

Program

Monday 11.06.2012			
8:00	Registration		
9:00	Opening		
Moderator: <i>prof. dr hab. inż. Ewa Piętka</i>			
9:30	Invited lecture: <i>prof. Ing. Ivo Provazník, Ph.D.</i> <i>DSP tools in classification of genomic signals</i>		
10:30	Invited lecture: <i>prof. dr hab. inż. Andrzej Polański</i> <i>Tandem repeats in DNA and selected aspects of their evolution</i>		
11:30	Coffee break		
Image analysis Chair: <i>prof. dr hab. inż. Juliusz L. Kulikowski</i>		Biomaterials Chair: <i>prof. dr hab. inż. Zbigniew Paszenda</i>	
12:00	Blood Vessel Segmentation in HRT Images for Glaucoma Early Detection (1) <i>Marcin Grzegorzek</i>	12:00	Non-destructive Investigation of the Artificial Heart Valves using ECT Method (331) <i>Tatiana Strapacova</i>
12:20	Segmentation of the Left Ventricle Using Active Contour Method with Gradient Vector Flow Forces in Short-Axis MRI (24) <i>Tomasz Pieciak</i>	12:20	Numerical analysis of the implant - abutment system (341) <i>Anna Ziębowicz</i>
12:40	White Matter Segmentation from MR Images in Subjects with Brain Tumours (36) <i>Paweł Szwarc</i>	12:40	Experimental research on plate for corrective osteotomy (351) <i>Marcin Kaczmarek</i>
13:00	Lunch		
Image analysis Chair: <i>prof. dr hab. inż. Artur Przelaskowski</i>		Biomaterials Chair: <i>prof. dr hab. inż. Zbigniew Paszenda</i>	
14:00	3D Fuzzy Liver Tumor Segmentation (47) <i>Paweł Badura</i>	14:00	The panoramic visualization of metallic materials in macro- and micro-structure of surface analysis using Microsoft Image Composite Editor (ICE) (358) <i>Anna Wójcicka</i>
14:20	Kernelized Fuzzy C-Means Method and Gaussian Mixture Model in Unsupervised Cascade Clustering (58) <i>Joanna Czajkowska</i>	14:20	Impedance spectroscopy study of the electrochemical corrosion of steel wire used in cardiologic leaders (389) <i>Witold Walke</i>
14:40	Automatic detection of melanomas: an application based on the ABCD criteria (67) <i>Joanna Jaworek-Korjakowska</i>	Bioinformatics & Biotechnology Chair: <i>prof. dr hab. inż. Andrzej Mitas</i>	
15:00	Subtle directional mammographic findings in multiscale domain (77) <i>Magdalena Jasionowska</i>	15:00	Features of DNA Signals Codistribution in High-Content Screening of Drug-Induced Demethylation in Cancer Cells (412) <i>Arkadiusz Gertych</i>
15:20	Automatic nuclei detection on cytological images using the firefly optimization algorithm (85) <i>Paweł Filipczuk</i>	15:20	Genome assembler for repetitive sequences (422) <i>Robert Nowak</i>
15:40	Computer Assisted Location of the Lower Limb Mechanical Axis (93) <i>Piotr Zarychta</i>	15:40	Techniques of Biclustering in Gene Expression Analysis (430) <i>Anna Tamulewicz</i>
16:00	Coffee break		
Image analysis Chair: <i>prof. dr hab. inż. Zygmunt Wróbel</i>		Bioinformatics & Biotechnology Chair: <i>prof. dr hab. inż. Andrzej Mitas</i>	
16:20	Automatic early stroke recognition algorithm on CT images (101) <i>Grzegorz Ostrek</i>	16:20	Neural network-based method for peptide identification in proteomics (437) <i>Lech Raczynski</i>
16:40	The Feature Detection on the Homogeneous Surfaces with Projected Pattern (118) <i>Paweł Popielski</i>	16:40	Artificial Images for Evaluation of Segmentation Results: Bright Field Images of Living Cells (445) <i>Anna Korzyńska</i>
17:00	Sensed compression with cosine and noiselet measurements for medical imaging (129) <i>Artur Przelaskowski</i>	17:00	Estimation of Fractal Dimension According to Optical Density of Cell Nuclei in Papanicolaou Smears (456) <i>Przemysław Mazurek</i>
18:00	Concert		
19:00	Gala dinner		

Tuesday 12.06.2012			
Moderator: prof. dr hab. inż. Ewa Piętka			
9:00	Invited lecture: prof. Ing. Klára Čápková, PhD <i>Human haemodynamics investigation using electromechanical analogous systems</i>		
10:00	Invited lecture: prof. dr hab. inż. Witold Pedrycz <i>Building the Fundamentals of Granular Computing</i>		
11:00	Coffee break/Poster session		
Signal processing Chair: prof. dr hab. inż. Piotr Augustyniak		Biocybernetics Chair: prof. dr hab. inż. Antoni Grzanka	
11:20	Multichannel Biomedical Signals Analysis Based on a Split-and-Collect Approach (151) <i>Juliusz L. Kulikowski</i>	11:20	Threshold-crossing model of human motoneuron (209) <i>Maria Piotrkiewicz</i>
11:40	Detection of abnormalities in ECG (161) <i>Branko Babusiak</i>	11:40	CeDeROM Brain Computer Interface (219) <i>Tomasz Boleslaw CEDRO</i>
12:00	Research into the possibility to use impedance rheocardiography in a non-invasive assessment of haemodynamic condition of patients with heart diseases. (172) <i>Tadeusz Pustelny</i>	12:00	
13:00	Lunch		
Biomechanics & Rehabilitation Chair: prof. dr hab. inż. Marek Gzik		Special session	
14:00	Numerical analysis of the strength of prototype device for rehabilitation of lower limbs (472) <i>Robert Michnik</i>	14:00	Virtual reality for laparoscopy <i>Håkan Rundgren</i> Surgical Science Sweden AB
14:20	Control System of the Lower Limb Rehabilitation Robot (478) <i>Andrzej Michnik</i>		
14:40	Rehabilitation Robot - presentations		
15:00 - 16:00	Poster session		
16:00	Social event		
19:00	Dinner - fire place		

