2023 24th International Conference on Digital Signal Processing (DSP 2023)

Technical Programme

	SUNDAY 11 JUNE 2023	MONDAY 12 JUNE 2023		TUESDAY 13 JUNE 2023	
09:30-11:00	Registration	M1A - Media Authenticity in the Age of Artificial Intelligence I	M1B - AI for Industrial and Environmental Applications I	T1A - Biomedical Image and Video Analysis with Applications to Disease Risk Assessment	T1B - Neural Networks and Signal / Image Processing II
11:00-11:30	Coffee Break	Coffee Break		Coffee Break	
11:30-13:00	Welcome Address	M2A - Media Authenticity … II	M2B - AI for Industrial … II	T2A - Biomedical Signal Processing I	T2B - DSP Theory
	Plenary by Ioannis Katsavounidis	Plenary by fred harris		WiSP	
13:00-14:30	Lunch Break	Lunch Break		Lunch Break	
14:30-16:00	S3A - DSP Theory - Financial Signal Processing	M3A - Neural Networks and Signal / Image Processing I	M3B - Speech Processing	T3A – Signal / Image Processing - Machine Learning for Physiological Signals	T3B - Federated / Distributed / Dictionary Learning and Applications
16:00-16:30	Coffee Break	Coffee Break		Coffee Break	
16:30-18:00	S4A - Radar /SAR Signal Processing	M4A - Signal Processing for DNA Digital Data Storage	M4B - DSP Education	T4A - Biomedical Signal Processing II	T4B - 3D and Stereo

20:00-	Welcome Reception	Conference Banquet	

***Notations**: (a) Light green denotes "Constantinides Session", light orange denotes Special Session, no colour denotes Regular Session (b) Sessions are coded as DnH, where D is the Day (S: Sunday, M: Monday, T: Tuesday), n is the time slot and H the Hall (A: Ariadni, B: Artemis).*

SUNDAY 11 JUNE 2023

	S2A	**Plenary** **Speaker: Ioannis Katsavounidis (Meta, USA)** **Title: Video Quality Metrics**

	S3A	**Constantinides Session - DSP Theory / Financial Signal Processing** **Chair – fred harris (USA)**
S3A.1	Frequency-Domain Implementations of Variable Digital FIR Filters Using the Overlap-Save Technique	Oksana Moryakova (Linköping University)*; Håkan Johansson (Linköping University)
S3A.2	Adaptive Clarke Transformation for Robust Estimation of Three-Phase Grid Frequency	Md Shamim Reza (UNSW Sydney); Matthew Priestly (UNSW Sydney); Elias Aboutanios (University of New South Wales)*; John Fletcher (University of New South Wales)
S3A.3	Enhancing safe screening rules with adaptive thresholding for non-overlaping group sparse norm regularized problems	Hector Chahuara (Pontificia Universidad Católica del Perú)*; Paul Rodriguez (PUCP)
S3A.4	Text Mining for Sentiment Analysis in Bond Portfolio Construction	Thanos Konstantinidis (Imperial College London); Maya Golan (Imperial College London); Yao Lei Xu (Imperial College London)*; Tony Constantinides (Imperial College London); Danilo P. Mandic (Imperial College of London, UK)
S3A.5	Financial News Classification Model for NLP-based Bond Portfolio Construction	Thanos Konstantinidis (Imperial College London); Arnau Bonet Farres (Imperial College London); Yao Lei Xu (Imperial College London)*; Tony Constantinides (Imperial College London); Danilo P. Mandic (Imperial College of London, UK)
S3A.6	A comparative study on ML-based approaches for Main Entity Detection in Financial Reports	Thanos Konstantinidis (Imperial College London); Yao Lei Xu (Imperial College London)*; Tony Constantinides (Imperial College London); Danilo P. Mandic (Imperial College of London, UK)

