



UNIVERSITÉ DE
FRANCHE-COMTÉ

Association of Artificial Intelligence and Sustainable Development
in collaboration with

Mohamed Premier University, Faculty of Sciences of Oujda, Faculty of Medicine and Pharmacy of Oujda, National School of Applied Sciences of Oujda, Higher School of Technology of Oujda, Mohammed VI Hospital Center of Oujda, Franche-Comté University and The School Of Advanced Engineering Studies – Oujda, organize:



« The 1st International Conference on Smart Medical, IoT & Artificial Intelligence »

TECHNICAL PROGRAM

Avril 18-20, 2024 | Oasis Atlantico Hotel, Saïdia, Morocco



Royaume du Maroc
Académie Hassan II
Des Sciences et Techniques



ABOUT THE CONFERENCE:

Association of Artificial Intelligence and Sustainable Development in collaboration with Mohammed First University, Faculty of Sciences of Oujda, Faculty of Medicine and Pharmacy of Oujda, National School of Applied Sciences of Oujda, Higher School of Technology of Oujda, Mohammed VI Hospital Center of Oujda, Franche-Comté University and the school of advanced engineering studies - oujda organize the « First International Conference on Smart Medical, IoT & Artificial Intelligence - ICSMAI'24 ».

ICSMAI'24 invites researchers, academics, and industry professionals to submit papers on topics related to this conference.

This first edition aims to bring together students, researchers and experts in the field of Medical, IoT and Artificial Intelligence to share their latest research findings, exchange ideas, and discuss challenges and opportunities in the field.

Authors are invited to contribute to the conference by submitting articles (not already published or under review with another conference or journal) with new research results, projects, surveying works and industrial experiences.



***Thank you for joining us on this transformative journey.
The Organizing Committee of the ICSMAI'24***

Detailed Technical Program of ICSMAI'24

Thursday, April 18th, 2024

14:00 – 15:30	Welcome and Registration
15:30 – 16:00	Official Opening Ceremony (Moderators: Prof. Kamal GHOUMID & Prof. Mohammed SERRHINI)
	<ul style="list-style-type: none"> - Mr. President of Mohammed Premier University – Oujda - Mr. Director of National School of Applied Sciences – Oujda - Mr. Dean of Faculty of Science - Oujda - Mr. Dean of Faculty of Medicine and Pharmacy - Oujda - Mr. Director of Higher School of Technology - Oujda - Mr. Director of CHU - Oujda - Mr. Director of National School of Business and Management – Oujda - Organizing Committee of ICSMAI'24
16:00 – 17:30	<p>Keynote #1: (conference hall)</p> <p>Prof. Intissar HADDIYA, FMPO, Med 1st University, Oujda, Morocco <i>Artificial intelligence in healthcare: a focus on the best practices</i> (Moderator: Prof. Driss BRIA, Prof Fayçal Benkhaldoun, Prof Bekkay Mermri)</p> <p>Keynote #2: (conference hall)</p> <p>Prof. Ahmed MOUSTEFAOUI, Montbeilart University, France <i>When IoT meet BigData : example of connected vehicules</i> (Moderators: Prof. Rachid MALEK and Prof. Driss BAHIA)</p> <p>Keynote #3: (conference hall)</p> <p>Prof. Abdelkrim DAOUDI, FMPO, Med 1st University, Oujda, Morocco <i>Telemedicine : expérience au niveau de la région de l'oriental</i> (Moderators: Prof. Imad EL Mahi and Prof. Omar El Mahi)</p>
17:30 - 19:30	Session 1: Smart Healthcare and Smart Technologies (Room 1) (Chairs: Prof. Réda Korikech, Prof. Mohammed JABRI and Prof. Mohamed Tahrichi)
	<p>ID80: Sanae LAMTI et al., <i>Intelligent Tutoring System for Medical Students: Opportunities and Challenges.</i></p> <p>ID65: Mohammed ADDOU et al., <i>Automatic detection of glaucoma using transfer learning.</i></p> <p>ID106: Hayat MAHJOUBI et al., <i>A comparative analysis of intrusion detection systems based on ML, DL and TL techniques.</i></p> <p>ID43: El-houcine Sebbar et al., <i>Artificial intelligence and Spectroscopy: Applications and Opportunities.</i></p> <p>ID69: Oumaima Gamgami et al., <i>Cardiac arrhythmia classification using CNN.</i></p> <p>ID67: AMJAD IDRISSEI et al., <i>Bacterial Infections and Antimicrobial Resistance: The contribution of Artificial Intelligence.</i></p> <p>ID127: Ikram Markaoui et al., <i>The Sweet Economic Impact of Glycemic Control in Intensive Care : A Profitable Investment !.</i></p> <p>ID58: Ayyoub EL OUTMANI et al., <i>Exploring the energy consumption of some typical applications: The case of sorting algorithms.</i></p>

