

**2nd INTERNATIONAL SCIENTIFIC CONFERENCE
“INTELLIGENT INFORMATION TECHNOLOGIES FOR
INDUSTRY”
ITI2017
SEPTEMBER 14-16, 2017, VARNA, BULGARIA**

ORGANIZERS

Technical University of Varna (Bulgaria)
Technical University of Sofia (Bulgaria)
VŠB – Technical University of Ostrava (Czech Republic)
Rostov State Transport University (Russia)
Russian Association for Artificial Intelligence (Russia)

Conference Chairs

Rosen Vasilev	Technical University of Varna, Bulgaria
Vaclav Snasel	VSU-TU, Ostrava, Czech Republic
Sergey M.Kovalev	Rostov State Transport University, Russia
Alexander N. Guda	Rostov State Transport University, Russia

Conference Vice-Chairs

Margreta Vasileva	Technical University of Varna, Bulgaria
Lacezar Licev	VSU-Technical University of Ostrava, Czech Republic

International Program Committee

Aboul Ella Hassanien, Cairo University, Egypt
Aleksandr Nazarchev, PEIPK, Russia
Alexander I. Dolgiy, JSC "NIIAS", Rostov branch, Russia
Alexander L. Tulupyev, St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences, Russia
Alexander N. Shabelnikov, JSC “NIIAS”, Russia
Alexander P. Eremeev, Moscow Power Engineering Institute, Russia
Alexander V. Smirnov, St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences, Russia
Alexey B. Petrovsky, Institute for Systems Analysis of Russian Academy of Sciences, Russia
Alexey N. Averkin, Dorodnicyn Computing Centre of Russian Academy of Sciences,
Alla V. Zaboleeva-Zotova, Volgograd State Technical University, Russia
Anton Beláň, Slovak University of Technology in Bratislava, Slovakia
Angel Colov, Technical University of Sofia, Bulgaria
Bakytzhan Kuanyshchev, Kazakh academy of transport and communications named after M. Tynyshpayev, Kazakhstan
Bronislav Firago, Belarusian National Technical University, Belarus
Dilyana Gospodinova, Technical University of Sofia, Bulgaria
Dimitar Bogdanov, Technical University of Sofia, Bulgaria
Dimo Stoilov, Technical University of Sofia, Bulgaria