	S4A	**Special Session - Radar / SAR Signal Processing** **Organisers – Béatrice Pesquet-Popescu (France), Eric Jeanclaude (France)** **Chairs - Athina Petropulu (USA), Peter Vouras (USA)**
S4A.1	Efficient Beamforming Designs for IRS-Aided DFRC Systems	Yikai Li (ECE, Rutgers); Athina Petropulu (Rutgers)
S4A.2	Radar Based Humans Localization with Compressed Sensing and Sparse Reconstruction	Christian Eckrich (Technische Universität Darmstadt)*; Christian A. Schroth (Technische Universität Darmstadt); Vahid Jamali (Technical University of Darmstadt); Abdelhak M Zoubir (Technische Universität Darmstadt)
S4A.3	Quantum Machine Learning for Optical and SAR Classification	Leslie Miller (Arizona State University); Glen Uehara (Arizona State University); Aradhita Sharma (Arizona State University)*; Andreas Spanias (ASU)
S4A.4	Wideband Cyclostationary Spectrum Analysis for Smart Factory Wireless Channels	Peter Vouras (U.S Department of Defense)*; Mohamed Kashef (NIST); Richard Candell (NIST)
S4A.5	OFDM-based Dual Function Communications-Radar Utilizing the 4D Modified Matrix Pencil Method	Samuel P Lavery (The University of Edinburgh)*; Navneet Garg (The University of Edinburgh); Tharmalingam Ratnarajah (The University of Edinburgh)

MONDAY 12 JUNE 2023

	M1A	**Special Session - Media Authenticity in the Age of Artificial Intelligence** **Organisers & Chairs - Deepayan Bhowmik (UK), Frederik Temmermans (Belgium)**
M1A.1	Towards an international standard to establish trust in media production, distribution and consumption	Frederik Temmermans (Vrije Universiteit Brussel)*; Sabrina Caldwell (Australian National University); Symeon Papadopoulos (Information Technologies Institute / Centre for Research & Technology - Hellas, GR); Fernando Pereira (Instituto Superior Técnico - Instituto de Telecomunicações); Philippe Rixhon (University College London)
M1A.2	Ensuring privacy in provenance information for images	Nikolaos Fotos (Universitat Politècnica de Catalunya (UPC))*; Jaime Delgado (Universitat Politècnica de Catalunya (UPC))
M1A.3	TRAIT: A Trusted Media Distribution Framework	James F Rainey (Newcastle University)*; Mohamed Elawady (University of Strathclyde); Charith Abhayartne (University of Sheffield); Deepayan Bhowmik (Newcastle University)
M1A.4	Impact of Video Processing Operations in Deepfake Detection	Yuhang Lu (EPFL)*; Touradj Ebrahimi (EPFL)
M1A.5	Video Surveillance Authentication: Real-Time ENF Signal Hiding at the Edge	Antonios Lykourinas (University of Patras)*; Athanassios Skodras (University of Patras)
M1A.6	An Automated Ground-to-Aerial Viewpoint Localization for Content Verification	Tania Sari Bonaventura (Sapienza University); Luca Maiano (Sapienza University)*; Lorenzo Papa (Alcor Lab, Dipartimento di Ingegneria Informatica Automatica e Gestionale, University of Rome "Sapienza"); Irene Amerini (Sapienza Universita di Roma)

	M2A	**Special Session - Media Authenticity in the Age of Artificial Intelligence** **Organisers & Chairs - Deepayan Bhowmik (UK), Frederik Temmermans (Belgium)**
M2A.1	Could Human Gaze Augment Detectors of Synthetic Images?	Nikolaos Fotopoulos (University of Patras)*; Clara Riedmiller (University of Tübingen); Efe Bozkir (University of Tübingen); Panagiotis Tsinganos (University of Patras); Dimitris Ampeliotis (Ionian University); Gjergji Kasneci (University of Tuebingen); Enkelejda Kasneci (Technical University of Munich); Athanassios Skodras (University of Patras)
M2A.2	Misinformation detection using propagation and opinion-related features	Vasilis Moshopoulos (CERTH); Maria Tsourma (CERTH)*; Anastasios Drosou (CERTH-ITI); Dimitrios Tzovaras (Centre for Research and Technology Hellas)

	M2A	**Plenary** **Speaker: fred harris (UCSD, USA)** **Title: Recent advances and capabilities of polyphase analysis and synthesis filter banks**