17:30 - 19:30	Session 2: AI, Machine Learning and Deep Learning (Room 2) (Chairs: Prof. Mohammed Gabli, Prof. Mohamed Elboukhari and Prof. Soufiane Dahmani)
	<p>ID9: Hammad Ahmad et al., <i>Comparative Analysis of Machine Learning Methods for Enhancing Sleep Efficiency and Prediction.</i></p> <p>ID11: Sokaina BOUKRICHA et al., <i>Performance improvement of a SAC-OCDMA FSO system under climatic conditions for smart city applications.</i></p> <p>ID44: Mohamed Yassine Rhafes et al., <i>Analyzing Oxygen Production from Photovoltaic Electrolysis Using Machine Learning During the COVID-19 Period: A Case Study.</i></p> <p>ID48: Mohamed Rahmouni et al., <i>Literature Review: Combining Machine Learning with Social Network Analysis features.</i></p> <p>ID117: Snoussi Choukri et al., <i>Utilizing Artificial Intelligence Techniques to Determine the Predominant Breed of Stray Dogs in the Moroccan Region, with a Focus on the Oujda Area.</i></p> <p>ID45: Oussama ABALI et al., <i>Temporomandibular osteoarthritis and artificial intelligence: systematic review.</i></p> <p>ID55: Oumaima Ouadoud et al., <i>Blockchain-Enhanced Peer Review: A Novel Approach to Academic Publishing.</i></p>
17:30 - 19:30	Session 3: NLP, computer vision, Graph and Image Processing (Room 3) (Chairs: Prof. Karima Aissaoui, Prof. Noureddine Kerzazi and Prof. Khadija Laaroussi)
	<p>ID59: Elvin Yusubov et al., <i>Intelligent Complex Monitoring System using Unmanned Aerial Vehicles.</i></p> <p>ID66: MOHAMED ELRHAOUAT et al., <i>Advancing Moroccan Darija Digit Recognition Through a Deep Learning Approach with RNN, LSTM, and GRU Models.</i></p> <p>ID92: Marouane El Malhi et al., <i>Semantic Search Engine Within Anatomy Books: A BERT-Based Model for Medical Students.</i></p> <p>ID95: Ouafae El Melhaoui et al., <i>Loci Features and neural network for Handwritten Text Recognition.</i></p> <p>ID97: Abdelkader TAJTIT et al., <i>Enhancing web browser security with ChatGPT a case of ChatGPT Firefox.</i></p> <p>ID98: Elabdi Abdellah et al., <i>Meander-shaped miniature antenna for 2.4 GHz IoT applications.</i></p> <p>ID99: Elabdi Abdellah et al., <i>Frequency Reconfigurable Miniature Antenna For IoT And 5G Applications.</i></p>
20:00	Dinner break

Friday, April 19th, 2024

08:00 - 09:00	Welcome and Registration
09:00 - 10:30	Keynote #5: (conference hall) Prof. SULTAN ALJAHDALI , Taif University, Taif, SAUDI ARABIA (Moderator: Prof. Mohammed SERRHINI and Prof. Ilham SLIMANI)
	Keynote #6: (conference hall) Prof. HASSINE MOHAMMED , TISALABS, CORK, IRELAND (Moderators: Prof. Omar MOUSSAOUI)

