

# Main Program

ICBDAIA'24  
PROGRAM

07rd – November 2024, Higher School of Technology, Laayoune

09h30 –10h00		Reception and registration of participants on the First Day	
10h30 – 11h30	<b>Academic opening of the conference in EST of Laayoune</b>  Prof. Fatima Zahra ELHAFIDI ELALAOUI, Dean of Faculty of medicine and pharmacy, Laayoune, Morocco Prof. Idrissi Hamid RGUIBI, Director of the Higher School of Technology, Laayoune, Morocco Prof. Said TKATEK, General Chair of ICBDAIA'24, Faculty of Science, Ibn Tofail University, Kenitra, Morocco Prof. Youssef FAKHRI, LaRI Director, Faculty of Science, Ibn Tofail University,, Kenitra, Morocco Mr Khalid EL FAYQ, President of the Moroccan Sahara Association for Science and Artificial Intelligence		
11h30 – 14h00	<b>Keynote Speakers Session (EST Amphitheatre)</b>  General chair : Prof. Said TKATEK Ibn Tofail University , Morocco  Theme : Optimizing Water and Resource Management in Agriculture through Artificial Intelligence		
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Speaker 1 : Prof. Mo Medwani CEO & Founder Innovatics, Adjunct Faculty at Mercer University, USA			
Theme : Harnessing Artificial Intelligence to Develop Agriculture in the Southern Regions of Morocco			
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Speaker 2 : Prof. Fatima Zahra ELHAFIDI ELALAOUI Dean of Faculty of medicine and pharmacy, Laayoune, Morocco			
Theme : Artificial intelligence and health			
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Speaker 3 : Prof. Otman ABDOUN Faculty of Science Tetouan, Morocco			
Theme : Yield Prediction and Food Loss Reduction via Predictive AI Models			
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12h00 – 18h00		Oral session	
Prof. Abdelghani SOUHAR Prof. Younes CHIHAB	Oral session 1	Topic 1: Artificial Intelligence Applications: Healthcare, Agriculture, Economy Topic 2: Big Data Analytics and IoT Applications Topic 3: Image Processing, NLP, IA Modeling, Optimization, Cloud computing	
Prof. Youssef FAKHRI	Oral session 2	Topic 1: Artificial Intelligence Applications: Healthcare, Agriculture, Economy Topic 2: Big Data Analytics and IoT Applications Topic 3: Image Processing, NLP, IA Modeling, Optimization, Cloud computing	
Prof. Adil EL MAKRANI	virtual session	All Topics	
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15h00 – 19h00		workshops in IPSA INSTITUT & Institute of Agriculture in Laayoune	
15h30 – 17h00	IPSA INSTITUT	AI-Driven Personalization in Media Broadcasting AI in Content Creation and Production Automation	
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17h30 – 19h00	Institute of Agriculture in Laayoune :	- Precision Agriculture through AI and Machine Learning - AI for Sustainable Water Management in Agriculture	

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## November, 08<sup>th</sup> 2024

09h30 – 13h30

workshops in CMC Laayoune

Theme      **Machine Learning Basics**  
**Deep Learning and Neural Networks**  
**Computer Vision with AI**

14h00 – 16h00

Lunch

16h30 – 18h00

### **Official Opening of the conference in EST Amphitheatre**

**Mr Abdesslam BEKRATE**, Wali of the LAAYOUNE SAKIA EL HAMRA Region

**Mr Moulay Hamdi OULD ERRACHID**, President of the municipality of Laayoune

**Mr Hamdi OULD ERRACHID**, President of the Laayoune Region

**Prof. Mohamed Larbi KERKEB**, President of Ibn Tofail University, Kenitra Morocco

**Prof. Abdelaziz BENDOU**, President of Ibn Zohr University, Agadir, Morocco

**Prof. Jamila EL ALAMI**, Director of National Center for Scientific and Technical Research (CNRST), Rabat, Morocco

**Prof. Fatima Zahra ELHAFIDI ELALAOUI**, Dean of Faculty of medicine and pharmacy, Laayoune, Morocco

**Prof. Mohamed EBN TOUHAMI**, Dean of Faculty of Science, Ibn Tofail University, Kenitra, Morocco

**Prof. Idrissi Hamid RGUIBI**, Director of the Higher School of Technology, Laayoune, Morocco

**Prof. Said TKATEK**, General Chair of ICBDAIA'24, Faculty of Science, Ibn Tofail University, Kenitra, Morocco

**Mr. Jabrane Reklaoui**, DG of the South Agency, Laayoune, Morocco

**Mr Badda ALIOUA**, Director of TV LAAYOUNE

**Prof. Youssef FAKHRI**, LaRI Director, Faculty of Science, Ibn Tofail University,, Kenitra, Morocco

**Mr Khalid EL FAYQ**, President of the Moroccan Sahara Association for Science and Artificial Intelligence

18h00 – 18h30

Coffee Break

18h30 – 21h00

### **Keynote Speakers Session (EST Amphitheatre)**

**Speaker 1 : Prof. Mohamed ESSAIDI**

President Director of EMSI group, Morocco

Theme :      **AI for Sustainable Crop Management**

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**Speaker 2 : Prof. Anas ABOU EL KALAM**

