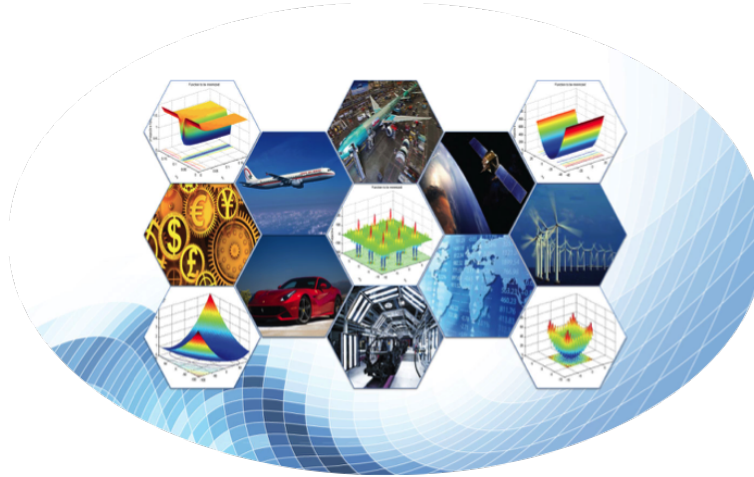


University of Almería and Moroccan Society of Engineering and Technology

The 10th EDITION of the INTERNATIONAL CONFERENCE on
OPTIMIZATION and APPLICATIONS

ICOA2024



The 10th Edition of the International Conference on Optimization and Applications (ICOA2024) provides a high-level international forum and an excellent venue for scientists, researchers, academic faculties, students, industry leaders, and others in the fields of optimization to present, discuss and publish their recent research results and approaches.

<https://w3.ual.es/congresos/icoa/>

CONFERENCE CHAIRS:

Prof. Dr. Hanaa HACHIMI, Prof. Dr. José CARMONA TAPIA
Prof. Dr. Luis OYONARTE ALCALÁ, Prof. Dr. Darío RAMOS LÓPEZ



TECHNICAL PROGRAM OF
ICOA'24

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Message from the Conference Chairs

Welcome to ICOA2024, the 10th IEEE International Conference on Optimization and Applications, held in Almería, Spain, 17-18 October 2024. The conference is organized by the University of Almería, Spain, and the Moroccan Society of Engineering and Technology, Morocco. The ICOA2024 is Technically Supported by the International IEEE Advancing Technology of Humanity. ICOA2024 is a forum for depicting excellent results and new challenges on the optimization and its theoretical and applicative aspects. It brings together industrial and academic experts who are proficient in various engineering, design and research fields. This conference will provide an exceptional opportunity for the academic and industrial communities to address new challenges, share solutions and discuss future research guidance in this thematic. ICOA2024 received submissions from many countries. Many people have collaborated and worked hard to produce a successful ICOA2024 conference. Thus, we would like to thank all the authors for their interest to this conference, and the scientific committee members, who carried out the most difficult work by carefully evaluating the submitted papers. Thanks to Publicity, Organizing and all Committees members for their assistance in making this conference a success. Our special thanks to our distinguished Keynote Speakers who have agreed to address the conference attendees. We are also grateful to all our partners and sponsors for their help and support of our conference. Welcome to Almería, Spain, and we hope you enjoy the conference program.

Conference Chairs

Prof. Dr. HACHIMI Hanaa : hanaa.hachimi@uit.ac.ma
Prof. Dr. José CARMONA TAPIA : jcarmona@ual.es
Prof. Dr. Luis OYONARTE ALCALÁ: oyonarte@ual.es
Prof. Dr. Darío RAMOS LÓPEZ: dramoslopez@ual.es

Sponsors and Partners



Many Thanks!
The involvement and sponsorship of our sponsors plays a major role in the success of our event. The ICOA2024 sincerely thanks all the structures who have contributed to the success of this conference.

