

**14th International Conference  
Artificial Intelligence and Soft Computing**

**Program**

**Zakopane, Poland, June 14-18, 2015**

**Program at a glance**

Sunday, June 14	Monday, June 15	Tuesday, June 16	Wednesday, June 17	Thursday, June 18
	<b>07:30-8:30</b>	<b>07:30-8:30</b>	<b>07:30-8:30</b>	<b>07:30-8:30</b>
	Breakfast, Room: Zakopane	Breakfast, Room: Zakopane	Breakfast, Room: Zakopane	Breakfast, Room: Zakopane
	<b>Invited Talk, Chair: Leszek Rutkowski</b>	<b>Invited Talk, Chair: Thomas Villmann</b>	Session 7	
	<b>8:30 - 9:15 + Opening Ceremony</b>	<b>8:30 - 9:15</b>	<b>8:45-10:00</b>	
	James Tin-Yau KWOK	Eyke Hüllermeier	Large-Scale Visual Recognit. and Mach. Learning	
	<b>9:15 - 10:00</b>	<b>9:15 - 10:00</b>	Various Problems of Artificial Intelligence I	
	Witold Pedrycz	Ewa Dudek-Dyduch		
	Session 1	Session 4	<b>Session A</b>	
	<b>10:15-11:30</b>	<b>10:15-11:30</b>	<b>10:20 - 13:00</b>	
	Neural Networks and Data Mining	Fuzzy Systems and Their Applications		
	Session 2	Session 5		
	<b>11:45-13:00</b>	<b>11:45-13:00</b>		
	Computer Vision, Image and Speech Analysis	Artificial Intelligence in Modeling and Simulation		
	<b>13:00 - 14:30</b>	<b>13:00 - 14:30</b>	<b>13:00 - 14:30</b>	
	Lunch, Room: Zakopane	Lunch, Room: Zakopane	Lunch, Room: Zakopane	
	<b>Invited Talk, Chair: Maciej Wilamowski</b>	<b>Invited Talk, Chair: Janusz Starzyk</b>	<b>Session B</b>	
	<b>14:45 - 15:30</b>	<b>14:45 - 15:45</b>	<b>14:40 - 16:00</b>	
	Krzysztof Mikołajczyk	Tomasz Kopacz		
	<b>15:30 - 16:15</b>	<b>15:45 - 16:30</b>		
	Andrzej Obuchowicz	Adrian Horzyk		
	Session 3	Session 6	Session 8	
	<b>16:30-17:45</b>	<b>16:45-18:00</b>	<b>16:15-17:30</b>	
	Evolutionary Algorithms, Classification and Estimation	Bioinformatics, Biometrics and Medical Applications	Various Problems of Artificial Intelligence II	
	<b>18:00</b>	<b>18:15</b>	<b>18:00</b>	
<b>18:00</b>	Social event (outdoor bonfire)	Social event, Venue: Sywor	Farewell Party (Banquet), Room: Tatry	
Welcome party, Room Zakopane				

***Detailed Program***

**Sunday, June 14**

**18:00**

**Welcome party**

Room: Zakopane

**Monday, June 15**

**07:30-8:30**

Breakfast, Room: Zakopane

**8:30-8:50**

**Opening Ceremony**

**Invited Talk, Chair: Leszek Rutkowski, Room: Tatry**

**8:30 - 9:15**

James Tin-Yau KWOK - Machine Learning on Big Data

**9:15 - 10:00**

Witold Pedrycz - Publish or perish - on effective dissemination of research results

Session 1: Neural Networks, Data Mining

Date/Time: 10:15-11:30, Mon., June 15, 2015

Room: Rysy

Parallel approach to the Levenberg-Marquardt learning algorithm for feedforward neural networks

*Jaroslav Bilski, Jacek Smolaq, and Jacek M. Zurada*

Microarray Leukemia Gene Data Clustering by Means of Generalized Self-Organizing Neural Networks with Evolving Tree-Like Structures