10:30 - 12:30	Session 4: Internet of Things and Computing (Room 1) (Chairs: Prof. Zineb Bougroun, Prof. Ilhame EL Farissi and Prof. Mounir Grari)
	<p>ID94: Hadj Sadek et al., <i>Optimizing Digital Modulation for Energy Efficiency in Wireless Sensor Networks within the Internet of Medical Things.</i></p> <p>ID40: Saadiâ Chabel et al., <i>Enhancing GNSS Signal Integrity for Smart Medical Supply Chain Logistics Using Deep Learning.</i></p> <p>ID71: abdelkader bouazza et al., <i>Framework for Agent-Based Simulation of Energy and Water Usage in Smart Homes.</i></p> <p>ID121: Dominique DHOUTAUT et al., <i>Multi-networks communications in large set of modular robots.</i></p> <p>ID123: Ouiam Khattach et al., <i>Feature Selection Strategies in Failure Prediction.</i></p> <p>ID79: Merieme Yakine et al., <i>Beyond the Lips: Exploring Factors Influencing Lipreading Accuracy in Real-World Conversations.</i></p> <p>ID22: Fatiha Abbi et al., <i>Data Analysis for Quality Control of Solar Radiation Data in a Semi-Arid Climate: A Case Study of Ben-Guerir City, Morocco.</i></p> <p>ID53: Siham Machichi et al., <i>Experimental study of the oscillatory motion of a heavy pendulum by an analog distance sensor with the Micro-Lab board.</i></p>
10:30 - 12:30	Session 5: AI, Machine Learning and Deep Learning (Room 2) (Chairs: Prof. Kamal AZGHIOU, Prof. Sanae Mazouz and Prof. Mohamed Jeyar)
	<p>ID46: Mimoun YANDOUZI et al., <i>Forest Fire Surveillance through Deep Learning Segmentation and Drone Technology.</i></p> <p>ID77: Hayat OUADI et al., <i>Using Explainable AI in Decision Support Systems overview.</i></p> <p>ID83: Noura Ouerdi et al., <i>Ransomware Detection and Classification using Machine Learning & Deep Learning.</i></p> <p>ID111: Ibtissam Ms Arrassen et al., <i>Impact of Artificial Intelligence on the generation process of the data warehouse model.</i></p> <p>ID126: Mohamed Boukhelif et al., <i>Intelligent Test Case Generation Framework using LLMs and Prompt Engineering.</i></p> <p>ID62: Khadija LAAROUSSI et al., <i>Handcrafted and Deep Trackers: A Survey.</i></p> <p>ID179: Adnane Souha et al., <i>Sketch of a decision-support system to improve the management of tourism destinations.</i></p> <p>ID181: Lahbib Naimi et al., <i>Automating test case generation from class diagram using generative AI.</i></p> <p>ID194: Wafae Mrabti et al., <i>Human motion tracking using single view methodologies</i></p>
10:30 - 12:30	Session 6: Data Analysis, Big Data and High Performance Computing (Room 3) (Chairs: Prof. Madani Med Amine, Prof. Mohamed Emharraf and Prof. Belkacem Tidaf)
	<p>ID60: Moustafa Fayad et al., <i>Transfer Learning for Efficiency in Elderly Fall Detection with Limited Data Samples.</i></p> <p>ID68: Hasnae Amnoun et al., <i>The Influence of AI-driven Content Marketing on Companies' Decisions.</i></p> <p>ID70: Lala Bekirova et al., <i>Intelligent Control System For Product Quality.</i></p> <p>ID93: Imane Aitouhanni et al., <i>Enhancing Predictive Accuracy in Molecular Solubility: A Comprehensive Study on the Impact of Datasets in Linear Regression Models.</i></p> <p>ID63: Jeyran A Agamaliyeva et al., <i>The Computer Models Applying at Flight Information Processing.</i></p>