DusanHusek, Institute of Computer Science, Academy of Sciences of the Czech Republic
EidEmary, Cairo university, Egypt
EliskaOchodkova, VSB-Technical University of Ostrava, Czech Republic
FrantišekJaníček, Slovak University of Technology in Bratislava, Slovakia
Gennady S. Osipov, Institute for Systems Analysis of Russian Academy of Sciences, Russia
Habib M. Kammoun, University of Sfax, Tunisia
Hussein Soori, VSB - Technical University of Ostrava, Czech Republic
Igor B. Fominykh, Moscow Power Engineering Institute, Russia
Igor D. Dolgiy, Rostov State Transport University, Russia
Igor Kurytnik, University of Bielsko-Biała, Poland
IldarBatyrshin, National Polytechnic Institute, Mexico
Ivan Angelov, Technical University of Sofia, Bulgaria
Ivan Zelinka, VSB-Technical University of Ostrava, Czech Republic
JánVittek, University of Ľilina, Slovakia
Jana Nowakova, VSB-Technical University of Ostrava, Czech Republic
Jaroslav Kultán, University of Economics in Bratislava, Slovakia
JiříBouchala, VŠB-Technical University of Ostrava, Czech Republic
JiříHammerbauer, University of West Bohemia, Czech Republic
Josef Paleček, VŠB-Technical University of Ostrava, Czech Republic
Juan Velasquez, University of Chile, Chile
Konrad Jackowski, Wrocław University of Technology, Poland
Krum Gerasimov, Technical University of Varna, Bulgaria
LeszekPawlaczek, Wrocław University of Technology, Poland
Marcin Paprzycki, IBS PAN and WSM, Poland
MarinelaYordanova, Technical University of Varna, Bulgaria
Michal Wozniak, Wrocław University of Technology, Poland
MikołajBartłomiejczyk, Gdansk University of Technology, Poland
Milan Dado, University of Ľilina, Slovakia
Mohamed Mostafa, Arab Academy for Science, Technology, and Maritime Transport, Egypt
Nadezhda G. Yarushkina, Ulyanovsk state technical university, Russia
Nashwa El-Bendary, SRGE (Scientific Research Group in Egypt), Egypt
NedyalkoNikolov, Technical University of Varna, Bulgaria
Nikolay Matanov, Technical University of Sofia, Bulgaria
NourOweis, VSB-Technical University of Ostrava, Czech Republic
Oleg P. Kuznetsov, Institute of Control Sciences of Russian Academy of Sciences
PavolŠpánik, University of Ľilina, Slovakia
PetarNakov, Technical University of Sofia, Bulgaria
Petr Saloun, VSB-Technical University of Ostrava, Czech Republic
Rad Stanev, Technical University of Sofia, Bulgaria
Santosh Nanda, Eastern Academy of Science and Technology, Bhubneswar, Odisha, India
Stanislav Kocman, VŠB-Technical University of Ostrava, Czech Republic
Stanislav Rusek, VŠB-Technical University of Ostrava, Czech Republic
SvatoplukStolfa, VSB-Technical University of Ostrava, Czech Republic
Svetlana Cvetkova, Technical University of Sofia, Bulgaria
Tarek Gaber, VSB-Technical University of Ostrava, Czech Republic
Teresa Orłowska – Kowalska, Wrocław University of Technology, Poland
TodorGanchev, Technical University of Varna, Bulgaria
Vadim L. Stefanuk, Institute for Information Transmission Problems, Russia
Vadim N. Vagin, Moscow Power Engineering Institute, Russia
Valentin Kolev, Technical University of Sofia, Bulgaria
Valery B. Tarassov, Bauman Moscow State Technical University, Russia
Viktor M. Kureychik, Southern Federal University, Russia

Vladimir V. Golenkov, Belarus State University of Informatics and
Radioelectronics, Belarus
VladimírVašinek, VŠB-Technical University of Ostrava, Czech Republic
Vladmir V. Kureychik, Southern Federal University, Russia
YerzhanSyrgaliyev, Almaty university of power engineering &telecommunication,
Kazakhstan
Yuri I. Rogozov, Southern Federal University, Russia
ZdeněkPeroutka, University of West Bohemia, Czech Republic

Organizing Committee Chair

Mediha Mehmed-Hamza Technical University of Varna, Bulgaria

Organizing Committee

Andrey Sukhanov	Rostov State Transport University, Russia
AndreyChernov	Rostov State Transport University, Russia
AleksandrNazarchev	PEIPK, Russia
Elena Racheva	Technical University of Varna, Bulgaria
HristoValchanov	Technical University of Varna, Bulgaria
Jan Platoš	VSU-Technical University of Ostrava, Czech Republic
JonchoKamenov	Technical University of Varna, Bulgaria
Maria Butakova	Rostov State Transport University, Russia
Mariana Todorova	Technical University of Varna, Bulgaria
Todorka Georgieva	Technical University of Varna, Bulgaria
Pavel Krömer	VSU-Technical University of Ostrava, Czech Republic
Valentin Gurov	Technical University of Varna, Bulgaria
VioletaBojikova	Technical University of Varna, Bulgaria
VitezslavStyskala	VSU-Technical University of Ostrava, Czech Republic
VladislavKovalev	JSC “NIIAS”
Zavko Ivanov	Technical University of Varna, Bulgaria