*Marian B. Gorzalczany, Jakub Piekoszewski, and Filip Rudziński*

Probabilistic Neural Network Training Procedure with the Use of SARSA Algorithm

*Maciej Kusy and Roman Zajdel*

Extensions of Hopfield Neural Networks for solving of stereo-matching problem

*Lukasz Laskowski, Jerzy Jelonkiewicz, and Yoichi Hayashi*

Molecular approach to Hopfield neural network

*Lukasz Laskowski, Magdalena Laskowska, Jerzy Jelonkiewicz, and Arnaud Boulanger*

Toward work groups classification based on probabilistic neural network approach

*Christian Napoli, Giuseppe Pappalardo, Emiliano Tramontana, Robert K. Nowicki, Janusz T. Starczewski, and Marcin Woźniak*

Adaptation of RBM learning for Intel MIC architecture

*Tomasz Olas, Wojciech Mleczo, Robert K. Nowicki, Roman Wyrzykowski, and Adam Krzyzak*

Using an Artificial Neural Network to Predict Loop Transformation Time

*Marek Palkowski and Włodzimierz Bielecki*

Using Parity-N problems as a way to compare abilities of shallow, very shallow and very deep architectures

*Paweł Różycki, Janusz Kolbusz, Tomasz Bartczak, and Bogdan Wilamowski*

Product Multi-kernels for Sensor Data Analysis

*Petra Vidnerova and Roman Neruda*

Natural Language Processing Methods Used for Automatic Prediction Mechanism of Related Phenomenon

*Krzysztof Horecki and Jacek Mazurkiewicz*

Visual Exploration of Data with Multithread MIC Computer Architectures

*Piotr Pawliczek, Witold Dzwiniel, and David A. Yuen*

Convex Nonnegative Matrix Factorization with Rank-1 Update for Clustering

*Rafał Zdunek*

Session 2: Vision, Image and Speech Analysis

Date/Time: 11:45-13:00, Mon., June 15, 2015

Room: Rysy

A Feature-based Machine Learning Agent for Automatic Rice and Weed Discrimination

*Beibei Cheng and Eric Matson*

Relation of average error in Prolate Spheroidal Wave Functions algorithm for bandlimited functions approximation to radius of information

*Michał Cholewa*

Video Key Frame Detection Based on SURF Algorithm

*Rafał Gryczuk, Michał Knop, and Sayantan Mandal*

Automatic Diagnosis of Melanoid Skin Lesions Using Machine Learning Methods

*Katarzyna Grzesiak-Kopeć, Leszek Nowak, and Maciej Ogorzałek*

Image Segmentation in Liquid Argon Time Projection Chamber Detector

*Piotr Płoński, Dorota Stefan, Robert Sulej, and Krzysztof Zaremba*

Massively parallel change detection with application to visual quality control

*Ewaryst Rafajłowicz and Karol Niżyński*

A Fuzzy Logic Approach for Gender Recognition from face Images with embedded Bandlets

*Zain Shabbir, Absar Ullah Khan, Aun Irtaza, and Muhammad Tariq Mahmood*

Interpretation of image segmentation in terms of justifiable granularity

*Piotr Szczepaniak*

Information Granules in Application to Image Recognition

*Krzysztof Wiaderek, Danuta Rutkowska, and Elisabeth Rakus-Andersson*

Can we process 2D images using Artificial Bee Colony?

*Marcin Woźniak, Dawid Polap, Marcin Gabryel, Robert K. Nowicki, Christian Napoli, and Emiliano Tramontana*

Images Indexing and Retrieval Using GSOM Algorithm

*Marcin Gabryel, Rafał Grycuk, Leszek Rutkowski, and Taras Holotyak*

Multi-layer Architecture For Storing Visual Data Based on WCF and Microsoft SQL Server Database

*Rafał Grycuk, Marcin Gabryel, Rafał Scherer, and Sviatoslav Voloshynovskiy*

Intelligent Fusion of Infrared and Visible Spectrum for Video Surveillance Application