Committees

GENERAL CHAIR

Prof. Dr. Hanaa HACHIMI
Ibn Tofail University, ENSA of Kenitra, Morocco

LOCAL CHAIRS

Prof. Dr. José CARMONA TAPIA
Universidad de Almería, Spain

Prof. Dr. Luis OYONARTE ALCALÁ
Universidad de Almería, Spain

Prof. Dr. Darío RAMOS LÓPEZ
Universidad de Almería, Spain

ORGANIZATION COMMITTEE

- Prof. Dr. Adnane ADDAIM (EMI-UM5, Rabat, Morocco)
- Prof. Dr. José CARMONA TAPIA (UAL, Almería, Spain)
- Prof. Dr. Hanaa HACHIMI (ENSA-UIT, Kenitra, Morocco (IEEE Senior Member))
- Prof. Dr. Luis OYONARTE ALCALÁ (UAL, Almería, Spain)
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- Prof. Dr. Chakib EL MOKHI (EST-UIT, Kenitra, Morocco)
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- Prof. Dr. Darío RAMOS LÓPEZ (UAL, Almería, Spain)
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- Prof. Dr. Mohammed KAICER (FS-UIT, Kenitra, Morocco)
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- Prof. Dr. Abdelmoula ABOUHILAL (FSSM, MARRAKECH, Morocco)
- Prof. Dr. Mohammed BOUTALLINE (UAE, Tetouan, Morocco)

List of Topics

The ICOA2024 Conference Seeks Original and High Quality Papers

Tools and Methods

Artificial Intelligence
Learning Algorithms
Combinatorial Optimization
and Mathematical Programming
Numerical Methods
Linear and Non-linear Programming
Multiobjective Programming
Parallel and Distributed Computation
Bio-inspired Computations and Neural Networks
Fuzzy systems
Evolutionary Computing
Metaheuristic Optimization Algorithms
Hybrid Algorithms
Dynamic Optimization
Continuous Optimization

Fields and Areas

Electric, Electronic engineering
Embedded Systems
Telecommunication Engineering
Robotic
Control and Mechatronics
Physics
Civil Engineering
Smart Grids and energy systems
Smart city and traffic simulation
Aerospace, Naval and Marine Engineering
Transportation, Logistic Engineering
Software and Computer Engineering
Big data
Scheduling and Data mining
Bio mathematics
Automotive mechatronics
Aviation

All accepted and presented papers will be published in IEEE Xplore Digital Library and indexed in Scopus.

Technical Program Overview

Thursday 17th October 2024

09h00 - 09h30	Registration		
09h30 - 10h00	Opening Ceremony		
10h00 - 10h45	Keynote 1		
10h45 - 11h15	Coffee Break		
11h15 - 12h30	TM1.1	TM1.2	TM1.3
12h30 - 12h40	Break		
12h40 - 13h55	TM2.1	TM2.2	TM2.3
13h55 - 15h30	Lunch		
15h30 - 16h45	TA1.1	TA1.2	TA1.3
16h45 - 17h05	Coffee Break		
17h05 - 18h20	TA2.1	TA2.2	TA2.3
21h00	Gala Dinner		

Friday 18th October 2024

10h00 - 10h45	Keynote 2	
10h45 - 11h15	Coffee Break	
11h15 - 12h30	FM1.1	FM1.2
12h30 - 12h40	Break	
12h40 - 13h55	FM2.1	FM2.2
13h55 - 14h10	Closing Ceremony	
14h10 - 15h30	Lunch	

TM/A: Thursday Morning/Afternoon

FM/A: Friday Morning/Afternoon

Opening Ceremony:

- Prof. Dr. Luis OYONARTE ALCALÁ: Local Chair of ICOA at University of Almería
- Prof. Dr. Hanaa HACHIMI: General chair of ICOA
- Prof. Dr. Jose Antonio GÁZQUEZ PARRA: IEEE representative at University of Almería

Closing Ceremony:

- Prof. Dr. Jose CARMONA TAPIA: Local Chair of ICOA at University of Almería
- Prof. Dr. Mohammed KAICER: Secretary General of MSEST

Keynote Speakers



Thursday 17th October 2023
10h00 - 10h45

Keynote 1: Prof. Dr. Emilio Carrizosa Priego

Instituto de Matemáticas de la Universidad de Sevilla, Spain

TITLE: “Mathematical Optimization Models for Group Counterfactual Explanations”

Room: Minerva, CITIC building

Online Link: [Click here to join the Zoom session](#)

Session Chair: Prof. Dr. Hanaa HACHIMI



Friday 18th October 2024
10h00 - 10h45

Keynote 2: Prof. Dr. María Concepción Bielza Loyola

Universidad Politécnica de Madrid, Spain

TITLE: “Estimation of Distribution Algorithms”

