Lithuanian Computer Society
Vilnius University Institute of Data Science and Digital Technologies
Lithuanian Academy of Sciences

9th International Workshop on
DATA ANALYSIS METHODS FOR SOFTWARE SYSTEMS

Druskininkai, Lithuania, Hotel “Europa Royale”
http://www.mii.lt/DAMSS
November 30 – December 2, 2017
Co-Chairmen: Dr. Saulius Maskeliūnas (Lithuanian Computer Society)  
Prof. Gintautas Dzemyda (Vilnius University, Lithuanian Academy of Sciences)

Programme Committee:  
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Organizing Committee:  
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Goals of the Workshop

1. Introduce computer science and IT business community with research undertaken at Lithuanian and foreign universities in the fields of software engineering and data mining.

2. Foster relations between business entities and research community. Business representatives will have an opportunity to introduce their problems that need scientific solutions.

3. Facilitate scientific networking that will lead to joint research projects.

4. Initiate connections with foreign research institutions and scientists.

Topics

- Big data
- Bioinformatics
- Data Science
- Deep Learning
- Digital Technologies
- High-Performance Computing
- Visualization Methods for Multidimensional Data
- Machine Learning
- Medical Informatics
- Ontological Engineering
- Optimization in Data Science
- Business Rules Software Engineering
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Schedule of events

Thursday, November 30

1100–1300 – Registration/Info Desk Open

1300–1315 – Opening. Welcome and Introductory Remarks

Gintautas Dzemyda “Data Analysis Methods for Software Systems” (Vilnius University, Institute of Mathematics and Informatics)

1315–1415 – Plenary Session

Kaisa Miettinen “Data-driven Decision Support with Multiobjective Optimization” (Jyväskylä University, Finland)

Yaroslav D. Sergeyev “Lipschitz Global Optimization” (University of Calabria, Italy)

1415–1500 – Coffee, Poster Session, and Discussions


4. R. Karbauskaitė, G. Tamulevičius “Fractal Dimensions of Speech Signals”

5. R. Kasperienė “Political Protest Groups and its Rhetoric’s on Facebook”

7. **K. Ryselis** “Efficient Human Motion Matching Algorithm for Depth Scanning Systems Based on Hausdorff Distance Metric”

8. **D. Rudzika, A. Venčkauskas** “Securing Fog Network using Blockchain”

9. **A. Valatavičius, S. Gudas** “Advanced Evaluation Methods of Multiple Application Software Interoperability”


12. **L. Dovydaitis, V. Rudžionis** “Speaker Identification Using Deep Neural Networks”


15. **J. Venskus, P. Treigys, J. Bernatavičienė, V. Medvedev** “Retraining Strategies of Modified SOM for Abnormal Marine Traffic Detection”
15\textsuperscript{00}–16\textsuperscript{00} – Plenary Session

Bożena Kostek, G. Korvel “Rough Sets Applied to Music Informatics” (Gdansk University of Technology, Poland)

Konstantinos Fokianos “Tests of Independence Based on Multivariate Distance Correlation Matrix” (University of Cyprus, Cyprus)

16\textsuperscript{00}–17\textsuperscript{30} – Coffee, Poster Session, and Discussions


2. I. Bumbulienė, J. Mandravickaitė, T. Krilavičius “Application of Machine Learning for MWE Identification”

3. J. Dainauskas, D. Vitkutė-Adžgauskiene “LitWordNet Ontology Learning from Corpus Texts”


5. A. Jurgelevičius, L. Sakalauskas “BOINC Based Enterprise Desktop GRID”

6. V. Kaminskas, E. Ščiglinskas “Identification and Control of Human Response to 3D Face Stimuli Using Virtual Reality”


11. **N. Pozniak, L. Sakalauskas** “Optimisation of Surface Wastewater Treatment Filter Filler Effectiveness Using Mathematical Modelling”

12. **A. Rapec\'\'ka, J. L. Jedzinskas, G. Dzemyda** “Extended Analysis of the Sapnai.net Dataset”

13. **S.G. Samuvel** “Classification of Motor Imagery Using PCA Features for Brain-Computer Interfaces”


15. **V. Tie\'\'is** “Construction of Active and Semi-Active Schedules for Job Shop with Fixed Post-Processing Periods”

**18^0^0 – 19^3^0** – Welcome Party
Friday, December 1

9:00–10:00 – Plenary Session

*Michael Emmerich* “Bayesian Approaches to Multiobjective Optimization and its Integration into Industry 4.0 Frameworks” (Leiden University, Netherlands)

*Marjan Heričko* “Challenges in Metric-based Identification of Critical Software Components” (University of Maribor, Slovenia)

10:00–11:00 – Parallel Plenary Sessions

**Section 1**

1. *I. Kaliszewski* “Pareto Suboptimal Solutions to Large-Scale Multiobjective Multidimensional Knapsack Problems with Assessments of Pareto Suboptimality Gaps”

2. *Y. Kharin* “Analysis of Big Data Based on Conditionally Nonlinear Autoregressive Model”

**Section 2**

1. *S. Bonnini* “Combined Permutation Tests and Finite Sample Consistency”

2. *A. Serackis, V. Abromavičius, V. V. Borutinskaite, D. Navakauskas* “Predictive Novelty Discovery for Real-Time Stereoscopic Image Analysis and Decision Support”

11\textsuperscript{00}–11\textsuperscript{20} – Coffee

11\textsuperscript{20}–12\textsuperscript{20} – Parallel Plenary Sessions

Section 3


2. \textit{V. Čyras, F. Lachmayer} “Formalisation of Taboo Concept as a Prohibition to Speak”

3. \textit{D. Stumbrienė, A. S. Camanho, A. Jakaitienė} “Data Envelopment Analyses: from Education Systems Performance Assessment (Control) to Performance Management (Improvement)”

Section 4


2. \textit{M. Morkūnas, P. Treigys, J. Bernatavičienė, A. Laurinavičius} “Impact of Color on Colorectal Cancer Tissue Classification in Hematoxylin and Eosin Stained Histological Images”

3. \textit{R. Paulavičius, Claire S. Adjiman} “General-purpose Bilevel Solver BASBL: implementation and computational study using BASBLib library”
12^{30}–14^{00} – Lunch

14^{00}–15^{30} – Plenary Session

Mario Cannataro “High-Performance Management and Analysis of Omics Data: Experiences at University Magna Graecia of Catanzaro” (University "Magna Graecia" of Catanzaro, Italy)

Radim Kolar “Retinal Imaging and Image Processing for Glaucoma Diagnosis” (Brno University of Technology, Czech Republic)

Massimiliano Zanin “How can statistical physics help in data mining tasks?” (Universidad Politécnica de Madrid, Spain)

15^{30}–17^{30} – Coffee, Poster Session, and Discussions

1. V. Abromavičius, A. Serackis, D. Navakauskas “Automatic Adjustment of Disparity in Stereo View by Eye Activity based Markers”

2. R. Baronas, Ž. Ledas, R. Šimkus “Computational Modeling of Active Suspensions of Growing Bacteria”


5. S. Gudas “Knowledge Granularity in the Enterprise Information Systems”


17. **K. Ząbkiewicz** “Using Lempel-Ziv Jaccard Distance Measure in Data Stream Classification”

19:00–21:00 – Dinner

**Saturday, December 2**
9:30 – 11:30 – General Discussion
11:30 – 12:00 – Coffee, Poster Session, and Discussions
12:15 – 14:00 – General Discussion, Concluding Remarks
14:00 – 14:30 – Closing
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