*Rania Rebai Boukhris, Emna Fendri, and Mohamed Hammami*

**13:00 - 14:30**

Lunch, Room: Zakopane

**Invited Talk, Chair: Maciej Wilamowski, Room Tatry**

**14:45 - 15:30**

Krystian Mikolajczyk - Local features in image recognition

**15:30 - 16:15**

Andrzej Obuchowicz - Stable mutations for evolutionary algorithms

Session 3: Evolutionary Algorithms, Classification and Estimation

Date/Time: 16:30-17:45, Mon., June 15, 2015

Room: Rysy

Hybrids of two-subpopulation PSO algorithm with local search methods for continuous optimization

*Aneta Bera and Dariusz Sychel*

Parallel coevolutionary algorithm for three-dimensional bin packing problem

*Wojciech Bożejko, Łukasz Kacprzak, and Mieczysław Wodecki*

Adaptive Differential Evolution: SHADE with Competing Crossover Strategies

*Petr Bujok and Josef Tvrđik*

A Parallel Approach for Evolutionary Induced Decision Trees. MPI+OpenMP Implementation

*Marcin Czajkowski, Krzysztof Jurczuk, and Marek Kretowski*

Automatic Grammar Induction for Grammar Based Genetic Programming

*Dariusz Palka and Marek Zachara*

On the ability of the one-point crossover operator to search the space in a genetic algorithm

*Zbigniew Pliszka and Olgierd Unold*

Multiple Choice Strategy for PSO Algorithm Enhanced with Dimensional Mutation

*Michal Pluhacek, Roman Senkerik, Ivan Zelinka, and Donald Davendra*

A hybrid differential evolution-gradient optimization method

*Wojciech Rafajłowicz*

On the Tuning of Complex Dynamics Embedded into Differential Evolution

*Roman Senkerik, Michal Pluhacek, Ivan Zelinka, Donald Davendra, Zuzana Kominkova Oplatkova, and Roman Jasek*

Mathematical Characterization of Sophisticated Variants for Relevance Learning in Learning Matrix Quantization Based on Schatten-p-norms

*Andrea Bohnsack, Kristin Domaschke, Marika Kaden, Mandy Lange, and Thomas Villmann*

Adaptive Active Learning with Ensemble of Learners and Multiclass Problems

*Wojciech Czarniecki*

A new Interpretability Criteria for Neuro-fuzzy Systems for Nonlinear Classification

*Krzysztof Łapa, Krzysztof Cpałka, and Alexander I. Galushkin*

Comparison of the Efficiency of Time and Frequency Descriptors Based on the Dierent Classification Conceptions

*Krzysztof Tyburek, Piotr Prokopowicz, Piotr Kotlarz, and Michal Repka*

CNC Milling Tool Head Imbalance Prediction Using Computational Intelligence Methods

*Tomasz Żabiński, Tomasz Mączka, Jacek Kluska, Maciej Kusy, Piotr Gierlak, Robert Hanus, and Sławomir Prucnal*

**18:00**

Social event (outdoor bonfire)



## Tuesday, June 16

**07:30-8:30**

Breakfast, Room: Zakopane

**8:30 – 10:00**

**Invited Talk, Chair: Thomas Villmann, Room Tatry**

**8:30 - 9:15**

Eyeke Hüllermeier - Uncertainty in Machine Learning: From Weak Supervision to Reliable Prediction

**9:15 - 10:00**

Ewa Dudek-Dyduch - Algebraic Logical Meta-Model of decision processes - new metaheuristics

