Conference Program

Wednesday, 14 October 2026 – Mustapha Stambouli University of Mascara

The First National Conference on Artificial Intelligence: Research Innovation and Systems

(NC-AIRIS'2026)

FOR ONLINE SESSIONS:

08:00-09:00 Welcome and Registration in Desk and Posters hang-up (Conference Hall)

Registration Desk: *Dr. Hayet MEDDEBER & Dr. Faiza MAHI*

09:00 – 09:30 Opening Session

Room 1

Welcome Speech: *Dean of the Faculty*

Official Opening: *University Rector*

Welcome Speech and Program: *Conference & Program Chairs*

(Pr. Mohammed Kamal BENHAOUA, Dr. Hadya BOUFERA, Dr. Chérifa BOUDIA, Dr. Mohamed ZAGANE, Dr. Meriem MEDDEBER, Dr. Amine DAHANE)

Meet Link: meet.google.com/bdb-bnmk-vzp

09:30 – 10:00 Keynote Session 1 (Chairs: *Dr. Soraya SETTI AHMED & Dr. Ahmed El Amine DJELLOULI***)**

Strengthening Brain-Computer Interfaces Against Adversarial Threats: From Exposed Weaknesses to Robust AI Solutions.

Room 1:

Pr. Chaker Abdelaziz KERRACHE, Vice-Rector of the Amar Telidji University of Laghouat.

Meet Link: meet.google.com/qns-uvnd-gfo

10:00 – 10:30 Keynote Session 2 (Chairs: *Dr. Soraya SETTI AHMED & Dr. Ahmed El Amine DJELLOULI***)**

Artificial intelligence as a tool for research and innovation.

Room 1

Pr. Younes GUELLOUMA, Director of the AI Center at the Amar Telidji University of Laghouat.

Meet Link: meet.google.com/efz-fwzu-ogd

10:30 – 11:00 COFFEE BREAK & POSTER SESSION



Poster Session HALL
Chairs: *Dr. Hachemi Yamina, Dr. Diab Tayeb, Dr. Faiza Mahi, Dr. Sabrine Abid*
Meet Link: https://meet.google.com/ute-wshk-niz

Oral Communications : Parallel Sessions

11:00-11:45 Session 1
Room 1 : Chairs*: Dr. Soraya SETTI AHMED & Dr.* Meddeber Meriem
Meet Link: meet.google.com/nfs-cfqc-xtu

11:50-12:35 Session 1
Room 1 : Chairs*: Dr. Soraya SETTI AHMED & Dr.* Meddeber Meriem
Meet Link: meet.google.com/vpn-bxmr-mtc

PaperID	Authors	Paper Title
40	*Bouchra Yamna Zekraoui, Fatima Debbat, Mohamed Amine Nemmich, Pablo Bermejo*	**LLM-Guided Initialization for Multi-Objective Bio-Inspired Feature Selection in Medical Diagnosis (On-site)**
80	*Kassouar Fatima, Abderrahmane Khiat*	**PNEUMO-AI: A Multimodal Deep Learning Framework Integrating Chest X-Rays and Clinical Symptoms for Pediatric Pneumonia Detection Using Unpaired Public Datasets (On-site)**
44	*Yamina Hachemi, Rabab Breik, Sarra Djerouane*	**Artificial Intelligence for Autism Spectrum Disorder Diagnosis (On-site)**
36	*Azzaz Amina; Boudia Cherifa*	**FedDerm-XAI: A Federated Explainable and Interoperable Multimodal Framework for Skin Lesion Triage in Multi-Center Teledermatology (On-site)**
59	*Djamal SEGHIER, Moustafa Maaskri, Mohamed Goismi*	**CLTD: Lightweight, Confidence-Gated ML-Assisted Threat Detection for Resource-Constrained NDN-IoT Networks (On-site)**
23	*Bentadj, Cheimaa; Reda Mohamed Hamou*	**An Attention-Guided Evolutionary Multitasking Framework for Gene Feature Selection in Breast Cancer Survival Prediction (Online)**
79	*Larbi keltoum, Kharroubi sahraoui*	**Beyond Risk Prediction: An Explainable Deep Learning Framework with Shap-Driven Recommendations for Diabetes Care (Online)**
21	*Aidoun Houcine, Barigou Fatiha, Atmani Baghdad*	**Comparative study to predict Mean Blood Pressure in Intensive Care using Deep Learning and Machine Learning Based on Time Series: LSTM and Ridge Regression models (Online)**
30	*Bedad Fatima, Nassima Bousahba, Lara Hibi, Hafsa Amina Mekadid*	**YOLO for Histopathology Classification: Architectural Rationale and Empirical Evidence from MSI/MSS Prediction (Online)**
87	*Asmaa AOUNALLAH, Abdallah Meraoumia, Hakim Bendjenna*	CCKT: A Chaotic Circular-Keyed Transformation for Cancellable Palmprint Biometric Template Protection