ENSA Marrakech , Morocco

Theme :      **Enhancing Agricultural Practices with Computer Vision and Machine Learning Techniques**

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**Speaker 3 : Prof. Jaime LLORET MAURI**

Polytechnic University of Valencia, Spain

Theme :      **AI in Precision Irrigation and Water Management**

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**Speaker 4 : Dr. Mo Medwani**

CEO & Founder Innovatics, Adjunct Faculty at Mercer University, USA

Theme :      **Smart Agriculture**

21h00 – 21h30

Closure of the conference

**Chairs :**

Prof. Said TKATEK, Faculty of Science, Ibn Tofail University, Morocco

Prof. Hamid RGUIBI IDRISSE, Higher School of Technology, Laayoune, Morocco

## Oral and virtual Sessions

12H00 – 18h

**Reception and registration of communication participants on the First Day 07 November 2024 (at Higher School of Technology, Laayoune)**

**Session 1**

**12H– 14H**

**Room 1, EST**

**Topic 1: Artificial Intelligence Applications: Healthcare, Agriculture, Economy...**

*At Room 1, Higher School of Technology, from 09h30 – 11h00*

**Chairs**

**Prof. CHIHAB**, EST, Ibn Tofail University, Morocco

**Prof. Adil EL MAKRANI**, Faculty of Science, Ibn Tofail University, Morocco

**Paper # 1**

Issam El Hammouti, Ilham Addarrazi and Mohamed el Merouani

**"A Convolutional Deep Ordinal Neural Network for Alz-heimer's Disease Classification", Ibn Tofail University Kenitra, Morocco**

**Paper # 2**

Rabiaa Cheikh Maoulainine, Younes Chihab, Zineb Squalli Houssaini

**"Deep Learning Approaches for Detecting Saharan Sand on Roads: A Comparative Study of CNN, U-net, and ResNet50", Ibn Tofail University Kenitra, Morocco**

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**Paper # 3**

Tarik El Moudden, Mohamed Amnai, Ali Choukri, Youssef Fakhri, and Gherabi Noredine

**"Deep Learning and Sentinel-2 imagery for Crop Type Segmentation", Ibn Tofail University Kenitra, Morocco**

**Paper # 4**

Abderrahman Laabidi, Said Tkatek and Mohammed Ouhssine

**"Predictive analysis of weight management in men and women aged 25 to 45 using the decision tree", Ibn Tofail University Kenitra, Morocco**

**Paper # 5**

AbderHicham BOUSSATTA, Marouane CHIHAB, Mohamed CHINY and Younes CHIHAB

**"Comparing RNN, LSTM, and GRU Models in Oil Price Forecasting", Ibn Tofail University Kenitra, Morocco**

**Paper # 6**

Marouane CHIHAB, Hicham BOUSSATTA, Mohamed CHINY, Moulay Hadi Youssef

**"Comparison of ARIMA and SARIMA Models for Predicting the Evolution of IT Companies: An Analysis Based on Employee Evaluations", Ibn Tofail University Kenitra, Morocco**

**Paper # 7**

Shib Kumar Saraf and Solaimurugan Vellaipandiyan

**"Multifaceted Feature Extraction and Machine Learning Approaches for Mortality Risk Prediction in Pediatric ICUs", Centre for Development of Advanced Computing (CDAC) Chennai, Chennai, Tamil Nadu 600113, India .**