Session 4: Fuzzy Systems and Their Applications

Date/Time: 10:15-11:30, Tue., June 16, 2015

Venue: Rysy

A Fuzzy Approach to Competitive Clusters Using Moore Families

*Victor Gerardo Alfaro Garcia, Anna Maria Gil-Lafuente, and Anna Klimova*

A Fingerprint Retrieval Technique using Fuzzy Logic-based Rules

*Rosario Arjona and Iluminada Baturone*

Initial Comparison of Formal Approaches to Fuzzy and Rough Sets

*Adam Grabowski and Takashi Mitsuishi*

Comparative approach to the multi-valued logic construction for preferences

*Krzysztof Jobczyk, Antoni Ligęza, Maroua Bouzid, and Jerzy Karczmarczuk*

Learning Rules for Type-2 Fuzzy Logic System in The Control of DeNOx Filter

*Marcin Kacprowicz, Adam Niewiadomski, and Krzysztof Renkas*

Selected Applications of P1-TS Fuzzy Rule-Based Systems

*Jacek Kluska*

Fuzzy Agglomerative Clustering

*Michał Konkol*

An exponential-type entropy measure on intuitionistic fuzzy sets

*Yessica Nataliani, Chao-Ming Hwang, and Miin-Shen Yang*

Comparative Analysis of MCDM Methods for Assessing the Severity of Chronic Liver Disease

*Andrzej Piegat and Wojciech Salabun*

Solving Zadeh's challenge problems with the application of RDM-arithmetic  
*Marcin Pluciński*

The Directed Compatibility Between Ordered Fuzzy Numbers - a Base Tool for a Direction Sensitive Fuzzy Information Processing  
*Piotr Prokopowicz and Witold Pedrycz*

Learning Rules for Hierarchical Fuzzy Logic Systems with Selective Fuzzy Controller Activation  
*Krzysztof Renkas, Adam Niewiadomski, and Marcin Kacprowicz*

A new approach to the rule-base evidential reasoning with application  
*Pavel Sevastjanov, Ludmila Dymova, and Krzysztof Kaczmarek*

Bias-correction fuzzy c-regressions algorithm  
*Miin-Shen Yang, Yu-Zen Chen, and Yessica Nataliani*

Interval Type-2 Locally Linear Neuro Fuzzy Model based on Locally Linear Model Tree  
*Zahra Zamanzadeh Darban and Mohammad Hadi Valipour*

Session 5: Artificial Intelligence in Modeling and Simulation

Date/Time: 11:45-13:00, Tue., June 16, 2015

Room: Rysy

Fuzzy Xor Classes from Quantum Computing

*Anderson Avila, Murilo Schmalfluss, Renata Reiser, and Vladic Kreinovich*

New method for non-linear correction modelling of dynamic objects with genetic programming

*Lukasz Bartczuk, Andrzej Przybył, and Petia Koprinkova-Hristova*

Clustering algorithm based on molecular dynamics with Nose-Hoover thermostat. Application to Japanese candlesticks

*Leszek Chmielewski, Maciej Janowicz, and Arkadiusz Orłowski*

Modeling manufacturing processes with disturbances - a new method based on algebraic-logical meta-model

*Ewa Dudek-Dyduch*

A new approach to nonlinear modeling based on significant operating points detection

*Piotr Dziwinski and Eduard D Avedyan*

An Application of Differential Evolution to Positioning Queueing Systems

*Marcin Gabryel, Marcin Woźniak, and Robertas Damasevicius*

Experimental evaluation of selected approaches to covariance matrix regularization

*Przemysław Glomb and Michał Cholewa*

A new approach to Security Games

*Jan Karwowski and Jacek Mańdziuk*

Proposal of a context-aware smart home ecosystem

*Radosław Klimek and Grzegorz Rogus*

A Graph Grammar Tool for Generating Computational Grid Structures

*Wojciech Palacz, Iwona Ryszka, and Ewa Grabska*

Assessment of fertilizer nitrogen requirement of sugar beetroot using Info-Gap Theory

*Andrzej Piegat and Karina Tomaszewska*

Geometric approach in local modeling: learning of mini-models based on n-dimensional simplex

