



## BISIP'08

IEEE WORKSHOP ON  
BIO-INSPIRED SIGNAL AND IMAGE PROCESSING  
WARSAW, MAY 17, 2008

Warsaw University of Technology  
Faculty of Electronics and Information Technology  
Nowowiejska 15/19, 00-665 Warsaw, Poland  
room 569 (5<sup>th</sup> floor)

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### WORKSHOP PROGRAM

#### *8:15 Opening of the Workshop*

Andrzej Pacut (Warsaw University of Technology and NASK, IEEE Poland Section Chair)

Irina Naidionova (Geozondas Company, IEEE Lithuania Section Chair)

Dalius Navakasas (Vilnius Gediminas Technical University)

*Session 1: 8:30 – 10:30*

*Session Chair: Adam Czajka (Warsaw University of Technology and NASK)*

1. Artūras Serackis and Dalius Navakas (Vilnius Gediminas Technical University)  
**Protein two-dimensional electrophoresis gel modeling using morphological image analysis and Gaussian mixture models**
2. Andrzej Pacut (Institute of Control and Computation Engineering, Warsaw University of Technology and NASK)  
**Warped Regression**
3. Joanna Putz-Leszczynska and Andrzej Pacut (Institute of Control and Computation Engineering, Warsaw University of Technology and NASK)  
**Hidden signature - a novel approach to template creation for on-line signature verification methods**
4. Marcin Chochowski and Andrzej Pacut (Institute of Control and Computation Engineering, Warsaw University of Technology and NASK)  
**Biometric cryptography – problems and solutions**
5. Adam Czajka and Andrzej Pacut (Institute of Control and Computation Engineering, Warsaw University of Technology and NASK)  
**Iris recognition with aliveness detection**

*Coffee break: 10:30 – 11:00*

*Session 2: 11:00 – 13:00*

*Session Chair: Laimutis Telksnys (Institute of Mathematics and Informatics)*

1. Raimond Laptik and Dalius Navakas (Vilnius Gediminas Technical University)  
**Image preprocessing sequence selection by Ant Colony Optimization**
2. Małgorzata Gadomska-Kudelska, Michał Kudelski, Andrzej Pacut (Institute of Control and Computation Engineering, Warsaw University of Technology)  
**Statistical Analysis of Ant Routing Packet Delay in Telecommunication Networks.**
3. Dalius Matuzevičius and Dalius Navakas (Vilnius Gediminas Technical University)  
**Investigation of neural network based protein spots detector**
4. Paweł Wawrzyński (Institute of Control and Computation Engineering, Warsaw University of Technology)  
**Real-time reinforcement learning of complex systems by actor-critics, experience replay and piecewise non-Markov policies**

*Lunch: 13:00 – 14:00*

*Session 3: 14:00 – 16:00*

*Session Chair: Andrzej Pacut, Warsaw University of Technology and NASK*

1. Jacek Naruniec and Władysław Skarbek (Institute of Radioelectronics, Warsaw University of Technology)  
**Face detection by Gabor jets**
2. Łukasz Stasiak (Institute of Control and Computation Engineering, Warsaw University of Technology)  
**A common skin color model for all human races**
3. Mariusz Leszczyński and Władysław Skarbek (Institute of Radioelectronics, Warsaw University of Technology)  
**Face verification by discrimination analysis graph**
4. Artur Wilkowski (Institute of Control and Computation Engineering, Warsaw University of Technology)  
**Stereovision support for gesture recognition**

*Coffee break: 16:00 – 16:30*

*Session 4: 16:30 – 18:30*

*Session Chair: Dalius Navakasas (Vilnius Gediminas Technical University)*

1. Laimutis Telksnys (Institute of Mathematics and Informatics)  
**Processes nanoprocessing**
2. Vygintas Kazanavičius (Digital Signal Processing Laboratory, Kaunas University of Technology) and Laimutis Telksnys (Institute of Mathematics and Informatics)  
**Digital signal processing methods in ultrasonic nondestructive multi-layer thickness testing system**
3. Włodzimierz Kasprzak (Institute of Control and Computation Engineering, Warsaw University of Technology)  
**F0-based normalization scheme for MFCC speech features**
4. Bernardas Šalna and Juozas Kamarauskas (Forensic Science Centre of Lithuania)  
**Voice biometrics – evaluation of effectiveness of different methods in speaker recognition**
5. Šarūnas Paulikas (Vilnius Gediminas Technical University)  
**Influence of languages on CELP codecs performance**

*18:30 Workshop closure*