



**International Conference on AI in
Systems Engineering
April 25th & 26th, 2024
Beni Mellal
Morocco**



International Conference on AI In Systems Engineering (IC-AISE'2024)

PROGRAM

25 April 2024	
08:00-09:30	Registration
09:30-10:00	Welcome and Conference Opening Ceremony: <ul style="list-style-type: none"> • Prof. Mustapha ABOUMAROUF, President of Sultan Moulay Slimane University. • Prof. Abderrazak EL HARTI, Dean of Polydisciplinary Faculty of Beni Mellal. • Prof. Belaid BOUIKHALENE, Director of the LIMATI laboratory. • Prof. Pr. Said SAFI, Conference Chair, Polydisciplinary Faculty of Beni Mellal. • Prof. Pr. Miloud FRIKEL, Co-Chair, ENSICAEN, France.
10:00-10:50	Keynote Speaker: Dr. Mohamed M'SAAD , ENSICAEN, France "Control System: An Engineering Panorama" Session Chair Prof. M. FRIKEL and S. SAFI
10:50-11:20	Coffee Break
11:20-12:20	Session 1 (Amphi D)
12:30-14:00	Lunch
14:30-15:30	Keynote Speaker: Prof. Miloud FRIKEL, ENSICAEN, France, "Spatial Diversity for Parametric Separation of Seismic Waves" Session Chairs: Prof. S. SAFI and Prof. A. Farchane, and M. Biniz
15:40-16:10	Coffee Break
16:10-17:55	Parallel sessions : Session 2 (Amphi D) and session 3 (Room B0.1)
26-April-2024	
09:00-9:50	Keynote Speaker Prof. Mathieu POULIQUEN, From ENSICAEN, France "Identification of dynamic systems from binary measurements, some solutions" Session Chairs: Prof. M. FRIKEL and Y. SADQI.
10:00-10:20	Coffee Break
11:00-12:00	Session 4 (Amphi D)
12:10-12:50	Conference Closure Ceremony
14:10-15:00	lunch



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ORAL PRESENTATIONS: 25 April 2024

Session 1 (Amphi D) - Machine Learning and Data Analysis Session chairs: Pr. H. MOUNCIF, Pr. M. BINIZ and Pr. N. FALIH	
11:00	«Comparative analysis of HKNNRF and MLP for Block Cipher Algorithm identification», H. Allaga, A. Farchane, L. Khadija, H. Said
11:15	«Diabetes Risk Factors determination by extraction of Association Rules Mining algorithms», Y. Fakir, K. Salim, A. Mashate
11:30	«Handwritten Digits Recognition Using Invariant Orthogonal Tchebichef and Krawtcouk Moments And Machine Learning Classifiers», A. Bourzik, B. Bouikhalene, J. El Mekkaoui
11:45	«Improving Profile Recommendations with AI for Strategic Decision-Making: An Overview», H. Oualla, A. Saouabe, I. Mourtaji, R. Fateh, M. Mazar
12:00	«Improving Sensor Network Monitoring with Machine Learning», M. Lmkaiti, H. Moudni, H. Mouncif
12:15	«Prediction of Student Attrition and Academic Achievement Using Machine Learning Algorithms», R. Ouadad, H. Mouncif
Session 2 - Technology and Smart Cities Session chairs : Pr. A. FARCHANE and Pr. A. DARIF Pr. Y. SADQI	
16:10	« A Smart University for a Smart City », M. El Mohadab, S. Safi, B. Bouikhalene, H. Jebbar, N. Ababou
16:25	« Evaluating the Influence of PSO Inertia Weight on Bit Flipping Decoding Performance in QC-MDPC McEliece Cryptosystems », A. Kichna, A. Farchane, H. Said
16:40	« Fuzzy Logic for Energy Efficiency Enhancing in Internet of Things (IoT) », O. Lagnfdi, M. Myyara, A. Darif
16:55	« Smart Cities: Literature review », H. Jebbar, M. El Mohadab, O. Boutkhoum
17:10	«Toward a Quality of Experience Optimization in Mobile Edge Computing Environments », M. Myyara, O. Lagnfdi, A. Darif, A. Farchane
17:25	« Understanding Applicability Metrics for Effective Cybersecurity Assessment Methods », A. Zineddine, Y. Sadqi
17 :40	«Enhancing Cybersecurity Education: A Comparative Analysis of online Training Platforms», A. Rehami, Y. Sadqi, Y. Maleh
17 :55	«Wideband Signal Analysis for DOA Estimation: SVM-Based Approach», H. Ougraz, S. Safi, M. Frikel, R. Fateh, H. Said



