

EDiS'2024 Schedule

November 03, 2024

08h15-09h00	Reception and registration		
09h00-09h30	Opening allocution: <ul style="list-style-type: none">- Pr BOUDJEMAA Bazzazi: Rector of the University of Bechar and the honorary president of EDiS'2024 conference.- Pr MAAZOUZI Abdelhak: Dean of the faculty of exact sciences of the University of Bechar.- EDiS'2024 general chairs :- Pr BENYAMINA Abou El Hassane (UO1, Algeria)- Pr BOULET Pierre (Lille University, France)- Pr BENAHMED Khelifa (Bechar university, Algeria)	30 mn	
09h30-10h10	Keynote I: Pr LLORET Jaime (Universitat Politecnica de Valencia), Wireless Sensor Network for rural area monitoring and precision agriculture. <u>Session chair</u> : Pr MAHMOUDI Said (Mons university, Belgium)	30 min+10mn questions	In person
10h10-10h50	Keynote II: Pr NIAR Smail (Université Polytechnique Hauts-de-France (UPHF)), Hardware-Aware Dynamic Neural Architecture Search Edge Computing. <u>Session chair</u> : Pr Congduc PHAM (PAU University , France)	30 mn+10mn questions	In person
10h50-11h20	Coffee break	30 mn	
11h20-12h30	Session 1 / Room 1: IOT and Applications <u>Session chair:</u> Pr.LOUKIL Lakhdar (Oran1 University, Algeria) and Pr.BENAHMED Khelifa (Bechar University, Algeria) <ol style="list-style-type: none">1- Fatiha Meskine, Bisma Bentouati, Malika Chehbi, Mohamed El Bahri and Hocine Chebi: Smart Harness Design for Blind and Impaired Visually People (Paper N°114).2- Ahmed Slimani and Abdellatif Rahmoune: Artificial Immune System and Machine Learning: A Synergistic Approach for Banking Fraud Detection (Paper N°115).3- Francisco Javier Diaz, Ali Ahmad, Lorena Parra, Arman Heydari, Sandra Sendra and Jaime Lloret : Virtual Sensor for Efficient Soil Fertilizer and Water Content Differentiation (Paper N°133-On line).4- Said Ould Amara, Mohand Yazid and Souhila Mammeri: Double-Stage UORA to Meet the Requirements of IoT Applications Operating over Wi-Fi 7 (Paper N°9-On-line).	70 mn	In person

