

The 1st International Conference on Embedded Systems and Artificial Intelligence



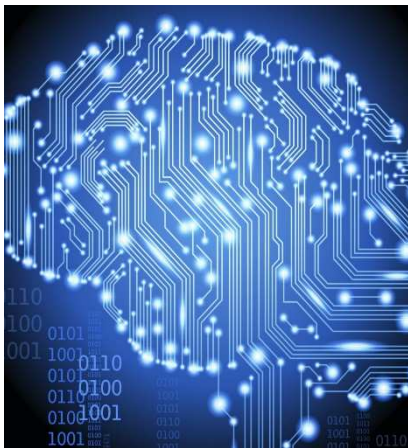
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ESAI'19

May 02-03, 2019

FSDM, USMBA

FEZ MOROCCO



ESAI 2019 Official Program

Thursday May 02th

08h15 - 09h:00	Welcoming and Registration
09h00 - 9h:30	Opening Ceremony
09h30 - 10h30	<p>Keynote Talk 1 : Blockchain for Artificial Intelligence Prof. Abdelhakim Senhaji Hafid, University of Montreal, Canada Moderator : Prof. Hassan SATORI</p>
10h30 - 11h00	Coffee Break
11h00 – 13h00	<p>Oral Session ESAI 1 : Artificial intelligence (Amphitheater) Chairs: Prof. Nabil EL AKKAD, Prof Mohammed BERRADA and Prof. Khalifa MANSOURI</p> <p>Oral Session ESAI 2 : Embedded systems and applications (Room : 1) Chairs: Prof. Ismail BOUMHIDI, Prof. Mohammed OUDGHIRI BENTAIE and Prof. Abdelhadi RAIHANI</p> <p>Oral Session ESAI 3 : Image and video processing (Room : 2) Chairs: Prof. Khalid SATORI, Abderrahim SAAIDI and Prof. Mostafa MERRAS</p> <p>Oral Session ESAI 4: Telecom (Room : 3) Chairs: Prof. Bachir BENHALA, Prof. Said MAZER and Prof. Abdessalam AIT MADI</p>
13h00 - 15h00	Lunch
15h00 – 16h00	<p>Keynote Talk 2: Design of Rectennas and Miniature Antennas for RFID TAGs. Prof. Jamal Zbitou, FST Settat, Morocco Moderator : Prof. Bachir BENHALA</p>
16h00 – 16h30	Coffee Break
16h30 – 18h30	<p>Oral Session ESAI 5 : Artificial intelligence (Amphitheater) Chairs: Prof. Elhabib NFAOUI and Prof. Karim EL MOUTAOUAKIL</p> <p>Oral Session ESAI 6 : Embedded systems and applications (Room : 1) Chairs: Prof. Zakaria CHALH, Prof. Mohammed ALFIDI and Prof. Larbi EL ABDELLAOUI</p> <p>Oral Session ESAI 7 : Image and video processing (Room : 2) Chairs: Prof. Hamid TAIRI and Prof. Jamal RIFFI and Prof. Abdelali TAJMOUATI</p> <p>Oral Session ESAI 8: Data analysis and Serious games (Room : 3) Chairs: Prof. Mohamed BENSLIMANE and Prof. Lahcen OUGHDIR and Prof. Mhamed SAYYOURI</p>

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Friday May 03 th	
09h -10h	<p>Keynote Talk 3: Arabic Automatic Speech Processing: Resources, Tools, Applications, Algorithms and Techniques, Open Challenges, and Roadmap. Prof. Dr. Mohammad A. M. Abushariah, King Abdullah II School of IT Jordan</p> <p>Moderator : Prof. Nabil EL AKKAD</p>
10h - 10h30	Coffee Break
10h30 – 12h30	<p>Oral Session ESAI 9 : Data analysis and Natural language processing (Amphitheater) Chairs: Prof. Prof. Khalid HADDOUCH and Prof. Mohamed LAZAAR</p> <p>Oral Session ESAI 10: : Security and Wireless Network Technologies (Room : 1) Chairs: Prof. Abdellatif EZZOUHAIRI and Prof. Adil KENZI</p> <p>Oral Session ESAI 11: Image and video processing (Room : 2) Chairs: Prof. Omar EL BEQQALI, Prof. Abdellatif EL ABDERRAHMANI and Prof. Mohammed ZOUITEN</p> <p>Oral Session ESAI 12 : Embedded systems and applications (Room : 3) Chairs: Prof. Hassane MOUSTABCHIR, Prof. Abdeslam EL AKKAD and Prof. El mehdi MELLOULI</p>
12h30 - 15h	Lunch
15h - 15h45	<p>Keynote Talk 4: Adapting Automatic Speech Recognition Technology to Speakers with Speech Disorders Prof. Assal Ali ALQUDAH, King Abdullah II School of IT Jordan</p> <p>Moderator : Prof. Fadoua ATAA ALLAH</p>
15h45 – 17h45	<p>Oral Session ESAI 13 : Artificial intelligence (Amphitheater) Chairs: Prof. Jaouad BOUMHIDI, Prof. Abdellatif EL AFIA and Prof. Chakir LOQMAN</p> <p>Oral Session ESAI 14 : Natural language processing (Room : 1) Chairs: Prof. Hassan SATORI and Prof. Noureddine EL MAKHFI</p> <p>Oral Session ESAI 15 : Image and video processing (Room : 2) Chairs: Prof. My Abdelouahed SABRI, , Mohammed OUANAN and Prof. Mohammed adnane MAHRAZ</p>
17h45 – 18h15	Coffee Break
18h15 – 18h45	Closing Ceremony