Room: Minerva, CITIC building

Online Link: [Click here to join the Zoom session](#)

Session Chair: Prof. Dr. Dario RAMOS LOPEZ

Sessions Content

TM1.1: Optimisation and applications Thursday, October 17-2024 (11h15 to 12h30)			
Session Chairs: Prof. Dr. Antonio Salmerón Cerdán & Prof. Dr. Ibtissam Medarhri			
Room: Emmy Noether Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
11h15	ID. 19	Farzad Hosseini Hossein Abadi, Cristina Prieto Sierra and Cesar Álvarez Díaz	Alpine-Peaks Shape of Optimized Configurations Post Random Search in Regional Hydrological LSTMs
11h30	ID. 28	David Lassounon, Aziz Belmiloudi and Mounir Haddou	A Penalization Approach in Breast Cancer Chemotherapy: Preliminary Numerical Simulations
11h45	ID. 48	Adil Nabih, Imane Moufid, Labiba Bousmaki, Ismail Lagrat, Driss Serrou and Oussama Bouazaoui	Optimizing the Validation Process of Resistance Spot Welds in the Automotive Industry Using TOPSIS and K-fold Cross-Validation
12h00	ID. 66	Fatima Daqaq and Siham Ouhimmou	Genghis khan shark optimizer based approach for multi-objective engineering problems
12h15	ID. 67	Sophia Fatihi, Elhoussaine Ouabida and Hassan Mharzi	Optimization and Finite Element Analysis of Scraper Rings in Automotive Gasoline Internal Combustion Engines

TM2.1: Optimisation and applications Thursday, October 17-2024 (12h40 to 13h55)			
Session Chairs: Prof. Dr. Mohammed Kaicer & Prof. Dr. Abdelilah Jraifi			
Room: Emmy Noether Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
12h40	ID. 69	Sara Rhouas and Norelislam El Hami	Predicting automobile prices using regression methods and particle swarm optimization
12h55	ID. 83	Khira Belgada and Laila Elabbadi	Minimizing Non-Quality Costs in Production:A Comprehensive Review of Quality Optimization Strategies
13h10	ID. 82	Hajar El Yassini, Kenza Oufaska, Khalid El Yassini and Rachid Bannari	An overview of BTMS for LIB: Opportunities & Challenges
13h25	ID. 118	Youssef Sadraoui, Mohamed Er-Ratby, Moulay Saddik Kadiri and Abdessamad Kobi	Quality process control and preventive maintenance optimization of a grinding unit: A case study
13h40	ID. 146	Elhadaf Houda, Marzoug Nabil and Jraifi Abdelilah	Optimizing spare parts inventory management using genetic algorithm

TM1.2: Machine Learning and applications Thursday, October 17-2024 (11h15 to 12h30)			
Session Chairs: Prof. Dr. Rafael Rumí & Prof. Dr. Rachid Ait Daoud			
Room: Andréi Kolmogórov Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
11h15	ID. 18	Zineb Haimer, Khalid Mateur, Youssef Farhan and Abdessalam Ait Madi	Road Marking Detection and Instance Segmentation Using YOLOv8 Models
11h30	ID. 22	Dr.Shady Hamouda and Dr.Mona Ali Abdelrahman	A Conceptual Model of Semi-Structured Data for Big Data Applications
11h45	ID. 24	Noureddine El-Haryqy, Abdelmoutalib Bousrout, Zhou Madini and Younes Zouine	Deep Learning for Future: Advancements and Prospects in Signal Denoising for Cognitive Radio
12h00	ID. 32	Haggouni Jamal, Salma Azzouzi and My El Hassan Charaf	Deep Learning Optimizers for Histological Image Classification: A Comparative Study.
12h15	ID. 34	Karima El Majdouby, Mohamed El Mohadab, Rachid Ait Daoud and Karim Abouelmehdi	Exploring the use of Machine Learning and the Internet of Things in intelligent agriculture: Short survey

