



**1st International Conference on Artificial Intelligence and Natural
Language Processing**

Official Conference Program

*Artificial Intelligence, Intelligent Computing and
Digital Transformation for a Smarter Future*



DATES

29-30 June 2026 | Faculty of Sciences Ben M'Sick | Hassan II University of Casablanca

CONFERENCE PROGRAM

Day 1 - Monday, 29 June 2026

TIME	ACTIVITY / SPEAKER / SESSION			VENUE
08:30 - 9:00	Registration and participant check-in			Master's classroom
09:00 - 9:45	Opening ceremony and welcome addresses			Amphitheater 8
09:45 -10:25	Keynote 1 - Prof. Jaouad DABOUNOU <i>"From Language Models to Decision Models: Integrating LLMs, Deep Learning and World Models for Intelligent Enterprises"</i> Hassan First University - Morocco			Amphitheater 8
10:30 -11:15	Poster Session, Demonstrations and Exhibition			Hall
11:15 -11:30	Coffee Break and Networking			
11:30 -12:00	Keynote 2 – Prof. Tawhid CHTIOUI <i>"A Human Being Is Not a Slower AI: Rethinking Intelligence in the Generative AI Era"</i> Founding President of aivancity; President and Group CEO of EDVANTIS - France			Amphitheater 8
12:00 -13:30	Workshop Block A - 5 parallel workshops, 1.5 hours			Classroom
13:30 -14:00	Lunch Break			
14:15 -14:55	Keynote 3 - Prof. Omar TANANE <i>"Artificial Intelligence, Innovation and Patent Strategy for Sustainable Digital Transformation"</i> Hassan II University of Casablanca - Morocco			Amphitheater 8
15:00 -15:40	Keynote 4 - Prof. Khadija ACHTAICH <i>"Digital Sovereignty and Generative AI: For an AI that Reflects Cultural Diversity"</i> Hassan II University of Casablanca - Morocco			Amphitheater 8
15:45 -16:45	Session 1: Conversational AI, Dialogue Systems and LLM-Based Software Engineering	Session 2: Trustworthy Generative AI, Hallucination, Governance and Confidentiality	Session 3: AI, Employability, Engineering Education and Future Skills	Classroom
15:45 -16:45	Session 4: AI for Smart Cities, Agriculture and Industrial Applications	Session 5: Financial NLP, Forecasting and Market Intelligence	Session 6: Low-Resource, Arabic, Darija and Code-Mixed NLP	Classroom
16:45 -17:00	Coffee Break and Networking			

CONFERENCE PROGRAM

Day 2 - Tuesday, 30 June 2026

TIME	ACTIVITY / SPEAKER / SESSION				VENUE
09:00 -9:15	Welcome, announcements and technical orientation				Master's classroom
09:15 -9:55	Keynote 5 - Prof. Ernesto EXPOSITO <i>"Intelligent Cyber-Physical Systems, Artificial Intelligence and Innovation for Industry 4.0"</i> University of Pau and the Adour Region (UPPA) - France				Amphitheater 8
10:00 -10:40	Keynote 6 – Prof. Pepa Kostadinova ATANASOVA <i>"When Explanations Lie: Testing and Improving Faithfulness in Model Reasoning"</i> University of Copenhagen, DIKU - Denmark				Amphitheater 8
10:45 –11:00	Coffee Break and Networking				
11:00 -13:00	Workshop – Dr. Nicolas Evain <i>"Adaptive Management of Cyber-Physical Systems (CPS): An Application to Educational Systems"</i> Researcher in Computer Science University of Pau and Pays de l'Adour (UPPA), France				Amphitheater 8
11:00 -13:00	Workshop Block B - 5 parallel workshops, 2 hours				Classroom
13:00 -14:00	Lunch Break				
14:00 -14:40	Keynote 7 - Prof. Rada MIHALCEA <i>"Multi-Agent Systems and the Limits of Artificial General Intelligence"</i> University of Michigan - United States of America				Amphitheater 8
14:45 -16:00	Session 7: Educational AI, Learning Analytics and Intelligent Tutoring Systems	Session 8: AI for Healthcare, Biomedical Signals and Clinical Decision Support	Session 9: Medical Imaging, Radiomics and Cancer AI	Session 10: Cybersecurity, Data Integration, Document AI and Autonomous Systems	Classroom
16:00-16:15	Coffee Break and Networking				
16:15-17:00	Closing Meeting and Award Ceremony				Amphitheater 8

