

Program Summary

September 18th, 2019 (Wednesday)

9:00	OPENING (Room 201) <i>Chairman: Adam Dąbrowski</i>	
9:15-10:00	TUTORIAL I: Nikolaos S. Voros, Open Access infrastructures and services for the next generation of ambient assisted living environments <i>Chairman: Adam Dąbrowski (Room 201)</i>	
10:00-10:20	Joint Photo in the front of the building and Coffee Break	
10:20-11:40	SESSION 1: DSP Theory & Implementation 1 (Room 201) <i>Chairman: Nikolaos S. Voros</i>	SESSION 2: Audio Processing 1 (Room 202) <i>Chairman: Damian Cetnarowicz</i>
10:20	ID 15: Adam Borowicz, GPU Implementation of Adaptive Fourier Decomposition	ID 3: Adam Kurowski, Andrzej Czyżewski, Szymon Zaporowski, Automatic labeling of traffic sound recordings using autoencoder-derived features
10:40	ID 22: Piotr Kicki, Michał Bednarek, Krzysztof Walas, Robotic Manipulation of Elongated and Elastic Objects	ID 14: Józef Kotus, Grzegorz Szwoch, Localization of sound sources with dual acoustic vector sensor
11:00	ID 37: Mehdi Safarpour, Reza Inanlou, Olli Silvén, Timo Rahkonen, Omid Shoaie, A Reconfigurable Dual-Mode Tracking SAR ADC without Analog Subtraction	ID 16: Dariusz Bismor, System for Vehicle Sound and Vibration Monitoring using MEMS Sensors
11:20	ID 42: Fatih Yeşil, Okan Mert Yücedağ, Okyanus Tulgar, Senem Makal Yücedağ, A Radar Target Classification Approach for Bird Elimination	ID 21: Călin A. Fărcaș, Ervin Szopos, Ioana Sărăcuț, Marius Neag, Marina D. Țopa, Objective assessment of equalization methods using acoustic parameters
11:40-12:00	Coffee Break	
12:00-14:00	SESSION 3: DSP Theory & Implementation 2 (Room 201) <i>Chairman: Piotr Skrzypczyński</i>	SESSION 4: Image Processing 1 (Room 202) <i>Chairman: Adam Konieczka</i>
12:00	ID 91: Michael Kohler, Alexander Saam, Josef Worms, Daniel W. O'Hagan, Jan Novaceky, Oliver Bringmann, Delay Estimation for Time Synchronization of a Bistatic Transfer Function Measurement Setup to Single Received Pulses	ID 5: Dawid Weber, Bożena Kostek, Subjective tests for gathering knowledge for applying color grading to video clips automatically
12:20	ID 57: Botond Sandor Kirei, Calin Farcas, Marina Dana Topa, Power and Area Estimation of Discrete Filters in CMOS Integrated Circuits	ID 8: Aleksandra Dorochowicz, Bożena Kostek, Relationship between album cover design and music genres
12:40	ID 96: Bhupendra Singh, Dirk Dahlhaus, Weighted Robust Sage-Husa Adaptive Kalman Filtering for Angular Velocity Estimation	ID 17: P. Sokołowski, S. Cygert, M. Szczodrak, Wind Turbines Modeling as the Tool for Developing Algorithms of Processing their Video Recordings
13:00	ID 44: Paweł Kubczak, Jakub Nikonowicz, Łukasz Matuszewski, Kalman Filter Design for Fast Synchronization of a High-Stability Rubidium Oscillator	ID 68: Furkan Ulger, Seniha Esen Yuksel, A Standalone Open-Source System for Optical Inspection of Printed Circuit Boards
13:20	ID 100: Julian Balcerek, Adam Dąbrowski, Paweł Pawłowski, Adam Konieczka, Scalable multidimensional relations between features of calls to emergency services	ID 73: Mohammed Brahimi, Saïd Mahmoudi, Kamel Boukhalfa, Abdelouhab Moussaoui, Deep interpretable architecture for plant diseases classification
14:00-15:00	Lunch	
15:00	TUTORIAL II: Heinrich Theodor Vierhaus, Low-Power Methods for Fault Detection and Correction in Logic and Flip-Flops - Architectures and Limitations <i>Chairman: Adam Dąbrowski (Room 201)</i>	
15:50-17:30	SESSION 5: Communication Apps. (Room 201) <i>Chairman: Paweł Pawłowski</i>	SESSION 6: Audio Processing 2 (Room 202) <i>Chairman: Andrzej Meyer</i>
15:50	ID 64: Robert Nogiec, Tomasz Zieliński, Using Array of Antennas for Improving Digital Radio Reception in Mobile Car Receiver	ID 39: Maciej Walczyński, Dagmara Ryba, Effectiveness of the acoustic fingerprint in various acoustical environments