Thursday, September 14

09:30 – 14:00	Registration in Hotel “Estreya”
14:00 – 14:15	Opening Session. Prof. Kovalev, Prof. Snasel, Prof. Vasilev
14:15 – 16:50	Plenary Talks. Chairs: Prof. Sergey Kovalev, Prof. Rosen Vasilev
14:15 – 14:50	Synergetic Artificial Intelligence and Social Robotics Assoc. Prof. Valery B. Tarassov, Bauman Moscow State Technical University, Moscow, Russia Assoc. Prof. Valery E. Karpov, Russian Research Center “Kurchatov Institute”, Moscow, Russia
14:50 – 15:25	Application of Intelligent Data Analysis Methods for Information Security Problems Prof. Vadim N. Vagin Moscow Power Engineering Institute, Moscow, Russia
15:25 – 15:40	Coffee Break
15:40 – 16:15	Cognitive Generator to Interpret Fuzzy Values Prof. Vadim L. Stefanuk Institute for Information Transmission Problem, Moscow, Russia
16:15 – 16:50	An Approach to Sensitivity Analysis of Inference Equations in Algebraic Bayesian Networks Prof. Alexander L. Tulupyev St. Petersburg Institute for Informatics and Automation of the Russian Academy of Sciences. St. Petersburg, Russia
16:50 – 17:30	New experimental results of VSEP algorithm for graph automorphism group Prof. Stoicho Stoichev Technical University of Sofia, Sofia, Bulgaria
19:30	Official dinner Restaurant “Kopitoto” St.St. Konstantin and Helena resort

Friday, September 15

09:00 – 9:30	Session 1. Data Mining and Knowledge Discovery in Intelligent Information and Control Systems. Chairs: Prof. Vaclav Snasel, Prof. Alexander N. Guda <ol style="list-style-type: none">1. Ladislav Zjavka and Václav Snášel: Wind speed NWP local revisions using a polynomial decomposition of the general partial differential equation2. Todor Ganchev, Valentina Markova, Ivelin Lefterov and Yassen Kalinin:
--------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>Overall Design of the SLADE Data Acquisition System</p> <ol style="list-style-type: none"> 3. JasminaNovakovic, AlempijeVeljovic, SinisaIlic and Vladimir Veljovic: Improving the Accuracy of SVM Algorithm in Classification Problems with PCA Method 4. Alexander P. Eremeev and Alexander A. Kozhukhov: Methods and program tools based on prediction and reinforcement learning for the intelligent decision support systems of real-time 5. Alexander N. Tsurikov and Alexander N. Guda: Practical Application of the Original Method for Artificial Neural Network's Training 6. Evgeny A. Leonov, Yuri A. Leonov, Yuri M. Kazakov, Lyudmila B. Filippova: Intellectual subsystems for collecting information from the Internet to create knowledge bases for self-learning systems 7. Antonina Komarova, Alexander Menshchikov, Alexander Negols, Anatoly Korobeynikov, YuriyGatchin and Nina Tishukova: Comparison of Authentication Methods on Web Resources 8. Boris Sokolov, Dmitry Verzilin, Tatiana Maximova and Irina Sokolova: Dynamic Models of Self-Organization through Mass Behaviour in Society 9. Alexander Afanasyev, Nikolay Voit, Oksana Timofeeva and VyacheslavEpifanov: Analysis and control of hybrid diagrammatical workflows 10. Alexander Afanasyev, Nikolay Voit, Maria Ukhanova and Irina Ionova: Analysis of design-technology workflows in the conditions of large enterprise 11. Pavel V. Saraev, Semen L. Blyumin, Alexander V. Galkin and Anton S. Sysoev: Neural remodelling of objects with variable structures 12. AndreyKostoglotov, Sergey Lazarenko, Igor Deryabkin, Oksana Kuznetcova and Alexey Yachmenov: Combined maximum principle as the basis of intellectualization of control systems for a suspension of vehicles
<p>9:30 – 11:00</p>	<p>Session 4. Fuzzy Graphs, Fuzzy Networks and Fuzzy Inference for Planning and Cognitive Modelling Chairs: Prof. Vadim L. Stefanuk, Prof. Sergey M. Kovalev</p> <ol style="list-style-type: none"> 1. Maria Butakova, AndreyChernov and Alexander Guda: Algorithms of sequential pattern generation with noise using stochastic and fuzzy models 2. Igor Kotenko, Igor Saenko and Sergey Ageev: Fuzzy Adaptive Routing in Multi-Service Computer Networks under Cyber Attack Implementation 3. TatianaAfanasieva: About Transformations of a Numerical Time Series using a Linguistic Variable 4. Sergey Kovalev, Andrey Sukhanov and Sergey Sokolov: Adaptive Approach for Anomaly Detection in Temporal Data Based on Immune Double-plasticity Principle 5. Natalia Filatova, Konstantin Sidorov and Pavel Shemaev: Prediction properties of attractors based on their fuzzy trend 6. Michal Prílepok and Tomas Vantuch: Partial Discharge Pattern

