

Program Summary

September 21st, 2016 (Wednesday)

9:00	OPENING + PHOTO (Room 201) <i>Chairman: Adam Dąbrowski</i>	
9:30	TUTORIAL 1: Kamisetty R. Rao, High efficiency video coding <i>Chairman: Adam Dąbrowski</i>	
10:30-11:50	SESSION 1: DSP Theory 1 (Room 201) <i>Chairman: Kamisetty R. Rao</i>	SESSION 2: Biometrics 1 (Room 202) <i>Chairman: Damian Cetnarowicz</i>
10:30	Petr Pfeifer, H. T. Vierhaus, Iterative Error Correction with Double / Triple Error Detection	Piotr Szczuko, Rough Set-Based Classification of EEG Signals Related to Real and Imagery Motion
10:50	Zhiguo Zhang, Zhiguo Zhang, A Method for Interpolating Wavelet Construction Using Scaling Functions	Szymon Drgas, Rafal Zdunek, Automatic tuning of hyperparameters for NMF-based face recognition system
11:10	Gordana Jovanovic Dolecek, Lara Dolecek, Exploiting Features of Symmetric Polynomials for Improved Comb Filter Design	Michał Lech, Andrzej Czyżewski, A handwritten signature verification method employing a tablet
11:30	Jarosław Majewski, Ryszard Wojtyna, Evolutionary Algorithm for Transformation of Short-Time Signal into Frequency-Domain Description	Filip Malawski, Bogdan Kwolek, Classification of Basic Footwork in Fencing Using Accelerometer
12:00-12:30	Coffee Break	
12:30-14:10	SESSION 3: Audio Processing 1 (Room 201) <i>Chairman: Brian C.J. Moore</i>	SESSION 4: Biomedical Apps. 1 (Room 202) <i>Chairman: Ryszard Wojtyna</i>
12:30	Tatsiana Viarbitskaya, Andrzej Dobrucki, Elimination of distortions in the recorded sound of the violin using cascade-integrator-comb filters based on Gabor transform and pitch-shifting algorithm	Marek Kociński, Andrzej Materka, Andreas Deistung, Jürgen R. Reichenbach, Centerline-based surface modeling of blood-vessel trees in cerebral 3D MRA
12:50	Dariusz Bismor, Krzysztof Bartnicki, Real-time Advanced Speech Enhancement using Low-power, Fixed-point Hardware	Marek Kociński, Andrzej Materka, Arvid Lundervold, Helga Salvesen, Sigmund Ytre-Hauge, Ingrid Haldorsen, Texture analysis of 2D spatial distribution of blood pharmacokinetic model parameters for endometrial carcinoma classification
13:10	Konrad Kowalczyk, Szymon Wozniak, Tomasz Chyrowicz, and Roman Rumian, Embedded System for Acquisition and Enhancement of Audio Signals	Zbigniew Tyfa, Michał Strzelecki, MeMoS - a software tool for extraction of anatomical structures data from 3D medical images
13:30	Edward Pótrolniczak, Michał Kramarczyk, Analysis of the dependencies between parameters of the voice at the context of the succession of sung vowels	Andrzej Polańczyk, Tomasz Woźniak, Michał Strzelecki, Evaluating an algorithm for 3D reconstruction of blood vessels for further simulations of hemodynamic in human artery branches
13:50	Jarosław Duda, The Method of Pipe Organ Tuning	M. Strzelecki, S. Skonieczka, J. D. Kasprzak, M. Simiera, B.W. Michalski, P. Lipiec, Analysis of myocardial texture in resting echocardiographic images predicts recovery one year after myocardial infarction
14:15-15:00	Lunch	
15:00-16:40	SESSION 5: Image Processing 1 (Room 201) <i>Chairman: Andrzej Materka</i>	SESSION 6: Communications Apps. (Room 202) <i>Chairman: Paweł Pawłowski</i>
15:00	Cong Yang, Oliver Tiebe, Marcin Grzegorzec, Bipin Indurkha, Investigations on Skeleton Completeness for Skeleton-based Shape Matching	Ahmed Desouky, Ahmed El-Mahdy, Asynchronous Down-link Cooperative Communication Scheme in Rayleigh Fading Wireless Environment
15:20	Grzegorz Szwoch, Performance evaluation of the	Sarah Imam, Ahmed El-Mahdy, Selective

	parallel object tracking algorithm employing the particle filter	Interference Alignment in 5G Networks
15:40	Karolina Nurzynska, Bogdan Smolka, Smile Veracity Recognition using 3D Texture Features for Image Sequence Processing	Piotr Kardyś, Adam Dąbrowski, Marcin Iwanowski, Damian Huderek, A new Android application for blind and visually impaired people
16:00	Agnieszka Stankiewicz, Tomasz Marciniak, Adam Dąbrowski, Marcin Stopa, Elżbieta Marciniak, Andrzej Michalski, Matching 3D OCT Retina Images into Super-Resolution Dataset	Michał Nowicki, Marta Rostkowska, Piotr Skrzypczynski, Indoor Navigation using QR Codes and WiFi Signals with an Implementation on Mobile Platform
16:20	Robert R. Chodorek, Agnieszka Chodorek, Traffic flow description based on scene change analysis	
18:00	Welcome Party	

September 22nd, 2016 (Thursday)