16:10	ID 67: Nouran Farouk, Ahmed El-Mahdy, Ahmed Elbakly, Two-Way DF Relaying for OFDMA System	ID 55: Piotr Hoffmann, Music signal equalization in a changing environment
16:30	ID 75: Engy Aly Maher, Ahmed Elbakly, Ahmed E. El-Mahdy, Full Duplex Relaying with Co-Channel Interference and Channel Estimation Error	ID 95: Bożena Kirkov, Tomasz P. Zieliński, Formant Analysis of Traditional Bulgarian Singing from Rhodope Region
16:50	ID 94: Shady H.A. Samy, Engy A. Maher, Ahmed El-Mahdy, Full-Duplex Decode and Forward Relay-Aided Device-to-Device Communication	ID 106: Maciej Blaszkę, Damian Koszewski, Szymon Zaporowski, Real and Virtual Instruments in Machine Learning – Training and Comparison of Classification Results
17:30	Welcome Party	

September 19th, 2019 (Thursday)

8:00-8:45	TUTORIAL III: Piotr Skrzypeczyński, Machine learning for embodied agents: from signals to symbols and actions <i>Chairman: Adam Dąbrowski</i> (Room 201)	
8:45-9:20	Coffee Break	
9:20-11:20	SESSION 7: Biosignal Processing (Room 201) <i>Chairman: Julian Balcerek</i>	SESSION 8: Audio Processing 3 (Room 202) <i>Chairman: Szymon Drgas</i>
9:20	ID 43: Michał Pielka, Małgorzata Aneta Janik, Grzegorz Machnik, Paweł Janik, Iwona Polak, Grzegorz Sobota, Wojciech Marszałek, Zygmunt Wróbel, A rehabilitation system for monitoring torso movements using an inertial sensor	ID 2: Janusz Rafałko, Andrzej Czyżewski, Adjusting automatically marked voiced English allophone borders
9:40	ID 45: Marcin Jukiewicz, Mikołaj Buchwald, Aleksandra Czyż, Optimizing SSVEP-based brain-computer interface with CCA and Genetic Algorithms	ID 61: Konrad Kowalczyk, Multichannel Wiener Filter with Early Reflection Raking for Automatic Speech Recognition in Presence of Reverberation
10:00	ID 18: Amleset Kelati, Juha Plosila, Hannu Tenhunen, Machine Learning for sEMG Facial Feature Characterization	ID 69: Hugo Cordeiro, Carlos Meneses, An improved algorithm for the Low Band Spectral Tilt estimation for pathological voice detection
10:20	ID 58: Mikołaj Buchwald, Szymon Kupinski, Adam Bykowski, Joanna Marcinkowska, Dawid Ratajczyk, Marcin Jukiewicz, Electrodermal activity as a measure of cognitive load: a methodological approach	ID 79: Ali Dehghan Firoozabadi, Pablo Irarrazaval, Pablo Adasme, Hugo Durney, Miguel Sanhueza Olave, A Novel Quasi-Spherical Nested Microphone Array and Multiresolution Modified SRP by GammaTone Filterbank for Multiple Speakers Localization
10:40	ID 24: Paweł Mazurek, Jakub Wagner, Roman Z. Morawski, Fusion of Data from Radar and Depth Sensors Applied for Healthcare-Oriented characterization of Persons' Gait	ID 48: Marcin Grochowina, Kamil Wojnar, Lucyna Leniowska, An application of wavelet transform for non-invasive evaluation of arteriovenous fistula state
11:00	ID 34: Kento Yoshida, Yin-Ju Chen, Long-Sheng Lu, Shin Aoki and Naoyuki Aikawa, CTCs extraction method based on frequency-domain filtering from microscope images	
11:20-11:40	Coffee Break	
11:40-13:00	SESSION 9: DSP Implementations (Posters) <i>Chairman: Hugo Cordeiro</i>	
	ID 13: S. Cygert, A. Czyżewski, Style Transfer for Detecting Vehicles with Thermal Camera	
	ID 19: Piotr Kłosowski, Polish Language Modelling Based on Deep Learning Methods and Techniques	
	ID 27: Wassim Alexan, Farah Hemeida, Security Through Blowfish and LSB Bit-Cycling With Mathematical Sequences	
	ID 49: Marcin Witkowski, Magdalena Rybicka, Konrad Kowalczyk, Speaker Recognition from Distance Using X-Vectors with Reverberation-Robust Features	
	ID 51: Tomasz Sadowski, Rafał Zdunek, Image Completion with Filtered Alternating Least Squares Tucker Decomposition	
	ID 56: Dorota Gil, Marcin Grochowina, Lucyna Leniowska, Detecting of the rolling bearing state based on acoustic signal and the k-NN classifier	