	<p>Classification Based on Fuzzy Signatures</p> <ol style="list-style-type: none"> 7. Tomas Vantuch, Marek Lampart and Michal Prílepok: An Examination of Complexity of Partial Discharge Pattern 8. Alexey Lyashchenko, Zoya Lyashchenko and Vladimir Ruban: The Hybrid Model of The Weakly Formalized Dynamic Process Based on The Fuzzy Production System 9. Alexander Lepskiy and Artem Suevalov: Application of Fuzzy Asymmetric GARCH-Models to Forecasting of Volatility of Russian Stock Market 10. Pavel V. Dudarin and Nadezhda G. Yarushkina: An approach to fuzzy hierarchical clustering of short text fragments based on fuzzy graph clustering 11. Vasiliy Sinuk and Vladimir Polyakov: Comparative Analysis of the Inference Methods Based on the Fuzzy Truth Value for the MISO-Structure Systems 12. Alexander Bozhenyuk, Stanislav Belyakov, Margarita Knyazeva and Igor Rozenberg: Optimal Allocation Centers in Second Kind Fuzzy Graphs with the Greatest Base Degree 13. Andrey Kostoglotov, Sergey Lazarenko, Igor Deryabkin, Igor Pugachev, Zoya Lyashchenko and Alexander Kuzin: Fuzzy control laws in the basis of solutions of synthesis problems of the combined maximum principle 14. Gerald Plesniewicz: A fuzzy propositional logic with temporal intervals
11:00-11:20	Coffee Break
11:20-13:00	<p>Session 11. Applied Systems Chairs: Assoc. Prof. Marinela Yordanova, Assoc. Prof. Mediha Mehmed-Hamza</p> <ol style="list-style-type: none"> 1. Iliya Hadzhidimov and Emil Rosenov: Sensing thermal processes with Piezoelectric Film Elements 2. Neli Dimitrova, Nikolay Nikolov, Anton Georgiev and Margreta Vasileva: Reliability Estimation of Electricity Distribution Substation Surge Protection System Composed by Surge Arresters with Different Operational Parameters 3. Victor A. Chirikov: Approximate Solutions of Timoshenko's Differential Equation for The Free Transverse Vibration of Stubby Beams 4. Marinela Yordanova and Mediha Mehmed-Hamza: A Computing Approach to Risk Assessment Related to Electromagnetic Field Exposure from Overhead Power Lines 5. Veneta Aleksieva and Aydan Haka: Modified Scheduler for Traffic Prioritization in LTE Networks 6. Hristo Valchanov and Simeon Andreev: Multithreaded hybrid library 7. Valentin Gyurov and Yuliyana Yordanova: Opportunities for application of TCSC in low voltage power supply systems as technical solution for improving of power quality 8. Tatyana Zhekova, Anna Simeonova and Nikolay Nikov: Simulation

Modeling of Stormwater Sewage Discharge and Dispersion in The Bulgarian Black Sea Coastal Waters