11h20-12h30	<p><u>Session 2 / Room 2:</u> IA Applications and Health Care</p> <p><u>Session chair:</u> Dr BIDAI Zahia (Oran1 University, Algeria) and Dr BELGHACHI Mohamed (Bechar university, Algeria)</p> <ol style="list-style-type: none"> 1- Mohammed Nadjib Osmani, Djamila Benhaddouche and Nawal Sad Houari: <i>An Automatic ECG Classification for Arrhythmia Detection Using Machine Learning Techniques</i> (Paper 70). 2- Hadj Ali Elmerahi, Atmani Baghdad, Fatiha Barigou, Belarbi Khemliche, Badreddine Errouane and Mohammed Bousmaha: <i>Parrallel LSTM-DNN Fusion model for Early Prediction of Sepsis in Intensive Care Units</i> (Paper 50). 3- Ferdi Ahmed Yassine and Ghazli Abdelkader: <i>Hybrid CNN-SVM Classifier for Emotion Recognition using Brain Waves</i> (Paper 108). 4- Rabab Bousmaha, Ilhem Benguedda and Sidi Mohammed Benslimane: <i>Transfer Learning for Breast Tumor Segmentation in DCE MRI</i> (Paper 25). 	70 mn	In person
11h20-12h30	<p><u>Session 3 / Room 3:</u> Machine Learning</p> <p><u>Session chair:</u> Pr ABDI Mostefa (Oran1 university , Algeria) and Pr. DENAI Abdeslam (Bechar university, Algeria)</p> <ol style="list-style-type: none"> 1- Miloud Kamline, Ridha Ilyas Bendjillali, Imane Houam, Mohamed Sofiane Bendelhoun, Bahidja Boukenadil and Soumia Djelaila: <i>Arabic Handwriting Recognition Using Deep Learning and Simulated Annealing</i> (Paper 21). 2- Noureddine Benhalima, Mounira Ouarzeddine, Boularbah Souissi and Djamal Bengusmia: <i>Machine Learning-Based Forest Canopy Height Modeling with Multi-Sensor and GEDI Dat</i> (Paper 27). 3- Mathis Delehouzée, Xavier Lessage, Saïd Mahmoudi and Théo Reginster: <i>Evaluation of Federated Learning Aggregation Algorithms</i> (Paper 69-On line). 4- Sarah Balbouzi, Lougmiri Zekri and Kheira Mechach. <i>Extending TWJ for triangles detection in large graphs</i> (Paper 106). 	70 mn	In person
12h30-14h00	Lunch	1h30	
14h00-14h40	<p><u>Keynote III:</u> Pr. Fulvio Riso (Politecnico di Torino, Italy) : The way toward a Transparent Computing Continuum</p> <p><u>Session chair :</u> Pr BOULET Pierre (Lille University, France)</p>	30mn+10 mn	In person
14h45-15h45	<p><u>Session 4 / Room 1 :</u> Optimization and Metaheuristics</p> <p><u>Session chair:</u> Dr. BENKRAMA Soumia (Bechar University, Algeria) and Pr BENYAMINA Abou El hassane (Oran1 University) .</p> <ol style="list-style-type: none"> 1- Bouatouche Mourad and Belkadi Khaled: <i>Solving the Tourist Planning Problem Using a Hybrid Genetic Tabu Algorithm</i> (Paper 38). 	60 mn	In person

	<p>2- Gherbi Yamina Ahlem and Bouzeboudja Hamid: <i>Determining a solution to the multi-objective combined heat and power economic and emission dispatch challenge</i> (Paper 113).</p> <p>3- Amel Faiza Tandjaoui, Aymen Berrahal and Ilyes Sekhraoui: <i>Jointly optimizing PMUs and wireless sensors placement in WAMS</i> (Paper 104).</p>		
14h45-15h45	<p><u>Session 5 / Room 2</u> : Big Data, Privacy and Data Mining</p> <p><u>Session chair</u>: Dr BELAGUID Mustapha (Bechar university, Algeria) and Mrs DEBA El Abbassia (Oran 1 university, Algeria)</p> <p>1- Kabou Salheddine, Laid Gasmi and Abdelbaset Kabou: <i>Privacy Preserving Continuous Big Data Publishing</i> (Paper 90).</p> <p>2- Djelloul Bouchiha, Abdelghani Bouziane, Nouredine Doumi, Farouk Omar Berbouchi, Aymen Abdelghani Kebir, Nihad Mebarki and Badia Achouak Benameur: <i>WiHarD: Wikipedia based Hierarchical Arabic Dataset for text classification</i> (Paper 7).</p> <p>3- Hadjer Imene Bensaoula, Maissa Lounici and Sarah Nait Bahloul: <i>Improving High Dimensional Data Streams Classification</i> (Paper 58 On-Line).</p>	60 mn	In person
14h45-15h45	<p><u>Session 6 / Room 3</u>: Networks and Power optimization</p> <p><u>Session chair</u>: Pr KECHAR Bouabdellah (Oran1 university, Algeria) and Dr BELGHACHI Mohamed (Bechar university, Algeria)</p> <p>1- Lakhdar Saihi, Ferroudji Fateh and Brahim Berbaoui: <i>Advanced Control of SVCs for Improved Voltage Stability and Power Quality in PV-Integrated Power Grids</i> (Paper 59).</p> <p>2- Kamal Abdelmadjid Mokeddem, Nouredine Seddiki, Amina Bourouis, Khelifa Benahmed, Sofiane Abden and Ahmed Cheriet: <i>Design a Digital Twin Sensors System Using cGAN-LSTM for Greenhouse Climate Control</i> (Paper 77).</p> <p>3- Dida Marouane, Belhadj Mourad and Abdelhakim Cheriet: <i>Prediction of the remaining useful lifetime of turbofan aircraft engines using machine learning: a comparative study</i> (Paper 47).</p>	60 mn	In person
15h50-16h15	Coffee Break	15 mn	
16h15-17h15	<p><u>Session Posters</u></p> <p><u>Session chair</u> : Pr Abdi Mostefa (UO1) &</p> <p>1- Khat Salim. <i>Mining Big Data with Decision tree algorithm</i> (Paper 52).</p> <p>2- Fatima Zohra Touati, Lakhdar Loukil and Bakhta Amrane. <i>Plant Diseases Detection using Machine Learning and Image Processing: Review</i> (Paper 66).</p> <p>3- El Habib Bensikaddour. <i>Anomaly Detection and Prediction for Satellite Telemetry</i> (Paper 79).</p>	60 mn	In person

