

PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA

MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH

UNIVERSITY OF ORAN 2 MOHAMED BEN AHMED



LABORATORY OF INDUSTRIAL PRODUCTION AND MAINTENANCE ENGINEERING (LGPMI)

و
INSTITUTE OF INDUSTRIAL MAINTENANCE AND SAFETY (IMSI)

ORGANIZE

INTERNATIONAL CONFERENCE ON INDUSTRIAL MAINTENANCE AND PRODUCTION ENGINEERING [ICIMPE'2024]

ICIMPE'2024

OCTOBER 13-14, 2024,
ORAN (ALGERIA)

REGISTRATION FEES

Resident in Algeria Resident abroad

Doctoral students	4000 DA	100 Euros
Researchers/lecturers	8000 DA	200 Euros
Industry professionals	16000 DA	400 Euros

CONFERENCE TOPICS

Topic 1: Industrial Predictive Maintenance and PHM
Topic 2: Production of Goods and Services
Topic 3: Production and Storage of Electrical Energy
Topic 4: Thermal Performance Optimization of Electrical and Electronic Systems

AIMS AND OBJECTIVES

- Contribution to the advancement of research and knowledge in the fields of maintenance and production.
- Exchange of ideas, methods, and techniques among researchers and doctoral students during conference sessions that can lead to new innovative approaches.
- International promotion of the work of young researchers (Ph.D. students).
- Initiation of international collaborations on common research projects through meetings with colleagues from around the world.
- Influence on the socio-economic sector, industrial practices, and professional standards in the conference's fields.

PAPERS SUBMISSION

- To be considered, the initial submission must contain a full paper of the proposed work not exceeding 8 pages in English, while strictly adhering to the provided [template](#).
- Upon acceptance, authors may be asked to revise their manuscripts to maintain quality standards.
- Paper submissions are exclusively done via the conference online submission platform. Papers received by any other means will not be considered.
- Accepted papers from registered authors will be published online in the conference proceedings. Furthermore, a selection of the best papers will have the opportunity to be published in partner journals.

SUBMISSION PROCESS

- Scan QR Code



IMPORTANT DATES

- 30/06/2024 : Paper submission deadline.
- 30/07/2024 : Notification of acceptance.
- 02/09/2024 : Online pre-registration deadline.
- 13-14/10/2024 : Conference date.