TM2.2: Machine Learning and applications Thursday, October 17-2024 (12h40 to 13h55)			
Session Chairs: Prof. Dr. Juan Ramón García Rozas & Prof. Dr. Hafida Bouloize			
Room: Andréi Kolmogórov Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
12h40	ID. 70	Italo Silva, Raquel Chavez, Jose Luis Castillo Sequera and Lenis Wong	System for Table Run Strategy in Peruvian Billiards with Real-time Object Detection using YOLOv8n
12h55	ID. 77	Hamza Ouamna, Chaymaa Lakouismi, Zhou Madini and Younes Zouine	Deep Learning Based Automatic Modulation Classification Using IQ Signals
13h10	ID. 126	Jonathan Rivera, Diego Cardenas, José Luis Castillo-Sequera and Lenis Wong	Early Prediction Model for Anemia in Infants Using Clinical Data from Perú Applying Supervised Machine Learning Algorithms
13h25	ID. 129	Abdellatif Ahammad, Manal El Bajta and Maryam Radgui	Automated Software Testing Using Machine learning: A Systematic Mapping Study
13h40	ID. 137	Airton Ruben Roque Castillo, Joel Esteban Huamanzana Tintaya and David Mauricio Sanchez	Forecasting Risk Pregnancies in Peru using Machine Learning

TM1.3: Mathematics Thursday, October 17-2024 (11h15 to 12h30)			
Session Chairs: Prof. Dr. Rubén Fiñana & Prof. Dr. Younes Zouine			
Room: Paul Erdős Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
11h15	ID. 30	Outmane Soussi Noufail, Hind Bourass and Hanaa Hachimi	Analyzing the Dynamics of Nelson-Siegel-Svensson Term Structure Models Using Time Series Data
11h30	ID. 49	Abdelghani Benjouad and Mohammed Kaicer	Efficient Simulations for Pricing Barrier Options under Stochastic Volatility Model
11h45	ID. 78	Isabel María Del Águila, José Del Sagrado and Alfonso J. Bosch	Generic Formulation of the Requirements Selection Problem
12h00	ID. 80	Khadijetou Maaloum Din, Fatima Daqaq and Rachid Ellaia	Backtracking search algorithm with Lemur Optimizer for numerical and Global Optimization
12h15	ID. 84	Rim Adenane and Mohamed El Fatini	Actuarial risks associated to disease outbreaks and insurance plans under media coverage strategy

TM2.3: Mathematics Thursday, October 17-2024 (12h40 to 13h55)			
Session Chairs: Prof. Dr. Mohammed Boutalline & Prof. Dr. Nabil Hmina			
Room: Paul Erdős Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
12h40	ID. 89	Loïc Duffo, Ivar Eskerud Smith and Jørn Kjølås	A 2-parameters weight definition in least-squares regression towards data fitting with uncertainty
12h55	ID. 90	Zakaria Labyad, Said El Ganich and Hayat Qadech	Pedagogical innovation and artificial intelligence in the service of entrepreneurial education: a proposed theoretical anchor
13h10	ID. 105	Chaymaa Lakouismi, Hamza Ouamna, Zhou Madini and Younes Zouine	Review Article: Dynamic Spectrum Sharing The Different Techniques And Challenges.
13h25	ID. 145	Umid Karimov, Peter Monk and Virginia Selgas	Imaging a non-penetrable target in a waveguide using the topological derivative
13h40	ID. 147	Bouchra Ben Amma, Said Meliani and Lalla Saadia Chadli	Numerical Solution of Intuitionistic Fuzzy Differential Equations by Nyström Method

TA1.1: Industry and Materials Thursday, October 17-2024 (15h30 to 16h45)			
Session Chairs: Prof. Dr. Luis Oyonarte Alcalá & Prof. Dr. Zhou Madini			
Room: Emmy Noether Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
15h30	ID. 39	Breno Caetano da Silva, Jorge Luiz Franco, Hermes Manoel Galvão Castelo Branco, Eric K. Tokuda and Alexandre Delbem	A robust cold-start approach using phylogram
15h45	ID. 56	Oumaima Sarhir, Zoubida Benmamoun and Mouad Ben Mamoun	Prediction Analysis For Demand Forecasting In Automotive Industry
16h00	ID. 68	Wiliam Guaman, Pablo Benalcázar, Jose Cordova and Miguel Torres	A reconductoring approach for efficient long-term planning of the Ecuadorian power grid
16h15	ID. 74	Oumaima Hansali, Samah Elrhanni and Laila el Abbadi	Towards the design of maturity model for digital supply chain in automotive industry
16h30	ID. 88	Ahmad Esmailzadeh, Brian Deal, Alireza Norouzasas and Mohamed Hamdy	Fit-for-purpose: analysis of occupancy behaviour impacts on intelligent control performances in a nearly zero energy building