PLANNING

Parallel Sessions Overview

Session Block I

Day 1 | Afternoon 15:45 -16:45

ROOM	TRACK / SESSION	CHAIR(S)
Master's classroom 1	Session 1: Conversational AI, Dialogue Systems and LLM-Based Software Engineering	- Adama Samake - Soumaya Ounacer - Harchi Said - Ait Daoud Mohammed - Lamyaa Moulad
Master's classroom 2	Session 2: Trustworthy Generative AI, Hallucination, Governance and Confidentiality	- Soumia Chokri - Sanaa El Filali - Ichrak Benamri - Bentaib Mohssine - Sael Nawal - Razika Ettoussi
Room 15	Session 3: AI, Employability, Engineering Education and Future Skills	- Zaouch Amal - Ghazouani Mohamed - Faouzia Benabbou - Meriem Aourir - Benlahmar El Habib

Session Block II

Day 1 | Afternoon 15:45 -16:45

ROOM	TRACK / SESSION	CHAIR(S)
Room 16	Session 4: AI for Smart Cities, Agriculture and Industrial Applications	- Eddarouich Souad - Anoun Houda - Achtaich Khadija - Nafiri Salem - Yamna Ghabbar
Room 17	Session 5: Financial NLP, Forecasting and Market Intelligence	- Marzak Abdelaziz - Rachdi Mohamed - Mohamed Azzouazi - Ouchra Hafsa - Laila Eljiani
Amphi 8	Session 6: Low-Resource, Arabic, Darija and Code- Mixed NLP	- Dabounou Jaouad - Omar Zahour - Merzouk Soukaina - Nouh Said - Hanaa Sbai - Zouheir Banou

Technical Sessions Program

SESSION 1	Conversational AI, Dialogue Systems and LLM-Based Software Engineering	
Time	PAPER / AUTHORS	ROOM
15:45-16:05	<i>Paper ID : 3</i> 1. Towards an Efficient Conversational Recommender Framework Based on SLMs and Structured Knowledge Authors: Mourad Jbene, Mourad Raif, Smail Tigani, Rachid Saadane and Abdellah Chehri	Master's classroom 1
16:05-16:25	<i>Paper ID : 58</i> 2. Towards a Model-Driven Framework for Reliable UML Class Diagram Generation with Large Language Models Authors: Zakaria Babaalla, Hamza Abdelmalek, Lamya Benaddi, Charaf Ouaddi, Abdeslam Jakimi and Rachid Saadane	
16:25-16:45	<i>Paper ID : 83</i> 3. Turn-Taking and Interruption Handling in Unified Speech-to-Speech Dialogue Systems: A Taxonomy, Evaluation Metrics, and Empirical Benchmark Authors: Zakaria el Fakir, Kaich Oussama, Omar Zahour, Sanaa El Filali, El Habib Benlahmar and Sebbar Abdelhamid	

SESSION 2	Trustworthy Generative AI, Hallucination, Governance and Confidentiality	
Time	PAPER / AUTHORS	ROOM
15:45-16:00	<i>Paper ID : 37</i> 1. Toward Trustworthy LLM-Augmented MLOps: Governance, Hallucination Risk, and Accountability in Production ML Systems Authors: Ichraq Essadeq, Said Nouh and Khalid Kandali	Master's classroom 2
16:00-16:15	<i>Paper ID : 42</i> 2. Beyond Fluency: Detecting Factual Hallucinations in Neural Employee Performance Reports Authors: Oumaima Belarache, Salma Hannouni, Soumaya Ounacer, Soufiane Ardchir and Mohamed Azzouazi	
16:15-16:30	<i>Paper ID : 82</i> 3. HistGuard: Reducing Hallucinations in AI-Based Historical Scene Reconstruction through Evidence-Grounded Prompting and Provenance Tracking Authors: Oussama Kaich, El Fakir Zakaria, Sanaa El Filali, Omar Zahour, El Habib Benlahmar and Sebbar Abdelhamid	
16:30-16:45	<i>Paper ID : 102</i> 4. Confidentiality Concerns in Organizational Use of AI Chatbots: Risks, Mitigations, and Governance Considerations Authors: Nouhayla Kouskous, Brahim Jabir, Mbark Abouessaouab and Hassan Silkan	

