



THE 2ND EDITION OF NATIONAL CONFERENCE  
ON APPLICATIONS OF ARTIFICIAL  
INTELLIGENCE.



## A2I'25 Conference Program

### 1. Artificial Intelligence for Education and Collaboration :

 <https://meet.google.com/tdz-xhwy-mdx>

**Wednesday, April 16 from 11:30 to 12:45**

**room: 5.401**

**Chair: Pr. Berrichi A.**

- **11:30 – 11:45**

Razika Lounas

*Enhancing Learning Management Systems with AI: Recommendations from Moodle Usage*

- **11:45 – 12:00**

Sara Ghaoui, Sofiane Mounine Hemam and Tarek Djouad

*A Survey on Approaches to Modeling Collaborative Practices in E-Learning Platforms*

- **12:00 – 12:15**

Amal Boutadjine

*Education meets Artificial Intelligence – A Survey on AI-Generated Student Essays Detection*



- **12h15 – 12h30**

Hicham Medkour

*IoT Applications in the Education Sector: Architectures, Challenges, and Emerging Paradigms*



- **12h30 – 12h45**

Bekki Khadhir and Miloud Miloud Rouabhi

*A Framework for Developing Context-Aware and Emotionally Intelligent Arabic Chatbots*



### 2. Artificial Intelligence in Healthcare and Biomedicine

 <http://meet.google.com/sqe-oevr-ono>

**Wednesday, April 16 from 11:30 to 12:30**

**room: 5.402**

**Chair: Pr. Gaceb D.**

- **11h30 – 11h45**

Abdelkarim Cherhabil, Lahcène Mitiche, Amel Baha Houda Adamou-Mitiche

*MambaCT: Feature Enhancement-Based Low-Dose CT Image Denoising Using Vision Mamba and a Scaling Adapter*

- **11h45 – 12h00**

Fatah Bouchebbah, Rayane Aggoune, Chahinez Amrane

*A novel cloud-deployed data pipeline for cervical spine fracture detection in 3D CT images*

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- **12h00 – 12h15**

Yassmina Saadna, Saliha Mezzoudj, Meriem Khelifa

*Transfer Learning with Enhanced Models for Skin Cancer Detection: A Comprehensive Evaluation of Transfer Learning and Data Augmentation on the ISIC 2020 Dataset*

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- **12h15 – 12h30**

Sara Ghaoui, Sofiane Mounine Hemam, Tarek Djouad

*AI for Medical Image Security: A Comprehensive Review of Techniques and Challenges*

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- **12h30 – 12h45**

Safia Azzougui, Samy Nedjmeddine Dries, Younes Lemou and Younes M'Chairi

*Comparative Analysis of Machine Learning Techniques for EEG-Based Motor Imagery Classification*



### 3. Security, Reliability, and Protection in AI Systems

 <http://meet.google.com/dbj-nkjp-roh>

**Wednesday, April 16 from 11:30 to 12:15**

**room: 5.403**

**Chair: Pr. Maouche MR.**

- **11h30 – 11h45**

Afrah Gueriani

*Intrusion Detection System-based DNN+GRU-MHA for Securing Medical and Industrial IoT Environments*

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- **11h45 – 12h00**

Abdelhalim Saadi, Yacine Slimani, Ridha Louze, Roufaida Hammadou

*Unmasking Deepfakes: CNNs and Vision Transformers for Cutting-Edge Detection*

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- **12h00 – 12h15**

Ouissem Touameur, Fouzi Harrag

*A Comprehensive Review of Knowledge Graph Integration in Large Language Models for Trust: Challenges and Future Directions*



#### 4. Computer Vision and Image Processing

 <http://meet.google.com/dbj-nkjp-roh>

**Wednesday, April 16 from 12:15 to 12:30**

**room: 5.403**

**Chair: Pr. Maouche MR.**

- **12h15 – 12h30**

Dehia Belaidi, Dhia Damkhi, Abderraouf Messaoudi

*Enhancing Signature Verification with Siamese Neural Networks: A Pretrained Backbone Approach*