	<p>ID104: Boulerhcha Brahim et al., <i>A New Method of Calculating Webpages Relevance Indicator.</i></p> <p>ID114: Boulerhcha Brahim et al., <i>Federated Learning in Healthcare System</i></p> <p>ID112: Mouloud Sbai et al., <i>Model change detection of complex systems Big Data.</i></p>
13:00-15:30	Lunch break
15:30 – 17:00	<p>Keynote #7: (conference hall)</p> <p>Prof. Mohammed CHOUKRI, PES de Chimie-Biochimie FMPO et Chef de Sevice de Laboratoire Central CHU Mohammed VI d'Oujda. <i>Artificial Intelligence and Big Data : Feedback and projects from the Central Laboratory of the UHC Mohammed VI in Oujda</i></p> <p>Keynote #8: (conference hall)</p> <p>Prof. Dounia EL MOUJTAHIDE, Professeur Assistant de Chimie-Biochimie FMPO et Laboratoire Central CHU Mohammed VI d'Oujda. <i>Revolutionizing error detection in medical biology exams: the impact of advances in AI validation</i></p> <p>Keynote #9: (conference hall)</p> <p>Prof. El Houcine SEBBAR, Professeur Assistant de Chimie-Biochimie FMPO et Laboratoire Central CHU Mohammed VI d'Oujda. <i>Molecular Docking: Interests and Opportunities</i></p> <p>Keynote #10: (conference hall)</p> <p>Prof. Abderrazak SADDARI, Professeur Assistant de Microbiologie FMPO et Laboratoire Central CHU Mohammed VI d'Oujda. <i>Connected devices from the central laboratory, with INDEXOR as an example</i></p> <p>Keynote #11: (conference hall)</p> <p>Mr Mustapha EL MACHAD, Référent Scientifique et Applicatif chez MASTERLAB. <i>AlinIQ, the suite of Digital Health Solutions from Abbott</i></p> <p>(Moderators: Prof. Intissar HADDIYA, Prof. Dimane Fouad and Prof. Nasser Abdelkader)</p>
17:00 – 17:30	Coffee break
17:30 - 20:00	<p>Session 7: Network, Security and Social Network (Room 1) (Chairs: Prof. Hajji Tarik, Prof. Blej Mohammed and Prof. El Miloud Chaabelasri)</p> <p>ID38: Mustapha HAMMOUTI et al., <i>Adaptive DSR Metrics for Low-Energy LoRa Mesh Ad Hoc Routing: Theoretical Study on Forest Fire Detection.</i></p> <p>ID52: Tofiq Mansurov et al., <i>The Analysis of the Security and Information Capacity of Protocols with Single and Multidimensional Quantum Systems.</i></p> <p>ID103: Ansar DAGHOURI et al., <i>A Hierarchical Model of Information System Security Metrics in the Education Sector: An AHP-based Approach.</i></p> <p>ID119: Hasnae Amnoun et al., <i>The Future of Search Attention: Leveraging AI to Enhance PageRank's Influence.</i></p> <p>ID54: Baidri Abdelkader et al., <i>Novel Thermodynamics Teaching Approach: Temperature Sensor-Based on a Real-Time Verification.</i></p> <p>ID8: MOUHSINE IBRAHIMI et al., <i>A desalination- refrigeration unit that uses photovoltaic/thermal (PVT) collectors to generate electricity and heat for desalination and refrigeration..</i></p> <p>ID100: MOUHSINE IBRAHIMI et al., <i>Comparative Analysis of Turbulence Models for Predicting Fluid Flow Phenomena: Insights from Von Kármán Vortex Streets and Bluff Body Pressure Distributions.</i></p>

