Jürgen Sieck*. Germany.
2. i13-050. Digital Libraries for Disabled Persons. *Volodymyr Pasichnyk, Natalya Kunanets, Ostap Malynovskyi*. Ukraine.
3. i13-114. The extension of GDSS Architecture by the Subsystem of Group Decision Method Synthesis. *Natali Mironova*. Ukraine.

15. Intelligent Robotics and Components

1. i13-226. The Software for Verification of Underwater Vehicle Missions. *Vladimir Filaretov, Dmitry Yukhimets, Valentin Pryanichnikov, Eduard Mursalimov*. Russian Federation.
2. i13-264. The Dynamic Characteristics of the Manipulator With Parallel Kinematic Structure Based on Experimental Data. *Sergei Osadchy, Valerii Zozulya, Anna Timoshenko*. Ukraine.
3. i13-265. *Intelligent Active Fault Tolerant Control System And Flight Safety*. *Vasily Kazak, Dmitry Shevchuk, M.P. Kravchuk, M.A. Vasilyev*. Ukraine.
4. i13-287. Space Stabilization Model of Aircraft-airship in Flight. *Vasily Kazak, Oleg Gorbach, Andrey Babenko, Anastasiya Lozinska*. Ukraine.
5. i13-273. Underwater Robot Intelligent Control Based on Multilayer Neural Network. *Dmitry Oskin, Alexander Dyda*. Russian Federation.

6. i13-266. Supervisory Remote Control of Space Robot in an Unstable Libration Point. *Felix Kulakov, Aleksandr Shmyrov, Dzmitry Shymanchuk*. Russian Federation.
7. i13-235. Fault Isolation and Estimation in Electric Servoactuator of Manipulation Robots. *Vladimir Filaretov, Alexey Zhirabok, Alexander Zuev*. Russian Federation.
8. i13-272. Intelligent Method of Robots Teaching by Show. *Felix Kulakov, Svetlana Chernakova*. Russian Federation.

11:50 AM – 1:30 PM **Round Table and Closing Ceremony:** Room A (H001)

1:30 PM – 2:30 PM **Lunch:** G Mensa - Cafeteria