9. Emil Panov, Mediha Mehmed-Hamza and MarinelaYordanova: A Computing Approach for Determination of the Magnetic Flux Density under Transmission Power Lines
10. Todorka Georgieva, SiykaDemirova and PenkaZlateva: An Approach for Monitoring Transport and Delivery Chain of Liquid Fuels in Bulgaria
11. Emil Panov: On the Electrodynamics of Moving Bodies According to the Rotary Theory
12. Emil Panov: On the Electromagnetic Radiation from a Short Electric Dipole According to the Rotary Theory
13. Nikolay Nikolaev: Verification of SVD Based Algorithm for Voltage Stability Assessment Against Other Methods
14. NaskoAtanasov, ZhivkoZhekov, Ivan Grigorov and Mariela Alexandrova: Application of principal component analysis for fault detection of DC motor parameters
15. Valentina Markova, KalinKalinkov, PetarStanev and TodorGanchev: Automated Stress Level Monitoring in Mobile Setup
16. LacezarLicev, Jakub Hendych, RadimKunčický, KateřinaKovářová and Ivana Kumpová: Evaluation of Sandstone Internal Structure with Application of Micro-CT and FOTOM System
17. Julia Garipova, Anton Georgiev, TonchoPapanchev, Nikolay Nikolov and DimitarZlatev: Operational Reliability Assessment of Systems Containing Electronic Elements
18. Pavel G. Kolpakhchyan, Alexander E. Kochin and Alexey R. Shaikhiev: Sensorless control of the high-speed switched-reluctance generator for the steam turbine
19. PlamenStoianov: Design and implementation of high speed AES on a RISC microcontroller
20. StoyanSlavov: An algorithm for generating optimal toolpaths for CNC based ball-burnishing process of planar surfaces
21. Ekaterina Dimitrova, DimitarKovachev and VencislavValchev: Improvement aspects in Teaching Analog Electronics
22. Mediha Mehmed-Hamza, MargretaVasileva and PlamenStanchev: Increasing the Education Quality by Means of Computer-Aided Visualization of the Processes in Electric Power Systems
23. YulianRangelov, Nikolay Nikolaev, YonchoKamenov and Krum Gerasimov: Project of experimental complex for power system stability studies
24. Krastin Yordanov, Tatyana Mechkarova, AneliyaStoyanova and PenkaZlateva: Determination of the Temperature of Cathode Unit of Indirect Plasma Burner Through a Computer Simulation Model
25. KrasimiraDimitrova: Modeling, measurement and management of business processes in organization
26. Ivan Grigorov, NaskoAtanasov, ZhivkoZhekov and Mariela Alexandrova: Application of recursive methods for parameter estimation in adaptive control of DC motor

	<p>27. Tomas Mrovec, Petr Simonik and Samuel Przczek: Electronic Differentials with Active Torque Distribution for IWD Vehicles</p> <p>28. Lucie Svecova, David Vala and ZdenekSlanina: EMG as Objective Method for Revealed Mistakes in Sport Shooting</p> <p>29. Natalia Pirogova and Igor Neches: Compensation of Nonlinear Distortions in Telecommunication Systems with The Use of Functional Series of Volterra</p> <p>30. DimitarBogdanov, GeorgiDimitrov and Francisco Gonzalez-Longatt: Improving the reliability of busbar protection system with IEC 61850 GOOSE based communication</p>
<p>13:00-14:00</p>	<p>Lunch</p>
<p>14:00-15:00</p>	<p>Session 5. Evolutionary Modeling, Bionic Algorithms and Computational Intelligence. Chairs: Prof. Vladimir V.Kureichik, Prof. Sergey V. Sokolov</p> <ol style="list-style-type: none"> 1. Daria Zaruba and Dmitry Zaporozhets: Bacterial foraging optimization for VLSI fragments placement 2. Daria Zaruba, Vladimir Kureichik Junior, Vladimir Kureichik, LiliyaKureichik and DmitriiLeschanov: Hybrid approach for VLSI fragments placement 3. Nikolay Nikolaev, Stanislav Yordanov and Rosen Vasilev: An Optimization Algorithm for Simulating Smart-Grid Means for Distribution Grid Balancing 4. VultchanGueorgiev: Specifying Optimal Maintenance Factor in internal lighting applications 5. Marianna V. Polyakova, Aleksandra A. Bayandurova and Sergey V. Sokolov: Use of irregular exact measurements in a problem of an adaptive filtration 6. Boris Lebedev, Oleg Lebedev, Ekaterina Lebedeva and Andrey Kostyuk: VLSI Planning Based on the Ant Colony Method 7. Maxim Sakharov and Anatoly Karpenko: A New Way of Decomposing Search Domain in a Global Optimization Problem
<p>15:00-16:00</p>	<p>Session 7. Probabilistic Models, Algebraic Bayesian Networks and Information Protection Chairs: Prof. Igor V. Kotenko, Prof. Alexander L. Tulupyev</p> <ol style="list-style-type: none"> 1. Nikita Shindarev, GeorgiyBagretsov, Maksim Abramov, Tatyana Tulupyeva and Alena Suvorova: Approach to identifying employees profiles in websites of social networks aimed to analyze social engineering vulnerabilities 2. NeliKalcheva, Anna Zagorska, Nikolay Dukov and Kristina Bliznakova: Analysis of suitability of five statistical methods applied for the validation of a Monte Carlo x-ray based software packages 3. PlamenTsankov and MilkoYovchev: Optimization of the Monte Carlo Raytracing Settings for LED Luminaires Photometric Analysis 4. Ondřej Grunt, MarkétaŠtáková, Jan Plucar, TomášJanečko and Ivan Zelinka: Modeling of Marketing Processes using Markov Decision Process Approach

