

11th International Symposium on Signal, Image, Video and Communications

ISIVC 2022

May 18-20, 2022
El Jadida, Morocco



Conference Program



TECHNICAL PROGRAM

UTC+1 Time	Wednesday May 18,2022			Thursday May 19,2022		Friday May 20,2022
08:00 - 18:00	Onsite registration			Onsite registration		Onsite registration
09:00 - 09:30	Opening ceremony			Welcome		Welcome
09:30 - 10:30	Keynote1: Do Machines Finally Understand Us? A Review of the State of the Art in Speech Processing Technologies. By Prof. Thomas Hain (Sheffield University, UK) (Grand Amphi)			Keynote 3: Artificial Intelligence in Healthcare, HCI, Autonomous Driving, and Future Applications By Prof. Abdenour Hadid (Université Polytechnique Hauts-de-France, France) (Amphi I)		Keynote 4: Using mobile phone data for Spatial Planning simulation and Optimization Technologies.By Prof. Babacar Mbaye NDIAYE (Cheikh Anta Diop University, Senegal) (Amphi I)
10:30 - 11:00	Coffee break			Coffee break		Coffee break
11:00 - 12:00	Keynote 2: Multivariate approaches for graph signal morphological processing. By Prof. Olivier Lézoray (University of Caen Normandie, France) (Grand Amphi)			Track 2-IVP: Audio, Image and Video Processing Session 2 (Amphi I)	SPS 1 : Applied Mathematics and Engineering Session 2 (Amphi II)	Track 4- DSA: Data Science and Applications Session 3 (Amphi I)
12:30 - 14:00	Lunch			Lunch		
14:00 - 16:00	Track 2-IVP: Audio, Image and Video Processing Session 1 (Amphi I)	Track 4- DSA: Data Science and Applications Session 1 (Salle C9)	Cinquantenaire du laboratoire de recherche en informatique et télécommunications (Salle C10)	Track 4- DSA: Data Science and Applications Session 2 (Amphi I)	Track 3-DCN: Digital Communications and Networking Session 2 (Salle C9)	
16:00 - 16:30	Coffee break			Coffee break		
16:30 - 18:30	Track 3-DCN: Digital Communications and Networking Session 1 (Amphi I)	SPS 1 : Applied Mathematics and Engineering Session 1 (Amphi II)		Track 3-DCN: Digital Communications and Networking Session 3 (Amphi I)	SPS 1 : Applied Mathematics and Engineering Session 3 (Amphi II)	

DETAILED PROGRAM

Wednesday
May 18, 2022

UTC+1 Time	Event
08:00 - 18:00	Onsite registration
Opening ceremony	
09:00 - 09:30	<ul style="list-style-type: none"> Prof. Yahia Boughaleb, President of Chouaib Doukkali University, El Jadida, Morocco Prof. Az Eddine Azim, Director of ENSAJ, El Jadida, Morocco Prof. Samir Saoudi, IMT Atlantique, France (<i>Steering committee chair</i>) Prof. Abdelawahed Hajjaji, ENSAJ, El Jadida, Morocco (<i>General chair</i>)
09:30 - 10:30	<p>Keynote1: Do Machines Finally Understand Us ? A Review of the State of the Art in Speech Processing Technologies <i>By Prof. Thomas Hain (Sheffield University, UK)</i> Chair: Prof. Atika Rivenq (Grand Amphi)</p>
10:30 - 11:00	Coffee break
11:00 - 12:00	<p>Keynote 2: Multivariate approaches for graph signal morphological processing <i>By Prof. Olivier Lézoray (University of Caen Normandie, France)</i> Chair: Prof. Yann Gavet (Grand Amphi)</p>
12:30 - 14:00	Lunch
14:00 - 16:00	<p>Track 2-IVP: Audio, Image and Video Processing Chair: Prof. Sofia Ben Jebara</p> <ul style="list-style-type: none"> Meryem Ez-Zamrany. Benchmarking of detection and classification methods for traffic sign recognition: Application on Moroccan context Hamza Halim. Adaptive Region Growing based on detecting the seed point in the central trachea to the pre-segment respiratory system Loubna Elbouazzaoui. On the use of pitch-based features for voice disorders families classification Ala Hijazi. On the use of Bayer Sensor Color Cameras in Digital Image Correlation El Mehdi Raouhi. Impact of regularization on the effectiveness of transfer learning for olive disease classification
	<p>Track 2-AIVP Session 1 (Amphi I)</p>

