

ISIVC'2020 Conference Program

CET time	Wednesday, April 7	
9h00 – 9h30	Opening / Welcome	
9h30 – 10h25	Keynote 1: Deep Learning in Medical Image Analysis Prof. Aurélio Campilho <i>Faculty of Engineering, University of Porto, Portugal</i> Chair: Yann Gavet	
10h25 – 10h40	Break time	
10h40 – 12h20	Session 1: Image and Video Processing (IVP) Chair: Fabrice Lamadie	
	10h40	A new combination of Radar signal and vegetation dynamic for mapping the soil moisture variability Ouled Benbrahim Houda (1), Merzouki Amine (2), Minaoui Khalid (1) <i>1 - LRIT-CNRST URAC 29, Rabat IT Center, Faculty of Sciences, Mohammed V University, (Rabat, Morocco)</i> <i>2 - Science and Technology Branch, Agriculture and Agri-Food (Ottawa, Canada)</i>
	11h05	A novel texture descriptor: Homogeneous Rotated Local Binary Pattern (HRLBP) Al Saidi Ibtissam (1), Rziza Mohammed (1), Debayle Johan (2) <i>1 - LRIT-CNRST URAC 29, Rabat IT Center, Faculty of Sciences, Mohammed V University, (Rabat, Morocco)</i> <i>2 - MINES Saint-Etienne, SPIN/LGF CNRS UMR 5307 (Saint-Etienne, France)</i>
	11h30	Accelerated action recognition and segmentation in videos Ghodhbani Emna, Mefteh Ahmed, Benazza-Benyahia Amel (1) <i>1 - University of Carthage, SUP'COM, LR11TIC01, COSIM Lab. (El Ghazela, Tunisia)</i>
	11h55	Adaptive GoP-size for SoftCast Video Transmission based on Cut Detection and Content Analysis Trioux Anthony, Coudoux François-Xavier, Corlay Patrick, Gharbi Mohamed (1) <i>1 - Université Polytechnique Hauts-de-France (Valenciennes, France)</i>
12h20 – 13h40	Lunch time	
13h40 – 15h20	Session 2: Data Science and Applications (DSA) Chair: Mourad Ouadou	
	13h40	A plugin heuristic for probability density function estimator adapted to complex shape distribution El Ayeb Faycel, Ghorbel Faouzi (1) <i>1 - National School of Computer Science, University of La Manouba, CRISTAL Laboratory, Tunisia Images and Shapes Research Group - GRIFT (Manouba, Tunisia)</i>
	14h05	Deep learning for image based shelf inventories Müller Oliver (1), Fend Chiara (1), Moghiseh Ali (2), Schladitz Katja (2), Stephani Henrike (2), Weibel Thomas (2) <i>1 - University of Kaiserslautern, Department of Mathematics (Kaiserslautern, Germany)</i> <i>2 - Fraunhofer Institute of Industrial Mathematics (Kaiserslautern, Germany)</i>
	14h30	New expression for the resonant frequency of rectangular microstrip antenna using genetic algorithm and effective parameters Fortaki Tarek (1), Benkouda Siham (2), Mahamdi Ahmed (2), Bedra Sami (3) <i>1 - LEA Laboratory, Electronics Department, University of Batna 2 (Batna, Algeria)</i> <i>2 - LHS Laboratory, Electronics Department, University of Mentouri Brothers - Constantine 1 (Constantine, Algeria)</i> <i>3 - LEA Laboratory, Industrial Engineering Department, University of Khenchela (Khenchela, Algeria)</i>

