



# ISSPIT 2017 - Bilbao, Spain

University of Deusto

Auditorio Icaza (La Comercial Building)

## Registration

DAY 1: Monday, December 18<sup>th</sup>: 9.30 - 10.00: Registration  
 DAY 2: Tuesday, December 19<sup>th</sup>: 9.30 - 10.00: Registration  
 DAY 3: Wednesday, December 20<sup>th</sup>: 9.30 - 10.00: Registration

## Technical program: Synopsis

Time	Day 1	Day 2	Day 3
9.30 - 10.00	Registration	Registration	Registration
10:00 - 10:30	PLENARY talk Prof. Hichem Frigui	PLENARY talk Prof. F. Lupiañez	PLENARY talk Prof. Pablo Garcia Bringas
10:30 - 11:30	Digital Signal Processing	Computational Methods	Bio-Informatics
11:30 - 11:45	Coffee Break	Coffee Break	Coffee Break
11:45 - 13:00	Digital Signal Processing	Computational Methods	Bio-Informatics
13:00 - 14:00	Lunch	Lunch	Bio-Informatics
14:00 - 16:00	Digital Signal Processing	Computational Methods	FINAL talk Prof. A. Elmaghraby (14:00-14:30)
16:00 - 16:15	Coffee Break	Coffee Break	
16:15 - 17:45	Digital Signal Processing	Computational Methods	
	19:00 Guided tour of Bilbao	19:30 - 23:00 Gala dinner - Abando Hotel	

### Oral presentations:

10 minutes' presentation and 5 minutes' questions in "Auditorio Icaza" room.

### Online/Video session:

December 20<sup>th</sup> from 10:45 - 14:00. Video presentation 7 - 10 minutes.



## Technical program: Schedule

### **DAY 1: Monday, December 18<sup>th</sup>**

**Session:** Digital Signal Processing, Image processing, Signals, Sensors, Devices

**Time:** 10:30 - 12:00

Code	Title	Registered author
1570390825	Local Linear Predictive Coding for High Resolution Time-Frequency Analysis	Fumihiko Ishiyama
1570391189	Sequential Combinations of Multiple Adaptive Lattice Filters in Cognitive Radio Channel Identification	Mehmet T. Ozden
1570399658	An Ensemble Feature Selection Method for Biomarker Discovery	Hichem Frigui
1570396570	An Adaptive Background Subtraction Scheme for Video Surveillance Systems	Nithin Varghese George
1570397059	Blind Forensics Tool of Falsification for RAW Images	Thi Ngoc Canh Doan
1570398800	Examining Feature Vector for Phoneme Recognition	Bozena Kostek

### ***Coffee break: 11:30 - 11:45***

**Session:** Digital Signal Processing, Image processing, Signals, Sensors, Devices

**Time:** 11:45 - 13:30

Code	Title	Registered author
1570398321	Study on Spectral Efficiency for STBC-CPM with Two and Four Transmit Antennas	Kazuyuki Morioka
1570398579	The Gestalt Interest Points Distance Feature for Compact and Accurate Image Description	Markus Hörhan
1570398663	Jamming Signals Classification Using Convolutional Neural Network	Yanlong Zhao
1570398668	Face Recognition by Thermal Video Using 3D Information and Vesselness Features	K. T. Nguyen
1570398770	Experimental Demonstration of Autonomous Spectrum Balancing in G.fast	Martin Wolkerstorfer
1570403830	Estimating the Trajectory of a Thrown Object from Video Signal with Use of Genetic Programming	Ruslan Gayanov
1570397254	Radar Environment Characterization by Signal Processing Techniques	Gaspard Galati

### ***Lunch Break: 13:00 - 14:00***



**Session:** Digital Signal Processing, Image processing, Signals, Sensors, Devices  
**Time:** 14:00 - 16:00

Code	Title	Registered author
1570398802	Improved DoA Estimation with Application to Bearings-Only Acoustic Source Localization	José Antonio Apolinário Jr.
1570400533	A Genetic Algorithm for Compressive Sensing Sparse Recovery	Miguel Heredia Conde
1570398604	Noise Characteristics in Extreme Shallow Water with Relation to Ship Maneuvering Parameters	Ammar Aljuhne
1570398610	On the Evaluation of Cost Functions for Parameter Optimization of a Multiscale Shape Descriptor	Fátima N. Sombra Medeiros
1570398622	Multiple Face Tracking Method in the Wild Using Color Histogram Features	Hyuk Jin Kwon
1570398703	S-Rep Model for Fundus Image Analysis	Luca Surace
1570398795	Image Tone Mapping Approach Using Essentially Non-Oscillatory Bi-quadratic Interpolations Combined with a Weighting Coefficients Strategy	Ba Chien Thai

