

# CORES 2017

## CONFERENCE PROGRAMME

Monday 22 May 2017

<b>11:00 – 16:00</b>	<b>Registration of participants</b>
<b>13:00 – 14:30</b>	<b>Lunch</b>
<b>14:30 – 14:45</b>	<b>Opening ceremony</b>
<b>14:45 – 15:30</b>	<b>Plenary session I – Chair Prof. M. Kurzyński</b> Prof. Juliusz L. Kulikowski <b>Recognition of Fuzzy or Incompletely Described Objects</b>
<b>15:30 - 16:00</b>	<b>Coffee break</b>
<b>16:00 – 18:00</b>	<b>Session 1 - Features, learning, and classifiers 1</b> <b>Chair Prof. P.S. Szczepaniak</b> <ol style="list-style-type: none"> <li>1. Mariusz Flasiński and Janusz Jurek. Methodology of the construction of a GDPLL(k) grammar-based syntactic pattern recognition system</li> <li>2. Sebastian Porębski and Ewa Straszeka. Diagnostic rule extraction using the Dempster-Shafer theory extended for fuzzy focal elements</li> <li>3. Leszek Klukowski. Determining of an Estimate of the Equivalence Relation on the Basis of Pairwise Comparisons</li> <li>4. Leszek J Chmielewski, Konrad Furmańczyk and Arkadiusz Orłowski. Competitive Detector of Changes with a Statistical Test</li> <li>5. Nadine Kuhnert, Oliver Lindenmayr and Andreas Maier. Classification of Body Regions based on MRI Log Files</li> </ol>
<b>16:00 – 18:00</b>	<b>Session 2 - Image processing and computer vision 1</b> <b>Chair Prof. I. Rejer</b> <ol style="list-style-type: none"> <li>1. Leire Roa-Barco, Oscar Serradilla-Casado, Mikel Develasco-Vazquez, Asier Lopez-Zorrilla, Manuel Grana, Darya Chyzhyk and Catherine Price. A 2D/3D Convolutional Neural Network for brain white matter lesion detection in multimodal MRI</li> <li>2. Manuel Grana, Oier Echaniz, Beatriz Rodriguez-Vigil and Idoia Labayen. Automated segmentation of visceral adiposity in MRI in obese children</li> <li>3. Marcin Skobel, Marek Kowal and Józef Korbicz. Nuclei recognition using Iterated Conditional Modes approach</li> <li>4. Jakub Zak, Anna Korzyńska, Lukasz Roszkowiak, Krzysztof Siemion, Sebastian Walerzak, Monika Walerzak and Konrad Walerzak. The Method of Teeth Region Detection in Panoramic Dental Radiographs</li> <li>5. Pawel Forczmanski.</li> </ol>

	<p>Performance Evaluation of Selected Thermal Imaging-based Human Face Detectors</p> <p>6. Krzysztof Okarma and Jarosław Fastowicz. Color Independent Quality Assessment of 3D Printed Surfaces Based on Image Entropy</p>
19:00	Social event

Tuesday 23 May 2017

8:15 - 9:00	<p><b>Plenary session II – Chair Prof. J.L. Kulikowski</b> Prof. Katarzyna Stapor <b>Evaluating and comparing classifiers: review, some recommendations and limitations</b></p>
9:00 – 9:45	<p><b>Plenary session III – Chair Prof. M. Woźniak</b> Dr Bartosz Krawczyk <b>Challenges in Drifting Data Stream Mining</b></p>
9:45 - 10:00	Coffee break
10:00 – 11:15	<p><b>Session 3 - Features, learning, and classifiers 2</b> <b>Chair Prof. J. Jurek</b></p> <ol style="list-style-type: none"> <li>Vitaliy Tayanov, Adam Krzyzak and Ching Suen. Some Properties of Consensus-Based Classification</li> <li>Szymon Wojciechowski, Szymon Wilk and Jerzy Stefanowski. An Algorithm for Selective Preprocessing of Multi-class Imbalanced Data</li> <li>Paweł Trajdos and Marek Kurzyński. Permutation-based Diversity Measure for Classifier-chain Approach.</li> <li>Saber Shokat Fadaee, Mohammad Sajjad Ghaemi, Hossein Azari Soufiani and Ravi Sundaram Chiron. A Robust Recommendation System with Graph Regularizer</li> </ol>
10:00 – 11:15	<p><b>Session 4 - Miscellaneous applications 1</b> <b>Chair Prof. Manuel Grana</b></p> <ol style="list-style-type: none"> <li>Thomas McMahon and John Oommen. Enhancing English-Japanese Translation Using Syntactic Pattern Recognition Methods</li> <li>Muhammad Hassan Khan, Frederic Li, Muhammad Shahid Farid and Marcin Grzegorzec. Gait Recognition using Motion Trajectory Analysis</li> <li>Abdurrahman Pektas and Tankut Acarman. Portable Dynamic Malware Analysis with An Improved Scalability and Automatization</li> <li>Krisztian Buza and Piroska B. Kis. Towards Privacy-aware Keyboards</li> </ol>
11:15 – 11:30	Coffee break
11:30 – 12:45	<p><b>Session 5 - Features, learning, and classifiers 3</b> <b>Chair Prof. Krisztian Buza</b></p> <ol style="list-style-type: none"> <li>Lukasz Korycki and Bartosz Krawczyk. Combining Active Learning and Self-Labeling for Data Stream</li> </ol>

