The 8ᵗʰ International Conference on Informatics and Applied Mathematics -IAM'25

November 25-26, 2025 – University 8 may 1945- Guelma, Algeria

Mohamed ABDAOUI Auditorium - Souidani Boudjemaa Campus Pôle

Innovation & Emploi "Pôle Pro"

Tuesday,   November 25, 2025

- 08:30 - 09:00: Participant reception
- 09:00 - 9:30: Opening Ceremony Chair : **Pr Kouahla Zineddine**
- 09:30 - 10:30: Keynote Speeches

 Conference Room- Chair: **Pr Hamid SERIDI & Pr Mohamed NEMISSI**

o **Pr Rachid GHERBI :** Metaverse et technologiques immersives et leurs applications

o **Pr Abderrahmane BAADACHE** : Wireless Security in the era of Big Data and AI

- 10:30 - 11:00: Coffee break and Posters session 1
- 11 :00- 12h30   **Panel discussion : Pr Khaled HALIMI**

   AI Integration in Algerian Universities: Challenges and Future Directions

- 12:30 - 14:00: Lunch Break
- 14:00 - 16:00: Technical Sessions (In-Person)

  Room 1: Chairs**: Pr Rachid GHERBI & Pr Moumen HAMOUMA**

  Room 2 : Chairs : **Pr Abdelouahab MOUSSAOUI & Pr. Abderrahmane BAADACHE**

  **   & Pr Smaine Mazouzi**

  Room 3 : Chairs: **Pr Salim CHIKHI & Pr Mohamed Chaouki Babahenini**

  **   & Pr Mohamed-Khireddine KHOLLADI**

  Room 4 : Chairs: **Pr Fateh Ellaggoune & Dr Abdelali Ezzebsa**

Wednesday, November 26, 2025

- 08:30 - 10:30: Keynote Speeches

  Conference Room- Chairs **Pr Yacine LAFIFI & Pr Brahim FAROU**

  - **Pr. Moumen HAMOUMA** : Byzantine Fault Tolerance From Theory to Blockchain And Federated Learning
  - **Dr. Maher KHEDHER** : Meta AI: Going beyond technology to foresee the social and ethical sides of the Futures of AI
  - **Mr Sami SAHRAOUI** : AI and Cybersecurity
- 10:30 - 11:00: Coffee break and Poster session 2
- 10:00 - 12:30: Technical Sessions (Online)

   Room 1 : Chairs **: Dr Nadjette Benhamida & Dr Nadia Guerroui**

   Room 2 : Chairs: **Dr Djalila Boughareb & Dr Faroudja Abid**

   Room 3 : Chairs: **Dr Ali Khebizi & Dr Riad Bourbia**

   Room 4 : Chairs: **Pr Fateh Ellaggoune & Dr Abdelali Ezzebsa**

- o 12:30-13h-00 : Closing Ceremony
- o 13:00 - 14:00 : Lunch Break

Tuesday,   November 25, 2025

Technical Sessions (In-Person)

Room 1 : IA & Optimization

1. **Faroudja ABID :** The Algerian Forest Fires Dataset, CDTA Algiers

2. **Abbache Farid :** Heuristic temperature aware for static task scheduling in heterogeneous multi core system, University Batna

3. **Hamouda Djallel :** Exploring Industry 5.0: Architecture, Threat Landscape, and Security Strategies, LabSTIC Guelma

Room 2 : Machine Learning & Applications

1. **Rania Farah**: Hybrid Deep Learning for Short-Term Load Forecasting: A Comparative Study on Algerian Buildings, LabSTIC Guelma

2. **Asma Chatta:** Sentiment Analysis-Driven Approach for Enhancing Arabic Fake News Detection Using Machine and Deep Learning, University Djelfa

3. **Randa Boukabene**: Enhanced Cuckoo Search Algorithm with DeepWalk for Community Detection in Social Networks**,** ESI Algiers

Room 3: IA & Healthcare

1. **Ghada Halladja:** Enhanced skin Lesion Classification: a deep feature extraction-based approach for multi-classification of skin cancer using HAM dataset, University Annaba

2. **Sonia Benbelgacem :** Copyright on the Internet in the Era of Artificial Intelligence:Technical Methods, Information Retrieval, and Blockchain for Enhanced Protection, University Batna

3. **Adel Sardou :** Evaluation of Handcrafted and Learning-Based Keypoint Detection and Description Methods in Image Matching, EMP Algiers