*Marcin Pietrzykowski and Andrzej Piegat*

ALMM Solver: the Idea and the Architecture

*Krzysztof Rączka, Ewa Dudek-Dyduch, Edyta Kucharska, and Lidia Dutkiewicz*

Graph-based Optimization of Energy Efficiency of Street Lighting

*Adam Sędziwy and Leszek Kotulski*

Multi-class nearest neighbor classifier for incomplete data handling

*Bartosz Nowak, Robert K. Nowicki, Marcin Woźniak, and Christian Napoli*

**13:00 - 14:30**

Lunch, Room: Zakopane

**Invited Talk, Chair: Janusz Starzyk, Room Tatry**

**14:45 - 15:45**

Tomasz Kopacz - BigData on Azure for architects – Machine Learning, HDInsight, Event Hub – what to use when (and – a little bit – how)

**15:45 - 16:30**

Adrian Horzyk - Innovative types and abilities of neural networks based on associative mechanisms and a new associative model of neurons

Session 6: Bioinformatics, Biometrics and Medical Applications, Parallel Proc., Agent Systems, Robotics, Control

Date/Time: 16:45-18:00, Tue., June 16, 2015

Room: Rysy

On the Convergence of Quantum and Distributed Computational Models of Consciousness

*Susmit Bagchi*

Nature-inspired Algorithms for Selecting EEG Sources for Motor Imagery based BCI  
*Sebastian Basterrech, Pavel Bobrov, Alexander Frolov, and Dusan Husek*

PROCESS: Projection-based Classification of Electroencephalograph Signals  
*Krisztian Buza, Julia Koller, and Kristof Marussy*

Feature Extraction of Palm Vein Patterns Based on Two-Dimensional Density Function  
*Mariusz Kubanek, Dorota Smorawa, and Taras Holotyak*

Segmentation Based Feature Selection on Classifying Proteomic Spectral Data  
*Hsun-Chih Kuo and Sheng-Tzung Yeh*

SOM vs FCM vs PCA in 3d face recognition  
*Sebastian Pabiasz, Janusz T. Starczewski, and Antonino Marvuglia*

Mobile Fuzzy System for Detecting Loss of Consciousness and Epileptic Seizure  
*Pawel Staszewski, Piotr Woldan, and Sohrab Ferdowsi*

A new method for the dynamic signature verification based on the stable partitions of the signature  
*Marcin Zalasiński, Krzysztof Cpalka, and Meng Joo Er*

New fast algorithm for the dynamic signature verification using global features values  
*Marcin Zalasiński, Krzysztof Cpalka, and Yoichi Hayashi*

Parallelization of a Block Cipher Based on Chaotic Neural Networks  
*Dariusz Burak*

Acceleration of neighborhood evaluation for a multi-objective vehicle routing  
*Szymon Jagiello, Jarosław Rudy, and Dominik Żelazny*

A concurrent inconsistency reduction algorithm for the pairwise comparisons method  
*Konrad Kulakowski, Radosław Juszczyk, and Sebastian Ernst*

OpenCL implementation of PSO algorithm for Quadratic Assignment Problem  
*Piotr Szwed, Wojciech Chmiel, and Piotr Kadluczka*

Towards a better understanding and behavior recognition of inhabitants in smart cities. A public transport case  
*Radosław Klimek and Leszek Kotulski*

Aspects of structure and parameters selection of control systems using selected multi-population algorithms  
*Krzysztof Łapa, Jacek Szczypka, and Rajasekar Venkatesan*

Optimization of controller structure using evolutionary algorithm

*Andrzej Przybył, Jacek Szczypka, and Lipo Wang*

Multi-criteria fuel distribution: a case study

*Jarosław Rudy and Dominik Żelazny*

A Robust Heuristic for the Multidimensional A-star/Wavefront Hybrid Planning Algorithm

*Igor Wojnicki, Sebastian Ernst, and Wojciech Turek*

Human-Agent Interaction Design for Decreasing Indebtedness

*Saori Yamamoto and Yugo Takeuchi*

An Edge Detection using 2D Gaussian Function in Computed Tomography

*Michal Knas, Robert Cierniak, and Olga Rebrova*

**18:15**

Social event, Venue: Sywor

**Wednesday, June 17**

**07:30-8:30**

Breakfast, Room: Zakopane

Session 7: Workshop: Large-Scale Visual Recognition and Machine Learning, Various Problems of Artificial Intelligence