	<p>4- Aissa Benhammou, Mohamed Amine Hartani and Kimi Imad Eddine. <i>Metaheuristic Optimization of fractional Order PID controllers for quadcopter system</i> (Paper 122).</p> <p>5- Mohammed El Amin Gasbaoui, Soumia Benkrama, Mostefa Bendjima, Sofiane Abden and Ikram Kourtiche : <i>Distributed Training Based on Horizontal Scaling for Food Image Classification</i> (Paper 26).</p> <p>6- Lakhdar Saihi : <i>Implementing an Advanced ANN in the Integral Sliding Mode Order-One Controller for Wind Turbine Chains with DFIG</i> (Paper 34).</p>		
17h15-18h00	Debate of the first day	45 mn	Hybrid

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08h30-09h50	<p>Session 7 / Room 1: Robotics and Industry</p> <p><u>Session chair:</u> Pr NIAR Smail (Université Polytechnique Hauts-de-France (UPHF))</p> <ol style="list-style-type: none">1- Mohamed Farid Benlamnouar, Yazid Laib Dit Laksir, Omar Fethi Benaouda, Tahar Saadi, Nabil Bensaïd and Riad Badji : Optimization of Industrial Process Assembly using Taguchi Method (Paper 76).2- El Abbassia Deba, Abdelouadoud Sadeuk Ben Abbas and Karima Berramla . Synthetic Model Generation from Metamodel using CTGAN (Paper 101).3- chem Cheriet, Badra Khellat Kihel and Samira Chouraqui: Tangent A* Planner: Enabling UAV Navigation in Obstacle-Rich Environments (Paper 54 On-line).4- Adda Adel Belherazem, Mohamed Della Krachai and Mohamed Amine Zafrane: A Low Cost Raspberry PI Based Autonomous Boat (Paper 60 On-line).5- Djaidi Malika, Zerrouki Hayet and Bentitraoui Mohamed Moncef: SDSL : Safe drive safe live application for IoV (Paper 97 On-line).	80 mn	In person
08h30-09h40	<p>Session 8 / Room 2: Embedded Systems</p> <p><u>Session chair:</u> Pr BENYAMINA Abou El Hassane (Oran 1 University) and Dr SEDDIKI Nouredine (Bechar university, Algeria)</p> <ol style="list-style-type: none">1- Alex Tortosa-Soriano, Miguel Zaragoza-Esquerdo, Sandra Sendra, Jaime Lloret and Jose Belda-Ramirez. : Low-Cost Embedded System to Measure Pulse and Oximetry (Paper 131 On-line).2- Houari Aoued, Ilham Medjadji and Mohamed Amine Zaafrane. Static Power Consumption Analysis for an Inertial Measurement Unit (Paper 29).3- Menezla Fayssal, Debbal Mohammed, Bouregaa Mouweffeq and Sadouki Bouamama Reda : Improving spectral efficiency in radio systems with punching function (Paper 2).4- Kahina Amara, Wassila Dib, Oualid Djekoune, Abderraouf Maoudj Abderraouf and Nadia Zenati : AquaRob : An Unmanned Surface Drone for the Coastal Surveillance and Environmental Monitoring (Paper 14).5- Ilyes Ahmim, Nacira Ghoualmi-Zine, Feriel Bouakkaz and Abderrezak Rachedi 2AS-DS: Anonymous Authentication Scheme Based on Physical Unclonable Function for Drone Swarms (Paper 63).	80 mn	In person