	14h55	Pedestrian -Bicyclist Collisions: Perception on Human Interactions from YouTube Comments Das Subasish (1) <i>1 - Texas A&M Trans Ins. (TAMU, United States)</i>
15h20 – 15h35	Break time	
15h35 – 17h40	Session 3: Signal and Audio Processing (SAP) Chair: Ahmed Drissi El Maliani	
	15h35	A Fractional Digital High-Pass Notch Filter Ferdj Youcef (1) <i>1 - Bioengineering Laboratory, National Higher School of Biotechnology (Constantine, Algeria)</i>
	16h00	Analysis of the radar ambiguity function for a new Golay sets shaping Farnane Kaoutar, Minaoui Khalid (1) <i>1 - Mohammed V-Agdal University, LRIT Associated Unit to the CNRST-URAC n 29 (Rabat, Morocco)</i>
	16h25	Asymptotic Random Distortion Testing and Application to Change-in-Mean Detection Ansel Guillaume, Pastor Dominique, Cuppens Frédéric, Cuppens Nora (1) <i>1 - IMT Atlantique Bretagne-Pays de la Loire (Brest-Nantes-Rennes, France)</i>
	16h50	Classification between upper and lower motor neurons in amyotrophic lateral sclerosis patients by electromyographic processing Saidane Yosra (1), Melgani Farid (2), Ben Jebara Sofia (1), Pradat Pierre-François (3), De Marco Giovanni (4) <i>1 - University of Carthage, Higher School of Communications of Tunis (SUP'COM), Research Lab. COSIM (Tunis, Tunisia)</i> <i>2 - University of Trento, Department of Information and Communication Technologies (Trento, Italy)</i> <i>3 - Department of Neurology, Pitie-Salpetriere Hospital (Paris, France)</i> <i>4 - CeRSM Laboratory, Paris Nanterre University (Nanterre, France)</i>
	17h15	Graph Theory for Brain Connectivity Characterization from EEG Lemuz López Rafael (1), Guillén Galván Carlos (2), Bautista Ramos César (1), Ayaquica Martínez Irene Olaya (1), Ignacio Mendez Balbuena (3) <i>1 - Faculty of Computer Science, Benemérita Universidad Autónoma de Puebla (Puebla, Mexico)</i> <i>2 - Faculty of Physics and Mathematics Benemérita Universidad Autónoma de Puebla (Puebla, Mexico)</i> <i>3 - Faculty of Psychology Benemérita Universidad Autónoma de Puebla (Puebla, Mexico)</i>

CET time	Thursday, April 8	
9h00 – 9h55	Keynote 2: Nature-Inspired Optimization Algorithm for Resource Optimization in Heterogeneous Networks Ass. Prof. Wayan Mustika <i>University Gadjah Mada, Yogyakarta, Indonesia</i> Chair: Atika Riveng	
9h55 – 10h45	Session 4: Data Science and Applications (DSA) Chair: Samir Saoudi	
	9h55	Resonant characteristics of a superconducting thin film resonator using the two-fluid model and artificial neural networks Benkouda Siham (1), Fortaki Tarek (2), Gadda Abdelkrim (2), Mahamdi Ahmed (1), Bedra Sami (3) <i>1 - LHS Laboratory, Electronics Department, University of Mentouri Brothers - Constantine 1 (Constantine, Algeria)</i> <i>2 - LEA Laboratory, Electronics Department, University of Batna 2 (Batna, Algeria)</i> <i>3 - LEA Laboratory, Industrial Engineering Department, University of Khenchela (Khenchela, Algeria)</i>
	10h20	Study of the heterogeneity problem in the Internet of Things and Cloud Computing integration Mafamane Rachid, Ouadou Mourad, Tahri Joutey Hassani Adnane, Minaoui Khalid (1) <i>1 - LRIT, Faculty of Science, University Mohammed V of Rabat (Rabat, Morocco)</i>
10h45 – 11h00	Break time	
11h00 – 12h15	Session 5: Digital Communication and Networking (DCN) Chair: Yassin El Hillali	
	11h00	On the Role of Stochastic Geometry in Sixth Generation Wireless Networks Hmamouche Yassine (1), Benjillali Mustapha (2), Saoudi Samir (1) <i>1 - IMT Atlantique Bretagne-Pays de la Loire (Brest, France)</i> <i>2 - Institut National des Postes et Télécommunications (Rabat, Morocco)</i>
	11h25	Performance Analysis of an Enhanced Spectrally Aware RF front end Receiver under Non-linearity Grollier Nicolas (1), Houcke Sébastien (1), Pelissier Michaël (2) <i>1 - IMT Atlantique (Brest, France)</i> <i>2 - Laboratoire d'Électronique et des Technologies de l'Information (Grenoble, France)</i>
	11h50	Wireless Sensors Network and Internet of Things for Human Health Telemonitoring El Attaoui Amina (1) <i>1 - E2SN, STIS Research Center, Ecole Normale Supérieure de l'Enseignement Technique (Rabat, Morocco)</i>
12h15 – 13h30	Lunch time	
13h30 – 14h25	Keynote 3: GPU-friendly Image Restoration Prof. Karen Egiazarian (Eguiazarian) <i>Computational Imaging Group, Tampere University; Tampere, Finland</i> Chair: Yann Gavet	
14h25 – 15h15	Session 6: Image Analysis for Chemical Engineering (IACE) Chair: Karen Egiazarian	
	14h25	Estimation of 3D geometrical properties of spheroid-like particle systems using projection images De Langlard Mathieu (1), Lamadie Fabrice (1), Charton Sophie (1), Debayle Johan (2) <i>1 - CEA, DEN, DMRC, Univ. Montpellier (Marcoule France)</i> <i>2 - MINES Saint-Etienne, SPIN/LGF CNRS UMR 5307 (Saint-Etienne, France)</i>
	14h50	Numerical estimation of local Minkowski measures on Boolean models. Eremina Tatyana, Debayle Johan, Pinoli Jean-Charles (1)