11:00-11:45 Session 2
Room 2 : Chairs: *Dr. Mohammed* ZAGANE *& Dr. Mustapha SAHRAOUI*
Meet Link: meet.google.com/cpd-gpdf-bqs

11:50-12:35 Session 2
Room 2 : Chairs: *Dr. Mohammed* ZAGANE *& Dr. Mustapha SAHRAOUI*
Meet Link: meet.google.com/qfk-bjwd-whg

PaperID	Authors	PaperTitle
83	*Moustafa, MAASKRI; Djamal, Seghier; Mohamed, GOISMI; Mohamed, DEBBAB*	**Sentiment Analysis of Twitter Data: A Comparative Study of Traditional Vector Space Models and BERT-Based Approaches (On-site)**
54	*Kateb Hachemi Amar Amar, Benbrik Nihad, Bouazdia Rania, Hamdadou Djamel, Tahraoui Mohammed Amin*	**Multi-Objective Cluster-Head Selection in Wireless Sensor Networks Using Optimization by Morphological Filters (On-site)**
91	*Mahi Faiza, Cherifa Boudia, Kamel Benhaoua*	**AI-Enhanced Multi-Intersection Traffic Light Control Using GNN-DQN: A Comparative Study with Genetic and Grey Wolf Optimization (On-site)**
81	*Rachid Khalladi, Mohamed Zagane, Youcef Fekir, Abdallah Khelil, Abderrahime Mohammed Abdelouahab*	**Machine Learning-Based Detection of DDoS and Phishing Attacks for Cybersecurity Monitoring (On-site)**
78	*Djellouli Ahmed El Amine, Taieb Bouanni Chaimaa, Abdelhadi Setti*	**Formal Verification of an adaptive Negative Selection Algorithm for intrusion detection (On-site)**
35	*Mohammed Habib Diaf, Sihem Aissaoui, Mohammed Taher Amine Sahraoui*	**ConResvMixer-IDS: A Hybrid CNN-MLP-Mixer Architecture for Network Intrusion Detection (Online)**

11:00-11:45 Session 3
Room 3 : Chairs: *Dr. Brahim Cherouati & Dr. Boudaieb Ahmed*
Meet Link: meet.google.com/wjh-jbts-qez

11:50-12:35 Session 3
Room 3 : Chairs: *Dr. Brahim Cherouati & Dr. Boudaieb Ahmed*
Meet Link: meet.google.com/fzi-rjit-cuk

PaperID	Authors	PaperTitle
82	*Djamel Hamdadou, Ali Akrem Barka, Abdel Aziz Feraoun, Amar Kateb Hachemi Amar*	**An Intelligent OBD2/CAN-Based System for Vehicle Engine Fault Diagnosis and Real-Time Emission Monitoring (On-site)**
57	*Chérifa BOUDIA*	**From Passive Smartphone Use to Adaptive Learning: Designing and Evaluating an AI-Powered Mobile Tutor for Computer Programming Students (On-site)**
50	*Mohammed Ridha youbi, Mohammed Mesaadi*	**A Sovereign Multi-Agent RAG Architecture for Adaptive Education in Engineering (On-site)**
18	*Hadya Boufera, Ahlem Semmar, Marwa Rahal*	**Speak with Confidence: A Mobile Application for the Early Screening of Reading Dyslexia in Arabic-Speaking Children (On-site)**
26	*Mohammed Zagane, Rachid Khalladi, AbdAllah Khelil, Brahim Khaldi*	**Semantic Sink Discovery for Rule-Based SAST Using Code and Documentation Embeddings (On-site)**

