



ICMMI 2013

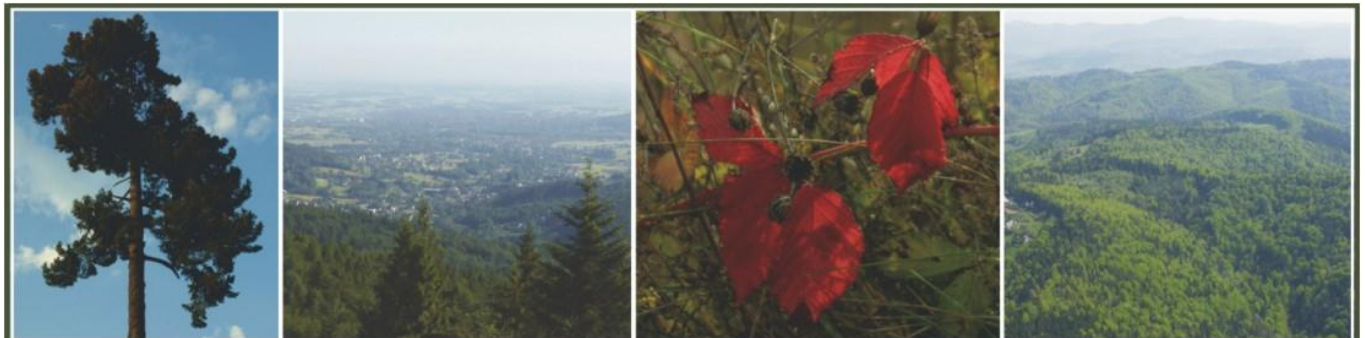
International Conference
on Man-Machine Interactions
Brenna, October 22-25, 2013

Conference Programme

TUESDAY 22.10.2013	
12:00	Registration starts
13:00	Lunch
14:30	Welcome session
14:45	Keynote lecture 1
	Pattern Recognition with Non-Euclidean Similarities <i>Edwin R. Hancock</i>
15:45	Coffee break
16:00	SESSION A: Human – Computer Interactions <i>chairperson: Edwin Hancock</i>
	SOM Based Segmentation of Visual Stimuli in Diagnosis and Therapy of Neuropsychological Disorders <i>Bolesław Jaskuła, Jarosław Szkoła, Krzysztof Pancerz</i>
	Independent Interactive Testing of Interactive Relational Systems <i>Ahti Lohk, Leo Vöhandu</i>
	Hypothesis-driven interactive classification based on AVO <i>Tomasz Łukaszewski, Jędrzej Potoniec, Szymon Wilk</i>
	Wrist Localization in Color Images for Hand Gesture Recognition <i>Jakub Nalepa, Tomasz Grzejszczak, Michał Kawulok</i>
17:00	Coffee break
17:15	Invited talk
	Stability analysis of regenerative queues: recent results <i>Evsey Morozov</i>
18:00	SESSION B: Speech Processing and Analysis <i>chairperson: Tadeusz Czachórski</i>
	Bimodal Speech Recognition for Robot Applications <i>Alaa Sagheer, Saleh Aly, Samar Anter</i>
	Recognition of Emotion Intensity Basing on Neutral Speech Mode <i>Dorota Kamińska, Tomasz Sapiński, Adam Pelikant</i>
18:45	Multimodal Speech Synthesis For Polish Language <i>Krzysztof Szklanny</i>
19:30	Barbecue dinner with live folklore music

WEDNESDAY 23.10.2013

8:00	Breakfast
9:00	Keynote lecture 2
	Visualization & Data Mining for High Dimensional Datasets <i>Alfred Inselberg</i>
10:00	Coffee break
10:15	SESSION C: Bio-Data Mining and Discovery <i>chairperson: Alfred Inselberg</i>
	Comparison of Connectionist and Rough Set Based Knowledge Discovery Methods in Search for Selection in Genes Implicated in Human Familial Cancer <i>Krzysztof A. Cyran, Marek Kimmel</i>
	Improvement of FP-Growth Algorithm for Mining Description-Oriented Rules <i>Aleksandra Gruca</i>
	Stochastic Fluctuations in the Mathematical–Simulation Approach to the Protocell Model of RNA World <i>Dariusz Myszor</i>
	Evaluation of Machine Learning Algorithms on Protein-Protein Interactions <i>Indrajit Saha, Tomas Klingström, Simon Forsberg, Johan Wikander, Julian Zubek, Marcin Kierczak, Dariusz Plewczyński</i>
	Bit-Parallel Algorithm for the Block Variant of the Merged Longest Common Subsequence Problem <i>Agnieszka Danek, Sebastian Deorowicz</i>
	Kalign-LCS—A more Accurate and Faster Variant of Kalign2 Algorithm for the Multiple Sequence Alignment Problem <i>Sebastian Deorowicz, Agnieszka Debudaj-Grabysz, Adam Gudyś</i>
11:45	Coffee break
12:00	SESSION D: Data Storage and Transfer <i>chairperson: Evsey Morozov</i>
	Applying Task-Aggregating Wrapper to CUDA-Based Method of Query Selectivity Calculation Using Multidimensional Kernel Estimator <i>Dariusz Rafal Augustyn, Lukasz Warchal</i>
	Spatial Query Optimization Based on Transformation of Constrains <i>Michał Lupa, Adam Piórkowski</i>
	Designing Frame Relay WAN Networks with Trade-off Between Link Cost and Performance <i>Mariusz Gola, Adam Czubak</i>
	Review of Mobility Models for Performance Evaluation of Wireless Networks <i>Michał Gorawski, Krzysztof Grochla</i>
	An Energy-Efficient Approach to the Design of Two-Tier Wireless Ad Hoc and Sensor Networks <i>Jerzy Martyna</i>
13:15	
13:30	Lunch
14:30	Conference trip to Museum of Żywiec Brewery
19:00	Dinner
19:30	Poster session