16:00-16:20	Coffee Break
16:20-17:00	<p>Session 10. Intelligent and Fuzzy Railway Systems Chairs: Prof. Sergey M. Kovalev, Prof. Andrey V. Chernov</p> <ol style="list-style-type: none"> 1. Sergey Kovalev, Alexander Shabelnikov and Andrey Sukhanov: Dynamic Programming for Automatic Positioning of Wheel Chocks on Marshalling Yards 2. Andrey Chernov, Maria Butakova, Vladimir Vereskun and Oleg Kartashov: Mobile Smart Objects for Incident Analysis in Railway Intelligent Control System 3. AleksandrShabelnikov and Nikolay Liabakh: Intellectualization of Sorting Processes based on Instrumental Definition of Analogies 4. Maksim Kolesnikov and YakovGibner: Evaluation of the intelligence degree of systems 5. Vladimir Taran and Vladimir Trofimenko: Transport systems intellectualization based on analytical control synthesis of angular velocities for the axisymmetric spacecraft 6. Alexander N. Guda, Vera V. Ilicheva and Oleg N. Chislov: Executable Logic Prototypes of Systems Engineering Complexes and Processes on Railway Transport 7. Olga Belyak, Alexander Larin and Tatiana Suvorova: Intellectualization of monitoring vibroacoustic characteristics of the permanent way and passing rolling stock 8. Igor Kotenko, Igor Chechulin and Mikhail Bulgakov: Intelligent Security Analysis of Railway Transport Infrastructure Components on the base of Analytical Modeling
17:00-18:00	<p>Session 8. Image Recognition and Emotion Modeling Chairs: Prof. LačezarLičev, Prof. Alexander V. Bozhenyuk</p> <ol style="list-style-type: none"> 1. Dmitry Yudin and Bassel Zeno:Event Recognition on Images by Fine-Tuning of Deep Neural Networks 2. IvelinaBalabanova, GeorgiGeorgiev and Stela Kostadinova:Artificial Neural Network for Identification of Signals with Superposed Noises 3. Jakub Hendrych, RadimKunčický and LačezarLičev:New Approach to Steganography Detection via Steganalysis Framework 4. FirganFeradov, IosifMporas and TodorGanchev:Evaluation of cepstral coefficients as features in EEG-based recognition of emotional states 5. RadekHrabuska, VeronikaCedivodova, Michal Prauzek, JaromirKonecny and Jakub Hlavica:Electrical Impedance Distribution in Human Torax: A Modeling Framework 6. Vladimir Rozaliev, YuliaOrlova, AllaZaboleeva-Zotova and Nikita Nikitin:Automated sound generation by image color spectrum with harmony creation based on user ratings 7. Stanislav Belyakov, Marina Belyakova, Alexander Bozhenyuk and Igor Rozenberg:Transformation of elements of geoinformation models in the synthesis of solutions 8. EgorPugin, ArkadyZhiznyakov and Alexei Zakharov:Pipes Localization Method Based on Fuzzy Hough Transform