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Oral Session ESAI 1 : Artificial Intelligence		11h00 – 13h00, Thursday May 2th 2019
Chairs: Prof. Nabil EL AKKAD, Prof Mohammed BERRADA and Prof. Khalifa MANSOURI (Amphitheater)		
ID: 57	Noureddine EL MAKHFI, Omar EL BANNAY and Tazi EL BACHIR. Ontology and Semantic Web Applied to Historical Arabic Documents.	
ID: 58	Issam EL HAMMOUTI, Azza LAJJAM, MOHAMED EL MEROUANI, Yassine TABAA. An Evolutionary Algorithm Approach to Solve the Hybrid Berth Allocation Problem.	
ID: 60	Lamyaa SADOUK, Taoufiq GADI and El Hassan ESSOUFI. Robust loss function for deep learning regression with outliers.	
ID: 108	Ibtissam AZZI, Adil JEGHAL, Abdelhay RADOUANE, Ali YAHYAOU, and Hamid TAIRI. Approach Based On Artificial Neural Network to Improve Personalization in Adaptive E-Learning Systems.	
Oral Session ESAI 2 : Embedded systems and applications		11h00 – 13h00, Thursday May 2th 2019
Chairs: Prof. Ismail BOUMHIDI, Prof. Mohammed OUDGHIRI BENTAIE and Prof. Abdelhadi RAIHANI (Room : 1)		
ID: 16	Jamal Mrazgua, Loubna Mrabah, El Houssaine Tissir and Mohamed Ouahi. Active Full Vehicle Suspension Systems With Actuator Failure FTC and H^∞ Control.	
ID: 20	Ahmed Ech-charqy, Said Idrissi, Mohamed Ouahi, and El Houssaine Tissir. Stability analysis and H^∞ performance for nonlinear fuzzy networked control systems with time-varying delay.	
ID: 102	Khaddouj Ben Meziane and Ismail Boumhidi. Optimized Type-2 Fuzzy Logic PSS combined with H^∞ tracking control for the multi-machine power system.	
ID:27	Hind Talbi, ELmiloud Chaabelasri, Salhi Najim, Imad Elmahi. Towards a dynamical adaptive core for urban flows simulations.	
Oral Session ESAI 3 : Image and Video Processing		11h00 – 13h00, Thursday May 2th 2019
Chairs: Prof. Khalid SATORI, Prof. Abderrahim SAAIDI and Prof. Mostafa MERRAS (Room : 2)		
ID: 12	Mohammed Es-Sabry, Nabil El Akkad, Merras Mostafa, Abderrahim Saaidi and Khalid Satori. A New Color Image Encryption Using Random Numbers Generation And Linear Functions	
ID: 110	Lahbib KHRISSI, Nabil EL AKKAD, Hassan SATORI and Khalid SATORI. Image segmentation by the combination of k-means and genetic algorithm.	
ID: 118	Soulaiman El Hazzat, Mostafa Merras, Nabil El Akkad, Abderrahim Saaidi and Khalid Satori. Silhouettes Based-3D Object Reconstruction using Hybrid Sparse 3D Reconstruction and Volumetric Methods.	
ID: 109	El aroussi El mehdi, Silkan Hassan. Image retrieval system based on color and texture features.	
Oral Session ESAI 4: Telecom		11h00 – 13h00, Thursday May 2th 2019
Chairs: Prof. Bachir BENHALA, Prof. Said MAZER and Prof. Abdessalam AIT MADI (Room : 3)		
ID: 22	Jamal MESTOUI, Mohammed ELGHZAOU, and Khalid EL YASSINI. Performance of CE-OFDM System over AWGN and Frequency-Selective Channels.	
ID: 37	M. Seddiq EL KASMI ALAOU, Saïd NOUH and Abdelaziz MARZAK. Fast and efficient decoding algorithm developed from concatenation between a symbol-by-symbol decoder and a decoder based on syndrome computing and hash techniques.	
ID: 49	Soufiane ABI, Hamid BOUYGHF, Bachir BENHALA, and Abdelhadi RAIHANI. An Optimal Design of a Short-Channel RF Low Noise Amplifier by using Nature-Inspired Intelligence.	
ID: 79	Asmae EL BEQAL, Bachir BENHALA and Izeddine ZORKANI. A Genetic Algorithm for the Optimal Design of the fourth order active band-pass filter.	
ID: 54	Maroua ABDELLAOUI, Mohammed FATTAH, MAZER Said, Moulhime EL BEKKALI. Study and Design of a see through wall ultra-wide bande UWB Radar.	