93	*Meriem Zingla*	**Interpretable Association-Rule-Based Classification of Kidney-Related Health Status Using NHANES Questionnaire Data (On-site)**
90	*Reguieg, Seddik; Omari, Youcef; Mami, Mohamed Amine; Haffaf, Malik; Yousfi, Mostafa Jamal*	**Feature-Augmented Deep Reinforcement Learning for Sequential Pedagogical Role Assignment in Residency Training (On-site)**
71	*Seddik Boubakar, DEGHEM; LAHCENE, AID; kadda, mostefaoui*	**Minority-Aware Feature Selection for Compact Network Traffic Classification Using CatBoost (Online)**

12:45 –14:00 LUNCH



Online Communications: 3 Parallel Sessions

14:00–14:45 Session 4
Room 1 Chairs : *Dr. Chokri MOKHTARI & Dr. Rachid RIMANI*
Meet Link: meet.google.com/ahy-xryh-uds

14:50–15:35 Session 4
Room 1 Chairs : *Dr. Chokri MOKHTARI & Dr. Rachid RIMANI*
Meet Link: meet.google.com/qov-pnec-ckc

PaperID	Authors	PaperTitle
63	*Hassina Bouressace, Tarek Ferhi, Mohamed Reda Younsi, Amdjed Boumaza*	**DarLink: A Localized Web Platform for Vacation Rentals in Algeria with ID-Card OCR Registration, Local Card Payments, and Two-Sided Reviews (Online)**
77	*Zineb Deffas, Mounira Bouzahzah, Alaeddine Bellili, Hicham Bouabibsa*	**A Hierarchical Machine Learning Framework for Infant Cry Classification (Online)**
22	*Abdennour Redjaibia, Samia Drissi, Karima Boussaha, Ayemen Chibouti*	**Auditing False Discovery Rate-Controlled Fairness Disparities in Deep Learning-Based MOOC Completion Prediction (Online)**
96	*Mehdi Khitas, Moncef Khitas, Bouthaina Satour, Asma Hamari*	**Design and Implementation of a Real-Time Multimodal System for Algerian Sign Language Recognition and Translation (Online)**
29	*Aya Lamiri, Nadir Farhi, Meriem Bouali*	**Large Pretrained Models for Reward Design in Reinforcement Learning: A Comparative Study with Applications to Autonomous Driving (Online)**
13	*Saida Lemnadjlia*	**Intelligent Semantic Compression of Medical Images Using Deep Learning (Online)**
37	*Nour El Houda Bourai, Akila Djebbar, Hayet Farida Merouani*	**Does Compression Reach the Margins of Clinical AI? A Rapid Review of Under-Explored Imaging Domains (Online)**
85	*Yamina Bordjiba, Ali Seridi*	**Automatic Chest X-Ray Report Generation: Methods, Evaluation, Challenges, and Future Directions (Online)**

5	*Bekkouche, Khawla; Azizi, Selma*	**Machine Learning-Driven Cybersecurity Framework For Secure Smart Manufacturing in Industrial IoT Environments (Online)**
11	*Nassima BOUSAHBA, Mahammed Abdelmadjid ALLALI, Asmaa KEFKEF, Sarra LAHMAR, Rachid BECHAR*	**A Hybrid Machine Learning and Wavelet-Attention Framework for Multi-Horizon Agricultural Drought Forecasting in the Chlef Province, Algeria (Online)**

14:00–14:45 Session 5
Room 2 : Chairs : *Dr.* Youcef FEKIR & Djamel HAMDADOU
Meet Link: meet.google.com/mrk-ctyx-snp

14:50–15:35 Session 5
Room 2 : Chairs : *Dr.* Youcef FEKIR & Djamel HAMDADOU
Meet Link: meet.google.com/gbj-bntj-qjz

