



جامعة محمد خيضر بسكرة
كلية العلوم والتكنولوجيا



الملتقى العربي الثاني للميكانيكا والهندسة ARCME'23

The Second Arab Conference on Mechanics and Engineering (ARCME'23)

December 10-11-12, 2023






Auditorium Pr. Kamal Boulanouar, University of Biskra, CAMPUS CHETMA.

ARCME'23 PROGRAM





General program

Date	Time	Processes	
10 th December 2023	8:30-10:00	Opening Ceremony	
	10:00-10:45	1st Plenary	 Pr. AHMED DJEBBAR
	10:45-11:15	Poster session/ Break coffee	
	11:15-12:00	2 nd Plenary	 Pr. ABDERRZAK BEZAZI
	12:00-14:00	Lunch	
	14:00-15:30	Oral sessions	
	15:30-16:00	Poster session/ Break coffee	
	16:00-17:30	Oral sessions	
11 th December 2023	8:30 - 09:15	3 rd Plenary	 Pr. Ali J. CHAMKHA
	9:15- 10:30	Symposium (Part 1)	
	10:30-11:00	Poster session/ Break coffee	
	11:00-12:30	Symposium (Part 2)	
	12:30-14:00	Lunch	
	14:00-15:30	Oral sessions	
	15:30-16:00	Poster session/ Break coffee	
	16:00-17:30	Oral sessions	
12 th December 2023	8:30-09:00	4 th Plenary	 Pr. ZIED DRISS
	9:00-9:30	5 th Plenary	 Pr. MOSBAH ZIDANI
	9:30-10:00	Poster session/ Break coffee	
	10:00-12:00	Closing Ceremony	
	12:00	Lunch	

Symposium

ARCME'23 hosts esteemed academic figures in the field of Mechanics who discuss with the Symposium host and the audience on the front stage of the great conference Auditorium Pr. Kamal Boulanouar, University of Biskra, CAMPUS CHETMA.

Symposium Host



Pr. Miloud Zellouf

Symposium Guests



Pr. Abdelhafid Brima



Pr. Abdelhafid Moummi



Pr. Abderrzak Bezazi



Pr. Ahmed Djebbar



Pr. Ali J. Chamkha



Pr. Ali Merdji



Pr. Boubaker Benhaoua



Pr. Hocine Benmoussa



Pr. Kamel Talbi



Pr. Mabrouk Hecini



Pr. Mahfoud Kadja



Pr. Mohamed Benbraika



Pr. Mohamed Nadir
Amrane



Pr. Mosbah Zidani



Pr. Noureddine Moummi








Pr. Zied Driss



Pr. Zoubir Nemouchi



Plenary Speakers

	Speakers	Subjects
1 st Plenary	 Pr. AHMED DJEBBAR Lille 1 University, France	بعض التفاعلات بين التقنيات والمعارف النظرية في الحضارة العربية الإسلامية
2 nd Plenary	 PR. ABDERRZAK BEZAZI University of Guelma, Algeria	
3 rd Plenary	 PR. ALI J. CHAMKHA Kuwait College of Science and Technolog, Kuwait	Transport of Nanofluids with Applications
4 th Plenary	 Pr. ZIED DRISS National School of Engineers of Sfax (ENIS), Tunisia	Study and Development of Helical Savonius Wind Rotors
5 th Plenary	 Pr. MOSBAH ZIDANI University of Batna 2, Algeria	Technological and industrial aspect of the advanced characterization and analysis of industrial metals and alloys

1st Day

10th December 2023

Process of participation Oral presentation

Room 1	Topic A: Energy Engineering		
Time	Name/ Surname	ID	Title
14 :00 14 :15	Sahel Sahel	EE_001	CFD study on baffled-tubular heat exchanger performance enhancement
14 :15 14 :30	Aicha Touafek	EE_037	Reynolds number effects on mixed convection nanofluid heat transfer in a plane channel application to solar thermal panel
14 :30 14 :45	Redha Rebhi	EE_015	Linear Stability Analysis of Soret-Dufour Convection in a Vertical Brinkman Porous Enclosure
14 :45 15 :00	Ibrahim Boukhalfa	EE_041	Comparison of Inner/Outer Cylinder Heating of a Water Flow in an Elliptic Annulus