Room 4 : Mathematics

1. **Abdelali Ezzebsa**: Insurance risks and stochastic order **,** Univ Guelma

2. **Selma Ellaggoune** : The Number of Limit Cycles in Non-linear Quadratic Isochronous Center Under Liénard-Like Perturbations, Constantine

3. **Ghania Rebiai**: The no- conformable fractional derivative of logestic equation, , Univ Guelma

4. **Slimane Bouhadjar**: Reliability of Consecutive k-out-of-ln-Parallel Systems, , Univ Guelma

Technical Sessions (Online)

Room 1 : Cybersecurity and Networking

Please use the following Google Meet link to join Room 1:

https://meet.google.com/rvk-kxuw-hdw

1. **Chaima Meradi**: Transforming legacy it systems for sustainable organizational growth
2. **Abdessalam Messiaid:** Secure and Decentralized Architecture for Medical Data Management in IoMT Using Blockchain and IPFS
3. **Abdelmalek Bengheni:** A Dynamic Duty-cycle MAC protocol for energy harvesting WSN
4. **Nabila Zitouni:** Current Lightweight Cryptographic Algorithms to Secure IoT Devices
5. **Djamel eddine Benzellat**: Smart Contract-Based Spectrum Sharing Using Non-Fungible Tokens for Enhanced Security in Cognitive Radio Networks
6. **Ahlam Boussadia**: A Q-learning weighted Cluster Based Routing Protocol for VANETs
7. **Nadia Hoggas:** Data-Driven Machine Learning Approaches for Air Quality Classification and Pollution Prediction

Room 2: AI & Intelligent Systems

Please use the following Google Meet link to join Room 2:

https://meet.google.com/mcg-ypzd-tsg

1. **Roudeina Guerfi:** Towards Generative Context-Aware Communication in Smart Transport Environments
2. **Mouaadh Yaichi:** Power Forecasting in Smart Street Lighting Using CNN-LSTM and ConvLSTM Models
3. **Elhocine Mansouri:** When AI Becomes an Engineer: Large Language Models in Structural Design
4. **Imad Benkhad:** A Novel Multi-Sensor Fusion Framework for Robust 3D Vision: Comprehensive Calibration and Performance Analysis of ToF, Stereoscopic, and RGB-D Systems
5. **Imene Bourafa:** Learning-based feature integration with SIFT and CBAM attention in Faster R-CNN for improved detection accuracy
6. **Fatima Bouakkaz:** Evaluating Drinking Water Quality Through Machine Learning
7. **Boutlilis Khadra:** Big Data Curation: Current Approaches
8. **Farid Boumaza:** Binary Moth-Flame–Based Task Mapping for Energy Minimization in Heterogeneous MPSoCs

Room 3: AI in Healthcare

Please use the following Google Meet link to join Room 3:

https://meet.google.com/wtv-nhis-ado

1. **Saoueb Kerdoudi:** A Hybrid Deep Learning Model for Precise ECG Arrhythmia Classification
2. **Aldjia Boucetta:** YOLOv11-SAHI Synergy: A Robust Framework for Detecting Microscopic Brain Tumors in MRI Scans

3. **Atmane HADJI:** AI-Driven Prediction of Diabetes: Performance Evaluation Using Machine and Deep Learning Models
4. **Imane Kadi:** A Novel Vocal Database for Children with Autism Spectrum Disorder: Design, Collection, and Future Applications
5. **Imad Benkhad:** Automatic Segmentation of Brain Lesions in Preclinical Diffusion MRI Using 3D U-Net.
6. **Abdelhalim Hadjadj:** Safe and Interpretable AI for Digital Health: A Semantic IoT Framework for Personalized Nutrition Using LLMs
7. **Salaheddine salhi:** A Conversational System for SQL Query Analysis and Correction Based on Large Language Models
8. **Ranya Hadjadj :** Deep Learning-Driven Model for Accurate Detection of Breast Cancer from Histopathology Images: Clinically Validated on Algerian Medical Data, Univ Constantine

Wednesday, November 26, 2025

Technical Sessions (Online)

Room 4: Mathematics

Please use the following Google Meet link to join Room 4:

https://meet.google.com/bgf-bgio-ytv

1. **Paola Magillo :** In-Place Repairing of Cubic Images
2. **Mansouria Saidani:** General Estimates on φ- Order of Solutions of Nonhomogeneous Linear Difference Equations
3. **Amel Atmani:** Local Well-Posedness in Analytic Gevrey Spaces for a higher dispersion KdV equation
4. **Samira Alamin Mohamed Sulaiman**: Global solution for the 2D incompressible Euler equation