17:30 - 18:30	Session 8: Medicine Special Session I (Room 3) Workshop Session N° 1 SOMADIAG
	Comment concevoir et équiper un nouveau laboratoire de Biologie Médicale ? Et quelle place pour le système d'information ? <ul style="list-style-type: none"> • Mr Zakaria BERRADA, Référent Scientifique et Applicatif chez SOMADIAG
18:30 - 21:00	Session 8: Medicine Special Session I (Room 3) Oral Communication Session Jury : Pr Abdesslam ASSAHRAO, Pr Assya KHERMACH, Pr Abderrazak SADDARI, Pr Aziza HAMI
	CO1: Dr. KIDOUN Asmae, primitive plasma leukemia:case-report CO2: Dr. KIDOUN Asmae, the difficulties of grouping ABO: retrospective study about 97 cases CO3: Dr. Mohammed Amine Nejjari, Carcinocythemia : First Case Detected in University Hospital of Oujda-Morocco's Hematology Lab CO4: Dr. Rhoubi Asmae, First case of cedecea lapagei infection at the site of hip amputation CO5: Dr. Kaoutar jamal, First report of cholangitis caused by streptococcus gordonii: A case reportand review of the literature CO6: Dr. Marouane kaabouchi, Vérification de la méthode de dosage de l'IGRA par au laboratoire central du centre hospitalier universitaire Mohammed VI de Oujda-Maroc CO7: Dr. Charki Chakar, Contrast between recommendations and antibiotic availability and the role of health sovereignty in solving this problem CO8: Dr. Imane Naji, Ascitic fluid infection with Oligella ureolytica in an old man with cirrhotic liver : a case report and review of the literature CO9: Dr. Imane Naji, Interest of Big Data in the Management of the COVID-19 Pandemic CO10: Dr. Rhoubi Asmae, Dermatophytosis caused by Trichophyton mentagrophytes and Trichophyton interdigitale diagnosed at the parasitology- mycology laboratory of the Mohammed VI university Hospital in Oujda CO11: Dr. Kaoutar jamal, Aspergillus fumigatus: A serious cause of corneal abscess following ocular trauma CO12: Dr. Issam mokhtari, Epidemiological profile and diagnostic approaches to skin mycoses: a study of 135 cases CO13: Dr. Oumaima Kharkhach , A case of Otomycosis caused by Lichteimia in a immunocomptent child CO14: Dr. Mohammed Amine Moumna, Fecal calprotectin in pediatrics: use and interpretation CO15: Dr. Ayoub Baroudi, EPIDEMIOLOGICAL ASPECTS OF GIARDIA INTESTINALIS at the parasitology and mycology laboratory of CHU MOHAMMED VI, Oujda.
20:00	Dinner break

08:00 - 09:00	Welcome and Registration
09:00 - 10:30	<p>Keynote #8: (conference hall)</p> <p>Prof. Muhamad Umar Khan, Comsats University, Pakistan <i>Empowering Healthcare with IoT and AI: Enhancing Medical Diagnosis and Treatment</i> (Moderator: Prof. Abderrahim Essadek & Prof. Jamal Yousfi)</p> <p>Keynote #9: (conference hall)</p> <p>Prof. Mostafa AZIZI, ESTO, Med 1st University, Oujda, Morocco with Prof. Cyril DROCOURT, Picardie Jules Verne University, Amiens, France <i>MIoT and Security Challenges</i> (Moderators: Prof. Wafae Mrabti & Prof. Mohcine Kodad)</p>
10:30 - 12:40	<p>Session 10: Emerging Technologies and Environment (Room 1) (Chairs: Prof. Benbrike Abdelhak, Prof. Mohammed Benhaddou, Prof. Khalil Kasmi)</p> <p>ID50: Fatimazahra Rimchi et al., <i>Monte Carlo simulation of a modified Elekta Precise linear accelerator used for flash radiotherapy using TOPAS (TOol for Particle Simulation).</i></p> <p>ID51: Abir Bria et al., <i>Hall effect sensors Based Experiment to Study the viscosity of a fluid in Real-time.</i></p> <p>ID85: Sara SABRI et al., <i>Comparison of Effective Mass Approximation and Hyperbolic Band Model for Predicting Quantum Dot Emission Wavelengths.</i></p> <p>ID39: Amira ZROURI et al., <i>Towards Predictive Water Quality: Synergies between Machine Learning and Internet of Things.</i></p> <p>ID73: Sara Said et al., <i>Utilizing Ground-Penetrating Radar (GPR) in Subsurface Applications to Detect and Investigate Buried Marble, along with the In-Situ Identification of Potential Cracks.</i></p> <p>ID75: Alghalia HAMDAOUI et al., <i>Prediction of the interlaminar damage behaviour of metal fibre laminates subjected to bending loads.</i></p> <p>ID39: Amira ZROURI et al., <i>Towards Predictive Water Quality: Synergies between Machine Learning and Internet of Things.</i></p> <p>ID23: Mounia Guetbach et al., <i>Evaluation of the best cleaning strategy for a photovoltaic system installed in a harsh climate conditions: A case study in mid-south of Morocco.</i></p> <p>ID49: Kamran Aliyev et al., <i>Transformation Characteristics of Measurement Systems using a DATA table with an Algorithmic Correction Method.</i></p> <p>ID96: Mimoun El-Aouni et al., <i>Enhancing Multi-Channel Filter Performance using Photonic Symmetric Serial Loops with Two Defects.</i></p> <p>ID56: Alif Shakir Khidirov et al., <i>Increasing the Accuracy of the Estimation of the Capacity of a Drill Rig by Using New Information Technologies.</i></p>
10:30 - 12:40	<p>Session 11: Smart Application and Computing (Room 2) (Chairs: Prof. Hicham Bouali, Prof. Farid Falyouni and Prof. El Miloud Ar-Reyouchi)</p> <p>ID17: Fatima Zahra BARHDADI et al., <i>Smart strategies for heat transfer enhancement using nanofluids with complex geometries for optimal performance.</i></p> <p>ID120: EL HOUCINE ADDOU et al., <i>A Dynamic Hybrid Approach Based on Ant Colony Optimization and Simulated Annealing to Solve the Multi-Objective k-Minimum Spanning Tree Problem.</i></p> <p>ID124: Nassima TABLOUL et al., <i>Smart city Framework model-Driven:</i></p>