TA2.1: Industry and Materials Thursday, October 17-2024 (17h05 to 18h20)			
Session Chairs: Prof. Dr. Abdelmoula Abouhilar & Prof. Dr. Bouchra Bouklata			
Room: Emmy Noether Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
17h05	ID. 130	Douaa Elgharbi, Lina Aboueljinnane and Maria Lebbar	Inventory management in blood supply chain : Future research challenges and opportunities
17h20	ID. 139	Marouane Myyara, Anouar Darif and Abderrazak Farchane	Application of SARSA-based Reinforcement Learning Approach for Resource Allocation in Vehicular Edge Computing
17h35	ID. 141	Mohammed Touaoussa, Nouredine Moussaid, Anouar BenLoghfyry and Omar Gouasnouane	Integration of Machine Learning Algorithms and Nash Game Theory in A Similar Image Retrieval System
17h50	ID. 144	Vernika Agarwal, Khaoula Khlie, Zoubida Benmamoun, Arshia Kaul, Hayet Benhamida and Chakib Elmokhi	Weaving sustainability strategies in supply chain: A carbon trading perspective
18h05	ID. 148	Walaa Saber, Hesham Bawazeer and Hamad Almansori	Predictive Analytics for Enhanced Passenger Satisfaction in the Airline Industry: Leveraging Machine Learning to Drive Strategic Decision-Making

TA1.2: Computer Science Thursday, October 17-2023 (15h30 to 16h45)			
Session Chairs: Prof. Dr. Rafael Cabañas & Prof. Dr. Houssam Benbrahim			
Room: Andréi Kolmogórov Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
15h30	ID. 33	Meryem Ouarrachi, Othmane El Meslouhi and Karim Abouelmehdi	Challenges in Medical Image Segmentation: Insights from Transformer-CNN Integration
15h45	ID. 47	Nouib Hamza, Aniss Moumen, Sellamy Khadija, Lamii Nabil and Qostal Aniss	Integrating TOPSIS-KNN Classifier for Job Market Trends Identification and Employability Prediction
16h00	ID. 51	Najlae Labied, Houssam Benbrahim and Aouatif Amine	A Deep Learning-Based Model for Malware Detection Using Transformer Architecture
16h15	ID. 53	Hakim El Massari, Fatima Qanouni, Noredine Gherabi, Sajida Mhammedi and Mohamed Amnai	The Role of Artificial Intelligence in the Semantic Web
16h30	ID. 60	Achraf Yahia, Yassine Mouhsine, Abdelkader Elalaoui and Said Ouatik Elalaoui	Leveraging Machine learning for anomaly detection methods in cryptocurrency: A Data-Driven Study

TA2.2: Computer Science Thursday, October 17-2023 (17h05 to 18h20)			
Session Chairs: Prof. Dr. Mohamed Gouskir & Prof. Dr. Adnane Addaim			
Room: Andréi Kolmogórov Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
17h05	ID. 86	Mohamed Er-Ratby, Abdessamad Kobi, Youssef Sadraoui and Moulay Sadiq Kadiri	The Role of Predictive Maintenance Optimization Techniques in Enhancing Industrial Productivity
17h20	ID. 87	Issam Senhaji Mouhaddib, Samir Bouzakri and Ismail Lagrat	A Foundational Framework for an UAV GPS Jamming Simulator
17h35	ID. 142	Elhoussein Elouardi, Lahcen Sellak, Chakib El Mokhi, Younes Adnani, Lahoucine Idkhajine, Brahim El Ouardi and Omar Mouhib	Lateral Control for Autonomous Vehicles Utilizing an ANN-Based Controller
17h50	ID. 149	Walaa Saber, Mohamed Al Katheeri, Hammama Al Mansoori and Huda Al Wahshi	Predictive Modeling for Economic Implications of COVID-19: Unraveling Patterns and Vulnerabilities through Machine Learning
18h05	ID. 151	Zakaria El Rhadiouini, Zahra Oughannou, Nour El Houda Mejhed Chaoui and Habiba Chaoui	Enhancing Identity Security in the Metaverse: Solutions Using AI, Blockchain, and NFTs