	<p>Mining</p> <ol style="list-style-type: none"> <li>2. Magdalena Wiercioch. Feature selection in texts</li> <li>3. Abdurrahman Pektas and Tankut Acarman. Ensemble Machine Learning Approach for Android Malware Classification Using Hybrid Features</li> <li>4. Anis Yazidi and John Oommen. Novel Results on Random Walk-Jump Chains that Possess Tree-based Transitions</li> </ol>
<b>11:30 – 12:45</b>	<p><b>Session 6 - Image processing and computer vision 2</b> <b>Chair Prof. K. Okarma</b></p> <ol style="list-style-type: none"> <li>1. Rafal Doroz, Krzysztof Wrobel and Hossein Safaverdi. The method of person verification by use of finger knuckle images</li> <li>2. Juan Luis Jiménez Bascones and Manuel Grana. An ensemble of weak classifiers for pattern recognition in motion capture clouds of points</li> <li>3. Arkadiusz Tomczyk and Piotr Szczepaniak. Knowledge Based Active Partition Approach for Heart Ventricle Recognition</li> <li>4. Simone Buoncompagni, Annalisa Franco and Dario Maio. Efficient sketch recognition based on shape features and multidimensional indexing</li> </ol>
<b>12:45 – 13:30</b>	<p><b>Session 7 – (poster I)</b> <b>Chair Prof. P. Forczmański</b></p> <ol style="list-style-type: none"> <li>1. Dora Neubrandt and Krisztian Buza. Projection-based Person Identification</li> <li>2. Malgorzata Przytulska and Juliusz Kulikowski. Multi-aspect Assessment and Classification of Porous Materials Designed for Tissue Engineering</li> <li>3. Izabela Rejer and Paweł Górski. EEG classification for MI-BCI with Independent Component Analysis</li> <li>4. Konrad Jackowski. A Novel Simulated Annealing Based Training Algorithm for Data Stream Processing Ensemble Classifier</li> <li>5. Jakub Nawąła and Bogusław Cyganek. Real-Time Image Content Assessment for Underwater Robot Manoeuvring Based on Structural Tensor Analysis</li> <li>6. Adam Merk, Piotr Cał and Michał Woźniak. Distributed DBSCAN algorithm - concept and experimental evaluation</li> </ol>
<b>13:30 – 14:30</b>	<b>Lunch</b>
<b>14:30 – 19:00</b>	<b>Excursion (<a href="http://www.kopalniazlota.pl/en/">http://www.kopalniazlota.pl/en/</a>)</b>
<b>19:30</b>	<b>Banquet</b>

Wednesday 23 May 2017

9:00 –9:45	<b>Session 8 – (poster II)</b> <b>Chair Prof. M. Choraś</b> <ol style="list-style-type: none"><li>1. Maciej Smiatacz. Playback attack detection: the search for the ultimate set of antispooof features</li><li>2. Robert Burduk. Drift Detection Algorithm Using the Discriminant Function of the Base classifiers</li><li>3. Edward Puchala and Maciej Krysmann. An algorithm for detecting the instant of olfactory stimulus perception, using the EEG signal and the Hilbert-Huang transform</li><li>4. Marcin Majak, Andrzej Żołnierek, Katarzyna Wegrzyn and Lamine Bougueroua. Tweet classification framework for detecting events related to health problems.</li><li>5. Agata Wojciechowska, Michał Choras and Rafał Kozik. Recent advances in image pre-processing methods for palmprint biometrics</li><li>6. Marek Kurzynski and Jakub Kozerski. On a New Method of Dynamic Integration of Fuzzy Linear Regression Models</li></ol>
9:45 - 10:00	Coffee break
10:00 – 11:45	<b>Session 9 - Miscellaneous applications 2</b> <b>Chair Prof. Robert Burduk</b> <ol style="list-style-type: none"><li>1. Adam Żychowski, Konstanty Junosza-Szaniawski and Aleksander Kosicki. Travel time prediction for trams in Warsaw</li><li>2. Edward Pórolniczak. Objective description of choral singers voice quality using Glottal-to-Noise Excitation Ratio</li><li>3. Adam Nowosielski. 3-Steps Keyboard - Reduced Interaction Interface for Touchless Typing with Head Movements</li><li>4. Krystian Radlak, Natalia Radlak and Bogdan Smolka. Static posed versus genuine smile recognition</li><li>5. Marcin Majak and Marek Kurzyński. On a new method for improving weak classifiers using Bayes metaclassifier</li></ol>
10:00 – 11:45	<b>Session 10- Image processing and computer vision 3</b> <b>Chair Prof. B. Cyganek</b> <ol style="list-style-type: none"><li>1. Aleksander Kostusiak. Frame-to-Frame Visual Odometry: the Importance of Local Transformations</li><li>2. Przemysła Jędrusiak, Zygmunt Wróbel. Image Processing and analysis in lung cancer cell growth</li><li>3. Ahmad Delforouzi, Amir Hossein Tabatabaei, Muhammad Hassan Khan and Marcin Grzegorzec.</li></ol>

	<p>A vision-based method for automatic crack detection in railway sleepers</p> <p>4. Arkadiusz Cacko and Marcin Iwanowski. Rasterized maps search using text queries and reasoning</p> <p>5. Dr. Muhammad Shahid Farid, Dr. Maurizio Lucenteforte, Muhammad Hassan Khan and Prof. Marco Grangetto. Semi-automatic Segmentation of Scattered and Distributed Objects</p> <p>6. Grzegorz Kurzejamski and Marcin Iwanowski. Saliency-based optimization for the Histogram of Oriented Gradients based detection methods</p>
11:45 – 12:00	Closing ceremony
12:00 – 13:30	Lunch