Poster Session	
Ontology of EEG mapping - preliminary research (183) <i>Teresa Podsiadly-Marczykowska</i>	Kinematic differences in gait obtained for people with right and left paresis (464) <i>Robert Michnik</i>
Gaze pattern lock for elders and disabled (589) <i>Tomasz Kocejko</i>	Strengthening a Cryptographic System with Behavioural Biometric (266) <i>Andrzej W. Mitas</i>
An Image Processing Approach to Determination of Steel Fibers Orientation in Reinforced Concrete (143) <i>Marcin Rudzki</i>	Geoinformation Technologies in Biomedicine and Health Care: Review of Scientific Journals (510) <i>Małgorzata Gajos</i>
Application of electrochemical impedance spectroscopy for comparison analysis of surface modified Ti-6Al-4V ELI and Ti-6Al-7Nb alloys (379) <i>Magdalena Pochrzast</i>	Comparison of numerical and experimental analysis of plates used in treatment of anterior surface deformity of chest (319) <i>Wojciech Kajzer</i>
Electrochemical properties of Ti-6Al-4V ELI alloy after anodization (369) <i>Marta Kiel</i>	Gas transport in human lungs - modeling and simulation (489) <i>Bożenna Kuraszkiwicz</i>
Enhancing The Quality Of Layer Detection in Tomographic Images of The Eye (13) <i>Robert Koprowski</i>	The Design of a System for Assisting Burn and Chronic Wound Diagnosis (110) <i>Mirosław Dziewoński</i>
Control System of Bioprosthetic Hand Based on Advanced Analysis of Biosignals and Feedback from the Prosthesis Sensors (199) <i>Marek Kurzyński</i>	A metropolitan assistive system for disabled and the elderly (560) <i>Aleksander Lamża</i>
Effect of surface pretreatment on corrosion resistance of anodically oxidized Ti6Al7Nb alloy (398) <i>Janusz Szewczenko</i>	

3rd Conference on Information Technologies in Biomedicine

Wednesday 13.06.2012			
Moderator: prof. dr hab. inż. Ewa Piętka			
9:00	Invited lecture: prof. dr hab. inż. Piotr Augustyniak <i>Intelligent environment for supporting the independent living of elderly and disabled</i>		
10:00	Invited lecture: Ass. Prof. MUDr. Stanislav Czudek <i>Robotic surgery-advantage and disadvantage</i>		
11:00 Coffee break			
Biocybernetics Chair: dr inż. Arkadiusz Gertych		Assisted living systems Chair: prof. dr hab. inż. Piotr Augustyniak	
11:20	Planimetric Parameters of the Tree Test in a Quantitative Evaluation of the Susceptibility to Examination Stress and Acoustic Stress (232) <i>Andrzej Dyszkiewicz</i>	11:20	Layered Design of an Assisted Living System for Disabled (498) <i>Piotr Augustyniak</i>
11:40	The numerical modelling of the heat transfer processes within neonate's body based on the simplified geometric model (310) <i>Joanna Łaszczyk</i>	11:40	The use of mobile devices in the care and home monitoring of the elderly and the sick (525) <i>Mariusz Kaczmarek</i>
12:00	The Methodology of Designing Serious Games for Children and Adolescents Focused on Psychological Goals (245) <i>Agnieszka Szczesna</i>	12:00	Combining Pattern Matching and Optical Flow Methods in Home Care Vision System (537) <i>Zbigniew Mikrut</i>
12:20	First Measurements with Objective Bipolar Electrogustometer (286) <i>Janusz Frączek</i>	12:20	Wearable mobile network as an integrated part of assisted living technologies (549) <i>Eliasz Kańtoch</i>
12:40	Evidence of <i>S. Cerevisiae</i> Proliferation Rate Control via Exogenous Low Frequency Electromagnetic Fields (295) <i>Jan Barabaš</i>	12:40	Fast and Robust Method for Wheezes Recognition in Remote Asthma Monitoring (568) <i>Marcin Wiśniewski</i>
13:00	The novel approach to the estimation of the blood volume in the POLVAD prosthesis (304) <i>Grzegorz Konieczny</i>	13:00	Vision based facial action recognition system for people with disabilities (577) <i>Jaromir Przybyło</i>
13:20	Driver biomedical support system (277) <i>Andrzej W. Mitas</i>	13:20	Indexing and Retrieval of Medical Resources for a Telemedical Platform (603) <i>Szymon Wilk</i>
13:40	Phase Angles of Sound as a Biometric Feature (256) <i>Andrzej W. Mitas</i>	13:40	
14:00 Lunch & Closing			