Saturday, September 16

<p>09:00 – 10:30</p>	<p>Session 9. Hybrid Expert Systems and Intelligent Decision Support Systems in Design and Engineering. Chairs: Prof. Alexander P. Ereemeev, Prof. Nadezhda G. Yarushkina</p> <ol style="list-style-type: none">1. Gleb Guskov, Alexey Namestnikov and Nadezhda Yarushkina: Approach to the search for similar software projects based on the UML ontology2. Galina Rybina, Yuri Blokhin, Elena Sergienko and Victor Rybin: Intelligent support of educational process basing on ontological approach with use of tutoring integrated expert systems3. Alexander Tselykh, Larisa Tselykh, Vladislav Vasilev and Simon Barkovskii: Expert system with extended knowledge acquisition module for decision making support4. Aleksey A. Kabanov, Svilen Stoyanov and Ekaterina N. Kabanova: Trajectory-Tracking Control of Mobile Robot via Feedback Linearization5. Rosen Vasilev, Hristo Skulev and Tihomir Dovramadjiev: Optimization of Design Opportunities and Transfer of Information Between Data 3d Graphics Program Blender and Solidworks Cad System For Use in Dental Industry6. Anatoly G. Korobeynikov, Michael E. Fedosovsky, Igor O. Zharinov, Vladimir I. Polyakov, Anatoly V. Shukalov, Andrey V. Gurjanov and Sergey A. Arustamov: Method for conceptual presentation of subject tasks in knowledge engineering for computer-aided design systems7. Zdenek Slanina and Tomas Docekal: Energy Meter for Smart Home Purposes8. Georgy Burdo: Decision Models for Volume Plans in Mechanical Engineering9. Sanchir Kartiev and Victor Kureychik: Algorithm for building recommendations for intelligent systems10. Eduard Melnik, Anna Klimenko and Vladimir Korobkin: Reconfigurable Distributed Information and Control System Multiagent Management Approach11. Lyudmila Borisova, Valery Dimitrov and Inna Nurutdinova: Intelligent System for Technological Adjustment of the Harvesting Machines Parameters12. Omar Bataineh, Dina Abu Hjeelah and Sreen Arabiat: Multi-Criteria Decision Making Using AHP to Select the Best CAD Software
<p>10:30-11:30</p>	<p>Session 3. Ontological Modeling, Semantic Technologies and Knowledge Engineering Chairs: Prof. Viktor M. Kureychik, Prof. Anatoly P. Karpenko</p> <ol style="list-style-type: none">1. Petr Sosnin, Anna Pushkareva and Victor Negoda: Ontological Support of Design Thinking in Developments of Software Intensive Systems2. Sergey M. Kovalev, Valery B. Tarassov, Alexander I. Dolgiy, Igor D. Dolgiy, Maria N. Koroleva, Agop E. Khatlamadzhiyan: Towards Intelligent Measurement in Railcar On-Line Monitoring: From Measurement Ontologies to Hybrid Information Granulation System3. Sergey Matorin and Aleksander Zhikharev: Calculation of The Function Objects as The Systems Formal Theory Basis

	4. Igor Fominykh and Michael Vinkov: Step theories of active logic and extended logical programs
11:30-11:50	Coffee Break
11:50-12:30	<p>Session 6. Cognitive Technologies on the Basis of Sensor and Neural Networks</p> <p>Chairs: Prof. Yuri Rogozov</p> <ol style="list-style-type: none"> 1. Emil Marinov and ZhivkoZhekov: Neural Sensorless Control of Induction Motor 2. Nikolay Dukov, TodorGanchev and DimitarKovachev: FPGA implementation of the Locally Recurrent Probabilistic Neural Network 3. YuryRogozov: Approach to the construction of a systemic concept
12:30-13:00	Closing Session