

TUESDAY		21.09.2021	ROOM A	Session 1 (S1)	Chair: dr Artur Klepaczko & Prof. Feng Xu
Time (UTC)	Time (CEST)			Image Processing and Recognition	
11:00 - 11:20	13:00 - 13:20		152	Wu, Jiayu; Zhu, Zhanyu ; Wang, Haipeng	Human Detection and Action Classification Based on Millimeter Wave Radar Point Cloud Imaging Technology
11:20 - 11:40	13:20 - 13:40		115	Puchala, Dariusz; Stokfiszewski, Kamil	Sparse Neural Networks With Topologies Inspired by Butterfly Structures
11:40 - 12:00	13:40 - 14:00		166	Zabiński, Hubert; Stankiewicz, Olgierd	Composition of Similarity Metrics for Correspondence Matching in Depth Estimation
12:00 - 12:20	14:00 - 14:20		147	Zhou, Tao; Xia, Zhaoyang; Wang, Xiangfeng; Xu, Feng	Human Sleep Posture Recognition Based On Millimeter-Wave Radar
12:20 - 12:40	14:20 - 14:40		117	Escola, João Paulo Lemos; Guido, Rodrigo Capobianco; da Silva, Ivan Nunes; Fonseca, Everton Silva	Wavelet transform applied to coffee entomology
12:40 - 13:00	14:40 - 15:00		163	Lorkiewicz Mateusz, Stankiewicz Olgierd, Domański Marek, Hang Hsueh-Ming, Peng Wen-Hsiao	Fast Selection of INTRA CTU Partitioning in HEVC Encoders using Artificial Neural Networks

TUESDAY		21.09.2021	ROOM A	Session 2 (S2)	Chair: prof. Janusz Konrad & prof. Piotr M. Szczypiński
Time (UTC)	Time (CEST)			Audio and video processing	
15:00 - 15:40	17:00 - 17:40			Keynote: Prof. Janusz Konrad	Indoor Scene Analysis from Overhead Fisheye Cameras
15:40 - 16:00	17:40 - 18:00		104	Misiurewicz, Jacek; Bruliński, Konrad; Klembowski, Wiesław; Kulpa, Krzysztof	Modeling multipath propagation of acoustic signal in a swimming pool
16:00 - 16:20	18:00 - 18:20		127	Khyzhniak, Mariia; Malanowski, Mateusz	Localization of an Acoustic Emission Source Based on Time Difference of Arrival
16:20 - 16:40	18:20 - 18:40		176	Rosa Zurera, Manuel; Utrilla-Manso, Manuel; Gil-Pita, Roberto; Garcia-Gomez, Joaquin	Analysis of error in sound sources position estimation with microphone arrays
16:40 - 17:00	18:40 - 19:00		158	Sadura, Piotr	Motion-Based Multiple Object Detection and Tracking in Video Stream
17:00 - 17:20	19:00 - 19:20		122	Bogus, Magdalena; Bując, Michał	Analysis of mouth click sounds used in echolocation

TUESDAY		21.09.2021	ROOM B	Session 3 (S3)	Chair: prof. Paulo Marques & prof. Jerzy Pietrasinski
Time (UTC)	Time (CEST)			Synthetic aperture radars and radar imagery	
15:00 - 15:20	17:00 - 17:20		175	Gromek, Damian; Samczynski, Piotr; Stasiak, Krzysztof; Julczyk, Jakub; Wielgo, Maciej; Abratkiewicz, Karol	Experimental Results of SAR Imaging Using a Low-Cost X-band Radar with a PLL with Direct Modulation for UAV Applications
15:20 - 15:40	17:20 - 17:40		149	Eskandari, Meysam; Karbasi, Seyed Mohammad	A Novel Criterion for Array Geometry Optimization
15:40 - 16:00	17:40 - 18:00		107	Gromek, Artur	Non-coherent change detection in real SAR satellite imagery with usage of the CFAR algorithms
16:00 - 16:20	18:00 - 18:20		110	Zhang, Mengdi; Liao, Guisheng; Xu, Jingwei	High-Resolution SAR Imaging with Orthogonal Sub-Band Frequency Diverse Array
16:20 - 16:40	18:20 - 18:40		138	Lazarov, Andon; Kabakchiev, Christo; Garvonov, Ivan	ISAR IMAGING PHASE CORRECTION ALGORITHM BASED ON ENTROPY MINIMIZATION
16:40 - 17:00	18:40 - 19:00		118	Liu, Jiaxuan; Luomei, Yixiang; Yuan, Xudong; Xu, Feng	Polarimetric Calibration of Mini SAR based on UAV Platform
17:00 - 17:20	19:00 - 19:20		180	Wangiyana, Sandhi; Samczyński, Piotr; Gromek, Artur	Effects of SAR Resolution in Automatic Building Segmentation Using CNN