Jury Members	Pr. Ali Chamkha U. Kuwait	Pr. Abdelhafid Brima U. Batna 2	Pr. Ali Merdji U. Mascara	Pr. Nouredine moumni U. Biskra
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16 :00 16 :15	Redha Rebhi	EE_012	Multiple Steady State Solutions for Rayleigh-Bénard Convection in a Square Enclosure Filled with non-Newtonian Carreau-Yasuda Fluids
16 :15 16 :30	Aicha Degla	EE_048	Aging effect simulation for Lithium-ion battery under operating conditions
16 :30 16 :45	Mohammed Debbache	EE_021	Design wind turbine for irrigation date palm field
16 :45 17 :00	Hafida Daaou Nedjari	EE_067	Generalized Actuator Disc for Mexico Wind Turbine Wake

Jury Members	Pr. Zied Driss ENIS. Tunisia	Pr. Hocine Benmoussa U. Batna 2	Pr. Kamel Talbi U. constantine 1	Pr. Nouredine Belghar U. Biskra
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Room 2		Topic B: Materials Engineering		
Time	Name/ Surname	ID	Title	
14 :00 14 :15	Fayçal Bouzid	ME_004	Modelling of High Power InGaP/GaAs Heterojunction Alphasoltaic Cells Irradiated by Americium-241	
14 :15 14 :30	Ahmed Benmoussa	ME_012	Automated classification of cracks in concrete structures using Acoustic Emission & Deep Learning	
14 :30 14 :45	Hamida BOUSSEHEL	ME_077	Exploring the Potential of Date Palm Fibers as a Sustainable Filler for PVC Composites	
14 :45 15 :00	Ismail Benabderrahmane	ME_060	Material Gradient Effects on Free Vibration Behavior of Bi-Directional Functionally Graded Beams	
15 :00 15 :15	Brahim Necib	ME_078	Failure analysis of laminated composites materials carbon/epoxy using piezoelectric PZT smart pastilles and finite element models	
15 :15 15 :30	Athmani Moussaa	ME_046	Microstructural and Corrosion Behavior of Plasma Nitrocarburized Steel	

Jury Members	Pr. Bezazi Abderrezak U. Guelma	Pr. Boubaker Benhaoua U. El-Oued	Pr. Hamza Bentrach U. Biskra	Pr. Fatima Zohra Lemmadi U. Biskra
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16 :00 16 :15	Ridha Boumagouda	ME_035	Elaboration and Characterization of Fe-Co based Nanocomposite for Microwave Absorption	
16 :15 16 :30	Mohamed Benamira	ME_042	A simplified approach for elastic modulus approximation of knitted fabric composite	
16 :30 16 :45	Laid Saouli	ME_015	Electrochemical characterization of a material submitted to corrosion	
16 :45 17 :00	Mohamed Cherif Ben Ameer	ME_075	Aloe Vera Gel as an Eco-Friendly Inhibitor for API 5L X70 Carbon Steel Pipelines in 0.5M Sulfuric Acid (H2SO4)	
17 :00 17 :15	Abdelkader Boudjemline	ME_080	Physical and electrical characterization of Date Palm Fibers: A Study on Absorption Properties, Biostructure and electrical resistivity	

Jury Members	Pr. Mosbah Zidani U. Batna 2	Pr. Mohamed Saïd Chebbah U. Biskra	Pr. Mounir Djelab U. Biskra	Pr. Salim Messaoudi U. Biskra
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Room 3				Topic C: Mathematics & Mechanics / Mechanical and Structural Analysis			
Time	Name	ID	Title				
14 :00 14 :15	Mohamed Issaad	MP_003	Minimisation d'énergie d'un système plasma fortement couplé par la méthode de Monte-Carlo: "Etude des configurations les plus stables"				
14 :15 14 :30	Fatma Zohra Khaled	MP_005	الدراسة الكمية غير النسبية لاحتواء نظام ذري في وسط مشحون				
14 :30 14 :45	Atmane Thelib	EE_58	Steady states solutions for high Reynolds number in lid-driven semicircular cavity flow				
14 :45 15 :00	Chams Sebai	MP_006	النسق الذروي لجريان التجويف ذو الحافة القائمة				
15 :00 15 :15	Mohammed Meddour	MS_008	Numerical Modeling of Double-Layer Metal Foam Sandwich Beams Behavior Under Three-Point Bending				

Jury Members	Pr. Ahmed Djebbar	Pr. Zoubir Nemouchi	Pr. Mahfoud Kadja	Pr. Abdelmalek Hasseine	Pr. Lamine Baci
	U. Lille France	U. Constantine	U. Constantine	U. Biskra	U. Biskra

16 :00 16 :15	Mostefa Kouider	MS_003	Effet de la Position de Poche sur les Caractéristiques Hydrodynamiques d'une Butée			
16 :15 16 :30	Linda Aissani	MS_030	Microstructure and mechanical properties of magnetron sputtered Ti-N films deposited at different nitrogen flow rates			
16 :30 16 :45	Lamine Rebhi	MS_032	Design Optimization Method Based on Artificial Intelligence For Structures Under Random Fatigue			