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Oral Session ESAI 5 : Artificial Intelligence		16h30 – 18h30, Thursday May 2th 2019
Chairs: Elhabib NFAOUI and Prof. Karim EL MOUTAOUAKIL (Amphitheater)		
ID: 83	NAJI Maryame, Daoudi Najima, Rahimi Hasnae, AJHOUN Rachida. State of the art of Deep Learning applications in Sentiment Analysis: Psychological behavior prediction.	
ID: 107	Mohammed Chakib Sossé ALaoui , Hassan Satori, Khalid Satori. Optimal sliding mode control of a DC motor velocity based on neural network and genetic algorithm.	
ID:115	Soumya ARACH, Halima BOUDEN. Breast Cancer Diagnosis Model Using Multi-Classifiers Fusion on Weka Toolkit.	
ID: 135	Jihane Larioui and Abdeltif Elbyed. A Multi-Agent Information System Architecture for Multi-modal Transportation.	
Oral Session ESAI 6 : Embedded systems and applications		16h30 – 18h30, Thursday May 2th 2019
Chairs: Prof. Zakaria CHALH, Prof. Mohammed ALFIDI and Prof. Larbi EL ABDELLAOUI (Room : 1)		
ID: 21	Safaa Dafrallah, Aouatif Amine, Stéphane Mousset, and Abdelaziz Benshrhair. Driver Behavior assistance in Road Intersections.	
ID: 93	Ahmed FAIZE. PRELIMINARY STUDY OF TREE ROOTS BY GEORADAR SYSTEM.	
ID: 95	Seif Eddine BOUZIANE and Mohamed Tarek KHADIR. Predictive agents for the forecast of CO2 emissions issued from electrical energy production and gas consumption.	
ID: 117	Aziz HRAIBA, Achraf TOUIL and Ahmed MOUSRIJ. An Enhanced Moth-Flame Optimizer for Reliability Analysis.	
Oral Session ESAI 7: Image and Video Processing		16h30 – 18h30, Thursday May 2th 2019
Chairs: Prof. Hamid TAIRI and Prof. Jamal RIFFI and Prof. Abdelali TAJMOUATI (Room : 2)		
ID: 13	Abderrahmane MACHHOUR, Mostafa EL MALLAHI, Zakia LAKHLIAI, Ahmed TAHIRI and Driss CHENOUNI. Image Classification using Legendre-Fourier Moments and Artificial Neural Network.	
ID: 63	Achraf Daoui, Mhamed Sayyouri, Qjidaa Hassan, Mohamed Yamni, Hicham Karmouni and Omar El Ogrri Fast and Stable Bio-Signals Reconstruction Using Krawtchouk Moments.	
ID: 66	Ilham ADDARRAZI, Hassan SATORI and Khalid SATORI. Lip movement modeling based on DCT and HMM for visual speech recognition system.	
ID: 68	Omar EL OGRI, ACHRAF Daoui, Mohamed YAMNI, Hicham KARMOUNI, Mhamed SAYYOURI and Hassan QJIDAA. Fast and Stable Computation of Charlier-Meixner's Bivariable Moments.	
Oral Session ESAI 8 : Data analysis and Serious games		16h30 – 18h30, Thursday May 2th 2019
Chairs: Prof. Mohamed BENSLIMANE and Prof. Lahcen OUGHDIR and Prof. mhamed SAYYOURI (Room : 3)		
ID: 65	Mouhsene Fri, Kaoutar Douaioui, Nabil Lamii, Charif Mabrouki and El Alami Semma. Evaluate the performance of port container using an hybrid framework.	
ID: 126	Lamia MOUDOUBAH, Khalifa MANSOURI and Mohammed QBADOU. Towards an ontological analysis of the alignment problems of fields in the architecture of an information system 2.	
ID: 133	Ibrahim KAIBI, El Habib NFAOUI and Hassan SATORI. Sentiment Analysis Approach Based on Combination of Word Embedding Techniques.	
ID: 140	Abdellah El Fazziki, Ouafae El Aissaoui, Yasser El Madani El Alami, Youssef El Alloui and Mohammed BENBRAHIM. How would users' opposite be useful in recommendation? A novel collaborative filtering approach based on the opposite neighbors' preferences.	
ID: 142	Intissar SALHI, Hanaa EL FAZAZI, Mohammed QBADOU and Khalifa MANSOURI. Towards a semantic annotation of unstructured educational documents.	
ID: 44	Zainab OUFQIR, Abdellatif EL ABDERRAHMANI and Khalid SATORI. From marker to markerless in augmented reality.	
ID: 25	Zainab OUFQIR, Abdellatif EL ABDERRAHMANI and Khalid SATORI. From marker to markerless in augmented reality.	