Contact : lgpmi.conferences@gmail.com

SCIENTIFIC COMMITTEE

- Abdelaziz Adjeloua
- Abdelhakem Koridak Lahouari
- Abdelhamid Hadjoui
- Abdelkader Slimane
- Abdelkrim Benlefki
- Abdellah Chaouch
- Abdelmadjid Moulgada
- Abderahmane Salhi
- Abderrahman El Mhamedi
- Abed Meghdir
- Adel Badri
- Ahmed Wahid Belarbi
- Belkacem Belkacem
- Chabanne Talhi
- Djafar Ait Kaci
- Djilalia Guendouz
- Farid Nouredine
- Fatima Zohra Medjaoui
- Fayçal Belkaid
- Faycel Bouzit
- Habib Achache
- Hadj Batatia
- Hai Canh Vu
- Hamid Azdean
- Houaria Neddar
- Kamal Medjaher
- Karim Bouamrane
- Khaled EL Sakty
- Khalid Hachemi
- Lamia-Amel Berrah
- Latéfa Ghomri
- Mama Chouitek
- Medjdoub Khessam
- Mehdi Souier
- Mohamed Bouhafs
- Mohamed Bouzit
- Mohammed Chaib
- Mohammed El Sallah Zagane
- Mokhtar Bendejebbar
- Nassim Boudaoud
- Nassima Aissani
- Nermine Harraz
- Noria Taghezout
- Nour eddine Benouzza
- Nouredine Boualem
- Nouredine Bouhamri
- Pierre Dehombreux
- Pierre Spiteri
- Rabia Melati
- Rachid Nouredine
- Rachida Hadiby Ghoul
- Reda Yahiaoui
- Safa Bhar Layeb
- Said Amari
- Sid Ahmed Dellil
- Sid Ahmed Reffas
- Sihem Kouloughli
- Tawfik Benabdallah
- Yahia Lebbah
- Univ. Oran 2 MBA (Alg)
- USTO-MB (Alg)
- Univ. Tiemcen AB (Alg)
- USTO-MB (Alg)
- USTO-MB (Alg)
- Université de Mostaganem (Alg)
- Univ-Tiaret IK (Alg)
- Univ-SBA-DB (Alg)
- Univ. Paris 8 (Fr)
- Univ. Oran 2 MBA (Alg)
- UQTR (Ca)
- USTO-MB (Alg)
- Univ. Oran 2 MBA (Alg)
- Univ. Toulouse (Fr)
- Univ. SBA-DB (Alg)
- Univ. Oran 2 MBA (Alg)
- ENIT (Fr)
- USTO-MB (Alg)
- Univ. Tiemcen AB (Alg)
- USTO-MB (Alg)
- Univ. Oran 2 MBA (Alg)
- IRTIT Toulouse (Fr)
- UTC (Fr)
- CU El Bayadh (Alg)
- Univ. Mostaganem (Alg)
- ENIT (Fr)
- Univ. Oran 1 ABB (Alg)
- CITL (Egy)
- Univ. Oran 2 MBA (Alg)
- Univ. SMB (Fr)
- Univ. Tiemcen AB (Alg)
- Univ. Oran 2 MBA (Alg)
- CU Naama (Alg)
- Univ. Tiemcen AB (Alg)
- Univ. Oran 2 MBA (Alg)
- USTO-MB (Alg)
- USTO-MB (Alg)
- Univ.Tiaret IK (Alg)
- USTO-MB (Alg)
- UTC (Fr)
- Univ. Oran 2 MBA (Alg)
- Univ. Alexandrie (Egy)
- Univ. Oran 1 ABB (Alg)
- USTO-MB (Alg)
- USTO-MB (Alg)
- Univ. Oran 2 MBA (Alg)
- UMONS (Be)
- IRTIT Toulouse (Fr)
- Univ. Saïda MT (Alg)
- Univ. Oran 2 MBA (Alg)
- USTO-MB (Alg)
- Univ. Oran 2 MBA (Alg)
- Univ. Tunis (Tun)
- Univ. Sorbonne Paris (Fr)
- Univ. Oran 2 MBA (Alg)
- USTO-MB (Alg)
- Univ. Tiemcen AB (Alg)
- ENPO MA (Alg)
- Univ. Oran 1 ABB (Alg)

CONFERENCE PRESENTATION

IN THE HEART OF THE INDUSTRIAL REVOLUTION LEADING TO THE ERA OF INDUSTRY 4.0, IN WHICH ALGERIA ASPIRES TO ACTIVELY PARTICIPATE, THE EFFICIENT MANAGEMENT OF MAINTENANCE AND PRODUCTION, AS WELL AS THE PRESERVATION OF INDUSTRIAL EQUIPMENT, ARE OF CRUCIAL IMPORTANCE. IN THIS PERSPECTIVE, THE INTERNATIONAL CONFERENCE ON INDUSTRIAL MAINTENANCE AND PRODUCTION ENGINEERING AIMS TO EXPLORE THESE MAJOR CHALLENGES IN THE ERA OF SMART AND CONNECTED INDUSTRY. IT AIMS TO PROMOTE BEST PRACTICES, EMERGING TECHNOLOGIES, AND ADVANCED STRATEGIES TO OPTIMIZE INDUSTRIAL MAINTENANCE, IMPROVE PRODUCTION SYSTEM PERFORMANCE, AND ENSURE AVAILABILITY AND SECURITY AT PRODUCTION SITES. THIS CONFERENCE ALSO AIMS TO FACILITATE EXCHANGES, COLLABORATIONS, AND SUSTAINABLE PARTNERSHIPS BETWEEN ACADEMIC RESEARCHERS AND INDUSTRY STAKEHOLDERS.