08h30-09h50	<p>Session 9 / Room 3: IA and Applications 2</p> <p><u>Session chair:</u> Pr Mahmoudi and Dr Benyamina Ahmed</p> <ol style="list-style-type: none"> 1- Nassim Lateb, Florence Sèdes and Farida Bouarab-Dahmani. : <i>Toward Compositional Generalization with Neuro-Symbolic AI: A Comprehensive Overview</i> (Paper 74). 2- Asma Besbas, Amira Ailane, Laid Kahloul, Sihem Slatnia and Samir Bourekkache. <i>On the Formal Verification of Smart Contracts and Blockchain: Challenges and Future Directions</i> (Paper 61). 3- Mohammed Issam Daoud Ben Messaoud, Mohamed Sedik Chebout and Fabrice Mourlin: <i>Transformer-based Approach for Social Norms Learning in Open Multi-Agent Systems</i> (Paper 120). 4- Marcio Cataldi, Vitor Luiz Galves, Gines Morales, Victoria Gallardo, Juan Pedro Montavez and Pedro Jimenez Guerrero: <i>Evaluation of the evolution of heatwave occurrences in Algiers over the last decades using a multivariate heatwave index</i> (paper 127 On-Line). 5- Zemri Farah, Hamdadou Djamila and Labeled Kaouter: Data-Guided Sectorisation by Spatio-Temporal Autocorrelation Approach for Epidemiological Surveillance (Paper 129). 	80 mn	In person
10h-10h15	Coffee Break		
10h15-11h00	<p>Keynote IV: Pr. SKARMETA Antonio (Murcia university / Spain) : IoT and Data Integration for Smart Agriculture Solutions</p> <p>Session Chair : Pr LLORET Jaime (Universitat Politecnica de Valencia)</p>	30 mn+15mn question	Virtual
11h00-12h00	Closing session (Benyamina, Pierre et Benahmed)	60 mn	Hybrid
12h00-13h00	Lunch		
13h30-20h00	Social event		

Workshop Sud-SMART FARMING “New Technologies for Food Security and Sustainable Development”