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	Track 4- DSA Session 1 (Salle C9)	Track 4- DSA: Data Science and Applications Chair: Prof. Samir Saoudi
		<ul style="list-style-type: none"> • Mustapha Hankar. Used Car Price Prediction using Machine Learning: A Case Study • Somaya Hiaba. Tuning the hyperparameters for supervised machine learning classification, to optimize detection of IoT Botnet • Amina Chakir. Improving customer churn prediction using external techniques to rebalance the class distribution • Amina Aboulmira. Ensemble learning methods for deep learning: Application to skin lesions classification • Najoua Fangachi. Vehicle speed measurement, type, and color identification by video processing using machine learning algorithms
16:00 - 16:30	Coffee break	
	Track 3- DCN Session 1 (Amphi I)	Track 3-DCN: Digital Communications and Networking Chair: Prof. Khalid Daoudi
		<ul style="list-style-type: none"> • Hicham Boudlal. Cloud Computing for Healthcare Services: Technology, Application and Architecture • Leo Theodon. A stochastic 3D model for three-phase heterogeneous microstructures in SOFC-electrodes • Ayoub El Idrissi. Deployment Strategies of Mobile Networks for Internet-of-Things in Smart Maritime Ports • Riham Farhani. Real-time Traffic Data collection using the two simulators SUMO and OMNeT ++
16:30 - 18:00	SPS 1 Session 1 (Amphi II)	SPS 1 : Applied Mathematics and Engineering Chair: Prof. Mohammed Belghiti
		<ul style="list-style-type: none"> • Khadija Chakar. Cooling system using several nanofluids • Penpen Komgue Lucrece Barbara. Mathematical Model for the Determination of The Young's Modulus of Polyurethane (PU) and Polyvinyl Chloride (PVC) Hearing Protectors • Youssef El Hmamsy. Mathematical model of Mono-DSSH network topology • Hafsa Kandry. Theoretical modeling of a photovoltaic panel cooling system based on the thermoelectric effect • Amine Erradi. Modeling of the effect of surfactant addition on electrolyte degradation in supercapacitors