GENERAL CHAIR

Prof. Rachid Nouredine

HONORARY CHAIRS

- Prof. Ahmed Chaalal (Rector of Univ. Oran 2 MBA)
- Dr. Mohammed Chennoufi (Head of IMSI at Univ. Oran 2 MBA)

SCIENTIFIC CHAIR

Prof. Khalid Hachemi

ORGANIZATION COMMITTEE

Conference organization chair

Prof. Djilalia Guendouz

Conference Organization Co-Chairs

- Dr. Nouredine Bouhamri,
- Dr. Reda Yahiaoui,
- Dr. Belkacem Belkacem

Members

- Anes Moulay-Khatir
- Asmaa Motrani
- Bachir Bouiadja Bachir
- Dhiyaeddine Metahri
- Djilali Nekrouf
- Farid Boukezzi
- Farida Djelghoum
- Mohammed Abdelghani Bouchaala
- Mohamed Zouhir Dar Ramdane
- Mohamed Lalaoui
- Salm Zouairi
- Salima Senhadji
- Samir Adda Neggaz
- Taha Benarbia

DIGITAL CELL COORDINATORS

- **Topic 1:** Dr. Mohammed Abdelghani Bouchaala (icimpe2024-topic1@sciencesconf.org)
- **Topic 2:** Dr. Dhiyaeddine Metahri (icimpe2024-topic2@sciencesconf.org)
- **Topic 3:** Dr. Asmaa Motrani (icimpe2024-topic3@sciencesconf.org)
- **Topic 4:** Dr. Bachir Bouiadja Bachir (icimpe2024-topic4@sciencesconf.org)

Sunday 13 October 2024			
8h30 - 9h30	Registration		
9h30 - 10h00	Opening Ceremony		
10h00 - 11h00	Plenary 1	Dr Hai Cahn VU & Dr Nassim BOUDAUD UTC Compiègne (France)	Robust predictive maintenance models for Future Industry
11h00 - 11h30	Coffee Break		
Workshop 1: Industrial Predictive Maintenance and PHM			
11h30 - 13h00	Oral Session 11	Jury OS11	
11h30 - 12h00	Presentation 111	Chakhrit ammar & al	Optimizing Risk Assessment in Industrial Systems: A Decision-Support Framework Using Fuzzy and Grey Relational Analysis
12h00 - 12h30	Presentation 112	Mehar zohra & al	Modeling and Analysis of a Machining Robot Cell with PN
12h30 - 13h00	Presentation 113	Bachir Bouiadjra bachir & al	Analysis of the Effects of Crack Location on the Fracture Behavior of Mechanically Stressed Pipelines Repaired with Composite Patches
Workshop 2: Production of Goods and Services			
11h30 - 13h00	Oral Session 12	Jury OS12	
11h30 - 12h00	Presentation 121	Debbal amel Nihel & al	Single Product Capacitated Lot Sizing combined with the Single Row Facility Layout Problem
12h00 - 12h30	Presentation 122	Khadidja yachba & al	Towards a Bio-Inspired Approach for the Optimization of Product Distribution in a Transport Company
12h30 - 13h00	Presentation 123	Benfekir abderrahim & al	A Discrete Event Simulation Approach for Modeling and Simulation of Hybrid Renewable Energy System
Workshop 3: Production and Storage of Electrical Energy			
11h30 - 13h00	Oral Session 13	Jury OS13	
11h30 - 12h00	Presentation 131	Younes benazzouz & al	A Python-Based Framework for Synthetic Four-Vertex Planar Coils Shape Dataset generation
12h00 - 12h30	Presentation 132	Belhabri rihab & al	Advanced Optimization Strategies for Efficient Electric Vehicle Charging Management
12h30 - 13h00	Presentation 133	Mimouni chahinez	Treatment of shredded electronic cards by electrostatic drum separator