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Oral Session ESAI 9 : Data analysis and Natural language processing 10h30 – 12h30, Friday May 3th 2019 Chairs: Prof. Prof. Khalid HADDOUCH and Prof. Mohamed LAZAAR (Amphitheater)	
ID:85 ID: 2 ID: 34 ID: 98	<p style="text-align: center;"> Otmane IDRISSI, Soufiane MOMTAZ, Khalifa MANSOURI and Mohammed YOUSSEFI. Towards improving the management of ground movements in airports with the attribution of efficient and non-stop routes. </p> <p style="text-align: center;"> Mohamed HAMIDI, Hassan SATORI, Ouissam ZEALOUK and Khalid SATORI. Interactive Voice Application Based Amazigh Speech Recognition. </p> <p style="text-align: center;"> Morad Hajji, Mohammed Qbadou and Khalifa Mansouri. Towards Eclipse Plug-ins for Automated Data Warehouse Design from an Ontology. </p> <p style="text-align: center;"> Wajih RHALEM, Mourad RAJI, Ahmed HAMMOUCH, Hassan GHAZAL and Jamel EL MHAMDI. New algorithm for aligning biological data. </p>
Oral Session ESAI 10: Security and Wireless Network Technologies 10h30 – 12h30, Friday May 3th 2019 Chairs: Prof. Abdellatif EZZOUHAIRI and Prof. Adil KENZI (Room : 1)	
ID: 15 ID: 47 ID: 76 ID: 105 ID: 125	<p style="text-align: center;"> ZNITI Asmae and EL OUAZZANI Nabih. Improvement of the Authentication on in-Vehicle Controller Area Networks. </p> <p style="text-align: center;"> Anouar Darif. SWIMAC: An Ultra-Low Power Consumption MAC Protocol for IR-UWB based WSN. </p> <p style="text-align: center;"> Soukayna RIFFI BOUALAM and Abdellatif EZZOUHAIRI. New objective function for RPL protocol. </p> <p style="text-align: center;"> Abderrahim ZANNOU, Abdelhak BOULAALAM and El Habib NFAOUI. System Service Provider-Customer for IoT (SSPC-IoT). </p> <p style="text-align: center;"> Mohamed BAGHROUS, Abdellatif EZZOUHAIRI and Nabil BENAMAR. Smart Farming System Based on Fog Computing and LoRa Technology. </p>
Oral Session ESAI 11: Image and video processing 10h30 – 12h30, Friday May 3th 2019 Chairs: Prof. Omar EL BEQQALI, Prof. Abdellatif EL ABDERRAHMANI and Prof. Mohammed ZOUITEN (Room : 2)	
ID: 73 ID: 75 ID: 89 ID: 103	<p style="text-align: center;"> Hamid EL MALALI, Abdelhadi ASSIR, Mohammed HARMOUCHI, Mourad RATTAL, Aissam LYAZIDI, and Azeddine MOUHSEN. Adaptive Local Gray Level Transformation based on Variable S-curve for Contrast Enhancement of Mammogram Images. </p> <p style="text-align: center;"> Hajar CHOUHAYEBI, Jamal RIFFI, Ali YAHYAOUY, Hamid TAIRI and Mohamed Adnane MAHRAZ. Facial expression recognition Using Machine Learning. </p> <p style="text-align: center;"> Fatima BOULBAZ, Afafe ANNICH and Khalid SATORI. Genetic algorithms setting for fast and easy 3D reconstruction. </p> <p style="text-align: center;"> Hamid OUANAN, Mohammed OUANAN and Brahim AKSASSE. Automatic Synthesis Approach for Unconstrained Face Images based on Generic 3D Shape Model. </p>
Oral Session ESAI 12 : Embedded systems and applications 10h30 – 12h30, Friday May 3th 2019 Chairs: Prof. Hassane MOUSTABCHIR, Prof. Abdeslam EL AKKAD and Prof. El mehdi MELLOULI (Room : 3)	
ID: 30 ID: 139 ID: 55 ID: 9 ID: 134	<p style="text-align: center;"> Elyazid FLILHI, Mohammed SRITI, and Driss ACHEMLAL. Viscous dissipation and heat source/Sink effects on convection heat transfer in a saturated porous medium. </p> <p style="text-align: center;"> Omar EL MOUTEA, Hassan EL AMRI and Abdeslam ELAKKAD. Resolution of Brinkman Equations with a new Boundary Condition by Using Mixed Finite Element Method. </p> <p style="text-align: center;"> Hamid CHEKENBAH, Larbi CHOUKRI, Rafik LASRI, Yassir MAATAOUI, Mohammed ZOUITEN. Design and simulation of the MPPT control based on a fuzzy logic controller for a photovoltaic system. </p> <p style="text-align: center;"> Mariam JARJAR, Nabih EL OUAZZANI. Design of a 0,18 μm CMOS inductor – based bandpass microwave active filter. </p> <p style="text-align: center;"> Abdelghafour GALADI, Yassine HADINI, Bekkay HAJJI and Adil ECHCHELH. Behavioral model of the superjunction power MOSFET devices. </p>