Date/Time: 8:45-10:00, Wed., June 17, 2015

Room: Rysy

Improving effectiveness of SVM classifier for large scale data

*Jerzy Balicki, Julian Szymanski, Marcin Kępa, Karol Draszawka, and Waldemar Korlub*

Reducing time complexity of SVM model by LVQ data compression

*Marcin Blachnik*

Object Localization Using Active Partitions and Structural Description

*Mateusz Jadczyk and Arkadiusz Tomczyk*

Fast Dictionary Matching for Content-based Image Retrieval

*Patryk Najgebauer, Janusz Rygal, Tomasz Nowak, Jakub Romanowski, Leszek Rutkowski, Sviatoslav Voloshynovskiy, and Rafał Scherer*

Recognition and Modeling of Atypical Children Behavior

*Aleksandra Postawka and Przemysław Śliwiński*

Improving Image Processing Performance using Database User-Defined Functions

*Michał Vagac and Miroslav Melichercik*

Facial displays description schemas for smiling vs. neutral emotion recognition

*Karolina Nurzynska and Bogdan Smolka*

Constraint Optimization Production Planning Problem. A Note on Theory, Selected Approaches and Computational Experiments

*Weronika Adrian, Nicola Leone, Antoni Ligęza, Marco Manna, and Mateusz Ślaziński*

Investigating the Mapping between Default Logic and Inconsistency-Tolerant Semantics

*Abdallah Arioua, Nouredine Tamani, Madalina Croitoru, Jerome Fortin, and Patrice Buche*

Automated discovery of mobile users locations with improved K-means clustering

*Szymon Bobek, Grzegorz J. Nalepa, and Olgierd Grodzki*

Capturing dynamics of mobile context-aware systems with rules and statistical analysis of historical data

*Szymon Bobek, Mateusz Ślaziński, and Grzegorz J. Nalepa*

Parallel simulated annealing algorithm for cyclic flexible job shop scheduling problem

*Wojciech Bożejko, Jarosław Pempera, and Mieczysław Wodecki*

Transactional Forward Chaining: A Functional Approach

*Konrad Grzanek*

Metasets and Opinion Mining in New Decision Support System

*Magdalena Kacprzak, Bartłomiej Starosta, and Katarzyna Węgrzyn-Wolska*

Session A: , Chair: Vera Kurkova

Date/Time: 10:20 - 12:00, Wed., June 17, 2015

Room: Tatry

Reasoning over Vague Concepts

*Mustapha Bourahla*

Classification in sparse, high dimensional environments applied to distributed systems failure prediction

*Jose M. Navarro, Hugo A. Parada G., and Juan C. Duenas*

A comparison of shallow decision trees under real-boost procedure in application to landmine detection using Ground Penetrating Radar

*Przemysław Klęsk, Mariusz Kapruziak, and Bogdan Olech*

Complexity of shallow networks representing finite mappings

*Vera Kurkova*

Specific object detection scheme based on descriptors fusion using belief functions

*Mariem Farhat, Slim Mhiri, and Moncef Tagina*

Improving the analysis of context-aware information via marker-based stigmergy and differential evolution

*Mario G.C.A. Cimino, Alessandro Lazzeri, and Gigliola Vaglini*

Random Forests with Weighted Voting for Anomalous Query Access Detection in Relational Databases

*Charissa Ann Ronao and Sung-Bae Cho*

Visual Saccades for Object Recognition

*Janusz Starzyk*

**13:00 - 14:30**

Lunch, Room: Zakopane

Session B: Chair: Elisabeth Rakus-Andersson  
Date/Time: 14:40 - 16:00, Wed., June 17, 2015  
Room: Tatry

The setup method of the order with the help of the rough sets convention  
*Aleksandra Ptak, Henryk Piech, and Nina Zhou*

The Fuzzied Quasi-perceptron in Decision Making Concerning Treatments in Necrotizing Fasciitis  
*Elisabeth Rakus-Andersson, Janusz Frey, and Danuta Rutkowska*