9:00	TUTORIAL 2: Brian C.J. Moore, Computational models for predicting sound quality <i>Chairman: Adam Dąbrowski</i>	
10:00-11:20	SESSION 7: DSP Theory 2 (Room 201) <i>Chairman: Joos Vandewalle</i>	SESSION 8: Biometrics 2 (Room 202) <i>Chairman: Tomasz Marciniak</i>
10:00	Krzysztof Sozański, Signal-to-Noise Ratio in Power Electronic Digital Control Circuits	M. Szczodrak, A. Czyżewski, Face detection algorithms evaluation for the bank client verification
10:20	Nader Alexan, Hisham Othman, Rana El Garem, An Extendible Open Source Tool Measuring Software Metrics for Indicating Software Quality	Syed Mohd Zahid, Syed Zainal Ariffin, DIAST Variability Illuminated Thermal and Visible Ear Images Datasets
10:40	Vinay Chakravarthi Gogineni, Subrahmanyam Mula, Rajib Lochan Das, Mrityunjoy Chakraborty, Performance Analysis of Proportionate-type LMS Algorithms	Marcin Kołodziej, Andrzej Majkowski, Remigiusz J. Rak, Automatic Detection of SSVEP using Independent Component Analysis
11:00	Onder Polat, Sema Koc Kayhan, A Hardware Implementation of Cholesky Decomposition for Compressed Sensing	Sudha Velusamy, Pratibha Moogi, A Progressive Method of Face Clustering for Mobile Phone Applications
11:20-12:00	Coffee Break	
12:00-13:40	SESSION 9: Audio Processing 2 (Room 201) <i>Chairman: Bożena Kostek</i>	SESSION 10: Image Processing 2 (Room 202) <i>Chairman: Rafał Zdunek</i>
12:00	Przemysław Korohoda, Roman Rumian, Audio In-Band Signalling System Based on a Complementary Pair of Peak and Notch Equalizers	M. Kröger, W. Sauer-Greff, R. Urbansky, M. Lorang, M. Siegrist, Performance evaluation on contour extraction using Hough transform and RANSAC for multi-sensor data fusion applications in industrial food inspection
12:20	Piotr Hoffmann, Bożena Kostek, A concept of Signal Equalization Method Based on Music Genre and the Listener's Room Characteristics	Zbigniew Czapla, Vehicle Detection with Image Conversion into Point Representation
12:40	Krzysztof Kąkol, Bożena Kostek, A study on signal processing methods applied to hearing aids	Adam Konieczka, Karol Piniarski, Julian Balcerek, HDR tonal mapping algorithm for mobile devices
13:00	Alexey Petrovsky, Vadzim Herasimovich, Alexander Petrovsky, Audio/Speech Coding using the Matching Pursuit with Frame-Based Psychoacoustic Optimized Time Frequency Dictionaries and its Performance Evaluation	Karol Piniarski, Paweł Pawłowski, Multi-branch classifiers for pedestrian detection from infrared night and day images
13:20	Damian Cetnarowicz, Adam Dąbrowski, Speaker tracking audio-video system	Paweł M. Stasik, Euclidean Proximity Function in Image Processing
14:00-14:45	Lunch	
15:00-18:00	Social Event	
18:00	Banquet	

September 23rd, 2016 (Friday)

9:00	TUTORIAL 3: Joos Vandewalle, The crucial role of mathematics in circuits, systems and signal processing research and education <i>Chairman: Adam Dąbrowski</i>	
10:00-11:20	SESSION 11: DSP Theory 3 (Room 201) <i>Chairman: Krzysztof Sozański</i>	SESSION 12: Voice Biometrics (Room 202) <i>Chairman: Piotr Kardyś</i>
10:00	Andrzej Borys, Increasing Disregard for Excellence in Circuits and Systems Theory and Related Mathematics	Andrzej Majkowski, Marcin Kołodziej, Remigiusz J. Rak, Robert Korczyński, Classification of emotions from speech signal
10:20	Radu Matei, Gaussian 2D IIR Filters with Multiple Orientation	Krzysztof Kapała, Dawid Krawczyk, Stefan Brachmański, Tests of selected emotional states recognition
10:40	Yousef Baroud, Jose Manuel Marinos Velarde and Sven Simon, Architecture for Parallelizing Decoding of Marker-Free Variable Length Code Streams	Piotr Bratoszewski, Grzegorz Szwoch, Andrzej Czyżewski, Acoustic and Visual Voice Activity Detection for Noisy Speech Recognition
11:00		Radosław Weychan, Tomasz Marciniak, Adam Dąbrowski, Multithread Java approach to speaker recognition
11:20-12:00	Coffee Break	
12:00-13:00	SESSION 13: Audio Processing 3 (Room 201) <i>Chairman: Przemysław Korohoda</i>	SESSION 14: Biomedical Apps. 2 (Room 202) <i>Chairman: Michał Strzelecki</i>
12:00	Piotr Kłosowski, Algorithm and Implementation of Automatic Phonemic Transcription for Polish	Jakub Wagner, Andrzej Miękina, Paweł Mazurek, Roman Z. Morawski, Wiesław Winiński, Frode F. Jacobsen, Knut Øvsthus, Tobba T. Sudmann, Ingebjørg T. Børsheim, Signal Processing in a Two-Module Radar System for Monitoring of Human Position and Movements in an Indoor Environment
12:20	Piotr Kłosowski, Statistical Analysis of Polish Language Corpus for Speech Recognition Application	Krzysztof Sieczkowski, Tadeusz Sondej, Andrzej Dobrowolski, Autocorrelation algorithm for determining a pulse wave delay
12:40	Stanisław Kacprzak, Mariusz Masior, Mariusz Ziolkowski, Automatic extraction and clustering of phones	Artur Klepaczek, Ludomir Stefańczyk, Predicting MR angiography image appearance for realistic models of stenosed carotid and renal arteries
13:15-14:00	Lunch	
14:00	CLOSING	