	M3A	Neural Networks and Signal / Image Processing I Chairs – Wan-Chi Siu (Hong Kong), Touradj Ebrahimi (Switzerland)
M3A.1	Intelligent Painter: New Masking Strategy and Self-Referencing with Resampling	Wan-Chi Siu (The Hong Kong Polytechnic University)*; Chun Chuen Hui (The Hong Kong Polytechnic University); Ngai Fong Bonnie Law (The Hong Kong Polytechnic University); H. Anthony Chan (Caritas Institute of Higher Education)
M3A.2	Vector-Quantized Feedback Recurrent Autoencoders for the Compression of the Stimulation Patterns of Cochlear Implants at Zero Delay	Reemt Hinrichs (Institut für Informationsverarbeitung)*; Julian Bilsky (Institut für Informationsverarbeitung); Jörn Ostermann (Leibniz Universität Hannover)
M3A.3	Learned Image Compression with Wavelet Preprocessing for Low Bit Rates	Sofia Iliopoulou (University of Patras)*; Panagiotis Tsinganos (University of Patras); Dimitris Ampeliotis (Ionian University); Athanassios Skodras (University of Patras)
M3A.4	Gradient-based Offset Compensation for Edge Corrections on 8K Video Transmission using 4K Tiles	Hamid Reza Tohidypour (University of British Columbia)*; Yixiao Wang (University of British Columbia); Mahsa Pourazad (TELUS Communications Inc.); Chen Yuan (University of British Columbia); Runze Wang (University of British Columbia); Travis LePage (University of British Columbia); Panos Nasiopoulos (University of British Columbia)
M3A.5	Masked Face Recognition Using Convolutional Neural Networks and Similarity Analysis	Mobina Mobaraki (University of British Columbia)*; Mohamed Zidan (University of British Columbia); Hamid Reza Tohidypour (University of British Columbia); Yixiao Wang (University of British Columbia); Rui Zhong (University of British Columbia); Haoxiang Lei (University of British Columbia); Panos Nasiopoulos (University of British Columbia)

	M4A	Special Session - Signal Processing for DNA Digital Data Storage Organisers & Chairs - Marc Antonini (France), Melpomeni Dimopoulou (France), Elsa Dupraz (France)
M4A.1	Using Soft Information to Improve Error Tolerance of Motif-Based DNA Storage Systems	Eugenio Marinelli (Eurecom)*; Raja Appuswamy (Eurecom); Virginie Magnone (IPMC); Charlotte Dumargne (IPMC); Pascal Barbry (IPMC)
M4A.2	Rotating labeling of entropy coders for synthetic DNA data storage	Xavier Pic (I3S laboratory)*; Eva GIL SAN ANTONIO (I3S/CNRS); Melpomeni Dimopoulou (Laboratoire i3S, Université Côte d'Azur, CNRS UMR 7271); Marc Antonini (Universite Nice Sophia Antipolis)
M4A.3	Synchronization Algorithms from High-Rate LDPC Codes for DNA Data Storage	Belaïd Hamoum (Lab-STICC); Aref Youssef Ezzeddine (IMT Atlantique); Elsa Dupraz (IMT Atlantique)*

	M1B	Special Session - AI for Industrial and Environmental Applications Organisers & Chairs - Pasquale Coscia (Italy), Hang Zhao (China)
M1B.1	Heterogeneity-Stratified Bootstrap Oversampling for Training a Spoiled Food Detector	Pertami J Kunz*; Abdelhak Zoubir (Darmstadt University of Technology)
M1B.2	CNN-BiLSTM based GAN for Anamoly Detection from Multivariate Time Series Data	Sumit Kumat Singh (University of Essex)*; Mohammad Hossein Anisi (University of Essex); Simon Clough (Soil Moisture Sense Leiston); Tim Blyth (Soil Moisture Sense Leiston); Delaram Jarchi (University of Essex)
M1B.3	A Convolutional Neural Network Architecture For Multi-Floor Indoor Localization Based On Wi-Fi Fingerprinting	Wan-Chi Siu (The Hong Kong Polytechnic University)*; Xin Chen (Hong Kong Polytechnic University); Yuk Hee Chan (The Hong Kong Polyrtechnic University); Chuen-Yu Chan (Maphive Technology Limited); Chun-Pong Chau (HKCC)
M1B.4	Employing deep learning framework for improving solar panel defects using drone imagery	Georgios Terzoglou (Centre for Research & Technology, Hellas (CERTH))*; Michail Loufakis (Centre for Research & Technology, Hellas (CERTH)); Panagiotis Symeonidis (Centre for Research & Technology, Hellas (CERTH)); Dimosthenis Ioannidis (Centre for Reasearch and Technology Hellas / Information Technologies Institute); Dimitrios Tzovaras (Centre for Research and Technology Hellas)
M1B.5	Motion Prediction of Traffic Agents With Hybrid Recurrent-Convolutional Neural Networks	Vasileios Lagoutaris (University of Patras); Konstantinos Moustakas (ECE/UPATRAS)*