		<i>1 – MINES Saint-Etienne, SPIN/LGF CNRS UMR 5307 (Saint-Etienne, France)</i>
15h15 – 15h30	Break time	
15h30 – 17h10	Session 7: Image and Video Processing (IVP) Chair: Patrick Corlay	
	15h30	An Approach Based on Concatenation the Areas of Interest for Selective Image Encryption Aissa Belmeguenai (1) <i>1 - University of 20 August 1955- Skikda (Skikda, Algeria)</i>
	15h55	Biologically inspired detection of circular patterns Robert-Inacio Frederique (1), Inacio Eloise (2) <i>1 - CNRS IM2NP - ISEN (Toulon, France)</i> <i>2 - Heriot-Watt University (Edinburgh, Scotland, United Kingdom)</i>
	16h20	Classification of Satellite Multispectral Images Using Bayesian Network Models Kheddam Radja, Belhadj Aissa Aichouche (1) <i>1 - University of Science and Technology Houari Boumediene - USTHB (Algiers, Algeria)</i>
	16h45	Color Stereo Image Zero-Watermarking using Chaotic System and Quaternion Radial Tchebichef Moments Yamni Mohamed, Daoui Achraf, El Ogri Omar, Karmouni Hicham, Sayyouri Mhamed, Qjidaa Hassan <i>1 - Université Sidi Mohammed Ben Abdellah, Faculté des sciences Dhar el-Mhraz (Fes, Morocco)</i>
17h10 – 18h10	Steering Committee Meeting	