Tuesday,   November 25, 2025

Posters: Session 1

1. **Touil Salah**: Volatility Modeling and Tail Risk Estimation via GARCH and Extreme Value Theory: A Multi-Index Study
2. **Karima Benhamza:** A Hybrid IoMT-IDS Using Clonal Selection and Deep Neural Networks
3. **Nadjette Benhamida**: Enhancing Academic Governance through AI-Based Reviewer Recommendation and Workflow Automation
4. **Houda Tadjer**: Towards a Personalized Advice Approach for Enhancing Student Performance
5. **Hassina Bouressace:** Enhancing Environmental Data Reliability Through AI-Based Imputation
6. **Wafa Louafi:** CenPrune: Efficient Central Node Detection in Peer-to-Peer Networks
7. **Fatiha Loucif:** Fuzzy and Sliding mode control of a 2DOF Robot manipulator
8. **Imane Bouacida:** Detection of Abnormal Patterns in Fruit Images via Unsupervised Convolutional Autoencoder
9. **Hakim Mitiche:** Implementing and Simulating a Q-learning robot for Vacuum Cleaning a Set of Rooms
10. **Hakim Soussi:** Design and Evaluation of a Fog-Based Recommender System for IoT Environments
11. **Ryene Benatti:** A Semi-Automatic Annotation Tool for Layout Analysis of Arabic Document Images
12. **Nor Elhouda Chaib Rassou:** Partial Projection-Based Skew Correction for Arabic Document Images
13. **Aymen LESLOUS:** On the Almost Periodicity of Mild Solutions to Second-Order Neutral Stochastic Evolution Equations with Damping

Wednesday, November 26, 2025

Posters: Session 2

1. **Mahieddine Oussama:** CNN–GPT Multimodal Framework for Alzheimer's Disease Diagnosis
2. **Chemmakh Amira:** How does AI contribute to mental health and awareness detection and prevention ?
3. **Chaalel idris:** Next-Generation Smart Water Grids: Intelligent Technologies, Global Implementation Strategies, and Sustainable Urban Water Management
4. **Allal Younes:** Large Language Models in Healthcare: Applications and Challenges

5. **Nouichi Zehor:** Artificial Intelligence in Healthcare: A Systematic Literature Review
6. **Araar Sarra:** A Quantum-Resistant and PUF-Enhanced Authentication Protocol for Secure Smart Grids
7. **Ali Benyounes:** Early Detection of Vaginal Infections in Beef Cattle through Tail Movement Analysis
8. **Ilyas Ziaya:** Query Levels and Optimization Techniques in Blockchain Systems: InterBlock and Intra-Block Perspectives
9. **Bouhaouche Ibtissem:** A Framework for Business Process Integration in Smart Grids using Knowledge Graphs
10. **Baalia Saida:** A Novel Deep Learning Model Integrating BERT for Intrusion Detection
11. **Fartas Hesna :** A Short Review of Vital Signs Monitoring with AI/IoT
12. **Bentabouche Amira:** Predicting Infectious Diseases with Deep Learning
13. **Ahmed Rami Bouguettoucha:** Artificial Intelligence for Predicting Clinical Deterioration: A Comprehensive Review
14. **Abdelbacet Brahmia:** Analysis of RNN and LSTM Models for Electricity Consumption Forecasting in Smart Grid Systems
15. **Lina Yassamine Laraissia:** Artificial Intelligence Approaches for Predicting and Monitoring Antimicrobial Resistance: A Comprehensive Review
16. **Messioud Wassim:** Random Forests for Large-Scale Hyperspectral Pixelwise Plastic
17. **Yahiaoui Achraf:** Full-Spectrum Hyperspectral Deep Learning Pipeline for Automated Plastic Waste Segmentation and Classification in Waterways : Integrating U-Net Segmentation and Spectral SVM Classification
18. **Debouze Adnane:** Comparative Analysis of Neural Networks, Random Forests, and Hybrid Models for Anomaly Detection in Big Data Tabular Datasets
19. **Kolli Adem:** NextStep: Toward a Roadmap-Sharing Platform for Guided Learning System Design and AI-Driven Personalization