	M2B	Special Session - AI for Industrial and Environmental Applications Organisers & Chairs - Pasquale Coscia (Italy), Hang Zhao (China)
M2B.1	Towards Sustainable Farming: A Robust Decision Support System's Architecture for Agriculture 4.0	Eleftheria Maria Pechlivani (Centre for Research and Technology Hellas)*; Georgios Gkogkos (Centre for Research and Technology Hellas); Nikolaos G Giakoumoglou (Centre for Research and Technology Hellas); Ioannis Hadjigeorgiou (Sidroco Holdings Ltd); Dimitrios Tzovaras (Centre for Research and Technology Hellas)
M2B.2	Real-Time Crop Growth Stage Estimation Using Multi-modal Satellite Imagery	Abhijit Sinha (A.U.G. Signals Ltd.); Sina Adham Khiabani (AUG Signals)*; Yifeng Li (A.U.G. Signals Ltd.); George Lampropoulos (A.U.G. Signals Ltd.); Heather Heather McNairn (Agriculture and Agri-Food Canada); Xianfeng Jiao (Agriculture and Agri-Food Canada)

	M3B	Speech Processing Chairs – Nikolaos Mitianoudis (Greece), Stavros Ntalampiras (Italy)
M3B.1	Machine learning based noise suppression in narrow-band speech communication systems	Joyraj Chakraborty (University of Essex)*; Martin Reed (University of Essex); Nikolaos Thomos (University of Essex); Geoff Pratt (CML Microcircuits (UK) Ltd.); Nigel Wilson (CML Microcircuits (UK) Ltd.)
M3B.2	ConSep: a Noise- and Reverberation-Robust Speech Separation Framework by Magnitude Conditioning	Kuan-Hsun Ho (NTNU)*; Jeih-weih Hung (National Chi Nan University); Berlin Chen (National Taiwan Normal University)
M3B.3	Speaker Adapted Codebooks for Speech Enhancement	Chidambar B (Sri Sathya Sai University For Human Excellence)*
M3B.4	Italian Speech Emotion Recognition	Irene Mantegazza (University of Milan); Stavros Ntalampiras (University of Milan)
M3B.5	Age Classification Based on Voice Using Mel-Spectrogram and MFCC	Tariq B AL Maashani (Kumamoto University)*; Israel Mendonca dos Santos (kumamoto university); Masayoshi Aritsugi (Kumamoto University)
M3B.6	Building a Turkish Text-to-Speech Engine: Addressing Linguistic and Technical Challenges	Tuğçe Melike Koçak (Turkcell Technologies)*; Mehmet Büyükzincir (Turkcell Technologies)

	M4B	Special Session - DSP Education Organiser & Chair - Marios S. Pattichis (USA)
M4B.1	Evaluation of Virtual Reality via 360° videos Reusable e-Resources Embedded in Healthcare Curricula	Eirini C Schiza (CYENS)*; Evangelia Gkougkoudi (University of Cyprus); Fotos Frangoudes (CYENS); Matthew Pears (University of Nottingham); Stathis Konstantinidis (University of Nottingham); Constantinos Pattichis (CYENS)
M4B.2	Digital Video Representations for Teaching Mathematics and Coding to Middle School Students	Marios S Pattichis (The University of New Mexico)*; Sylvia Celedon-Pattichis (The University of Texas at Austin); Carlos LopezLeiva (The University of New Mexico)
M4B.3	Instructional Activity Detection Using Deep Neural Networks	Matthew Korban (University of Virginia)*; Peter Youngs (University of Virginia); Scott Acton (University of Virginia)
M4B.4	Antenna Array Experiment at 2.45-GHz for Teaching Signal Processing	Francois VINCENT (ISAE)*; Romain Pascaud (ISAE); Olivier Besson (ISAE)