TUESDAY		21.09.2021	ROOM B	Session 4 (S4)	Chair: prof. Fabrizio Berizzi & prof. Konrad Jędrzejewski
Time (UTC)	Time (CEST)			Telecommunication/Radar signal processing	
11:00 - 11:40	13:00 - 13:40			Keynote: Prof. Sławomir Hausman	Electromagnetic Metamaterials and Metasurfaces: Design, Fabrication, and Applications
11:40 - 12:00	13:40 - 14:00		101	Lange, Christoph; Ahrens, Andreas	Power and Energy Efficiency Optimization of Baseband Transmission Links
12:00 - 12:20	14:00 - 14:20		154	Gajewski, Piotr; Lopatka, Jerzy; Lubkowski, Piotr	Traffic Modelling for Mobile Ad-hoc Networks Simulation
12:20 - 12:40	14:20 - 14:40		102	Abratkiewicz, Karol; Samczyński, Piotr	Multitaper Time-Frequency Reassigned Spectrogram in Micro-Doppler Radar Signal Analysis
12:40 - 13:00	14:40 - 15:00		144	Liu, Xiaobin; Zhao, Feng; Wu, Qihua; Ai, Xiaofeng	Target HRRP Reconstruction Based on Waveform Delay Dictionary with Phase-coded Pulse in Anechoic Chamber
13:00 - 13:20	15:00 - 15:20		113	Carotenuto, Vincenzo; Aubry, Augusto; De Maio, Antonio; Izzo, Alessio; Farina, Alfonso; Schiano Lo Moriello, Rosario	PA Distortions on Radar Signals for Spectral Coexistence

THURSDAY		23.09.2021	ROOM A	Session 5 (S5)	Chair: prof. Maria Greco & Dr Garcia Cava David
Time (UTC)	Time (CEST)			Signal Processing Components	
11:00 - 11:40	13:00 - 13:40			Keynote: Dr. David Garcia Cava	On enhancing data-driven structural health monitoring with explicit and implicit procedures
11:40 - 12:00	13:40 - 14:00		100	Klobe, Stefan; Ahrens, Andreas; Lange, Christoph; Müller, Ingo; Leitert, Petra; Zscherinska, Jelena	Resource Allocation in Correlated and Non-Correlated MIMO Systems
12:00 - 12:20	14:00 - 14:20		181	Chebawicz, Lukasz; Kujawiński, Mateusz; Wroński, Damian; Czubski, Bartłomiej; Granosik, Grzegorz	Comparison of slip-compensated odometry for tracked, four- and six-wheel vehicles
12:20 - 12:40	14:20 - 14:40		140	Xiangfeng Wang, Zhaoyang Xia, Haipeng Wang, Feng Xu	Human Behavior Recognition Based on Multi-Dimensional Feature Learning of Millimeter-Wave Radar
12:40 - 13:00	14:40 - 15:00		125	Stajuda, Mateusz; Garcia Cava, David; Liskiewicz, Grzegorz	Evaluation of EMD and SSA sensitivity for efficient detection of aerodynamic instabilities in centrifugal compressors

WEDNESDAY		22.09.2021	ROOM B	Session 6 (S6)	Chair: prof. Hanna Rothkaehl & prof. Krzysztof Kulpa
Time (UTC)	Time (CEST)			Geoscience and Remote Sensing	
11:00 - 11:40	13:00 - 13:40			Keynote/146 Prof. Patrick Dewilde	Advances in Multi-Variable, Non-Gaussian Stochastic Parametrization
11:40 - 12:00	13:40 - 14:00		172	Budzinska, Katarzyna; Mevius, Maaijke; Grzesiak, Marcin; Rothkaehl, Hanna	Detection of periodic disturbances in LOFAR calibration solutions
12:00 - 12:20	14:00 - 14:20		167	Kryk, Michał; Malon, Krzysztof; Kelner, Jan M.	Algorithm of Creating Propagation Attenuation Maps Based on Parabolic Equation Method
12:20 - 12:40	14:20 - 14:40		171	Pozoga, Mariusz; Ciechowska, Helena; Grzesia, Marcin; Rothkaehl, Hanna; Wronowski, Roman; Matyjasiak, Barbara; Tomasiak, Lukasz; Budzińska, Katarzyna	Ionospheric scintillation diagnosis on LOFAR ILT network in single station mode
12:40 - 13:00	14:40 - 15:00		112	Averyanova, Yuliya; Yanovsky, Felix; Shcherbina, Olga; Ostroumov, Ivan; Kuzmenko, Natalia; Zalisky, Maksym; Solomentsev, Oleksandr; Sushchenko, Olha	Polarimetric-radar drop size evaluation for wind speed estimate based on Weber criterion
13:00 - 13:20	15:00 - 15:20		170	Grzesiak, Marcin; Pozoga, Mariusz; Matyjasiak, Barbara; Przepiórka, Dorota; Rothkaehl, Hanna	Determining ionospheric drift and anisotropy of irregularities from LOFAR core measurements