LAPECI Laboratory, RIIR Laboratory, LBRAP Laboratory and Bechar University

Location : Bechar University

Program

8H30-9H00	Reception and registration	30 mn	
9H00-9H15	Opening allocation Dean of the Exact Sciences Faculty: Pr MAAZOUZI Abdelhak	15 mn	
9H15-10h	Keynote 1 : Pr Congduc PHAM (Pau university, France) « Transdisciplinary research for sustainable development : illustration with PRIMA INTEL-IRRIS et PRIMA RESILINK » Session Chair : Pr Kechar Bouabdellah (UO1)	45 mn = 30mn presentation +15 questions	
10h-10h40	Laboratories presentations : LAPECI (UO1): Pr Benyamina Abou El Hassane LBRAP (UO1) : Pr BEKKI Abdelkader RIIR (UO1) : Pr KECHAR Abdelkader INIE LAB (UB) : Pr BENAHMED Khelifa Session Chair : Dr Belghachi Mohamed (UO1)	40mn	
10h40-11h00	Coffee break	20 mn	
11h00 -12h15	ROOM1 : Session Chair : Mme El Zery-Belaskri Asma (UO1) & Dr Seddiki Nourredine 1. Sofiane Abden, Mostefa Bendjima, Soumia Benkrama, Mohammed El Amin Gasbaoui and Ikram Kourtiche : “ Proposed Deep Learning approach for Plant Diseases Detection ” (paper N°24) 2. Antonio Skarmeta Gómez, Maria Fernanda Garcia Cruz, Ricardo Javier Sendra Lázaro, Yu Ye, Miguel Angel Zamora Izquierdo, María Fernanda Ortuño Gallud and Pedro Nortes Tortosa :” Creation of a digital twin based on microtensiometer indices (Flora pulse), climatic variables and harvest data for sustainable production in Stone Fruit Crops ”. (paper N°121 O-line) 3. Miriam Zambudio Martinez, Larissa Haringer Martins da Silveira, Rafael Marin-Perez and Antonio F. Skarmeta Gomez: “ Development of a neural network system for predicting topsoil moisture using remote sensing and rainfall forecast data ”. (paper N°126-On Line) 4. Meroua Belmir, Wafa Difallah and Abdelkader Ghazli : “ A Reliable Apple Leaf Disease Identification Using a Deep Learning-Based MobileNetV2 to Safeguard Apple Fruit Safety ”. (paper N°85)	75 mn	

	5. Abderrahmane Benhariga, Lakhdar Loukil and Houssam Eddine Zahaf: “ An IoT-Edge framework for wastewater treatment plant” . (paper N°128)		
11h00 -12h15	ROOM2: Session Chair : Pr BEKKI Abdelkader (UO1) &Pr BENAHMED Khelifa (U. Bechar) 1. Achouak Touhami, Amina Bourouis, Tariq Benahmed, Sana Touhami, Nawal Touhami and Khelifa Benahmed : “Using IOT and WSNs Technology for Monitoring an Aquaponic Greenhouse System” . (paper N°19) 2. Mohammed Amine Zafrane, Houari Aoued and Adda Adel Belherazem : “A Smart Farming Solution for Greenhouse Environment Control Using PIC16F877 -1 (2)” . (paper N°64) 3. Ghania Boukhelifa and Youcef Chibani : “DSCSkipNet: An Accuracy-Complexity Trade-off for Effective Potato Disease Identification in Uncontrolled Environments” . (paper N°53) 4. Abdelmadjid Saad, Abdeldjalil Aidi and Abou El Hassane Benyamina: “Optimized Deep Learning Models for Edge Computing : A Comparative Study on Raspberry Pi4 for Real-Time Plant Disease Detection” . (paper N°57) 5. Tariq Benahmed, Amina Bourouis, Achouak Touhami, Khelifa Benahmed and Chaimaa Sabri : “Greenhouse Irrigation System based IoT” . (paper N°86)	75 mn	
11h00 -11h45	ROOM3 : Session Chair : Dr Bidai Yasmina Poster presentation : 1. Djouher Gaad, Mohamed Seddik Oussama Belahmadi, Nihad Kerrou and Rafika Haddad : « Implementation of Climate-Smart Agriculture (CSA) in Algeria, towards climate resilient growth path: The case of Biofertilizer application » . (Paper N°35). 2. Fatima Zohra Touati, Lakhdar Loukil and Bakhta Amrane : « Plant Diseases Detection using Machine Learning and Image Processing: Review » . (Paper N°66). 3. Abde Arrahmane Foutia, Abdenmour Bouhounali, Salah Bouhoun, Mourad Adnane and Abdelouahab Benseddik : « Development of an End-to-End Solution for small farm monitoring and control » . (Paper 80).	45 mn	
12H 30-13h30	Lunch	60 mn	
13H30 -14H15	Keynote 2 : Pr Said Mahmoudi (Mons university , Belgique) « Cross device and silo federation learning : Medical use cases and security challenge» Session Chair : Pr Boulet Pierre & Pr BENYAMINA Abou El Hassane	45 mn = 30mn presentati on +15 questions	
14H15-15H15	Round table: recommendations and closing	60 mn	