TUESDAY 13 JUNE 2023

	T1A	Special Session - Biomedical Image and Video Analysis with Applications to Disease Risk Assessment Organisers & Chairs - Efthyvoulos Kyriacou (Cyprus), Marios S. Pattichis (USA)
T1A.1	Exploring the Impact of Learning Paradigms on Network Generalization: A Multi-Center IMT Study	Francesco Marzola (Politecnico di Torino); Kristen M Meiburger (Politecnico di Torino)*; Filippo Molinari (Politecnico di Torino); Massimo Salvi (Politecnico di Torino)
T1A.2	Carotid plaque stroke risk assessment using multiscale AM-FM analysis based on DoG filterbanks	Kyriacos P. Constantinou (University of Cyprus)*; Ioannis Constantinou (IstognosisLtd); Marios S Pattichis (The University of New Mexico); Constantinos Pattichis (University of Cyprus)
T1A.3	Agent Based with Finite Element Method for Plaque Progression in the Carotid Artery	Nenad Filipovic (University of Kragujevac)*; Smiljana Djorovic (Bioengineering Research and Development Center (BioIRC))
T1A.4	Automated segmentation and classification of the atherosclerotic carotid plaque in ultrasound videos	Georgia Liapi (Cyprus University of Technology); Kyriacos P. Constantinou (University of Cyprus); Michalis Gemenaris (Cyprus University of Technology); Christos P Loizou (Cyprus University of Technology); Andrew Nicolaides (Vascular Screening and Diagnostic Centre); Eythyvoulos Kyriacou (Cyprus University of Technology)*
T1A.5	Multi-Kernel Fusion with Fuzzy Label Relaxation for Predicting Distant Metastasis in Nasopharyngeal Carcinoma	Jiabao SHENG (The Hong Kong Polytechnic University)*; Saikit LAM (The Hong Kong Polytechnic University); Ta Zhou (The Hong Kong Polytechnic University); Jiang Zhang (The Hong Kong Polytechnic University); Yuanpeng Zhang (The Hong Kong Polytechnic University); Jing Cai (The Hong Kong Polytechnic University)
T1A.6	Heatmap-based Search Space Reduction for Temporal Action Localization in Physical Rehabilitation	Thang V Nguyen (Viettel High Technology Industries Corporation)*; Van Bang Le (Viettel High Technology Industries Corporation); Do Quang Manh (FPT University)

	T2A	Biomedical Signal Processing I Chair - Nasser Kehtarnavaz (USA)
T2A.1	Muscle Classification Via Hybrid CNN-LSTM Architecture from Surface EMG Signals	Esteban Velásquez Rendón (Vrije Universiteit Brussel)*; Jan P Cornelis (VUB-ETRO); Bart Jansen (Vrije Universiteit Brussel); Lubos Omelina (Vrije Universiteit Brussel and IMEC)
T2A.2	Gesture Recognition via Estimation of Information Exchange between Muscles	Alicia Falcon-Caro (Nottingham Trent University)*; Saeed Sanei (Nottingham Trent University)