SESSION 3		AI, Employability, Engineering Education and Future Skills	
Time	PAPER / AUTHORS		ROOM
15:45-16:05	<i>Paper ID : 21</i> 1. FE4Employ: A Modular, Theory-Grounded Feature Engineering Framework for Graduate Employability Prediction Authors: Brahim Bella, Fatim-Zahra Izourane, Al Mahdi Khaddar, Yman Chemlal and Mohamed Azzouazi		Room 15
16:05-16:25	<i>Paper ID : 49</i> 2. An NLP Framework for Extracting Engineering Skills from Moroccan Job Postings: A Corpus-Based Study of the Employability Gap Authors: Salwa Benriyene, Bahia Ismaili Alaoui and Soumia Bakkali		
16:25-16:45	<i>Paper ID : 55</i> 3. KASH-IA: A Pedagogical Framework for Developing the Augmented Engineer in the Era of Industry 5.0 and Artificial Intelligence Authors: Bahia Ismaili Alaoui, Salwa Benriyene and Soumia Bakkali		

SESSION 4		AI for Smart Cities, Agriculture and Industrial Applications	
Time	PAPER / AUTHORS		ROOM
15:45-16:05	<i>Paper ID : 56</i> 1. Bridging the Semantic Gap in Agriculture 5.0: A Survey of NLP and Agentic AI Mechanisms for Yield Optimization Authors: Hind Amghar, Soumaya Ounacer, Abderrahmane Daif, Mohamed Azzouazi and Soufiane Ardchir		Room 16
16:05-16:25	<i>Paper ID : 66</i> 2. Explainable Physics-Informed Machine Learning Framework for Plastic Pyrolysis Oil Yield Prediction and Thermochemical Process Understanding Authors: Jamal Oufkir, Hasnaa Boudarbala, Younes Rachdi, Soumaya Ounacer, Rachid Cherouaki, Said Belaaouad and Said Kerraj		
16:25-16:45	<i>Paper ID : 74</i> 3. Language-Grounded Urban Scene Understanding: A Survey of Vision-Language Models, Spatial NLP, and Smart City Applications Authors: Wail Bouhadda, Mohamed Amchia, Laila Machkour and Mohamed Ghazouani		

SESSION 5	Financial NLP, Forecasting and Market Intelligence	
Time	PAPER / AUTHORS	ROOM
15:45-16:00	<i>Paper ID : 28</i> 1. Representation, Balancing, and Model Choice in Financial Sentiment Analysis: A Systematic Pipeline Comparison Authors: Rawane Azeroual, Marzak Abdelaziz and Rachida Ait Abdelouahid	Room 17
16:00-16:15	<i>Paper ID : 67</i> 2. From Definition to Prediction: Selecting the Most Predictive Crash Label – A Case Study on the S&P 500 Index Authors: Wafae Saifi, Said Nouh, Said Bahassine and Imrane Chemseddine Idrissi	
16:15-16:30	<i>Paper ID : 79</i> 3. Beyond Polarity: A Unified Sentiment Scoring Approach for Heterogeneous Review Platforms and Stock Price Prediction Authors: Mariame Tarsi, Samira Douzi and Abdelaziz Marzak	
16:30-16:45	<i>Paper ID : 85</i> 4. Market-Dependent Forecasting Performance: A Comparative Study of ARIMA, LSTM and Volatility-Augmented LSTM Models on Global Stock Indices Authors: Fadwa Bouhlal	

SESSION 6	Low-Resource, Arabic, Darija and Code-Mixed NLP	
Time	PAPER / AUTHORS	ROOM
15:45-15:57	<i>Paper ID : 6</i> 1. Cross-Attention for Abusive Message Detection in Wolof-French Code-Mixed Tweets Authors: Ibrahima Ndao	Amphi 8
15:57-16:09	<i>Paper ID : 7</i> 2. Explainability of Abusive Message Detection Models in Wolof-French Code-Mixed Tweets: A Comparative Study of Kolmogorov-Arnold Networks, SHAP, and LIME Authors: Ibrahima Ndao	
16:09-16:21	<i>Paper ID : 19</i> 3. Character-Level Seq2Seq Modeling for Arabic Proper Noun Diacritization Authors: Ismail El Bazi, Brahim Ghazoui, Jamal Ezzine and Ahmed Benelkhiraoui	
16:21-16:33	<i>Paper ID : 54</i> 4. MoriscoNER: A Native Moroccan-Darija Latin-Script NER Corpus and an Encoder-Conditional Native-vs-Transliteration Study Authors: Achraf Soltani	
16:33-16:45	<i>Paper ID : 101</i> 5. Towards Moroccan Darija NLP for Agricultural Advisory: Challenges and a Proposed Fine-Tuning Framework Authors: Yassir Ahrar, Rachida Ait Abdelouahid and Abdelaziz Marzak	