	ID 76: Julian Balcerek, Mateusz Hinc, Łukasz Jalowski, Jakub Michalak, Marcin Rabiza, Adam Konieczka, Vision-based mobile application for supporting the user in the vehicle operation
	ID 82: Alexander Tristanov, Olga Lukovenkova, Yuri Marapulets, Improvement of methods for sparse model identification of pulsed geophysical signals
	ID 83: Miguel Aguilar-Ortega, Inma Mohino-Herranz, Manuel Utrilla-Manso, Joaquín García-Gómez, Roberto Gil-Pita, Manuel Rosa-Zurera, Multi-microphone acoustic events detection and classification for indoor monitoring
	ID 98: Maxim Vashkevich, Alexander Petrovsky, Yuliya Rushkevich, Bulbar ALS Detection Based on Analysis of Voice Perturbation and Vibrato
	ID 109: Mohammadreza Azimi, Seyed Ahmad Rasoulinejad, Andrzej Pacut, The Effects of Gender Factor and Diabetes Mellitus on the Iris Recognition System's Accuracy and Reliability
	ID 99: Agnieszka Stankiewicz, Tomasz Marciniak, Adam Dąbrowski, Marcin Stopa, Elżbieta Marciniak, Reliability of Fovea Features Measurement from 3D OCT Images for Monitoring Treatment Outcome
13:00-14:00	Lunch
14:30-17:00	Social Event
18:00	Banquet

September 20th, 2019 (Friday)

9:00-9:45	TUTORIAL IV: Michael Hübner, Adaptive computing for flexible, resilient and robust embedded systems <i>Chairman: Adam Dąbrowski (Room 201)</i>
9:45-10:00	Coffee Break
10:00-11:40	SESSION 10: Image Processing 2 (Room 201) <i>Chairman: Michael Hübner</i>
10:00	ID 32: Maggie Mashaly, Ahmed El Saied, Wassim Alexan, Abeer S. Khalifa, A Multiple Layer Security Scheme Utilizing Information Matrices
10:20	ID 33: Marwa Tarek Elkandoz, Wassim Alexan, Hisham H. Hussein, Logistic Sine Map Based Image Encryption
10:40	ID 46: Wojciech Drzewiecki, Anna Wawrzaszek, Michał Krupiński, Multifractal Parameters in Prediction of Land-use Components on Satellite Images
11:00	ID 74: Antoine Abche, Olga Yaacoub, Robert Chreiky, Elie Karam, A Statistical based 3-D Image Registration Approach with External markers
11:20-11:40	Coffee Break
11:40-13:00	SESSION 11: Image Processing 3 (Room 201) <i>Chairman: Antoine Abche</i>
11:40	ID 80: Imen Kadri, Gabriel Dauphin, Anissa Mokraoui, Zied Lachiri, Stereoscopic Image Coding Performance using Disparity-Compensated Block Matching Algorithm
12:00	ID 97: Julian Balcerek, Paweł Pawłowski, Adam Konieczka, Adam Dąbrowski, Detection of defective products using stereovision
12:20	ID 103: Ha H. Cao, Ha H. Nguyen, Novel Multi-Dimensional Spatially-Adaptive Image Recovery Using Spline Interpolation
12:40	ID 107: Karol Piniarski, Paweł Pawłowski, Adam Dąbrowski, Efficient HDR tone mapping for ADAS applications
13:00-13:15	CLOSING (Room 201)
13:15-14:00	Lunch