THURSDAY 24.10.2013

8:00 Breakfast

9:00 Keynote lecture 3

Case-Based Reasoning and the Statistical Challenges
Petra Perner

10:00 Coffee break

10:15 SESSION E: Image and Sound Processing

chairperson: Petra Perner

InFeST-ImageJ Plugin for Rapid Development of Image Segmentation Pipelines
Wojciech Marian Czarnecki

Visualization of Heterogenic Images of 3D Scene
Przemysław Kowalski, Dariusz Pojda

Application of the Cellular Automata for Obtaining Pitting Images During Simulation Process of their Growth
Bohdan Rusyn, Roxana Tors'ka, Mykhailo Kobasyar

Implementation of Registration Algorithms for Multiple Views
Krzysztof Skabek, Piotr Płoszaj

Metaheuristic Optimization of Multiple Fundamental Frequency Estimation
Krzysztof Rychlicki-Kicior, Bartłomiej Stasiak

11:30 Coffee break

11:45 Group photo

11:55 SESSION F: Expert Systems and Decision Support

chairperson: Adam Czornik

Intuitionistic Notice Boards for Expert Systems
Wojciech Cholewa

Multi Domain Data Integration System for Criminal Intelligence
Jacek Dajda, Roman Debski, Marek Kisiel-Dorohinicki, Kamil Pietak

Deduction Based Modelling and Verification of Agent Based Systems for Data Integration
Radosław Klimek, Łukasz Faber, Marek Kisiel-Dorohinicki

Preference Models and their Elicitation and Analysis for Context-Aware Applications
Radosław Klimek

13:10 Relevance Prevails: Missing Data Treatment in Intelligent Lighting
Aravind Kota Gopalakrishna, Tanir Ozcelebi, Antonio Liotta, Johan J. Lukkien

13:30 Lunch

14:30 SESSION G: Fuzzy Systems and Signal Processing

chairperson: Bogdan Gabrys

Neuro-Fuzzy System Based Kernel for Classification with Support Vector Machines
Krzysztof Simiński

Environmental Modelling Based on Rough-Fuzzy Approach
Filip Mezera, Jiri Krupka

Design of Linear-Phase FIR Filters with Time and Frequency Domains Constraints by means of Albased method
Norbert Henzel, Jacek M. Leski

Evolutionary Computation for Design of Preprocessing Filters in QRS Detection Algorithm
Krzysztof Walczak

Identification of Slow Wave Propagation in the Multichannel (EGG) Electrogastrographical Signal
Barbara T. Mika, Ewaryst J. Tkacz

15:45 Coffee break

16:00 SESSION H: Computational Intelligence and Pattern Recognition

chairperson: Ewaryst Tkacz

Video Event Recognition With Fuzzy Semantic Petri Nets
Piotr Szwed

Some Remarks on Complex Information Systems over Ontological Graphs
Krzysztof Pancierz

Weighting of Attributes in an Embedded Rough Approach
Urszula Stańczyk

Exploiting Co-Occurrence of Low Frequent Terms in Patents
Akmal Saeed Khattak, Gerhard Heyer

Fast and Simple Circular Pattern Matching
Robert Susik, Szymon Grabowski, Sebastian Deorowicz

17:30 Application of Multidimensional Data Visualization in Creation of Pattern Recognition Systems
Dariusz Jamróz

20:00 Banquet

FRIDAY 25.10.2013

8:00	Breakfast
9:00	Keynote lecture 4
	Robust Adaptive Predictive Modeling and Data Deluge <i>Bogdan Gabrys</i>
10:00	Coffee break
10:15	SESSION I: Robot Control, Navigation and Cognitive Systems <i>chairperson: Stanisław Kozielski</i>
	KUKA Robot Motion Planning Using the 1742 NI Smart Camera <i>Krzysztof Palenta, Artur Babiarsz</i>
	Programming of Industrial Object Simulators in Proficy HMI/SCADA iFIX System <i>Ryszard Jakuszczyński</i>
	Visual Simultaneous Localization and Mapping with Direct Orientation Change Measurements <i>Adam Schmidt, Marek Kraft, Michał Fularz, Zuzanna Domagała</i>
	Calculation of the Location Coordinates of an Object Observed by a Camera <i>Tadeusz Szkodny</i>
	Generic Framework for Simulation of Cognitive Systems: A Case Study of Color Category Boundaries <i>Dariusz Plewczynski, Michał Łukasik, Konrad Kurdej, Julian Zubek, Franciszek Rakowski, Joanna Rączaszek-Leonardi</i>
11:30	Coffee break
11:45	SESSION J: Algorithms and Optimisation <i>chairperson: Sebastian Deorowicz</i>
	Agent-Based Approach to Continuous Optimisation <i>Aleksander Byrski, Marek Kisiel-Dorohinicki</i>
	Clonal Selection Algorithm in Identification of Boundary Condition in the Inverse Stefan Problem <i>Edyta Hetmaniok, Damian Słota</i>
	Application of General-Purpose Computing on Graphics Processing Units for Acceleration of Basic Linear Algebra Operations and Principal Components Analysis Method <i>Michał Majchrowicz, Paweł Kapusta, Lukasz Was, Sławomir Wiak</i>
	Multiobjective Differential Evolution: A Comparative Study on Benchmark Problems <i>Indrajit Saha, Ujjwal Maullik, Michał Łukasik, Dariusz Plewczynski</i>
12:45	Farewell session
13:15	Lunch

Organiser:



Silesian University of Technology,
Gliwice, POLAND

Co-organiser:



Institute of Theoretical and Applied Informatics,
Polish Academy of Science
Gliwice, POLAND