SESSION 7		Educational AI, Learning Analytics and Intelligent Tutoring Systems	
Time	PAPER / AUTHORS		ROOM
14:45-15:00	<i>Paper ID : 25</i> 1. ZPD-NLGRL: A Reinforcement Learning System for Adaptive Exercise Recommendation with Normalized Learning Gain and Zone of Proximal Development Authors: Fatima Rezki, Soumaya Ounacer, Mohamed Rachdi, Soufiane Ardchir and Mohamed Azzouazi		Master's classroom 1
15:00-15:15	<i>Paper ID : 40</i> 2. Lucide: A Sovereign French-Language AI Assistant for Offline Educational Environments in Rural West Africa Authors: Daouda Sarr and Pr. Alassane Diop		
15:15-15:30	<i>Paper ID : 44</i> 3. Evaluating Multi-Agent Intelligent Learning Systems Using a Hybrid AHP-COPRAS Decision-Support Framework Authors: Al Mahdi Khaddar, Youssef Said, Amine Dehbi and Tarik Chafiq		
15:30-15:45	<i>Paper ID : 71</i> 4. Towards Trustworthy Educational AI: A Comparative SHAP Analysis of Algorithmic Architectures in Behavioral Prediction Authors: Fatim-Zahra Izourane, Brahim Bella, Mohamed Azzouazi, Mustapha Khiati, Soufiane Ardchir and Soumaya Ounacer		
15:45-16:00	<i>Paper ID : 93</i> 5. Method-Loyalty and the Confirmation Machine: Reframing Myside Bias in Human–AI Interactions for Examination-Focused Mathematics Tutoring in Africa Authors: Gafari Lukumon, Philip Iyiola Farayola, Adeniyi Musibau Gbolagade, Tajudeen Motunrayo Asiru and Ebenezer Esenogho		

SESSION 8	AI for Healthcare, Biomedical Signals and Clinical Decision Support	
Time	PAPER / AUTHORS	ROOM
14:45-15:00	<i>Paper ID : 4</i> 1. Smart Breath Technologies and Wearable Sensors for AI-Driven Respiratory Monitoring in COVID-19 and COPD: A Systematic Review Authors: Sifeddine Elkardoudi, Khalil Ladrham, Ahmed Eddaoui and Mohamed Talea	Master's classroom 2
15:00-15:15	<i>Paper ID : 23</i> 2. A Hybrid Approach Based on Autoencoders and Barnacles Mating Optimization for Efficient Gene Selection in Cancer Microarray Classification Authors: Sara Baali, Mohammed Hamim, Hicham Moutachaouik and Mustapha Hain	
15:15-15:30	<i>Paper ID : 31</i> 3. Tri-View Contrastive Alignment of Temporal, Spectral, and Harmonic Representations for Infant Cry Classification Authors: Ghanjaoui Meryem	
15:30-15:45	<i>Paper ID : 33</i> 4. PhenoPrompt: A Prompt-Based Clinical Phenotyping Framework Using Entity Extraction, Unsupervised Clustering, and Retrieval-Augmented Generation Authors: Shafiya Kausar and Anuradha Kar	
15:45-16:00	<i>Paper ID : 69</i> 5. Does Preprocessing Matter More Than the Model? A Controlled Comparative Study for Maternal Health Risk Prediction Authors: Chaimaa Lamharmech, Rachida Ait Abdelouahid and Abdelaziz Marzak	

SESSION 9	Medical Imaging, Radiomics and Cancer AI	
Time	PAPER / AUTHORS	ROOM
14:45-15:00	<i>Paper ID : 45</i> 1. GViTGN: A Graph-Guided Vision Transformer with Bidirectional Fusion for Diabetic Retinopathy Segmentation Authors: Amine Berquedich, Adil Karim, Ahmed Zellou and El Habib Ben Lahmar	Room 15
15:00-15:15	<i>Paper ID : 59</i> 2. Tumor Super-Voxel Graph Networks for KRAS Prediction in NSCLC: A Parameter-Efficient, Aggregation-Robust Alternative to Voxel-Grid 3D CNNs Authors: Adil Karim, Amine Berquedich, El Habib Benlahmar, Sanaa Elfilali and Ahmed Zellou	
15:15-15:30	<i>Paper ID : 60</i> 3. Calibrated Foundation-Model Probes Underperform a Five-Feature Clinical Baseline on NSCLC Biomarker Prediction at n ≈ 150: A Two-Endpoint Survey of Cancer-Imaging Embeddings Authors: Adil Karim, Amine Berquedich, El Habib Benlahmar, Sanaa Elfilali and Ahmed Zellou	
15:30-15:45	<i>Paper ID : 61</i> 4. No Deployable KRAS Signal from Lesion CT in NSCLC: An Apparent Internal Positive Is a Per-Fold Aggregation Artifact, Pooled and External Validation Are at Chance, and the Peritumoral Hypothesis Is Refuted Authors: Adil Karim, Amine Berquedich, El Habib Benlahmar, Sanaa Elfilali and Ahmed Zellou	
15:45-16:00	<i>Paper ID : 95</i> 5. Slice-Level and Volumetric Radiomics for Breast Cancer Molecular Subtype Discrimination with Patient-Level Leakage Prevention Authors: Laila El Jiani, Zouheir Banou, Fatima-Zahra Alaoui, Hasnae Sakhi, El Habib Benlahmar and Sanaa El Filali	

