



## **DepCoS - RELCOMEX 2018 Programme**

### **Monday (2.07.18)**

- 16.00 - Registration
- 19.30 - Welcome drink
- 19.40 - Welcome dinner

### **Tuesday (3.07.18)**

- 8.30- 9.15 Breakfast
- 9.20- 9.30 Introduction and Welcoming Remarks
- 9.30- 11.00 Session 1
- 11.00- 11.30 Coffee break
- 11.30- 12.45 Session 2
- 13.15- 14.15 Lunch
- 14.30- 16.00 Session 3
- 16.00- 16.30 Coffee break
- 16.30- 18.30 Session 4, 5
- 19.30- Banquet

### **Wednesday (4.07.18)**

- 8.00- 8.45 Breakfast
- 9.00- 18.00 Excursion
- 19.00- Dinner (barbecue)

### **Thursday (5.07.18)**

- 8.30- 9.15 Breakfast
- 9.30- 11.00 Session 6, 7
- 11.00- 11.30 Coffee break
- 11.30- 12.45 Session 8
- 13.15- 14.15 Lunch
- 14.30- 16.00 Session 9
- 16.00- 16.30 Coffee break
- 16.30- 18.30 Session 10
- 18.30- 18.40 Closing ceremony
- 19.00- Dinner

### **Friday (6.07.18)**

- 8.00- 8.45 Breakfast
- 9.15- Departure

# Tuesday

## Session 1: Dependability analysis – *Czesław Smutnicki*

Vyacheslav Kharchenko, Yuriy Ponochovnyi, Artem Boyarchuk, Eugene Brezhnev, and Anton Andrashov: *Monte-Carlo Simulation and Availability Assessment of the Smart Building Automation Systems Considering Component Failures and Attacks on Vulnerabilities*

Victor Toporkov and Dmitry Yemelyanov: *Dependable Slot Selection Algorithms for Distributed Computing*

Dariusz Caban and Tomasz Walkowiak: *Dependability Analysis of Hierarchically Composed System-of-Systems*

Oleksandr Gordieiev, Vyacheslav Kharchenko, and Kostiantyn Leontiiev: *Usability, Security and Safety Interaction: Profile and Metrics Based Analysis*

Andrej Forgac, Jan Rabcan, Elena Zaitseva, and Igor Lukyanchuk: *Construction of the Structure Function of Multi-State System Based on Incompletely Specified Data*

## Session 2: Web services and Cloud – *Vyacheslav Kharchenko*

Iлона Bluemke and Artur Sawicki: *Tool for Mutation Testing of Web Services*

Paweł Lampe and Jarosław Rudy: *Models and Scheduling Algorithms for a Software Testing System Over Cloud*

Aneta Poniszewska-Marańda: *Development of Web Business Applications with the Use of Micro-services*

Patrik Rusnak, Jan Rabcan, Miroslav Kvassay, and Vitaly Levashenko

*Time-Dependent Reliability Analysis Based on Structure Function and Logic Differential Calculus*

## Session 3: Soft computing – *Victor Toporkov*

Yevgeniy Bodyanskiy, Artem Dolotov, Dmytro Peleshko, Yuriy Rashkevych, and Olena Vynokurova: *Associative Probabilistic Neuro-Fuzzy System for Data Classification Under Short Training Set Conditions*

Piotr Ciskowski, Grzegorz Drzewiński, Marek Bazan, and Tomasz Janiczek: *Estimation of Travel Time in the City Using Neural Networks Trained with Simulated Urban Traffic Data*

Zbigniew Gomolka: *Neurons' Transfer Function Modeling with the Use of Fractional Derivative*

Jacek Mazurkiewicz: *System for Child Speech Problems Identification*

Tomasz Walkowiak, Szymon Datko, and Henryk Maciejewski: *Bag-of-Words, Bag-of-Topics and Word-to-Vec Based Subject Classification of Text Documents in Polish - A Comparative Study*

## Session 4: Transport systems – *Marek Młyńczak*

Agnieszka Blokus-Roszkowska: *Availability Analysis of Transport Navigation System Under Imperfect Repair*

Johannes Friedrich, Franciszek J. Restel, and Łukasz Wolniewicz: *Railway Operation Schedule Evaluation with Respect to the System Robustness*

Artur Kierzkowski, Tomasz Kisiel, and Maria Pawlak: *A Method for Passenger Level of Service Estimation at the Airport Landside*

Franciszek J. Restel, Agnieszka Tubis, and Łukasz Wolniewicz: *Investigation of Small-Consequence Undesirable Events in Terms of Railway Risk Assessment*

Agnieszka Tubis: *Route Risk Assessment for Road Transport Companies*

Emilia Skupień and Zdzisław Hejducki: *Modeling Transport Process Using Time Couplings Methods*