Workshop 4: Thermal Performance Optimization of Electrical and Electronic Systems			
11h30 - 13h00	Oral Session 14	Jury OS14	
11h30 - 12h00	Presentation 141	Djellid ikram & al	Comparative numerical analysis of various geometric configurations of a two-dimensional heat sink.
12h00 - 12h30	Presentation 142	Azzi said & al	Comparison study of copper oxide nanofluid and borak 22 oil used for cooling an immersed coil
12h30 - 13h00	Presentation 143	Derraz hanaa & al	Impact of Geometric Design on Thermal Efficiency of Heat Sinks
13h00 - 14h00	Lunch Break		
14h00 - 15h00	Industrial and Partner Exposition		
14h00 - 15h00	Poster Session 11	Jury PS11	
		Taleb Bendiab radia & al	Analysis of Maintenance and Optimization Strategies for CENTAC Compressors
		Nassima aissani & al	Augmented reality and smart approach for remote maintenance
		Aouimer yamina & al	Operational Safety-Based Maintenance Study for the DELTA X Welding Machine at National Electronic Industries Company, Sidi Bel Abbès-ALGERIA
		Khellafi ikram	Study of the behavior of a non-Newtonian fluid in a hydrodynamic plain bearing with textured surface
		Labair hakima & al	Analysis of the operational sustainability of a production line at the CHLEF cement plant
		Rahmouni djemaa & al	Basic Experiments on Predictive Maintenance of Naval Propulsion System using Small-Scale Machine Learning
		Zouairi saim	Data Analysis for Safety Management
		Ghanem nacereddine & al	Degradation models for reliability and remaining useful life estimation: application on crack propagation
		Belabed youssouf & al	Development of Computerized Maintenance Management System, Case Study: hall of technology
Ouali abdelmoumin & al	Fault Diagnosis of Inter Turn Short Circuit for Permanent Magnet Synchronous Machine Using Fast Fourier Transform (FFT)		

		Houari habiba & al	Machine Learning Models for Predictive Maintenance
		Benefissa noureddine & al	MECHANICAL BEHAVIOUR OF HYBRID COMPOSITES UNDER UNIDIRECTIONAL FORCE: INFLUENCE OF FIBER ORIENTATION, HYBRID STRUCTURE
		Benkhattou abdelkader & al	OPTIMIZATION OF COMPOSITE LAMINATE STRUCTURES FOR MINIMIZE THE WEIGHT AND DEFLECTION
		Benaicha abdelkader & al	Optimization of Composite Patch Repair for Cracked Aluminum Plates
		Nada El Rihane mechehat & al	Optimization of Cutting Parameters for Turning XC38 Steel Using the Taguchi Method
		Touati Benali abdelaziz & al	Optimization of the surface condition of the bonding zone of a bonded assembly
		Motrani asmaa & al	Predictive Maintenance: A Machine Learning Approach to Remaining Useful Life (RUL) Estimation of Industrial Machines
		Naoum halima & al	Simulation of LSP Processing in 2024-T351 Aluminum Alloy
	Poster Session 12	Jury PS12	
		Metahri dhiyaeddine & al	Optimization of Spare Parts Inventory Management A Case Study of a Cosmetics Manufacturing Plant
		Nadia hoggas & al	Implementing Quality 4.0 in Quality Problem-Solving Approaches: Challenges and Opportunities
	Poster Session 13	Jury PS13	
		Saadiya benatmane	Structural, electronic, magnetic and mechanical properties of N-based quaternary Heusler compounds
	Poster Session 14	Jury PS14	
		Charifi mohamed & al	Control of Solidification front Evolution of a Pure Material for One Dimensional Problem
Bouhamri noureddine & al		Comparative Numerical Study of a Co-Current Heat Exchanger	
Boualem ikram & al		Enhancing Heat Transfer in Backward-Facing Step Using Strategic Fin Placement and Forced Convection	
Mechken karima-Amel & al		Ferrofluids: Chemical synthesis methods, properties, applications & prospects	

