DepCoS - RELCOMEX 2021 Programme

Monday   (28.06.2021)

16.00 – 16.15	Welcome
16.30 – 16.45	Technical session 1
16.45 – 17.00	Technical session 2
17.00 – 17.15	Technical session 3

Tuesday   (29.06.2021)

9.00 – 9.15	Opening
9.15 – 10.35	Session 1
10.55 – 12.15	Session 2
13.20 – 14.40	Session 3
15.00 – 16.20	Session 4

Wednesday   (30.06.2021)

9.00 – 10.20	Session 5
10.20 – 10.40	Partner University presentation
10.50 – 12.10	Session 6
13.20 – 14.40	Session 7
15.00 – 16.20	Session 8

Thursday   (01.07.2021)

9.00 – 10.20	Session 9
10.40 – 12.00	Session 10
13.30 – 14.40	Session 11
15.00 – 16.20	Session 12
16.20 – 16.35	Closing

Tuesday

Session 1: Computer Systems and Scheduling Problems

Scheduling Optimization in Heterogeneous Computing Environments with Resources of Different Types - Victor Toporkov, Dmitry Yemelyanov

Synchronization and Scheduling of Tasks in Fault-Tolerant Computer Systems with Graceful Degradation - Mieczysław Drabowski

A Stopwatch Automata-Based Approach to Schedulability Analysis of Real-Time Systems with Support for Fault Tolerance Techniques - Alevtina Glonina, Vasily Balashov

Uncertainty Modeling in Single Machine Scheduling Problems. A Survey - Paweł Rajba

Session 2: Natural Language Processing

Subject Classification of Texts in Polish - from TF-IDF to Transformers - Tomasz Walkowiak

Automatic Multi-class Classification of Polish Complaint Reports About Municipal Waste Management - Alicja Dąbrowska, Robert Giel, Sylwia Werbińska-Wojciechowska

Correlation of Bibliographic Records for OMNIS Project - Witold Wysota, Kacper Trzaska

Prediction and Causality Visualization in Speech Recognition - Adam Wróbel, Mikołaj Jarosławski, Paweł Jemioło

Session 3: Dependability & Risk Analysis

Dependability Analysis Using Temporal Fault Trees and Monte Carlo Simulation - Ernest Edifor, Neil Gordon, Martin Walker

Semi-Markov Model of Processing Requests Reliability and Availability in Mobile Cloud Computing Systems - Jerzy Martyna

Improving Effectiveness of the Risk Management Methodology in the Revitalization Domain - Andrzej Białas

Network Risk Assessment Based on Attack Graphs - Damian Hermanowski, Rafał Piotrowski

Session 4: Machine Learning

Softcomputing Approach to Sarcasm Analysis - Jacek Mazurkiewicz, Jakub Woszczyna

New Loss Function for Multiclass, Single-Label Classification - Krzysztof Halawa

Fractional Order Derivative Mechanism to Extract Biometric Features - Zbigniew Gomółka, Bogusław Twaróg, Ewa Żesławska

Explaining Predictions of the X-Vector Speaker Age and Gender Classifier - Damian Kwaśny, Paweł Jemioło, Daria Hemmerling

Wednesday

Session 5: Testing and Verification

Migration of Unit Tests of C# Programs - Anna Derezińska, Sofia Krutko

Contract-Based Specification and Test Generation for Adaptive Systems - Bence Graics, Vince Molnár, István Majzik

Cost Results of Block Inspection Policy with Imperfect Testing in Multi-unit System - Anna Jodejko-Pietruczuk

Non-exhaustive Verification in Integrated Model of Distributed Systems (IMDS) Using Vagabond Algorithm - Wiktor B. Daszczuk

Session 6: Cybersecurity

Modelling Pedestrian Behavior in a Simulator for a Security Monitoring System - Jarosław Sugier

Experimental Comparison of ML/DL Approaches for Cyberattacks Diagnostics - Aleksandr Krivchenkov, Boriss Misnevs, Alexander Grakovski