ORAL PRESENTATIONS: 26 April 2024

Session 3 (Room B 0.1)- Optimization and Simulation	
Session chairs: Pr. S. HAKIMI, Pr. H. OUCHITACHEN and Pr. A. OUSARHANE	
11:00	« A Review of Traditional methods for Localizing Radiating Sources », I. Mahiri, S. Safi, M. FRIKEL
11:15	« Optimization of Water Management in Large-Scale Agriculture: Comparison of Smart Irrigation Approaches », M. Bouzidi, B. Bouikhalene, Y. Madani, M. Farissi
11:30	« Optimizing Hyperparameters of Convolutional Neural Networks for Histopathological Image Classification in Breast Cancer Detection: A Particle Swarm Optimization Approach », K. Aguerchi, Y. Jabrane, M. Habba
11:45	« Recursive Least-Squares in Feature Space for System Identification », R. Fateh, B. Plancoulaine, M. Pouliquen, M. Frikel, S. Safi, A. Darif, S. Hakimi, H. Oualla
12:00	« Simulation directe de Monte-Carlo (DSMC) », B. Elaaddam, M. Hssikou
Session 4 (Amphi D)- Physics and Energy	
Session chairs: Pr. B. MANAUT and Pr. A. FARCHANE	
16:10	« Ellipsoidal Outer Bounding identification algorithms for Output Error systems », H. El Maizi, M. Pouliquen, S. Safi, M. Frikel
16:25	« Laser acceleration of charged particles in high-energy physics », M. Ouhammou
16:40	« Study of the relativistic elastic scattering electron-muon in the absence and presence of a circular polarized laser field in the framework of standard model theory », A. Arajdal, M. El Idrissi, S. Taj
16:55	« Theoretical Aspects of MXenes-Based Energy Storage and Energy Conversion Devices. », E. Darkaoui, A. Zaghrane, H. Ouhenou, A. Abbassi, B. Manaut
17:10	« Theoretical investigation of thermodynamic properties of cubic perovskite oxides XGeO₃ », A. Waqdim

CONFERENCE COMMITTEE

HONORARY COMMITTEE:

- ❖ Professor **Mustapha ABOUMAAROUF**, *President of Sultan Moulay Slimane University.*
- ❖ Professor **Abderrazak EL HARTI**, *Dean of Polydisciplinary Faculty of Beni Mellal.*
- ❖ Professor **Belaïd BOUIKHALENE**, *Director of the LIMATI Laboratory.*



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CONFERENCE CHAIRS:

- ❖ Pr. **Said SAFI** (Conference Chair), *Sultan Moulay Slimane University*.
- ❖ Pr. **Miloud FRIKEL** (Conference Co-Chair), *ENSICAEN School, Caen University, France*.

ORGANIZING COMMITTEE:

- ❖ Pr. **Said SAFI** (Coordinator and General Chair), *Sultan Moulay Slimane University*.
- ❖ Pr. **Rachid BAHLOUL**, *Sultan Moulay Slimane University*.
- ❖ Pr. **Mohamed BINIZ**, *Sultan Moulay Slimane University*.
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- ❖ Pr. **Aziz LAARIBI**, *Sultan Moulay Slimane University*.
- ❖ Pr. **Hicham OUCHITACHEN**, *Sultan Moulay Slimane University*.
- ❖ Pr. **Abdessamad OUSARHANE**, *Sultan Moulay Slimane University*.
- ❖ Pr. **Yassine SADQI**, *Sultan Moulay Slimane University*.
- ❖ Pr. **Bouzid MANAUT**, *Sultan Moulay Slimane University*.

KEYNOTE SPEAKERS



Biography: Dr. **Mohamed M'SAAD** was educated at the Ecole Mohammadia d'Ingénieurs where he held an assistant professor position in September 1978. He started his research activities at the Laboratoire d'Electronique et d'Etude des Systèmes Automatiques where he prepared an engineering thesis of the Université de Mohammed V on the adaptive control of industrial processes. In November 1982, Mohammed M'SAAD joined the Laboratoire d'Automatique de Grenoble to prepare a PhD thesis of the Institut National Polytechnique de Grenoble, on the fundamental features of the adaptive control and its applicability, which he obtained in April 1987. In April 1988, he held a research position at the Centre National de Recherche Scientifique with an affectation in the Laboratoire d'Automatique de Grenoble. In September 1996, Mohammed M'SAAD held a professor position at the Ecole Nationale Supérieure d'Ingénieurs de Caen where he founded a control process laboratory in 1997 which became a control group at the GREYC UMR CNRS in January 2004. His main research activities are mainly devoted to the fundamental, methodological and applied features of the identification, observation and adaptive control of dynamical systems. He had several important scientific and collective responsibilities, namely the director of the GREYC UMR CNRS from January 2012 to March 2016

Title: *Control System: An engineering Panorama*



Biography: Dr. **Miloud FRIKEL** is an Associate Professor at National Graduate School of Engineering and Research Center (ENSICAEN), and head of SATE's Department (Embedded Systems and Control), and he is the Deputy-Director of the Systems Engineering Lab of Normandy (LIS). He was with the R&T (Networks and Telecommunications) Department of the University of Caen (Normandy University). He received his Ph.D. degree from the Center of Mathematics and Scientific Computation CNRS URA 2053, France, in array signal processing.

Dr. Frikel was with the Signal Processing Lab, Institut for Systems and Robotics, Institute Superior Tecnico, Lisbon, as a researcher in the field of wireless location and statistical array processing. And he worked in the Institute for Circuit and Signal Processing of the Technical University of Munich, Germany. M. Frikel is member of German Foundation: Alexander von Humboldt Stiftung. His research interests span several areas, including statistical signal and array processing, cellular geolocation (wireless location), direction finding and source localization, blind channel identification for wireless communication systems and MC-CDMA systems.

Title: *Spatial Diversity for Parametric Separation of Seismic Waves*



Biography: Dr. **Mathieu Pouliquen** received his Engineering degree from the Ecole Nationale Supérieure d'Ingenieurs de Caen, France, in 2000, then the PhD in Automatic Control from the University of Caen, in 2003. He was appointed Assistant Professor at the University of Caen in 2004, since 2021 he is Full Professor. He is a Researcher at the LIS laboratory and his research interests include linear and nonlinear system identification.

Title: *Identification of dynamic systems from binary measurements, some solutions.*