PaperID	Authors	PaperTitle
1	*Belaidi Belaid, Krim Teyabe, Haimouri Abdelbasset, Bousaid Mohamed*	**Development of a Multifunction Smart Transfer Chair for Healthcare Assistance Based on ESP32 Embedded Control *(Online)***
70	*Ismahene Marouf, Asma Saighi, Sofia Kouah, Zakaria Laboudi*	**Quantifying Network Readiness for Healthcare Services: From 5G to 6G *(Online)***
24	*Ahlam BOUSSADIA, Youcef BOUGRIOU*	**An FDQ-CBR Protocol for IoVs *(Online)***
19	*Abdelbacet Brahmia, Brahim Farou, Rania Farah, Ala Eddine Benrazek, Zineddine Kouahla*	**A Parallel Enhanced TCB-Tree for Efficient and Scalable Data Retrieval in Smart Grids *(Online)***
84	*Ikrame Boubaker*	**A Comparative Study of AraBERT, XLM-RoBERTa, and DziriBERT on Algerian Sentiment Analysis *(Online)***
56	*Imene Achouri, Youssouf Achouri, Malika Babes*	**Elliptic Curve Cryptography for Secure IoT Communications: A Lightweight Performance Evaluation *(Online)***
76	*Abdelmalek Bakiri, Samir Fenanir, Lakhdar Goudjil*	**Train–Measure–Shrink: A Constraint-Aware Loop for Deploying Gradient-Boosted Intrusion Detectors on TinyML Devices *(Online)***
58	*Youcef Djeghoubbi, Ahmed Korichi, Hadya Boufera*	**PriRo-FedNIDS: A Privacy-Preserving and Byzantine-Resilient Federated Learning Framework for Network Intrusion Detection under Non-IID Traffic *(Online)***
20	*Djawhara Benchaira, Okba Tibermacine*	**A Comprehensive Review of Threat Models and Evasion Attacks in Production Machine Learning Applications *(Online)***

14:00-14:45 Session 6
Room3 : Chairs : *Dr. Rachid KHALLADI & Dr. Abdallah KHELIL*
Meet Link: meet.google.com/vyp-tgoc-deh

14:50-15:35 Session 6
Room3 : Chairs : *Dr. Rachid KHALLADI & Dr. Abdallah KHELIL*
Meet Link: meet.google.com/nyy-unta-kmk

PaperID	Authors	PaperTitle
38	*Abidi, Meriem, Sofiane Aouag, Adel Berradj, Hanane Merouani*	**AI-Driven Vehicle Safety and Emergency Decision Framework for Smart Cities (Online)**
43	*OUHOUD Amina, Zenati Yassine, Tlemsani Lotfi*	**Vision-Guided Selective Laser Weeding with YOLOv8 and a Linear Delta Robot: Perception, Kinematic Modeling, and PID Control (Online)**
28	*Amira Bourechak, Noureddine Seddari*	**Recent Advances in Artificial Intelligence for Traffic Forecasting: Emerging Trends and Open Challenges (Online)**
86	*Sarah Younes, Soumia Bourebia*	**Cross-Gated Spatio-Temporal Fusion via GCN and GRU for Traffic Flow Prediction (Online)**
27	*Ali Benyounes, Brahim Farou*	**Object-Level Targeted Few-Shot Learning for Imbalanced Wheat Grain Quality Classification (Online)**
4	*Meradi chaima, Aouag Sofiane, Beloucif Assia*	**A Survey of Security Verification Approaches at the Software Architecture Level: Techniques, Trends, and Open Challenges (Online)**
47	*Nour El Yakine Guerras, Afifa Ghenai, Samir Brahim Belhaouari*	**Toward Privacy-Preserving Distributed Intrusion Detection in IoMT: A Survey and Lessons Learned (Online)**
15	*Hanene Merouani, Sonia-Sabrina Bendib, Hamouma Moumen, Youssouf Achouri, Meriem Abidi*	**Hybrid Orchestration of AI, Blockchain, and Quantum Paradigms for Fog–IoT Systems (Online)**
45	*Ikram Maouche, Sadek Labib Terrissa, Mohamed Fouad Maouche, Noureddine Zerhouni*	**Explainable Cost-Sensitive CatBoost for Breast Cancer Recurrence Prediction (Online)**
25	*Nihel Fatima Baarir, Samir Bourekkache*	**Early Identification of Students at Risk (Online)**

🏆 **16:30 – 17:00 Closing Ceremony & Acknowledgments, Trophies, Group Photo**

National Conference on Artificial Intelligence
Dr. Hadya BOUFERA
CONFERENCE CHAIR
October 14,2026
NC - AIRIS'2026
Research, Innovation & Systems