CET time	Friday, April 9	
9h00 – 9h55	Keynote 4: From Object Detection to Action Recognition Prof. Sergio A. Velastin <i>Queen Mary University of London, UK</i> Chair: Samir Saoudi	
9h55 – 10h45	Session 8: Signal and Audio Processing (SAP) Chair: Sofia Ben Jebara	
	9h55	Detection of voice impairment for parkinson's disease using machine learning tools Radouani Laila, Lagdali Salwa, Rziza Mohammed (1) <i>1 - LRIT-CNRST URAC 29, Rabat IT Center, Faculty of Sciences, Mohammed V University in Rabat (Rabat, Morocco)</i>
	10h20	Mechanomyography-based Pattern Recognition of Upper Limb Movements and Design of Rehabilitation Exoskeleton Cao Gangsheng, Zhang Juntian, Zhang Hanyang, Zhang Yue, Yao Jiaxu, Xia Chunming (1) <i>1 - East China University of Science and Technology (Shanghai, China)</i>
10h45 – 11h00	Break time	
11h00 – 12h15	Session 9: Signal and Audio Processing (SAP) Chair: Mohamed Khalil	
	11h00	On Distributed Detection with Random Distortion Testing Bourmani Sabrina (1), Pastor Dominique (1), Socheleau François-Xavier (1), Khanduri Prashant (2), Varshney Pramod (2) <i>1 - IMT Atlantique Bretagne-Pays de la Loire (Brest-Nantes-Rennes, France)</i> <i>2 - Syracuse University, Department of Electrical Engineering and Computer Science (Syracuse, NY, USA United States)</i>
	11h25	Realization of Multiple Constant Multiplication using Difference based Adder Graph Myderrizi Indrit (1), Knifati Abdurrahman (2) <i>1 - Electrical & Electronic Engineering Department (Istanbul, Turkey)</i> <i>2 - Istanbul Gelisim University (Istanbul, Turkey)</i>
	11h50	UWB radar theory-pas Sakkila Laila (1) <i>1 - Université Polytechnique Hauts-de-France (Valenciennes, France)</i>
12h15 – 13h30	Lunch time	
13h30 – 14h45	Session 10: Image and Video Processing (IVP) Chair: François-Xavier Coudoux	
	13h30	Comparative Study of Image Compression Methods using Artificial Neural Networks based on Semi-Log Quantization Rahali Mourad, Loukil Habiba, Bouhlel Med Salim (1) <i>1 - Sciences and Technologies of Image and Telecommunications (Sfax Tunisia)</i>
	13h55	Joint Denoising of Stereo Images Using 3D CNN Khamassi Malek (1), Kaaniche Mounir, Benazza-Benyahia Amel (1) <i>1 - University of Carthage, SUP'COM, LR11TIC01, COSIM Lab. (El Ghazela Tunisia)</i>
	14h20	LeNet5-Based approach for fast intra coding Maraoui Amna (1), Werda Imen (2), Ezahra Sayadi Fatma (1) <i>1 - Faculty of Science of Monastir, University of Monastir (Monastir, Tunisia)</i> <i>2 - Electronic and Information Technology Laboratory, University of Sfax (Sfax, Tunisia)</i>
14h45 – 15h00	Break time	
15h25 – 16h15	Session 11: Image and Video Processing (IVP) Chair: Sergio A. Velastin	
	15h00	Methods for assessing similarity of random sets

		<p>Debayle Johan (1), Gotovac Dogas Vesna (2), Helisova Katerina (3), Stanek Jakub (4)</p> <p><i>1 – MINES Saint-Etienne, SPIN/LGF CNRS UMR 5307 (Saint-Etienne, France)</i> <i>2 - University of Split, Faculty of Science, Dept. of Mathematics (Split, Croatia)</i> <i>3 - Czech Technical University in Prague, Faculty of Electrical Engineering, Dept. of Mathematics (Praha, Czech Republic)</i> <i>4 - Charles University, Faculty of Mathematics and Physics, Dept. of Mathematics Education (Prague, Czech Republic)</i></p>
	15h25	<p>Robustness Study of Edge Segmentation and Completion by CNN Based Method for Tessellation Images</p> <p>Penaud-Polge Valentin, Gavet Yann (1)</p> <p><i>1 – MINES Saint-Etienne, SPIN/LGF CNRS UMR 5307 (Saint-Etienne, France)</i></p>
	15h50	<p>Tensor Side-Information based Maximum Margin Criterion for Kinship Verification</p> <p>Laiadi Oualid, Rivenq Atika, Hadid Abdenour, Taleb-Ahmed Abdelmalik (1)</p> <p><i>1 - Institut d'Électronique, de Microélectronique et de Nanotechnologie (IEMN) - UMR 8520 (Valenciennes, France)</i></p>
16h15 – 16h30	Closing	