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- **12h30 – 12h45**

Sabira Ben alia, Mohamed Hachama

*Image fusion using a new evolution equation*

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- **12h45 – 13h00**

Faycel Abbas, Yahia Menassel, Abdeljalil Gattal, Hadil Hattabi

*Transfer Learning for Multi-Script Identification: A Comparative Study*

#### 5. Optimization, Theories, and Fundamental Methods

 <https://meet.google.com/tdz-xhwy-mdx>

**Wednesday, April 16 from 15:30 to 16:30**

**room: 5.401**

**Chair: Pr. BOULIF M.**

- **15h30 – 15h45**

Karima Amrouche, Yacine Ait Ali Yahia and Ilhem Kherroubi

*RL-Guided Pruning of CNNs Using Graph Embeddings*

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- **15h45 – 16h00**

Salaheddine Bougouffa and Menouar Boulif

*A new encoding for generating highly nonlinear eight-variables Boolean functions using multi-parent genetic algorithms*

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- **16h00 – 16h15**

Ramla Bouchami, Ouided Hioual and Ouassila Hioual

*Deep Learning Approaches for Energy Optimization in CPS: A survey*

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- **16h15 – 16h30**

Amina Moudjar, Belahcene Bahloul, Hassina Aliane

*Parameter-Efficient Fine-Tuning for LLM-Based Arabic-to-English Machine Translation*

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- **16h30 – 16h45**

Souad Abdoune and Menouar Boulif

*Genetic Algorithm Learning Operators to Solve the Vehicle Routing Problem*



## 6. Internet of Things (IoT) and Sensor Networks

 <https://meet.google.com/tdz-xhwy-mdx>

**Wednesday, April 16 from 15:30 to 16:30**

**room: 5.401**

**Chair: Pr. BOULIF M.**

- **16h30 – 16h45**

Amina Tabbi, Seddik Rabhi

*Localization in Wireless Sensor Networks Using Bio Inspired Techniques: A Survey*

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- **16h45 – 17h00**

Afrah Gueriani

*Intrusion Detection System-based DNN+GRU-MHA for Securing Medical and Industrial IoT*

## 7. Advanced and Diverse Applications of AI

 <http://meet.google.com/sqe-oevr-ono>

**Wednesday, April 16 from 15:30 to 16:30**

**room: 5.402**

**Chair: Pr. Cherifi D.**

- **15h30 – 15h45**

Saliha Mezzoudj, Yasmina Saadna and Meriem Khelifa

*Advanced Ensemble Learning Framework for Reliable Smart Grid Stability detection*

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- **15h45 – 16h00**

Abderraoufe Zerrouk, Hicham Medkour

*Development of Real-Time Embedded Application for Drone System*

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- **16h00 – 16h15**

Rachid Djerbi, Kahina Benmoussa, Fatima Gherbi

*Real-Time License Plate Recognition using YOLOv9 and Embedded Systems*

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- **16h15 – 16h30**

Rachid Djerbi, Tahar Mohamed Bennai

*From Ants to People: the Vaporization of Social Relationships in Dynamic Community Detection*

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- **16h30 – 16h45**

Samra Sabeg

*Formalization of the AGR model using the DD-LOTOS Formal Language*

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- **16h45 – 17h00**

Karima Amrouche, Yacine Ait Ali Yahia, Safta Abir

*Ensemble Deep Learning for Crop Type Classification Using Satellite Time Series: A Case Study in Brittany*



## 8. Computer Vision and Biomedicine

 <http://meet.google.com/dbj-nkjp-roh>

**Wednesday, April 16 from 15:30 to 16:45**

**room: 5.403**

**Chair: Dr. IMACHE R.**

- **15h30 – 15h45**

Saida Ishak Boushaki, Nabila Rahmoune, Omar Bendjeghaba and Sadjia Lahiani

*Improved Symbiotic Organism Search Algorithm for Biomedical Data Clustering*

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- **15h45 – 16h00**

Nor-Elhouda Laribi, Djamel Gaceb, Rezoug Abdellah and Fayçal Touazi

*Review on deep learning optimization using knowledge and dataset distillation in medical imaging diagnostics*

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- **16h00 – 16h15**

Touahria Rima

*HMM-Based Multi-Heartbeat Phonocardiogram Classification Using Wavelet Cepstral Coefficients*

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- **16h15 – 16h30**

Aicha Korichi, Meriem Korichi and Maarouf Korichi

*Enhanced Two-Stage PCANet for Biometric Recognition via Discriminative Block Reweighting and Overlapped Histogram Encoding*

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- **16h30 – 16h45**

Ayoub Abderrazak Maarouf

*A Hybrid Architecture for Tomato Leaf Disease Classification Through State Space and Convolutional Feature Fusion*

