

# **2018 9th International Symposium on Signal, Image, Video and Communications (ISIVC 2018)**

**Rabat, Morocco  
27 – 30 November 2018**



**IEEE Catalog Number: CFP18WMA-POD  
ISBN: 978-1-5386-8174-9**

**Copyright © 2018 by the Institute of Electrical and Electronics Engineers, Inc.  
All Rights Reserved**

*Copyright and Reprint Permissions:* Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

***\*\*\* This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP18WMA-POD
ISBN (Print-On-Demand):	978-1-5386-8174-9
ISBN (Online):	978-1-5386-8173-2

**Additional Copies of This Publication Are Available From:**

Curran Associates, Inc  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: (845) 758-0400  
Fax: (845) 758-2633  
E-mail: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

CURRAN ASSOCIATES INC.  
**proceedings**  
.com

# Table of Contents

## Keynotes

Block Smoothed Sigmoid-Based Shrinkage in Time-Frequency Domain for Robust Audio Denoising .....	1
<i>Van Khanh Mai and Dominique Pastor and Abdeldjalil Aissa-El-Bey</i>	
Segmentation of ultrasound videos for cardiac cavities detection .....	5
<i>Dhouha Attia and Amel Benazza-Benyahia</i>	
Serial Concatenated Codes for Embedded Bit-Streams Wireless Transmission with Iterative Decoding .....	11
<i>Marwa Mhamdi and Amin Zribi and Clency Perrine and Yannis Pousset</i>	
Automatic detection of suspicious lesions in mammograms by histogram-based k-means thresholding .....	16
<i>Ilhame Ait Lbachir and Imane Daoudi and Saadia Tallal</i>	
The Design of Filter Based on SIW Symmetrical Inductive Iris .....	22
<i>Rahali Bouchra</i>	
Piecewise linear perceptual quantizer as a non-uniform histogram equalization adjustment for contrast enhancement of tone mapped HDR images .....	27
<i>Ba Chien Thai and Anissa Mokraoui and Basarab Matei</i>	
Development of Computer Vision based Robust Approach for Joggled Fish Plate detection in Drone Images .....	33
<i>Aradhya Saini and Dharmendra Singh and Mandar Bivalkar</i>	
AN EFFICIENT APPLICATION OF FUSION APPROACH FOR AGRICULTURE DROUGHT ESTIMATION OF UTTARAKHAND, INDIA WITH MODIS DATA ...	39
<i>Anjana Kukunuri and Deepak Murugan and Dharmendra Singh and Ankush Agarwal</i>	
An Approach To Detect Low-Dielectric Targets For Through Wall Imaging .....	43
<i>Mandar Bivalkar and Dharmendra Singh</i>	
Retargeting 4K Video for Mobile Access Using Visual Attention and Temporal Stabilization .....	48
<i>Rohit Kumar and Lino Ferreira and Pedro Assuncao and Antonio Navarro</i>	
A Comparative Preprocessing Study for SoftCast Video Transmission .....	54
<i>Anthony Trioux and Francois-Xavier Coudoux and Patrick Corlay and Mohamed Gharbi</i>	
Fast outlier detection method based on Rough set Theory .....	60
<i>Marouane El Meziati and Houssaine Ziyati</i>	