	<p><i>Literature review.</i></p> <p>ID18: Ilham Lahlal et al., <i>Improving Natural Convection in a Nanofluid-Filled cavity through SMART Numerical Simulation.</i></p> <p>ID19: ikrame JAMAL et al., <i>Utilizing SMART Approaches to Enhance Heat Transfer in a Rectangular Duct with a 7-Shaped Baffle Using the CFD Technique.</i></p> <p>ID105: Ilyas Antraoui et al., <i>Study of the Beat Phenomenon using an Oscillating Movement of Coupled Pendulums and Distance Sensors with a MicroLab Interface.</i></p> <p>ID76: FATIMA ZAHRA EL YADARI et al., <i>Multi-Class Diabetic Retinopathy Classification Using Transfer Learning and MixUp Data Augmentation.</i></p> <p>ID116: Yassmina Guetbach et al., <i>Exploring Plasma Discharge Characteristics in Two-Dimensional Inductively Coupled Reactors: Insights from Maxwellian, Druyvesteyn, and Two-Term Boltzmann Electron Energy Distribution Functions.</i></p> <p>ID86: Sara SABRI et al., <i>Advancements and challenges in extending emission range: exploring InAs/InP as a promising alternative to InAs/GaAs Quantum Dots.</i></p> <p>ID57: Kaoutar Bouakka et al., <i>Numerical study of the compression of curved intersected honeycomb structures with double and single walls.</i></p> <p>ID102: Younes ERROUAS et al., <i>Investigating Oscillatory Motion: Elastic Pendulum Analysis via Piezoelectric Sensor and Microlab Interface.</i></p> <p>ID14: Fatima Ezzahra Bouhouch et al., <i>Empowering Moroccan Aromatic and Medicinal Plant Cooperatives with New Technologies.</i></p> <p>ID200: Ismail Oubarka et al., <i>Enhancing Constituent-oriented Age and Residence Time Theory using physics-informed neural networks.</i></p>
<p>09:00 - 12:40</p>	<p>Session 12: Medicine Special Session II</p> <p>Oral Communication Session</p> <p>Jury : Pr Benachat, Pr Maarouf, Pr Mohcine Kodad, Pr El Houcine SEBBAR</p> <p>CO16: Dr. Mohamed Karim El Azzouzi, Verification of the analytical performance of the intact parathyroid hormone (iPTH) assay on the Abbott Alinity i®</p> <p>CO17: Dr. Mohamed Karim El Azzouzi, Verification of the analytical performance of the 25-OH Vitamin D assay on the Abbott Alinity i®</p> <p>CO18: Dr. Kholoud Krimi, verification of the dosage method of S-DHEA on an architect ci8200 ABOtt automation system in the biochemistry laboratory of the Mohammed VI university Hospital in Oujda</p> <p>CO19: Dr. Kholoud Krimi, Verification of the Methotrexate dosing method on an Architect c Abbott automated system in the biochemistry laboratory of the Mohammed VI university Hospital in Oujda</p> <p>CO20: Dr. KIDOUN Asmae, verification of the analytical performance of the carcinoembryonic antigen assay on alinity i ® ,experience from the biochemistry laboratory of the Mohammed VI university Hospital in Oujda</p> <p>CO21: Dr. KIDOUN Asmae, verification of the analytical performance of the thyroid stimulating hormone assay on alinity i ® ,experience from the biochemistry laboratory of the Mohammed VI university Hospital in Oujda</p> <p>CO22: Dr. Kaoutar Benaissa, Verification of analytical performance of thyroid-stimulating hormone receptor antibodies (TRAB) assay on the Abbott Alinity i®</p> <p>CO23: Dr. Amina Himri, verification of the c-peptide assay method CMIA on the alinity i ABOtt ® analyzer at the biochemistry laboratory of the mohammed VI University hospital in oujda,</p> <p>CO24: Dr. Benaini Nada, verification of analytical performance of cyclosporin assay on the Abbott Alinity i® at the biochemistry laboratory of the Mohammed</p>