	T3A	Special Session - Signal/Image Processing-Machine Learning for Physiological Signals Organisers & Chairs - Arash Mohammadi (Canada), Hojjat Salehinejad (USA)
T3A.1	Employing Neighborhood Component Analysis as a Feature Selection Method in the Pattern Recognition Approach for Surface Electromyography Signal Classification	Daniyar A Zhakyp (Nazarbayev University)*; Muhammad T Akhtar (Nazarbayev University)
T3A.2	On the Agreement of Deep Neural Networks with the Brain in Encoding Visual Stimuli: Implications for Image Quality Assessment	Saeed Mahmoudpour (imec - VUB)*; Peter Schelkens (imec - VUB)
T3A.3	Cross Attention-based Fusion of Deep and Radiomics Features for Lung Nodule Invasiveness Prediction	Sdaf Khademi (Concordia University); Anastasia Oikonomou (University of Toronto); Konstantinos N Plataniotis (UofT); Arash Mohammadi (Concordia University)*
T3A.4	GCN-LSTM for EEG Classification based on Unspoken Speech of Bilinguals	Chengfang Li (Fudan university)*; Liang Song (Fudan University)
T3A.5	SGraphZoe: Explainable self-supervised framework for signal-based anomaly detection	Mikhail Kamalov (INRIA Sophia Antipolis Méditerranée)*; Ingrid Grenet (MyDataModels); Jonathan Daeden (MyDataModels); Luca Uggeri (MyDataModels)

T3A.6	Improving PPG Signal Classification with Machine Learning: The Power of a Second Opinion	Hamzeh Asgharnezhad (University of New South Wales); Afshar Shamsi (Concordia University)*; Ivan Bakhshayeshi (University of New South Wales); Roohallah Alizadehsani (Deakin University); Somayyeh Chamaani (K.N. Toosi University of Technology); Hamid Alinejad-Rokny (University of New South Wales)

	T4A	**Biomedical Signal Processing II** **Chair – Jan Cornelis (Belgium)**
T4A.1	An Explainable Artificial Intelligence model in the assessment of Brain MRI Lesions in Multiple Sclerosis using Amplitude Modulation - Frequency Modulation multi-scale feature sets	Andria Nicolaou (University of Cyprus)*; Constantinos Pattichis (University of Cyprus); Antonis Kakas (University of Cyprus); Marios S Pattichis (The University of New Mexico); Kevin Fotso (University of New Mexico); Christos P Loizou (Cyprus University of Technology); Marios Pantzaris (Cyprus Institute of Neurology and Genetics)
T4A.2	Diagnosis of Alzheimer's disease and Mild Cognitive Impairment using Rethinking and Deep Neural Networks	Evangelos Kostopoulos (International Hellenic University)*; Konstantinos Diamantaras (International Hellenic University); Ioanna Chouvarda (Aristotle University of Thessaloniki); Magda Tsolaki (Greek Association of Alzheimer's Disease and Related Disorders)
T4A.3	Personalization of Hearing Aid DSLv5 Prescription Amplification in the Field via a Real-Time Smartphone App	Aoxin (Nelson) Ni (Department of Electrical and Computer Engineering, University of Texas at Dallas)*; Edward Lobarinas (University of Texas at Dallas); Nasser Kehtarnavaz (University of Texas at Dallas)
T4A.4	Subject-Independent P300 Speller Classification using Time-Frequency Representation and Double Input CNN with Feature Concatenation	Zangar Ermaganbet (Nazarbayev University)*; Ayana Mussabayeva (University of Manchester); Prashant Jamwal (Nazarbayev University); Muhammad T Akhtar (Nazarbayev University)

	T1B	Neural Networks and Signal / Image Processing II Chairs – Stefan Vlaski (UK), Muhammad Tahir Akhtar (Kazakstan)
T1B.1	Applications and Limits of Image-to-Image Translation Models	Pasquale Coscia (University of Milan)*; Angelo Genovese (Università degli Studi di Milano); Fabio Scotti (Milano University); Vincenzo Piuri (Universita' degli Studi di Milano, Italy)
T1B.2	Visualizing Invariant Features in Vision Models	Fawaz Sammani (Vrije Universiteit Brussel)*; Boris Joukovsky (Vrije Universiteit Brussel - imec); Nikos Deligiannis (Vrije Universiteit Brussel - imec)
T1B.3	A lightweight ConvGRU network for Distracted Driving detection	Pantazis Anagnostou (Democritus University of Thrace); Nikolaos Mitianoudis (DUTH)*
T1B.4	CoPo: Self-supervised Contrastive Learning for Popularity Prediction in MEC Networks	Zohreh Hajiakhondi Meybodi (Concordia University); Arash Mohammadi (Concordia University)*; Jamshid Abouei (Yazd University); Konstantinos N Plataniotis (UofT)
T1B.5	A Data-driven Deep Learning Approach for Bitcoin Price Forecasting	Parth Daxesh Modi; Kamyar Arshi; Pertami J Kunz; Abdelhak Zoubir (Darmstadt University of Technology)
T1B.6	Upcoming activity prediction based on user activity profiles	Alexandros Zamichos (CERTH-ITI); Maria Tsourma (CERTH)*; Armando Domi (CERTH-ITI); Stavros Papadopoulos (CERTH-ITI); Anastasios Drosou (CERTH-ITI); Dimitrios Tzovaras (Centre for Research and Technology Hellas)