A concept of satellite based IoT for downscaling the MODIS data to extract Land Surface Temperature .....	67
<i>Ankush Agarwal and Sandeep Kumar and Dharmendra Singh and Shruti Gupta</i>	
Improving pedestrian detection using a light convolutional neural network .....	71
<i>Mounir Errami and Mohammed Rziza</i>	
An improved method for accurate computation of coastal upwelling index using Sea Surface Temperature Images .....	76
<i>Anass El Aouni and Khalid Minaoui and Ayoub Tamim and Khalid Daoudi and Hussein Yahia</i>	
On The Selection of Relevant Features for Fear Emotion Detection from Speech .....	82
<i>Safa Chebbi and Sofia Ben Jebara</i>	
Contribution on Gaussian Mixture Model Order Determination for Voice Conversion .	87
<i>Ahmed Ben Amara and Sofia Ben Jebara</i>	
Comparative Study of Heart Rate Extraction Methods for a Novel Intelligent Mattress	93
<i>Samuel Otis and Neila Mezghani and Bessam Abdulrazak</i>	
Smart communication of a WSN based on an MAS .....	99
<i>Mostefa Bendjima and Mohamed Feham</i>	
Low-rankness transfer for denoising Sentinel-1 SAR images .....	106
<i>Nicolas Brodu</i>	
2D Teager-Kaiser Energy Operator for the translation motion compensation in ISAR signatures .....	112
<i>Jean-Christophe Cexus and Ali Khenchaf</i>	
Predicting-Learning-Tracking:A comparative study .....	118
<i>Wafae Mrabti and Kaoutar Baibai and Benaissa Bellach and Rachid Oulad Haj Thami and Hamid Tairi</i>	
Denoising Ventricular tachyarrhythmia Signal .....	124
<i>Azzedine Dliou and Samir Elouaham and Rachid Latif and Mustapha Laaboubi and Hicham Zougagh</i>	
Image co-segmentation based on image complexity analysis and pixel-correspondences	129
<i>Rachida Es-Salhi and Imane Daoudi and Hamid El Ouardi</i>	
Closed-form Coverage Probability under the Idle Mode Capability: A Stochastic Geometry Approach .....	135
<i>Yassine Hmamouche and Mustapha Benjillali and Samir Saoudi</i>	
Word Sense Representation based-method for Arabic Text Categorization .....	141
<i>Fatima-Zahra El-Alami and Said Ouatik El Alaoui</i>	
Study of the impact of different scheduling algorithms for femto-cells for real-time traffic in the 5G networks .....	147
<i>Asmae Mamane and Mohammed El Ghazi and Mohammed Fattah and Said Mazer and Mohammed Mahfoudi</i>	

Blind Stereoscopic Image Quality Assessment Using Convolutional Neural Network and Support Vector Regression .....	152
<i>Aladine Chetouani and Mohammed El Hassouni and Rachid Jennane</i>	
A short survey on image zero-watermarking techniques based on visual cryptography .....	157
<i>Meryem Benyoussef and Samira Mabtoul</i>	
Performance analysis of DQPSK and DBPSK modulation schemes for a scheduled access phase based Wireless Body Area Network .....	163
<i>Marwa Boumaiz and Mohammed El Ghazi and Said Mazer and Mohammed Fattah</i>	
Detection of water-risk zones based on color and texture in home video surveillance ..	168
<i>Anass Mancour Billah and Abdenbi Abenaou and Driss Agliz</i>	
Delineation of Moroccan Coastal Upwelling Using The Principal Component Analysis Fusion Algorithm on SSC and SST Images .....	174
<i>Zineb El Abidi and Khalid Minaoui and Ayoub Tamim and Hicham Laanaya</i>	
A Novel Approach for Anomaly Event Detection in Videos Based on Autoencoders and SE Networks .....	179
<i>Jiangpeng Fu and Wentao Fan and Nizar Bouguila</i>	
A Survey on sitting posture monitoring systems .....	185
<i>Ferdews Tlili and Rim Haddad and Youssef Ouakrim and Ridha Bouallegue and Neila Mezghani</i>	
QRS Complex Detection Based on Smoothed Nonlinear Energy Operator .....	191
<i>Lahcen El Bouny and Mohammed Khalil and Abdellah Adib</i>	
Abnormal Crowd Behavior Detection Using Speed and Direction Models .....	197
<i>Abdelghaffar Chibloun and Sanaa El Fkihi and Hazar Mliki and Mohamed Hammami and Rachid Oulad Haj Thami</i>	
Embedding Manifold Regression Model for Classifying High-dimensional Data .....	203
<i>Abdelmoujib El Khoumri and Chafik Samir and Jalal Laassiri</i>	
Driving Fatigue Characterization using Feature Ranking .....	209
<i>Khadidja Henni and Neila Mezghani and Charles Gouin-Vallerand and Perrine Ruer and velyne Vallires</i>	
Breast Cancer Diagnosis using Quality Control Charts and Logistic Regression .....	215
<i>Omar Graja and Muhammad Azam and Nizar Bouguila</i>	
Digitization of the Hassan Mosque .....	221
<i>Farouk Achakir and Sanaa El Fkihi and Amina Radgui and El Mustapha Mouaddib</i>	
Learning of Finite Two-Dimensional Beta Mixture Models .....	227
<i>Narges Manouchehri and Nizar Bouguila</i>	
A new weighted normal-based filter for 3D mesh denoising .....	233
<i>Mohammed El Hassouni and Aladine Chetouani and Rachid Jennane and Hocine Cherifi</i>	