Conference Program

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POSTER SESSION:

Chairs: Dr. Hachemi Yamina, Dr. Diab Tayeb, Dr. Faiza Mahi, Dr. Sabrine Abid

Meet Link: https://meet.google.com/ute-wshk-niz

ID	Authors	Affiliation	PaperTitle
88	Miloud Dahane, Amel Benlaldj, Seddik Reguig	University of Oran	Toward Automatic CO2 Monitoring to Demonstrate Its Fertilizing Effect **(On-site)**
49	Abderrahmane Louni, Samir Ghouali, Mokhtar Besseghier, Abdelkader Horch	University of Mascara	Machine Learning for Thyroid Disease Prediction: Performance and Interpretability **(On-site)**
61	Kaouther Rabah Bouzidi, Mawloud Titah, Ibrahim El Khalil Mekki	University of Oran 2 Mohamed Ben Ahmed, Oran, Algeria	Knowledge Graph Modeling and Semantic Rule Inference for Intelligent Hospital Inventory Governance and Logistics Interoperability **(On-site)**
100	Bendouma Houaria, Bechar Hassane, Baba Hamed Amel	Abou Bekr Belkaid University of Tlemcen	Real-Time Adaptive Luminance Enhancement of Multimodal Medical Images Using FPGA-Based Rule Decision Logic **(Online)**
75	Ihsene Zaidi, Said Brahimi, Soufiane Boulehouache	University of Skikda 20 Août 1955, Skikda, Algeria	Triplet Selection for Robust Embedding Learning in Person Re-Identification **(Online)**
51	Islam Hadj Mohammed Smail, Chaker Abdelaziz Kerrache, Fatima Zohra Bousbaa	University of Laghouat	CBAM-ResCNN: A Residual CNN with Integrated CBAM for Blight Disease Detection in Solanum tuberosum Leaves **(Online)**
89	Mounira Bouzahzah, Nourhane Boughera, Radhia Cherroum	Abd Elhafid Boussouf University Center, Mila, Algeria	All Seasons: An Integrated IoT Framework for Smart Greenhouse Environmental Control and Early Apple Leaf Disease Detection **(Online)**
66	boukhezar, abderrahmane; Dahane, Amine ; Bendouda, Djamila ; Benameur, Rabaie	University of Oran 1 Ahmed Ben Bella, Algeria	A Trust-Aware Architecture for Wastewater Monitoring and Irrigation Decision Support **(Online)**
97	Abdallah Khelil	University of Mascara	A Hybrid Multi-Agent Intrusion Prevention Framework for Adaptive Network Threat Detection and Response **(On-site)**
68	Mbarka Meriem Benikhlef, Amine Dahane, Rabaie Benameur, Sami Souihi,	University of Oran 1 Ahmed Ben Bella, Algeria	A Survey on Secure and Trustworthy Respiratory Disease Detection: IoT, Federated Learning, and Blockchain **(Online)**
67	Lahmer Mohammed, Abdelghani Ghomari, Amine Dahane, Rabaie Benameur, Sami Souihi	University of Oran 1 Ahmed Ben Bella, Algeria	Accuracy–Latency Tradeoffs for Low-Light Object Detection on ExDark **(Online)**
101	Boudaieb Ahmed	University of Mascara	Covariance Matrices using Learning Vector Quantization: Comparison of Euclidean and Riemannian Approaches and Study of Congruence Invariance **(On-site)**
73	Samia Gharbi, Ahmed Saci, Mohammed Hadjarai, Noureddine Karkachi	University of Oran 1 Ahmed Ben Bella, Algeria	Predictive Modeling of Rhizospheric Bacterial Antagonists Based on AI for Sustainable Biocontrol and Precision Crop Protection **(Online)**
72	Rachida Hireche, Houssem Mansouri	LRSD Laboratory, Ferhat Abbas University Setif 1 Setif, Algeria	AI/ML in IoMT Security: From Security Enablers to AI-Powered Attacks **(Online)**
102	Hamza Teggar	Laboratory of Informatics and Intelligent Systems (LISYS)	Reliable Mobile Robot Navigation Through Structured Decision-Making and Experimental Validation **(On site)**