	T2B	DSP Theory Chair - Håkan Johansson (Sweden)
T2B.1	Low-Complexity Memoryless Linearizer for Analog-to-Digital Interfaces	Deijany Rodriguez Linares (Linköping University)*; Håkan Johansson (Linköping University)
T2B.2	Adaptive Kalman Filter Based Data Aggregation in Fault-Resilient Underwater Sensor Networks	Lauri Vihman (Tallinn University of Technology)*; Jaan Raik (TalTech)

	T3B	Special Session - Federated / Distributed / Dictionary Learning and Applications Organisers & Chairs - Dimitris Ampeliotis (Greece), Aris Lalos (Greece)
T3B.1	Attacks on Robust Distributed Learning Schemes via Sensitivity Curve Maximization	Christian A. Schroth (Technische Universität Darmstadt)*; Stefan Vlaski (Imperial College London); Abdelhak M Zoubir (Technische Universität Darmstadt)
T3B.2	Federated Learning for Lidar Super Resolution on Automotive Scenes	Alexandros Gkillas (University of Patras)*; Gerasimos Arvanitis (University of Patras); Aris Lalos (Industrial Systems Institute, Athena Research Center); Konstantinos Moustakas (University of Patras)
T3B.3	Dictionary Learning-Based Denoising for Portfolio Selection	Somaya Sadik (ENSAM Rabat)*; Mohamed Et-tolba (INPT Rabat); Benayad Nsiri (ENSAM Rabat)
T3B.4	Subspace Parsimonious Dictionary Learning and its use in Federated Learning	Dimitris Ampeliotis (Ionian University)*; Alexandros Gkillas (University of Patras)
T3B.5	Federated Deep feature extraction based SLAM for Autonomous Vehicles	Christos Anagnostopoulos (Industrial Systems Institute, Athena Research and Innovation Center)*; Alexandros Gkillas (University of Patras); Nikos Piperigkos (University of Patras/ATHENA Research Center); Aris Lalos (Industrial Systems Institute, Athena Research Center)
T3B.6	Resource Efficient Federated Learning for Deep Anomaly Detection in Industrial IoT applications	Alexandros Gkillas (University of Patras)*; Aris Lalos (Industrial Systems Institute, Athena Research Center)

	T4B	3D and Stereo Chairs – Panos Nasiopoulos (Canada), Konstantinos Moustakas (Greece)
T4B.1	Deep Wavelet Transform Network for Photometric Stereo	Yakun Ju (The Hong Kong Polytechnic University)*; Cong Zhang (The Hong Kong Polytechnic University); Muwei Jian (Shandong University of Finance and Economics); Yeqi Hu (Ocean University of China); Kin-Man Lam (The Hong Kong Polytechnic University)
T4B.2	Improved Block Merging for 3D Point Cloud Instance Segmentation	Leon Denis (Vrije Universiteit Brussel)*; Remco Royen (Vrije Universiteit Brussel); Adrian Munteanu (Vrije Universiteit Brussel)
T4B.3	Deep 3D Geometric Saliency Estimation from Light Field Images	Konstantinos Ntogkas (University of Patras)*; Gerasimos Arvanitis (University of Patras); Konstantinos Moustakas (University of Patras)
T4B.4	Point Contrastive Learning For Lidar-Based 3D Object Detection In Autonomous Driving	Efstathios Karypidis (Democritus University of Thrace); Georgios Zamanakos (Democritus University of Thrace)*; Lazaros Tsochatzidis (Democritus University of Thrace); Ioannis Pratikakis (Democritus University of Thrace)