THURSDAY		23.09.2021	ROOM A	Session 7 (S7)	Chair: dr Rupniewski Marek & Prof. Marco Martorella
Time (UTC)	Time (CEST)			Localization and Tracking	
15:00 - 15:40	17:00 - 17:40			Keynote: Prof. Marco Martorella	Recent advances in 3D Radar Imaging of Non-Cooperative Targets
15:40 - 16:00	17:40 - 18:00		120	Marino, Angela; Aubry, Augusto; De Maio, Antonio; Braca, Paolo	3D Localization for Multiparameter Radar Networks with Deployable Nodes
16:00 - 16:20	18:00 - 18:20		131	Kolakowski, Marcin	Adaptive Anchor Pairs Selection in a TDOA-based System Through Robot Localization Error Minimization
16:20 - 16:40	18:20 - 18:40		128	Stasiak, Krzysztof; Ciesielski, Marek; Khyzhniak, Mariia; Żywek, Marcin; Rupniewski, Marek	Measurement Error Correlation in Processing of Overlapping Blocks in FMCW Radar
16:40 - 17:00	18:40 - 19:00		169	Szczepanik, Rafał; Kelner, Jan M.; Ziłkowski, Cezary	Overlapping-based Radio Signal Processing for SDF Location Method

THURSDAY		23.09.2021	ROOM B	Session 8 (S8)	Chair: dr Mateusz Malanowski & prof. Gomez-del-Hoyo, Pedro-Jose
Time (UTC)	Time (CEST)			Passive Radar	
15:00 - 15:20	17:00 - 17:20		137	Gomez-del-Hoyo, Pedro-Jose; Jarabo-Amores, Maria-Pilar; Mata-Moya, David; Rey-Maestre, Nerea; Rosado-Sanz, Javier	2D Ground Target Location Using GPS based Passive Radar
15:20 - 15:40	17:20 - 17:40		174	Rytel-Andrianik, Rafat; Kulpa, Krzysztof; Stasiak, Krzysztof; Malanowski, Mateusz	Preliminary detection results obtained with experimental airborne passive radar
15:40 - 16:00	17:40 - 18:00		177	Jędrzejewski, Konrad; Kulpa, Krzysztof; Pozoga, Mariusz	Field Trials of Passive Radiolocation using LOFAR Radio Telescope and External Reference Receiver
16:00 - 16:20	18:00 - 18:20		132	Żywek, Marcin; Malanowski, Mateusz	Performance Optimization for Passive Bistatic Radar Based on Detection Range Predictions
16:20 - 16:40	18:20 - 18:40		142	Mazurek, Gustaw	Signal conditioning for DAB-illuminated passive radar