## **Session 5: Optimization – Wojciech Bożejko**

Mariusz Makuchowski: *Effective Algorithm of Simulated Annealing for the Symmetric Traveling Salesman Problem*

Wojciech Bożejko, Zenon Chaczko, Piotr Nadybski, and Mieczysław Wodecki: *Meta-heuristic Task Scheduling Algorithm for Computing Cluster with 2D Packing Problem Approach*

Wojciech Bożejko, Andrzej Gnatowski, Teodor Niżyński, Michael Affenzeller, and Andreas Beham: *Local Optima Networks in Solving Algorithm Selection Problem for TSP*

Mariusz Uchroński, Wojciech Bożejko, Zdzisław Krajewski, Mateusz Tykierko, and Mieczysław Wodecki: *User Estimates Inaccuracy Study in HPC Scheduler*

# **Thursday**

## **Session 6: Wind turbines & Energy – Robert Sobolewski**

Robert Adam Sobolewski, Guglielmo D'Amico, and Filippo Petroni: *Decision Model of Wind Turbines Maintenance Planning*

Adrian Sołowiej, Teodora Dimitrova-Grekow, and Robert Adam Sobolewski: *Meteorological Data Acquisition from MERRA-2 Reanalysis for Wind Energy Systems Modeling Support*

Guglielmo D'Amico, Filippo Petroni, Robert Sobolewski: *A probabilistic model of wind farm power generation via Copulas and indexed semi-Markov models*

Guglielmo D'Amico, Filippo Petroni, Robert Sobolewski: *Optimal provision of a dispatchable energy source for wind energy management: dependence on the wind energy model*

Volodymyr Zaslavskyi and Maya Pasichna: *Optimization Techniques for Modelling Energy Generation Portfolios in Ukraine and the EU: Comparative Analysis*

## **Session 7: Business & education – Andrzej Białas**

Alexandr Y. Bystryakov, Tatiana K. Blokhina, Elena V. Savenkova, Oksana A. Karpenko, and Nikolay S. Kondratenko: *An Empirical Evaluation of Risk of Underpricing During Initial Public Offering*

Sambor Guze: *Business Availability Indicators of Critical Infrastructures Related to the Climate-Weather Change*

Vasiliki Liagkou and Chrysostomos Stylios: *A Trustworthy and Privacy Preserving Model for Online Competence Evaluation System*

Urszula Kuźelewska: *Collaborative Filtering Recommender Systems Based on k-means Multi-clustering*

Dariusz Rogowski: *Identification of Information Technology Security Issues Specific to Industrial Control Systems*

## **Session 8: Distributed and complex systems – *Mirosław Siergiejczyk***

Andrzej Białas: *Common Criteria IT Security Evaluation Methodology – An Ontological Approach*

Wiktor B. Daszczuk: *Fairness in Temporal Verification of Distributed Systems*

Mieczysław Drabowski: *Comparison of Results Computations of Meta-Heuristic CAD Algorithms for Complex Systems with Higher Degree of Dependability*

Mieczysław Drabowski: *Short-Term and Long-Term Memory in Tabu Search Algorithm for CAD of Complex Systems with Higher Degree of Dependability*

## **Session 9: Hardware – *Jacek Mazurkiewicz***

Dariusz Dorota: *Dual-Processor Tasks Scheduling Using Modified Muntz-Coffman Algorithm*

Zbigniew Gomolka, Bogusław Twarog, and Ewa Zesławska: *The Implementation of an Intelligent Algorithm Hybrid Biometric Identification for the Exemplary Hardware Platforms*

Damian Borecki, Valery Salauyou, and Tomasz Grzes: *High-Speed Finite State Machine Design by State Splitting*

Jarosław Sugier: *Spartan FPGA Devices in Implementations of AES, BLAKE and KECCAK Cryptographic Functions*

Xin Tao, DeJiu Chen, and Juan Sagarduy: *Signal Feature Analysis for Dynamic Anomaly Detection of Components in Embedded Control Systems*

## **Session 10: Information systems – *De-Jiu Chen***

Karol Andrzejczak, Marek Młyńczak, and Jarosław Selech: *Computerization of Operation Process in Municipal Transport*

Tatyana R. Velieva, Anna V. Korolkova, Anastasiya V. Demidova, and Dmitry S. Kulyabov: *Software Package Development for the Active Traffic Management Module Self-oscillation Regime Investigation*

Mirosław Siergiejczyk and Adam Rosiński: *Analysis of Information Transmission Security in the Digital Railway Radio Communication System*

Waldemar W. Koczkodaj, Paweł Dymora, Mirosław Mazurek, and Dominik Strzałka: *Consistency-Driven Pairwise Comparisons Approach to Software Product Management and Quality Measurement*

Mohammed Jasim Khafaji and Maciej Krasicki: *Genetic-Algorithm-Driven MIMO Multi-user Detector for Wireless Communications*