k-Truss Decomposition for Modular Centrality .....	241
<i>Zakariya Ghalmane and Mohammed El Hassouni and Chantal Cherifi and Hocine Cherifi</i>	
Joint Soft Threshold and Statistical Estimation for Speech Enhancement .....	249
<i>Van Khanh Mai and Dominique Pastor and Abdeldjalil Aissa-El-Bey</i>	
Regularised Projection of an Image Domain Triangulation for Disparity Map Refinement .....	254
<i>Brendan Le Bouill and Jean-Francois Aujol and Yannick Berthoumieu and Charles-Alban Deledalle</i>	
Depth Information Based Sound Source Separation .....	260
<i>Simayijiang Zhayida and Taisuke Sakano and Hiroshi Mizoguchi</i>	
Optimal location estimation using a metaheuristic algorithm and deep learning for visual tracking .....	264
<i>Djamel Eddine Touil and Nadjiba Terki</i>	
Deep-Learning Based Facial Expression Recognition System Evaluated on Three Spontaneous Databases .....	270
<i>Hayfaa Hussein and Jonathon Chambers and Mohsen Naqvi</i>	
Time-Scale Characterization of Neutron and Gamma Signals Using Continuous Wavelet Transform .....	276
<i>Hanane Arahmane and El Mehdi Hamzaoui and Abdelhak Mahmoudi and Rajaa Cherkaoui El Moursli</i>	
A progression strategy of proximal algorithm applied to the digital images inpainting .....	282
<i>Marouane Nazih and Khalid Minaoui and Awatif Rouijel</i>	
A robust minutia-based approach for securing fingerprint templates .....	286
<i>Ayoub Lahmidi and Khalid Minaoui and Rziza Mohammed</i>	
Analysis of lossy compression and channel coding trade-off for energy efficient transmission in low power communication systems .....	291
<i>Imad Ez-Zazi and Mounir Arioua and Ahmed El Oualkadi</i>	
Analysis of under-connectivity in Autism using the minimum spanning tree: application on large multi-site dataset .....	296
<i>Fatima Zahra Benabdallah and Ahmed Drissi El Maliani and Dounia Lotfi and Rachid Jennane and Mohammed El Hassouni</i>	
Land Change Detection in Bitemporal and Multispectral Images Using Multivariate Alteration Detection and Statistical Thresholding Methods .....	300
<i>Radja Kheddam and Ahmed Tahraoui and Aichouche Belhadj Aissa</i>	
Towards An Efficient Real-time Approach To Loan Credit Approval Using Deep Learning .....	306
<i>Youness Abakarim and Lahby Mohamed and Abdelbaki Attioui</i>	
Classification of left and right hand movement from EEG signals by HOS features ...	314
<i>Salwa Lagdali and Mohammed Rziza</i>	

Arabic Morphological Analysis Based On Graphs And Correspondence tables Between Affixes And Root .....	318
<i>Said Iazzi and Abdellah Yousfi and Mostafa Bellaïkhi and Driss Aboutajdine</i>	
Energy and Computational Resources Optimization in a Mobile Edge Computing Node .....	323
<i>Mohamed El Ghmary and Mohammed Ouamah Cherkaoui Malki and Youssef Hmimz and Tarik Chanyour</i>	
Human posture recognition based on projection histogram and Support Vector Machine .....	329
<i>Abderrazak Iazzi and Mohammed Rziza and Rachid Oulad Haj Thami</i>	
Blind Spectrum Sensing Applied to IR-UWB System for ITS applications .....	334
<i>Lamyae Maatougui and Khadija Hamidoun and Yassin El Hillali and Atika Rivenq and Laila Chakour</i>	
An Association Based Query Expansion Approach Using Linked Data .....	340
<i>Sarah Dahir and Abderrahim El Qadi and Hamid Bennis</i>	