<b>Session 1</b> <b>12H– 14H</b> <b>Room 2, EST</b>		<b>Topic 2: Big Data Analytics and IoT Applications</b> <i>At Room 2, Higher School of Technology, from 09h30 – 11h00</i>
<b>Chairs</b>		<b>Prof. Abdelghani SOUHAR</b> , Faculty of Science, Ibn Tofail University, Morocco <b>Prof. Youssef FAKHRI</b> , Faculty of Science, Ibn Tofail University, Morocco
Paper # 8	Shravan Gaddam	<i>"Bridging Decentralized AI and Blockchain: Challenges and Solutions", Osmania University ,Inde</i>
Paper #	Maria Anurag Reddy Basani	<i>"Optimizing ETL Pipelines with AI: A Framework for Intelligent Data Integration", Texas A&amp;M University-Corpus Christi,Corpus Christi, Texas, États-Unis</i>
Paper # 10	Milind Cherukuri	<i>"WebChecker: A Versatile EVL Plugin for Validating HTML Pages with Bootstrap Frameworks", the University of North Texas,Denton, Texas</i>
Paper # 11	Saad MAHMOUDI and Mohamed AMNAI	<i>"A comparative study of different decentralized architectures for deploying federated learning models", Ibn Tofail University Kenitra, Morocco</i>
Paper # 12	Rafsan Uddin Beg Rizan	<i>"Enhancing Potato Blemish Detection through Interactive Image Segmentation and Classification", Jessore University of Science and Technology, Bangladesh</i>
Paper # 13	Lahcen Idougli, Said Tkatek and Khalid Elfayq	<i>"Improving IIoT Security: Leveraging SMOTE and Recursive Feature Elimination for Effective Intrusion Detection", Ibn Tofail University Kenitra, Morocco</i>
Paper # 14	Adil El Mane and Younes Chihab	<i>"Blockchain-enabled Java Smart Contracts and IoT connectivity to revolutionize agricultural supply chain", Ibn Tofail University Kenitra, Morocco</i>
<b>Session 1</b> <b>12H– 14H</b> <b>Room 3, EST</b>		<b>Topic 3: Image Processing, NLP, IA Modeling, Optimization, Cloud computing and others</b> <i>At Room 3, Higher School of Technology, from 09h30 – 11h00</i>
<b>Chairs</b>		<b>Prof. Jaafar ABOUCHABAKA</b> , Faculty of Science, Ibn Tofail University, Morocco <b>Prof. Najat RAFALIA</b> , Faculty of Science, Ibn Tofail University, Morocco

Paper # 15	Abdelkrim SAOUABE, Said TKATEK and Hicham OUALLA <b>"Optimizing Image Management with Content-Based", " , Ibn Tofail University kenitra, Morocco</b>
Paper # 16	Hamza Ettakifi1 and Said Tkatek <b>"Optimizing Long Short-Term Memory (LSTM) Networks with Particle Swarm Optimization (PSO) for Improved Brain Tumor Image Classification", Ibn Tofail University kenitra, Morocco</b>
Paper # 17	Veera Atkuri <b>"Balancing Accuracy and Safety in AI: A Novel Adversarial Training Approach", Aditya educational institutions, India</b>
Paper # 18	HAMDAOUI ROBA <b>"Hand Sign Recognition using Image Recognition", University Mohamed V, Rabat, Morocco</b>
Paper # 19	Rafsan Uddin Beg Rizan <b>"Advancing Image Segmentation and Classification with Mamba-Based Architectures", Jessore University of Science and Technology, Bangladesh</b>
Paper # 20	Irshad A Buchh <b>"A Comparative Study of Commit Validation Techniques in Continuous Integration Systems ", Oracle Corporation, USA</b>
Paper # 21	Dahmani Rachid and Benammi Mohamed <b>"upgrading slums using a convolutional neural network", Ibn Tofail University kenitra, Morocco</b>
<b>14h00 – 14h30 Lunch</b>	
<b>Session 2 15h00 – 17h30 , Room 1, EST</b>	<b>Topic 1: Artificial Intelligence Applications: Healthcare, Agriculture, Economy...</b> At Room 1, Higher School of Technology, from 11h30 – 13h00
<b>Chairs</b>	<b>Prof. CHIHAB</b> , EST, Ibn Tofail University, Morocco <b>Prof. Adil EL MAKRANI</b> , Faculty of Science, Ibn Tofail University, Morocco
Paper # 22	Abdur Rahman, Sanjana Nambia <b>"ElectroAnalytica: A Comprehensive Analysis of Electricity Consumption, Rates, and Electric Vehicles Purchase across all US regions from 2016-2021", NYU Tandon School of Engineering, Brooklyn, New York</b>

Paper # 23	Nisrine Boukhzer <b>"Analyse des Critères de Qualité de services dans les Reseaux:Enjeux et perspectives", University Ibn Tofail, Kenitra, Morocco</b>
Paper # 24	Tarik El Moudden, Mohamed Amnai, Ali Choukri, Youssef Fakhri, and Gherabi Noredine <b>"AI Analyzes the Relationship Between Comets and Seismic Activity Frequency", University Ibn Tofail, Kenitra, Morocco</b>
Paper # 25	Idriss Moumen, Najat Rafalia and Jaafar Abouchabaka <b>"Impact of Weather Dynamics on Long-Term Traffic Prediction Using a Graph Attention Informer Approach", University Ibn Tofail, Kenitra, Morocco</b>