		Khelif fatima-Zohra & al	Heated Obstacle Effect on Natural Convection in Nanofluid full Porous Cavity using Buongiorno's model
		Ben Yahia mohammed & al	Investigating the Effect of Flexible Fins on Natural Convection In a Newtonian Fluid
		Karim amrani & al	Numerical investigation of the effect of including three fins inside a channel on thermo hydrodynamic behavior of nanofluid
		Medjeded afafe & al	Numerical Study of Natural Convection of Newtonian Fluid within a Square Cavity using a Flexible fin
		Miloud belmahdi & al	Turbulent flow Structure over successive two-dimensional hill models

Monday 14 October 2024

Workshop 1: Industrial Predictive Maintenance and PHM

8h30 - 10h00	Oral Session 31	Jury OS31	
8h30 - 9h00	Presentation 311	Tayeb aoufi & al	A bibliometric analysis and systematic literature review of Predictive Maintenance in the Industry 4.0 era
9h00 - 9h30	Presentation 312	Sadji fares & al	Contribution to bearing diagnosis using Ensemble Learning techniques
9h30 - 10h00	Presentation 313	Kacemi nadjib & al	Enhanced Composite Patch Repair for Cracked Plates Through Genetic Algorithm Optimization

Workshop 2: Production of Goods and Services

8h30 - 10h00	Oral Session 32	Jury OS32	
8h30 - 9h00	Presentation 321	Bouhelassa yassine & al	A Comparative Performance Study of AHP and Fuzzy AHP Methods for Optimizing Drug assignment in Automated Drug Dispensing Systems
9h00 - 9h30	Presentation 322	Omar bahmid & al	Metaheuristic Optimization Techniques for control onAutomated Storage and Retrieval Systems: A Comprehensive Survey
9h30 - 10h00	Presentation 323	Mechaacha abdelkader & al	NSGA-II with Q-learning for the integrated process planning and scheduling problem with reconfigurable machines

Workshop 3: Production and Storage of Electrical Energy

8h30 - 10h00	Oral Session 33	Jury OS33	
8h30 - 9h00	Presentation 331	Boussadia halima & al	$\alpha\beta$ filter for Spacecraft Attitude Estimation



9h00 - 9h30	Presentation 332	Nedjoudj fidouh & al	Comparative Study of a Thermal and Electric Motor
9h30 - 10h00	Presentation 333	Mohammed Cherif ramdani & al	Numerical study of CsFAMA Perovskite based Solar Cells through SCAPS-1D Device Simulation
Workshop 4: Thermal Performance Optimization of Electrical and Electronic Systems			
8h30 - 10h00	Oral Session 34	Jury OS34	
8h30 - 9h00	Presentation 341	Ait Taleb belkacem & al	Influence of a Uniform Horizontal Magnetic Field in a Square Cavity with Heat Sources and Hybrid Nanofluid
9h00 - 9h30	Presentation 342	Belhout cherif & al	The effect of magnetic field on thermo hydrodynamic behavior of nanofluid inside a channel
9h30 - 10h00	Presentation 343	Benabderrahmane amina & al	Numerical Study of a Lithium-Ion Battery Cooling Using Nanofluids
10h00 - 10h30	Coffee Break		
10h30 - 11h30	Plenary 2	Pr. Lyes BENYOUCEF Univ. Aix Marseille (France)	Sustainable Multi-objective Process Plan Generation in Reconfigurable Manufacturing Environment: Evolutionary-based Approaches
11h30 - 12h00	Closing Ceremony		