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Oral Session ESAI 13 : Artificial intelligence 15h45 – 17h45, Friday May 3 th 2019 Chairs: Prof. Jaouad BOUMHIDI, Prof. Abdellatif EL AFIA and Prof. Chakir LOQMAN (Amphitheater)	
ID: 45	Amina ADADI, Mohammed BERRADA. Explainable AI for Healthcare: from black box to interpretable models.
ID: 67	Ouafae El Aissaoui, Yasser El Madani El Alami, Oughdir Lahcen, Dakkak Ahmed and El Alloui Youssouf. Mining learners' behaviors: An approach based on educational data mining techniques.
ID: 11	Salma EL HAJJAMI, Mohammed BERRADA and Soufiane FHIYIL. Healthcare big social data platform based on linked data and machine learning.
ID: 32	Halima ETTAHIRI, Toufiq FECHTALI. Application of machine learning in the behavioural and cognitive awareness of road users.
ID: 132	Hasnae Rahimi, Najima Daoudi and Abdellatif Mezrioui. A sentiment-based Trust and Reputation System in E-Commerce by Extending SentiWordNet.
Oral Session ESAI 14 : Natural language processing 15h45 – 17h45, Friday May 3 th 2019 Chairs: Prof. Hassan SATORI and Prof. Nouredine El Makhfi (Room : 1)	
ID: 19	Fatima BARKANI, Hassan SATORI, Mohamed HAMIDI, Ouissam ZEALOUK, Naouar LAAIDI. Comparative evaluation of Speech Recognition systems Based on Different toolkits.
ID: 46	Ilham ADDARRAZI , Hassan SATORI and Khalid SATORI. A follow-up survey of Audiovisual Speech Integration strategies.
ID: 127	Meryam Telmem and Youssef Ghanou . A Comparative study of HMMs and CNNs acoustic model in Amazigh Recognition System.
ID: 6	Ouissam ZEALOUK, Mohamed HAMIDI, Hassan SATORI and Khalid SATORI. Amazigh Digits Speech Recognition System under Noise Car Environment.
Oral Session ESAI 15 : Image and video processing 15h45 – 17h45, Friday May 3 th 2019 Chairs: Prof. My Abdelouahed SABRI, Mohammed OUANAN and Prof. Mohammed adnane MAHRAZ (Room : 2)	
ID: 141	Samah ELKAH, Siham AQEL, Abdelouahed SABRI and Abdellah AARAB. Region-based Background modeling and subtraction using textural features Self-calibration of a stationary camera in the case of variable intrinsic parameters.
ID: 24	Fouzia ELAZZABY, Nabil EL AKKAD and Samir KABBAJ. A new encryption approach based on four squares and Zigzag.
ID: 92	Sara ABAS, Malika ADDOU and Zineb RACHIK. For a wider propagation of information on social networks.
ID: 56	Nouredine EL MAKHFI. Handwritten Text Segmentation Approach in Historical Arabic Documents.