### *Coffee break: 16:00 - 16:15*

**Session:** Digital Signal Processing, Image processing, Signals, Sensors, Devices  
**Time:** 16:15 - 18:00

Code	Title	Registered author
1570403386	Optimal Signaling for a Given Constellation Under Average Symbol Energy and Bit Rate Constraints	Berkan Dulek
1570403664	Detecting Maneuvers in Maritime Observation Data with CUSUM	Arne Lamm
1570403753	Electric Current Prediction for the Nonlinear High Power Loads Using Narx Neural Networks	Manuela Panoiu
1570403865	Revisited Histogram Equalization as HDR Images Tone Mapping Operators	Anas Husseis
1570410858	Automatic Colon Polyp Detection Using Convolutional Encoder-Decoder Model	Ornela Bardhi
1570398572	Joint Blind Source Separation and Declipping: A Geometric Approach for Time Disjoint Sources	Alastair Turl
1570398741	Human Gait Recognition Based on Frontal View Using Kinect Features and Orthogonal Least Square Selection	Nooritawati Md Tahir
1570403777	Speech Enhancement in Modulation Domain Using Discriminative Random Field	Ajey Saligrama

### *Guided tourist visit of Bilbao: 19:00*



## **DAY 2: Tuesday, December 19<sup>th</sup>**

**Session: Computational Methods, Algorithms, Internet of Things, Cloud, Communications, Procedures**

**Time: 10:30 - 11:30**

<b>Code</b>	<b>Title</b>	<b>Registered Author</b>
1570385610	Distributed Massive MIMO for Estimation of a Correlated Source Vector in Sensor Networks	Jordi Serra
1570385776	Fast Deep Pyramid DPM Object Detection with Region Proposal Networks	Bappaditya Dey
1570393819	Sparse Framework for Hybrid TDOA/DOA Multiple Emitter Localization	Anastasia Lavrenko
1570393856	Impact of Impulsive Noise on 4G OFDM and SCFDMA Systems	Hasan Saed Abuhilal

***Coffee break: 11:30 - 11:45***

**Session: Computational Methods, Algorithms, Internet of Things, Cloud, Communications, Procedures**

**Time: 11:45 - 13:00**

<b>Code</b>	<b>Title</b>	<b>Registered Author</b>
1570394111	A Quaternion-Based Approach to Interference Alignment with Alamouti Coding	Jacobo Fanjul
1570396535	Online Least Angle Regression Algorithm for Sparse System Identification	Nithin Varghese George
1570405019	Synchronisation and Equalisation of an FBMC/OQAM System by a Polynomial Matrix Pseudo-Inverse	Amr Nagy
1570398315	Coding Efficiency Improvement by Wavelet Super-Resolution Restoration for 8K UHD TV Broadcasting	Yasutaka Matsuo
1570398424	LMS-Based Leader Selection for Distributed Estimation	Sander Ulp

***Lunch Break: 13:00 - 14:00***



**Session: Computational Methods, Algorithms, Internet of Things, Cloud, Communications, Procedures**

**Time: 14:00 - 16:00**

Code	Title	Registered author
1570398720	Specific Emitter Identification Using Fractal Features Based on Box-counting Dimension and Variance Dimension	Longwen Wu
1570398789	Influence of Transceiver Imperfections to Digital Pre-distortion Linearization - Application to 5G Waveforms	Roman Marsalek
1570404177	A Null-Space-Based Genetic Algorithm for Constrained L1 Minimization	Miguel Heredia Conde
1570404961	Towards Recommending Diverse Seasonal Cooking Recipes: A Preliminary Study Based on Monthly View Data	Sanjo Satoshi
1570398523	A Standard Decision Format Using Provenance	Cheryl Putnam
1570398768	Efficient Lossy Compression of Ultrasound Data	Petr Kleparnik
1570398799	Anti-fraud System on the Basis of Data Mining Technologies	Konstantin Mironov

**Coffee break: 16:00 - 16:15**

**Session: Computational Methods, Algorithms, Internet of Things, Cloud, Communications, Procedures**

**Time: 16:30 - 18:00**

Code	Title	Registered author
1570401329	Information Theory of Detection in Radar Systems	Shengkai Xu
1570403509	Sparse Representation Based Classification with Intra-Class Variation Dictionary on Symmetric Positive Definite Matrices	Hiroyuki Kasai
1570403818	Algorithm Modification of the Level-by-Level Approximation to the Minimum Route	Konstantin Mironov
1570403859	A DSS Model for IoT-based Intelligent Transportation Systems	Zacharenia Garofalaki
1570403892	LcwtNet: Lifting Complex Wavelet Layers for Constructing a Compact DNN Model	Shigeru Takano
1570398727	EMOSIC - An Emotion Based Music Player for Android	Manasi Arun