Open–source–based Environment for Network Traffic Anomaly Detection - Marcin Michalak, Łukasz Wawrowski, Marek Sikora, Rafał Kurianowicz, Artur Kozłowski, Andrzej Białas

Building of a Variable Context Key Enhancing the Security of Steganographic Algorithms - Łukasz Nozdrzykowski, Magdalena Nozdrzykowska

Session 7: Neural Networks

Generalized Convolution: Replacing the Classic Convolution Operation with the Sub-network - Kamil Szyc

Automated Music Generation Using Recurrent Neural Networks - Mateusz Czyż, Michał Kędziora

Monitoring the Granulometric Composition on the Basis of Deep Neural Networks - Andrey Puchkov, Maksim Dli, Ekaterina Lobaneva, Yaroslav Fedulov

Application of LSTM Networks for Human Gait-Based Identification - A. Sawicki, K. Saeed

Session 8: Blockchain and Data Analysis

A Proposal to Use Elliptical Curves to Secure the Block in E-voting System Based on Blockchain Mechanism - Marek Woda, Zen Huzaini

An Analysis of Data Hidden in Bitcoin Addresses - Przemysław Rodwald

Data Sparsity and Cold-Start Problems in M - CCF Recommender System - Urszula Kużelewska

Supporting Architectural Decision-Making with Data Retrieved from Online Communities - Andrzej Zalewski, Klara Borowa, Krzysztof Lisocki

Thursday

Session 9: Transport

Reliability of Multi-rotor UAV's Flight Stabilization Algorithm in Case of Object's Working Point Changes - Michał Lower, Bogusław Szlachetko

Comparison of Selected Algorithms of Traffic Modelling and Prediction in Smart City - Rzeszów - Paweł Dymora, Mirosław Mazurek

Time Based Evaluation Method of Autonomous Transport Systems in the Industrial Environment - Tomasz Serafin

Method of Visual Detection of the Horizon Line and Detection Assessment for Control Systems of Autonomous and Semi-autonomous Ships - Łukasz Nozdrzykowski, Magdalena Nozdrzykowska

Session 10: Hardware

Application of the Closed-Loop PI Controller as the Low-Pass Filter - Michał Lower, Paweł Dobrowolski

Using ASMD-FSMD Technique for Digital Device Design - Valery Salauyou

The Reliability and Operational Analysis of ICT Equipment Exposed to the Impact of Strong Electromagnetic Pulses - Adam Rosiński, Jacek Paś, Marek Szulim, Jarosław Łukasiak

Hybrid Parallel Programming in High Performance Computing Cluster - Alexander Fedulov, Anastasiya Fedulova, Yaroslav Fedulov

Session 11: Complex Systems

Reliability Assessment of Multi-cascade Redundant Systems Considering Failures of Intermodular and Bridge Communications - Vyacheslav Kharchenko, Andriy Kovalenko, Eugene Ruchkov, Ievgen Babeshko

Optimizations for Fast Wireless Image Transfer Using H.264 Codec to Android Mobile Devices for Virtual Reality Applications - Maciej Kopczyński

Efficient Computation of the Best Controls in Complex Systems Under Global Constraints - Grzegorz Mzyk

Application of Assumption Modes and Effects Analysis to XMECA - Ievgen Babeshko, Kostiantyn Leontiiev, Vyacheslav Kharchenko, Andriy Kovalenko, Eugene Brezhniev

Session 12: Applications

Computing of Blocks of Some Combinatorial Designs for Applications - Alexander Frolov

Building AFDX Networks of Minimal Complexity for Real-Time Systems - Andrey Morkvin, Valery Kostenko, Vasily Balashov

Influence of Various DLT Architectures on the CPU Resources - Patryk Pankiewicz

Evolution Process for SOA Systems as a Part of the MAD4SOA Methodology - Szymon Kijas, Klara Borowa