Cross-Entropy Clustering approach to One-class classification  
*Przemysław Spurek, Mateusz Wójcik, and Jacek Tabor*

Extended AMUSE algorithm and novel randomness approach for BSS model aggregation with methodology remarks  
*Ryszard Szupiluk, Tomasz Zabkowski, and Krzysztof Gajowniczek*

Computational models of immediate and expected emotions for emotional BDI agents  
*Hanen Lejmi Riahi, Fahem Kebair, and Lamjed Ben Said*

Session 8: Various Problems of Artificial Intelligence  
Date/Time: 16:15-17:30, Wed., June 17, 2015  
Room: Rysy

Practical Approach to Interoperability in Production Rule Bases with SUBITO  
*Krzysztof Kaczor*

Measuring Complexity of Business Process Models Integrated with Rules  
*Krzysztof Kluza*

On Perturbation Measure for Binary Vectors  
*Maciej Krawczak and Grażyna Szkatuła*

A Quick Method For Dynamic Difficulty Adjustment of a Computer Player in Computer Games  
*Ewa Lach*

UCT-based approach to Capacitated Vehicle Routing Problem  
*Jacek Mandziuk and Cezary Nejman*

An Improved Magnetotactic Bacteria Moment Migration Optimization Algorithm  
*Hongwei Mo, Jingwen Ma, and Yanyan Zhao*

SBVRwiki a Web-based Tool for Authoring of Business Rules  
*Grzegorz J. Nalepa, Krzysztof Kluza, and Krzysztof Kaczor*

Balanced Support Vector Regression



*Marcin Orchel*

Adaptation mechanism of feedback in quaternion Kalman filtering for orientation estimation

*Przemysław Prusowski, Agnieszka Szczęśna, Andrzej Polański, Janusz Słupik, and Konrad Wojciechowski*

Using Graph Grammar Systems with Memory in Computer Aided Design

*Iwona Ryszka and Barbara Strug*

Using Co-occurring Graph Patterns in Computer Aided Design Evaluation

*Barbara Strug*

Parallel cost function determination on GPU for the vehicle routing problem

*Mieczysław Wodecki, Wojciech Bożejko, Szymon Jagiello, and Jarosław Pempera*

A DSS based on hybrid meta-heuristic ILS-VND for solving the 1-PDTSP

*Hiba Yahyaoui and Saoussen Krichen*

On Enhancing the Label Propagation Algorithm for Sentiment Analysis Using Active Learning with an Artificial Oracle

*Anis Yazidi, Hugo Lewi Hammer, Aleksander Bai, and Paal Engelstad*

Immune Optimal Design of 2-D and 3-D Structures

*Arkadiusz Poteralski, Mirosław Szczepanik, and Tadeusz Burczyński*

Swarm and immune computing of dynamically loaded reinforced structures

*Arkadiusz Poteralski, Mirosław Szczepanik, Radosław Górski, and Tadeusz Burczyński*

**18:00**

Farewell Party (Banquet), Room: Tatry

**Thursday, June 18**

**07:30-8:30**

Breakfast, Room: Zakopane

## **Conference site**

The ICAISC Conference is held in:

Mercure Kasprowy Hotel  
ul. Szymaszkowa  
34-500 Zakopane, POLAND  
tel. (+48) 18 202 40 00

## **Useful phone numbers:**

taxi in Zakopane: +48 18 196 25, Radio Taxi Giewont +48 18 196 26

Radio Taxi 919: +48 18 20 12 560

INTER Radio Taxi: +48 18 201 42 32

Zakopane tourist information: +48 18 20-122-11

Ambulance: 999, Police: 997 (or 112 from your mobile phone)

Mountain Rescue Team TOPR : 0 603 100 300 or 206 34 44

Krakow tourist information: +48 12 422 60 91, +48 12 421 77 06, +48 12 433 73 10

taxi in Krakow: (+48 12) 19919, 19191, 19621, 19623, 19625