	<p>VI university Hospital in Oujda</p> <p>CO25: Dr. Mehdi Naciri, verification of analytical performance of the triglyceride assay on the architect Ci8200® : experience of the central laboratory mohammed VI Oujda</p> <p>CO26: Dr. Moulay Rehid Sara, Verification of analytical performance of CK-MB assay on the Abbott Alinity i® at the biochemistry laboratory of the Mohammed VI university Hospital in Oujda</p> <p>CO27: Dr. Meryem El Halas, enhancing precision through AL-Enhanced method verification validating iron determination on the alinity ci ® Analyzer: Experience of the central laboratory of mohammed VI University Hospital of Oujda</p> <p>CO28: Dr. Meryem El Halas, leveraging artificial intelligence for targeting protein-protein interactions in drug design</p> <p>CO29: Dr. Kholoud Krimi, The relevance of prescribing serum and/or urine immunofixation in the context of hypogammaglobulinemia at the biochemistry laboratory of the Mohammed VI university Hospital in Oujda</p> <p>CO30: Dr. Kholoud Krimi, Vitamin D status and diabetic balance experience of the biochemistry laboratory, Mohammed VI university hospital oujda</p> <p>CO31: Dr. Kholoud Krimi, Hypogammaglobulinemia in a biochemistry department</p> <p>CO32: Dr. Amina Himri, pertinence of the immunofixation prescription in heterogeneity restrictions of the gammaglobulin zone</p> <p>CO33: Dr. SOUFIANE EL ASSRI, From Theory to Practice: Creating an Application for Quantitative Analytical Method Validation</p> <p>CO34: Dr. Rochdi Chaymae, Sperm DNA Fragmentation and Conventional Semen Parameters in Moroccan Infertile Male Partners Attending a Fertility Center</p> <p>CO35: Dr. Rochdi Chaymae, Data management software for human fertility preservation: Experience of Fertility Center of Mohammed VI University Hospital Center of Oujda</p> <p>CO36: Dr. Rochdi Chaymae, The impact of two doses of coenzyme Q10 on spermogram parameters, sperm chromatin integrity and pregnancy rate in men with idiopathic oligoasthenozoospermia: A Randomized Controlled Trial Study</p> <p>CO37: Dr. SAMIRA MAMRI, Free radical scavenging and metal chelating activities of Crocus sativus stamens</p>
12:40-14:00	Lunch break
14:00-17:00	<p>Session 13: Medicine Special Session II (Room 3)</p> <p>Workshop Session N° 2 Masterlab</p>
	<p>* Workshop Contrôle qualité</p> <p>* Interprétation des Rapports de Contrôles Externe et Interne</p> <p>* URT</p> <ul style="list-style-type: none"> • MME ASMAE AOUISS, Responsable Biorad Chez Masterlab
17:00	Closing Ceremony

GENERAL CO-CHAIRS

- Kamal GHOUMID, ENSAO, Med 1st University, Oujda, Morocco.
- Mohammed SERRHINI, FSO, Med 1st University, Oujda, Morocco.
- Mohammed CHOUKRI, FMPO, Med 1st University, Oujda, Morocco.
- F. PICAUD, Franche-Comté Univ. Besançon, France.
- R. YAHIAOUI, Franche-Comté Univ. Besançon, France.

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- Moussa EL AYACHI, FSO, UMP, Oujda, Morocco
- EL Houcine SEBBAR, FMPO, UMP, Oujda, Morocco
- Dounia EL MOUJTAHIDE, FMPO, UMP, Oujda, Morocco
- Abderrazak SADDARI, FMPO, UMP, Oujda, Morocco
- Saadiâ CHABEL, EST, Guelmim, Morocco

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