Report on the Conference Participation

organized in the scope of ENGINE project (Contract no: 316097) implemented under the 7th Framework Program, (CAPACITIES specific program), Type of Project: Supporting Actions, REGPOT - Research Potential.

1 Personal Information of the Participant

Mr./Michał Woźniak, faculty member of
(title, name, surname)
Wrocław University of Technology, Faculty of Electronics, Department of Systems and Computer Networks participated in
(name of sending institution, country)
The 22nd International Conference on Pattern Recognition ICPR 2014
(name of the conference and acronym)
that held from ...24th August 2014 to 28th August 2014
in Stockholm, Sweden
(city, country)

2 Information about the Conference Scope
(Please give the Conference Topics of Interest)

Track 1: Computer Vision
- Vision sensors
- Early vision
- Low-level vision
- Biologically motivated vision
- Illumination and reflectance modeling
- Image based modeling
- Physics-based vision
- Perceptual organization
- Shape modeling and encoding
- Computational photography
- 3D shape recovery
- Motion, tracking and video analysis
- 2D/3D object detection and recognition
Scene understanding
Occlusion and shadow detection
Stereo and multiple view geometry
Reconstruction and camera motion estimation
Vision for graphics
Vision for robotics
Cognitive and embodied vision

Track 2: Pattern Recognition and Machine Learning
- Statistical, syntactic and structural pattern recognition
- Machine learning and data mining
- Artificial neural networks
- Dimensionality reduction and manifold learning
- Classification and clustering
- Representation and analysis in pixel/voxel images
- Support vector machines and kernel methods
- Symbolic learning
- Active and ensemble learning
- Deep learning
- Transfer learning
- Semi-supervised learning and spectral methods
- Model selection
- Reinforcement learning and temporal models

Track 3: Image, Speech, Signal and Video Processing
- Signal, image and video processing
- Image and video analysis and understanding
- Audio and acoustic processing and analysis
- Spoken language processing
- Sensor array & multichannel signal processing
- Segmentation, features and descriptors
- Texture and color analysis
- Enhancement, restoration and filtering
- Coding, compression and super-resolution
- Automatic speech and speaker recognition
- Multimedia analysis, indexing and retrieval

Track 4: Document Analysis, Biometrics and Pattern Recognition Applications
- Pattern Recognition for Bioinformatics
- Pattern Recognition for Surveillance and Security
- Pattern Recognition for Search, Retrieval and Visualization
- Pattern Recognition for Art, Cultural Heritage and Entertainment
- Industrial image analysis
- Gesture and Behavior Analysis
- Mixed and Augmented Reality
- Inpainting and Superimposing
- Signal Processing for Astronomy
- Human Computer Interaction
- Display Hardware
- Character and Text Recognition
• Handwriting Recognition
• Graphics Recognition
• Document Understanding
• Performance Evaluation
• Human computer interaction
• Speech and natural language based interaction
• Human body motion and gesture based interaction
• Affective computing
• Facial expression recognition
• Group interaction: analysis of verbal and non-verbal communication
• Biometric systems and applications
• Multi-biometrics
• Forensic biometrics and its applications
• Fingerprint recognition
• Face recognition
• Iris recognition
• Gate recognition
• Speaker recognition
• Other biometric modalities
• Soft biometrics
• Security issues
• Other applications

Track 5: Biomedical Image Analysis
• Medical image and signal analysis
• Biological image and signal analysis
• Modeling, simulation and visualization
• Computer-aided detection and diagnosis
• Image guidance and robot guidance of interventions
• Content based image retrieval and data mining
• Medical and biological imaging
• Segmentation of medical images
• Molecular and cellular image analysis
• Volumetric image analysis
• Deformable object tracking and registration
• Computational anatomy and digital human
• VR/AR in medical education, diagnosis and surgery
• Medical robotics
• Brain-computer interfaces
• Data mining for biological databases
• Algorithms for molecular biology

3 Information referring to the Conference Performance

The paper entitled Weighted One-Class Classifier Ensemble Based on Fuzzy Feature Space Partitioning (authors Bartosz Krawczyk, Michal Wozniak, Boguslaw Cyganek) was presented during the WeDT2 Oral Session Deep, Active, and Ensemble Learning.
4 Description of scientific activity in details

(Please describe value added to the ENGINE project, i.e., new knowledge with respect to the objectives of the project, new acquaintances made during the Conference and potential common area of eventual future cooperation)

Presenting the paper Bartosz Krawczyk, Michal Wozniak, Boguslaw Cyganek **Weighted One-Class Classifier Ensemble Based on Fuzzy Feature Space Partitioning** (authors Bartosz Krawczyk, Michal Wozniak, Boguslaw Cyganek).

Participating in several bilateral meeting with the researchers participating in the conference, e.g., Dr. Krystian Mikolajczyk (University of Surrey), Dr. Marrocco, Claudio (Univ. Degli Studi Di Cassino E Del Lazio Meridionale), Bhattacharya, Gautam (Univ. of Burdwan, Univ. Inst. of Tech), Prof. David Tax (Delft University)

5 Affirmation of the Conference Conformity to the Scientific Scope of the ENGINE project

The participant confirms that the scope of the conference as well as the topic of the presented paper is consistent with the scientific scope of the ENGINE project.

\[\begin{align*}
\text{Michael} & \quad \text{Chmiel} \\
\text{Participant signature} \\
\end{align*}\]

**REMARK:**

The signed report and the following documents (electronic or/and paper version):

- full text of the paper;
- presentation;
- conference agenda and program of ICPR 2014 conference.

should be given to Elzbieta Kukla (Elzbieta.Kukla@pwr.wroc.pl) in two weeks after the end of the conference.

Moreover, all other documents related to conference participation (conference fee invoice, hotel invoice, boarding passes, etc.) should be given to Agnieszka Garczyńska (agnieszka.garczynska@pwr.edu.pl) in two weeks after the end of the conference.