TA1.3: Artificial intelligence and IoT Thursday, October 17-2024 (15h30 to 16h45)			
Session Chairs: Prof. Dr. Maria Zemzami & Prof. Dr. Abderrahim Lakhout			
Room: Paul Erdős Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
15h30	ID. 45	Nidhi Oswal, Kramath Ateeq and Saju Mathew	Enhancing Educational Feedback Systems using Deep Queue-Dependent Networking: An Automatic Student Assessment with AI
15h45	ID. 46	Mariam Elkhechafi and Jihane Aayale	Optimizing Cryptocurrency Portfolio Management: Deep Learning with Diverse Data Sources and Multiple Parameters
16h00	ID. 61	Adham Chaibi, Ahmed Stitou, Ismail Lagrat, Driss Serrou, Abderrahman El Mhamed, David Tchoffa, Oussama Bouazaoui and Labiba Bousmaki	IIOT and Deep learning for Decision-Making : Heading towards Intelligent Maintenance
16h15	ID. 62	Zoubida Benmamoun, Mariam Elkhechafi, Ahmad Abu Abdo and Ikhlef Jebbor	Optimization of Carbon Emissions in Asphalt Pavement Construction
16h30	ID. 65	Imane Briki, Maryam Alami Chentoufi, Rachid Ellaia and Zakaria Charouh	Enhancing Multiclass Classification of Road Accident Severity Using Cluster-Based Severity Resampling Techniques: Addressing Data Imbalance with Hybrid Approaches

TA2.3: Artificial intelligence and IoT Thursday, October 17-2024 (17h05 to 18h20)			
Session Chairs: Prof. Dr. Zoubida Benmamoun & Prof. Dr. Mariam El Khechafi			
Room: Paul Erdős Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
17h05	ID. 81	Sahmi Imane and Abdellaoui Abderrahim	A Hybrid Lightweight Encryption using SPECK and SIMON for E-Health using IoT
17h20	ID. 91	Mustapha Berrouyne, Hinde Hami, Fatine Hadrya and Youness Jouilil	Utilizing AI to Tackle Child Overnutrition in Morocco
17h35	ID. 143	Youness Belaadel, Houda Moudni, Hicham Zougagh, Mohamed Er-Rouidi and Sair Elouaham	IoT Security: Trends, Challenges, and Solutions for MQTT-based Devices
17h50	ID. 150	Kaoutar Tazi, Soukaina Sraidi, My El Hassan Charaf and Salma Azzouzi	MOOC drop-out prediction based on student sentiment analysis
18h05	ID. 169	Muntasir Al-Asfoor, Mohammed Hamzah Abed and Kevin Maher	Brain Tumor classification based on Federated Learning

FM1.1: Artificial intelligence and Economics Friday, October 18-2024 (11h15 to 12h30)			
Session Chairs: Prof. Dr. Yusuf Alagöz & Prof. Dr. Chakib El Mokhi			
Room: Emmy Noether Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
11h15	ID. 26	El Mehdi Chakir and Outmane Soussi Noufail	Analysis of Public Debt Management Practices in Low- and Middle-Income Countries: Intensity and Use of Academic Research
11h30	ID. 44	Khaoula Khlie, Zoubida Benmamoun, Ikhlef Jebbor and Hanaa Hachimi	Comparison of the Generative AI models in Supply Chain Management: Benefits, Applications and Challenges
11h45	ID. 54	Sanaa Bouabidi, Dounia Hanyn, Abderahim Salhi and Mohamed Baslam	Advanced Machine Learning Techniques for Predicting Precious Metal Prices in Financial Trading
12h00	ID. 55	Ameur Najim, Zoubida Benmamoun and Mouad Ben Mamoun	Machine Learning Integration in Supplier Relationship Management for Enhanced Stock Management
12h15	ID. 71	Souhaila Chaabaoui, Zahra Oughannou and Habiba Chaoui	A Systematic Review of Blockchain Applications in Pharmaceutical Supply Chain Traceability and Security