SESSION 10	Cybersecurity, Data Integration, Document AI and Autonomous Systems	
Time	PAPER / AUTHORS	ROOM
14:45-15:00	<i>Paper ID : 65</i> 1. Distil and Evolve: Compact Adaptive Document Classification with Continual Learning Authors: Mehdi Soufiane, Mourad Hammale, Adil Ahidar, Kawtar Zerhouni and Rachid Benouini	Amphi 8
15:00-15:15	<i>Paper ID : 78</i> 2. Multi-Agent Self-Healing Architecture Using NLP for Incident Diagnosis and Recovery: A State-of-the-Art Review Authors: Amchia Mohamed, Mohamed Ghazouani, Wail Bouhadda and Meriem El Brahimi	
15:15-15:30	<i>Paper ID : 89</i> 3. CausalShift: Measuring Causal Structural Change in Network Traffic Under Attack Authors: Mehdi Ennaciri and Rafik Taouil	
15:30-15:45	<i>Paper ID : 90</i> 4. From Association to Causation in Network Intrusion Detection: A Hybrid PC-LLM Framework for Causal Signature Discovery Authors: Mehdi Ennaciri and Rafik Taouil	
15:45-16:00	<i>Paper ID : 100</i> 5. Toward AI-Assisted Schema Matching: Deterministic Foreign Key Inference for Semi-Structured Data Authors: Elvira Suchankova and Martin Drlik	

Workshop Program

Workshops Block A - Day 1

TIME	WORKSHOP	FACILITATOR	ROOM
12:00–13:30	Practical LLM Intensive: Foundations, Architectures & Fine-Tuning with Hugging Face	Dr. Zouheir Banou	Master's classroom 1
12:00–13:30	No-Code AI Automation Lab: Building Intelligent Workflows with n8n & Google Opal	Dr. Laila El Jiani	Master's classroom 2
12:00–13:30	Build Your Personal AI Study Assistant with NotebookLM	Dr. Nisrine Safeh	Room 15
12:00–13:30	Candidate Digital Twins for Recruitment: Building, Simulating and Explaining Human Potential with AI	Ms.Fatima Zahra Abbour	Room 16
12:00–13:30	From Text to Video: Foundations, Challenges and Hands-on Experimentation with Video Generation Systems	Ms.Salma Hannouni	Room 17

Workshop Block B - Day 2

TIME	WORKSHOP	FACILITATOR	ROOM
11:00–13:00	Multimodal AI Lab: Building Intelligent Assistants with VLMs, Florence-2 & Qwen2-VL	Dr. Oumaima Guendoul	Master's classroom 1
11:00–12:30	Building an Intelligent Research Assistant with RAG and Multimodal AI	Ms.Fatima-Zahra Alaoui	Master's classroom 2
11:00–13:00	Build Your First AI-Powered Website	Mr.El Mehdi Lghaouch	Room 19
11:00–13:00	From KPIs to Personalized Feedback: Building Trustworthy Employee Evaluation Systems with LLMs	Ms.Oumaima Belarache	Room 20
11:00–13:00	Building AI Agents for Scientific Research and Document Intelligence	Ms.Salma Yamari	Room 21

Thank You

The Organizing Committee would like to express its sincere gratitude to all keynote speakers, authors, reviewers, session chairs, workshop facilitators, sponsors, partners, volunteers, and participants for their valuable contribution to the success of the 1st International Conference on Artificial Intelligence and Natural Language Processing (IANLP 2026).

We look forward to welcoming you again at IANLP 2027.