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Thursday
 May 19, 2022

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08:00 - 18:00	Onsite registration
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09:00 - 09:30	Welcome
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09:30 - 10:30	<p>Keynote 3: Artificial Intelligence in Healthcare, HCI, Autonomous Driving, and Future Applications <i>By Prof. Abdenour Hadid (Université Polytechnique Hauts-de-France, France)</i> Chair: Johan Debayle (Amphi I)</p>
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10:30 - 11:00	Coffee break
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11:00 - 12:30	Track 2-AIVP Session 2 (Amphi I)	<p>Track 2-IVP: Audio, Image and Video Processing Chair: Prof. Najlae Idrissi</p> <ul style="list-style-type: none"> • Belmajdoub Hanae. Automatic detection of Moroccan coastal upwelling from chlorophyll-a concentration images using the Expectation-Maximization method • Hakim Nasaoui. Human Action Recognition Using Squeezed Convolutional Neural Network • Rahhal Errattahi. Investigating generalisation in automatic COVID-19 detection using deep learning • Abdelali Joumad. Unsupervised image segmentation using Fuzzy Hidden Markov Chain with bi-dimensional data
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11:00 - 12:30	SPS 1 Session 2 (Amphi II)	<p>SPS 1 : Applied Mathematics and Engineering Chair: Prof. Mohamed Erraoui</p> <ul style="list-style-type: none"> • Hamza El-Houari. A class of elliptic inclusion in Fractional Orlicz-Sobolev Spaces • Hanan Najib. Partial finite-time stability for a mono-dimensional transport bilinear system • Soufiane Yahyaoui. Bilinear optimal stabilization of a non-homogeneous Fokker-Planck equation • Ismail Labaali. Randomized Tensor Singular Value Decomposition for Multidimensional Data Compression
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12:30 - 14:00	Lunch
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14:00 - 16:00	Track 4- DSA Session 2 (Amphi I)	Track 4- DSA: Data Science and Applications Chair: Prof. Taleb Ahmed Abdelmalik <ul style="list-style-type: none"> • Fatima Ezzahra Hachefi. Predicting smart grid stability using machine learning algorithms • Safaa El Morabit. Pain Detection From Facial Expressions Based on Transformers and Distillation • Soukaina Adri. E-learning-Bot: A Q&A Dynamic System used for Learners in the education field using Neural Network • Siham Sadiki. Efficient mobility modeling of autonomous movement planning trajectories using AI algorithms • Basma Saad. The impact of Forecasting Horizon and Resolution on PV power prediction using Artificial Neural Network.
	Track 3- DCN Session 2 (Amphi II)	Track 3-DCN: Digital Communications and Networking Chair: Prof. Khalid Minaoui <ul style="list-style-type: none"> • Charifa Laghrifat. Understanding changes in the structure of complex networks using QSAR/QSPR • Yassine Hmamouche. Terrestrial Connectivity Through Constellations of High Altitude Platform Station (HAPS) • Habiba Hadri. Study of security problem in cloud computing with access control based on the blockchain • Mamadou Barry. Optimal mass transportation for noise minimization problem around an airport
16:00 - 16:30	Coffee break	
16:30 - 18:00	Track 3- DCN Session 3 (Amphi I)	Track 3-DCN: Digital Communications and Networking Chair: Prof. Yassin El Hillali <ul style="list-style-type: none"> • Abdoul-Hadi Konfé. Enhancing 5G Forward Error Correction Codes for URLLC by Spatial Coupling • Oualid Mouhoubi. On the Latency and Complexity of Semi-Parallel Decoding Architectures for 5G NR Polar Codes • Hind Kanj. A Comparative Study of the Whitening Methods in Linear Video Coding and Transmission Schemes • Babacar Mbaye Ndiaye. A modelling and stochastic optimal control for the cashew area
	SPS 1 Session 3 (Amphi II)	SPS 1 : Applied Mathematics and Engineering Chair: Prof. Mona Essauoui <ul style="list-style-type: none"> • Houssam Boughabi. Stochastic Volatility, a closed formula for futures contracts • Safaa Elgharbi. Energy eigenvalues of the three-dimensional Schrödinger equation using double exponential Sinc collocation method • Abdellaziz Binid. Lyapunov Design Controllers for a Mass Structured Cell Population Balance Model With Input Constraints • Mohamed El Aallaoui. An Image Fusion Method using Shift-invariant Adaptive Selectivity Representation and Parameter-Adaptive PCNN

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**Friday
May 20, 2022**

UTC+1 Time	Event
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08:00 - 18:00	Onsite registration
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08:30 - 09:00	Welcome
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09:00 - 10:00	<p align="center">Keynote 4: Using mobile phone data for Spatial Planning simulation and Optimization Technologies <i>By Prof. Babacar Mbaye Ndiaye (Cheikh Anta Diop University, Senegal)</i> Chair: Prof. Lamia Hammadi (Amphi I)</p>
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10:00 - 10:30	Coffee break
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10:30 - 12:00	Track 4- DSA Session 3 (Amphi I)	<p align="center">Track 4- DSA: Data Science and Applications Chair: Prof. Hassan Ouahmane</p>
		<ul style="list-style-type: none"> Anoual El Kah. <i>A new classification model with multi-layer dimensionality reduction approach</i> Tarek Riaji. <i>Application of Paired Samples t-Test in Engineering Service-Learning Project</i> Charifa Fergani. <i>Hyperconnected mobile modular production modeling</i> Meriem El Goussairi. <i>Contribution of Blockchain technology to improve the sustainable supply chain management</i> Khadija Ait Mamoun. <i>An optimisation solution of Capacitated Vehicle Routing Problem (CVRP)</i> Hajar Raillani. <i>Disaster Assessment in Humanitarian Relief Supply Chain: Application to the Moroccan context</i>

12:00 - 12:30	Closing ceremony
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COMMITTEES

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- Y. Boughaleb, President of Chouaib Doukkali University, El Jadida, Morocco
- A. Azim, Director of ENSAJ, El Jadida, Morocco

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VENUE

ISIVC'22 will take place at the National School of Applied Sciences - Chouaib Doukkali University, El Jadida, Morocco



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