FM2.1: Artificial intelligence and Economics Friday, October 18-2024 (12h40 to 13h55)			
Session Chairs: Prof. Dr. José Carmona Tapia & Prof. Dr. Youmna El Hissi & Prof. Dr. Abdellah Nouib			
Room: Emmy Noether Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
12h40	ID. 131	Shaista Anwar, Ghalia Albraiki, Ali Ibrahim and Lulu Qadri	Digital Banking Issues experienced by older people.
12h55	ID. 133	Khadija Mesmar, Maria Lebbar, Said Aqil, Zahra Asebriy and Karam Allali	An Artificial Immune System Algorithm for the Permutation Flow Shop Scheduling Problem with Sequence Dependent Setup Times
13h10	ID. 136	Hanae Abbassi, Saida El Mendili and Youssef Gahi	Enhanced Banking Security: Isolation Forest with Attention Mechanism for Sophisticated Fraud Detection
13h25	ID. 138	Hayet Benhamida, Zoubida Benmamoun, Vernika Agarwal Apeejay and Anwar Hasan Abdallah Othman	The adoption of sustainability for sovereign risk assessment in UAE: Investigation of challenges using MCDM Method
13h40	ID. 172	Youness Saoudi, Smaaine Ouaharahe, Hanaa Hachimi and Chakib El Mokhi	Pricing Basket option in using the two-dimensional Black Scholes equation and the Monte Carlo approach

FM1.2: Energy and embedded Systems Friday, October 18-2024 (11h15 to 12h30)			
Session Chairs: Prof. Dr. Antonio Martínez & Prof. Dr. Hamal Oussama			
Room: Andréi Kolmogórov Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
11h15	ID. 20	Feng Guo, Luis D. Couto and Guillaume Thenaisie	Efficiency and Optimality in Electrochemical Battery Model Parameter Identification: A Comparative Study of Estimation Techniques
11h30	ID. 43	Paolo Lazzeroni, Gianmarco Lorenti, Aldo Canova and Maurizio Repetto	Optimal scheduling of programmable appliances for demand management in energy communities
11h45	ID. 50	Wadiaa El Kadmiri, Asmaa Benghabrit and Zakarya Ioualimi	Towards a CPS solution for Modeling and control of phosphoric acid quality
12h00	ID. 57	Asma Gouzi, Siham Ouhimmou and Fatima Daqaq	A new Hybrid Metaheuristic Algorithm based Human Approach for Mechanical Engineering Problems
12h15	ID. 64	Oumaima Ait Omar, Oumaima Choukai, Hassan El Fadil, Ahmed Ait Errouhi and Fatima Zahra Harmouch	Enhancing Photovoltaic Production Management and Air Conditioning Efficiency in the University Library Smart Building

FM2.2: Energy and embedded Systems Friday, October 18-2024 (12h40 to 13h55)			
Session Chairs: Prof. Dr. Anand Nayyar & Prof. Dr. Mohd Naved			
Room: Andréi Kolmogórov Seminar, CITE III building (Mathematics and Computer Sciences)			
Online Link: Click here to join the Microsoft Teams session			
12h40	ID. 76	Mohamed Sraitih, Amir Hajjam El Hassani, Younes Jabrane and Emmanuel Andres	Generative Adversarial Networks in ECG signal denoising: A survey
12h55	ID. 125	Zinedine Taieb, Guillaume Sandou, Nicolas Vasset, Yacine Gaoua and Grégoire Pichenot	Mitigating online microgrid controller deployment issues with learning techniques: an approximate MPC approach
13h10	ID. 171	Karima Benkhadda, Fatehi Altalqi, Abdelhak Bendali, Samia Zarrik, Sanae Habibi, Abderahim Haddad, Abdelkader Hadjoudja and Mohamed Habibi	An Octagonal Patch Antenna for Enhanced 5G technology
13h25	ID. 174	Yasmine Achour, Driss Zejli and Rachid Elbouayadi	Predictive Control for Sustainable Greenhouses
13h40	ID. 175	Yazusha Sharma, Sandeep Vyas, Ritambhara A, Anand Nayyar and Hanaa Hachimi	Comparison of Silver and Gold Based Plasmonic Square Ring Resonator with MIM Waveguide

Almería City

The event will be held in Almería, Spain, a wonderful place to be in.



Welcome!