<b>Session 2</b> <b>15h00 – 17h30</b> <b>, Room 2, EST</b>		<b>Topic 2: Big Data Analytics and IoT Applications</b> <i>At Room 2, Higher School of Technology, from 11h30 – 13h00</i>
<b>Chairs</b>	<b>Prof. Abdelghani SOUHAR</b> , Faculty of Science, Ibn Tofail University, Morocco <b>Prof. Youssef FAKHRI</b> , Faculty of Science, Ibn Tofail University, Morocco	
Paper # 26	Fatima Zahra Fri and Khalid Chougali <b>"Cyber Range Frameworks: Comparison of Cybersecurity Learning Methods", University Ibn Tofail, Kenitra, Morocco</b>	
Paper # 27	Aditi Vikas Narkar, Muhammed Tufayl Dalvi and Dr. Sujata Kadu <b>"Smart Platform Connectivity Interface: Train detection and Distance prediction using IoT and Machine Learning", UG Scholar, Maharashtra, India</b>	
Paper # 28	JOUILIL Youness <b>"Transitioning from Absolute to Relative Poverty", UH2, Morocco</b>	
Paper # 29	Maria Anurag Reddy Basani <b>"Data engineering and ML for Real time fraud détection in financial Transactions", Corpus Christi, Texas, États-Unis</b>	
Paper # 30	Mohamed Elkhair, Mohamed Amnai, Ali Choukri, Youssef Fakhri and Noredine Gherabi <b>"Optimizing Data Migration from On-Premise to Google Cloud Platform: A Case Study", Research laboratory, Software Department, Ibn Tofail University Faculty of sciences, Morocco</b>	
Paper # 31	Idriss Moumen, Najat Rafalia and Jaafar Abouchabaka <b>"Impact of Weather Dynamics on Long-Term Traffic Prediction Using a Graph Attention Informer Approach", University Ibn Tofail, Kenitra, Morocco</b>	

<b>Session 2</b> <b>15h00 – 17h30</b> <b>, Room 2, EST</b>	
<b>Chairs</b>	<b>Prof. Adil EL MAKRANI</b> , Faculty of Science, Ibn Tofail University, Morocco <b>Prof. KHABID SIDATI</b> , EST, Laayoune, Ibn Zohr University, Morocco
Paper # 32	So Rafsan Uddin Beg Rizan <i><b>"Enhancing Edge Detection in Images Using Ant Colony Optimization", Jessore University of Science and Technology, Bangladesh</b></i>
Paper # 33	Khalid El Fayq <i><b>"Proactive Detection of Video Codec Incompatibility: Enhancing Television Broadcast Reliability with Machine Learning", Ibn Tofail University Kenitra, Morocco</b></i>
Paper # 34	Mounir Maaitat <i><b>"Application Of Noise Diffusion Image Generation Models In Climate Change Simulation And Ecosystem Restoration", Ibn Tofail University Kenitra, Morocco</b></i>
Paper # 35	Loubna Salaheddine, Younes Chihab, Rabiaa Cheikh Maoulainine, and Soufiane Hajbi <i><b>"Optimization of Fake News Detection Models: Random Forests and Naïve Bayes in Response to the Challenges of Automated Generators.", University Ibn Tofail, Kenitra, Morocco</b></i>
Paper # 36	Mohamed ELKHAIR, Mohamed Amnai, Ali Choukri, Youssef Fakhri and Gherabi Noredine <i><b>"Optimizing Data Migration from On-Premise to Google Cloud Platform: A Case Study", Ibn Tofail University Kenitra, Morocco</b></i>
Paper # 37	Kartik Gupta <i><b>"Drift Detection on Embeddings: An Empirical Study Using Pre-trained Classifiers", the University of California, Berkeley, California.</b></i>
Paper # 38	Kartik Gupta <i><b>"Comparative Analysis of Encoder-Based and Decoder-Based Architectures for Automatic Conspiracy Theory Identification", the University of California, Berkeley, California</b></i>
Paper # 39	Fadila Lazar, <i><b>"The impact of change management on human ressources management in the era of crisis case of moroccan companies", University moulay Ismail, Meknes</b></i>

Paper # 40	Fatima Ezzahra Khalloufi 1 , Najat Rafalia 1 , Jaafar Abouchabaka Drivers Distraction Detection using Convolutional Neural Network for Intelligent Cars <b><i>Ibn Tofail University, Kenitra, Morocco</i></b>
13h00 – 14h00	Lunch
11h00- 11h30	Coffee Break

11h30 – 12h30	<b>Recommendation and Closing of the conference (at Higher School of Technology, Laayoune)</b>
	<ul style="list-style-type: none"> <li>• <b>Prof. Idrissi Hamid RGUIBI</b>, Higher School of Technology, Laayoune, Morocco</li> <li>• <b>Prof. Said TKATEK</b>, Faculty of Science, Ibn Tofail University, Morocco</li> <li>• <b>Prof. Youssef FAKHRI</b>, LaRI Director, Faculty of Science, Ibn Tofail University, Morocco</li> </ul>
13h30 – 14h30	Lunch