**Gala dinner: 19:30 - 23:00**

**Abando Hotel (address: Colon de Larreategui, 9, 48001 Bilbao). "Blueizar" restaurant**





## **DAY3: Wednesday, December 20<sup>th</sup>**

**Session:** Bio-Informatics, Biological Signals, Medical and Health Related Topics

**Time:** 10:30 - 11:30

<b>Code</b>	<b>Title</b>	<b>Registered author</b>
1570398521	Speech Emotion Recognition on Mobile Devices Based on Modulation Spectral Feature Pooling and Deep Neural Networks	Anderson Avila
1570379860	A Reduced Complexity MFCC-based Deep Neural Network Approach for Speech Enhancement	Ryan Razani
1570381588	Denoising ECG Signal by Complete EEMD Adaptive Noise	Fakheraldin Y. O. Abdalla
1570398732	Investigating the Impact of the Training Data Volume for Robust Speech Recognition Using Multi-Task Learning	Gueorgui Pironkov

*Coffee break: 11:30 - 11:45*

**Session:** Bio-Informatics, Biological Signals, Medical and Health Related Topics

**Time:** 11:45 - 14:00

<b>Code</b>	<b>Title</b>	<b>Registered author</b>
1570398805	Reconstruction of 3D-Movement of ICD Leads from Clinical-Routine X-Ray Movies	Jens Kirchner
1570398811	A New Approach to Two-Dimensional Filter for Segmenting Retinal Vascular Network from Fundus Images of Premature Born	Julio Ibarra-Fiallo
1570403556	Lung Tumour Motion Tracking Using a Weighted Optical Flow Algorithm with Linear Accelerator Gantry Rotation	Stephen Pistorius
1570403812	The e-Health Solution in Slovak Republic	Martina Drahošová
1570397828	Influence on Electroencephalogram at the Prefrontal Cortex Due to Tinnitus and Sounds	Masashi Matsuoka
1570397850	Evaluation of Stress Accumulation Using the EEG and NIRS	Takahiro Asano
1570413685	ViveWeb: Social Network for Interaction of Experienced Among Elderly Persons	Ibon Oleagordia Ruiz
1570398730	Cross-Corpus Arabic and English Emotion Recognition	Ali H. Meftah



## **DAY 3: Wednesday, December 20<sup>th</sup>**

### **Room 2**

### **Online Session**

Time: 10:45 - 14:00

<b>Code</b>	<b>Title</b>	<b>Registered author</b>
1570398796	Analysis of Nonlinear Rational Filter	Zhenlong Xiao
1570403659	Low Complexity Energy-Efficient Multilevel Cluster-Based Cooperative Spectrum Sensing in Cognitive Radio Networks	Esam Abdel-Raheem
1570403849	Small Scale Mobile Energy Management System Using Raspberry Pi and Python	David C Ball
1570399305	Frequency-Domain Information Along with LSTM and GRU Methods for Histopathological Breast-Image Classification	Abdullah Nahid
1570403691	Load Balancing in 5G Cloud Radio Access Networks Supporting IoT Communications for Smart Communities	Melody Moh
1570403876	Tiled Time Delay Estimation in Mobile Cloud Computing Environments	Ruairí de Fréin
1570398627	Doppler Tolerant Modified P4 Code (DTMP4 Code) for Pulse Compression Radar	Neon Sison de Jesus
1570398405	A Machine Learning Algorithm for the Automatic Detection of Ictal Activity Using Energy and Synchronization Features	Marwa Qaraqe
1570404603	Four LTE Uplink Scheduling Algorithms Performance Metrics: Delay, Throughput, and Fairness Tradeoff	Ahmed Hassebo
1570404130	Real Time Underwater Embedded System Architectures	Reda Ammar
1570413741	Cognitive Performance Application	Ahmed Desoky
1570403701	A Novel Approach for Classification of Hand Movements Using Surface EMG Signals	Muhammad Zia ur Rehman
1570417460	Simulation and Development of a System for the Analysis of Pressure Ulcers	Cristián Castillo
1570410497	Multimodal Biometric Systems: A Systematic Review	Roman Yampolskiy
1570404040	A FPGA Based Ultrasonic Rail Flaw Detection System	Wei Li
1570398685	A Spin Noise Spectrometer Based on FPGA	Wei Li
1570397482	End-user's SLA-Aware Consolidation in Cloud Data Centers	Walaa Sheta