THURSDAY 23.09.2021		ROOM B	Session 9 (S9)	Chair: prof. Gaspare Galati & prof. Jacek Misiurewicz
Time (UTC)	Time (CEST)		Radar systems and application	
11:00 - 11:40	13:00 - 13:40	keynote	Dr. Michele Fiorini	The Trust and Truth of Digitalisation in Maritime Domain: where are we?
11:40 - 12:00	13:40 - 14:00	111	Aburatkiewicz, Karol; Gambrych, Jacek; Stasiak, Krzysztof; Samczyński, Piotr	Estimation of Rotational Speed of Helicopter Rotor Through Horizontal Synchrosqueezing
12:00 - 12:20	14:00 - 14:20	129	Julczyk, Jakub Kamil; Stasiak, Krzysztof; Gromek, Damian; Ciesielski, Marek	Four-Channel Ground-Based C-Band FMCW Radar Demonstrator
12:20 - 12:40	14:20 - 14:40	155	Plotnitskaya, Ekaterina; Vorobev, Evgenii; Veremyev, Vladimir	Analysis of Spectrum Signatures from Rotating Blades of Small Drone
WEDNESDAY 22.09.2021		ROOM A	Session 10 (S10)	Chair: Anton Popov & prof. Piotr Augustyniak
Time (UTC)	Time (CEST)		Signal and Image Processing for Medical Application I	
11:00 - 11:20	13:00 - 13:20	123	Augustyniak, Piotr	Distance Metrics for Classification of Arbitrarily Sampled Patterns – an ECG Example
11:20 - 11:40	13:20 - 13:40	135	Kotiuchyi, Ivan; Pernice, Riccardo; Popov, Anton; Kharytonov, Volodymyr; Faes, Luca	Mutual Information Analysis of Brain-Heart Interactions in Epileptic Children
11:40 - 12:00	13:40 - 14:00	116	Samowicz, Martyna; Wieteska, Anna; Redlicka, Justyna; Koter, Katarzyna; Zubrycki, Igor	Hand measurement based on integrated vision system- Leap Motion
12:00 - 12:20	14:00 - 14:20	159	Buś, Szymon; Jędrzejewski, Konrad; Guzik, Przemysław	A Study on Selection of HRV-based Features for Different Classifiers in Atrial Fibrillation Detection
12:20 - 12:40	14:20 - 14:40	134	Dominik, Ilona; Praczek, Ewa; Zubrycki, Igor	Motivating wearable device for plegic hand rehabilitation
12:40 - 13:00	14:40 - 15:00	178	Kawecki, Robert; Oleksy, Paweł; Kawecki, Jarosław; Korbel, Piotr; Hausman, Sławomir	TELEASSISTENT SERVICES USING THE 5G NETWORK ON A REMOTE GUIDE FOR THE BLIND PERSONS
WEDNESDAY 22.09.2021		ROOM A	Session 11 (S11)	Chair: prof. Tomasz Pięciak & dr Paweł Badura
Time (UTC)	Time (CEST)		Signal and Image Processing for Medical Application II	
15:00 - 15:20	17:00 - 17:20	156	Plucińska, Renata; Jędrzejewski, Konrad; Rogala, Jacek; Malinowska, Urszula; Walińska, Marek	Experimental studies on the efficiency of people authentication using data from the same and different examinations
15:20 - 15:40	17:20 - 17:40	182	Oleksy, Paweł; Januszkiewicz, Łukasz	Improved Wireless Capsule Endoscope Localization with Phase Detection Algorithm
15:40 - 16:00	17:40 - 18:00	160	Nerusil, Boris; Polec, Jaroslav; Skunda, Juraj	Detection of Dyslexia Using Eye Tracking
16:00 - 16:20	18:00 - 18:20	124	Vodlaniy, Bohdan; Seleznev, Ivan; Chernykh, Mariia; Zyma, Igor; Popov, Anton; Kiyono, Ken	Analysis of Brain Reaction to Emotional Faces
16:20 - 16:40	18:20 - 18:40	153	Xianghan Yang, Zhaoyang Xia, Feng Xu, Yinan Mo	Cross-domain human motion recognition
WEDNESDAY 22.09.2021		ROOM B	Session 12 (S12)	Chair: Dr Michele Fiorini & dr. Łukasz Maślakowski
Time (UTC)	Time (CEST)		Radar Signal Processing	
15:00 - 15:20	17:00 - 17:20	143	Świetach, Zbigniew	A Modeling Problem of a Continuous Time Domain Signal by its Discrete Counterpart
15:20 - 15:40	17:20 - 17:40	130	Rupniewski, Marek Wojciech	TRISH — a Triggerless Random Interleaved Sampling Hardware
15:40 - 16:00	17:40 - 18:00	106	Gambrych, Jacek	Mitigating of received signal power loss caused by multipath effect in phased array radars
16:00 - 16:20	18:00 - 18:20	126	Łukasz, Maślakowski;	Ground Clutter Analyses in Noise Radar using Unmatched Filter Concept
16:20 - 16:40	18:20 - 18:40	162	Maślakowski, Łukasz	Calibration of Transmitting and Receiving Array of a Radar using MIMO Measurement
16:40 - 17:00	18:40 - 19:00	108	Liu, Zhuo; Zhang, Xu; Wang, HaiPeng; Wang, Feng	A Hybrid Algorithm for Radar Cross Section Calculation of Electrically Large Targets