Jury Members	Pr. Mohamed Benbraika	Pr. Abdelouhab Tati	Pr. Mabrouk Hecini	Pr. Mohamed Nadir Amrane	
	ENP. Alger	U. Biskra	U. Biskra	U. Biskra	

Process of participation

Poster presentation

Time	ID	Title	Jury Members
10 :45 11 :15	EE_006	Effect of Nozzle Pressure Ratio (NPR) On The Shock Waves Formation Through A Supersonic Nozzle Using CFD	Pr. Hadeif hefaïdh Pr. Abdelghani Lakroune
	EE_008	CFD Simulation of Thermal Performance of an Air Humidification System Used in a Poultry House	
	EE_011	Performances Comparison Of Ejector Refrigeration Cycle For Two Different Position Of The Ejector Using Eco-Friendly Mixtures.	
	EE_016	New intelligent temperature measuring device	
	EE_017	Forced Convection Cooling Of Electronic Components In A Horizontal Channel By Numerical Simulation	
	EE_020	Numerical Analysis of a Heat Exchanger Designed to Cool Electronic Components	
	EE_032	Satellite propulsion subsystem, sizing and CFD analysis of a 10 N nozzle thruster	
	EE_018	Contribution to the Study of the Effect of the Dimensions of the Heat Sink on the Cooling of Electronic Chips	
	ME_005	Enhanced properties of diatomite-based (Silica) composite	Pr. Moussa Athmani Pr. Fateh Chouia
	ME_007	Analytical and numerical analysis of tube made of Functionally graded materials under extension	
	ME_009	Enrichissement et agglomération du minerai de fer pauvre de L'Ouenza	
	ME_010	Determination the elastic properties of Carbon-Epoxy composites laminates by micro-mechanical model	
	ME_011	Investigation of residual stresses in isotacticpolypropylene Quenching from the melt state	
	ME_063	Vibration Of FunctionallyGraded Beams Using An OriginalHigh Order ShearDeformation Theory (HSDBT)	
	ME_014	Effect of the free Quenching Residual Stresses on the Thermophysical, the Thermomechanical and Morphological properties of Acrylonitrile-Butadiene-Styrene (ABS).	

	ME_016	The Effect of Water Absorption on Brinell and Charpy Tests for Bio-composite Materials of Date Palm Fibers / Epoxy		
	ME_017	Physical and Mechanical Properties of Ti-Al-N Ternary System		
	ME_021	Model development of Water uptake of polymer/clay nanocomposites		
	ME_022	Élaboration Et Caractérisation Physico-Mécanique D'un Mortier Composite Destiné Au Renforcement Des Structures En Béton		
	MP_001	Numerical Solution of Bratu's Equation For The Effective Potential Energy in Dense Plasma	Pr. Hocine Djemai Pr. Tarek Djoudi	
	MP_002	Condensed Matter in Intense Laser Fields		
	E_001	Study and Investigation of Seawater Reverse Osmosis Spiral Wound Fouled Membrane from Desalination Station in Algeria		
	E_002	Caractérisation de déchets Barytique de la mine de Ain Mimoun (Khenchela) et son impact environnemental		
	E_003	Electric field calculation in a point-wet barrier-plane system		
	E_004	The Benefits of Model Predictive Control on AC Motors (Review)		
MS_001	Effect of Cold Deformation on the Microstructure, Electrochemical and Mechanical Behavior of 316Ti Austenitic Stainless Steel			
15 :30 16 :00	EE_028	Conceptual Design Proposal for Developing Solar Drones Tailored to Algerian Needs		Pr. Foued Chabane Pr. Chawki Mahboub
	EE_029	Analysis Of Thermohydraulic Performance Of Plate Heat Exchanger		
	EE_022	Absorption solar cooling system		
	EE_033	10N thruster nozzle design using Characteristics method for satellite application.		
	EE_036	Reynolds number effects on mixed convection nanofluid heat transfer in a plane channel application to solar thermal panel		
	EE_040	Faisability study of a Diesel-Wind Hybrid System in a remote site on Southern of Algeria		
	EE_042	Effect of the addition of nanoparticles (Cu) to the base fluid in a parabolic trough solar concentrator equipped with a secondary reflector.		
	EE_019	Numerical study of the effect of the presence of an obstacle inside the channel on the cooling of a heat sink using ahybrid nanofluid		
	EE_026	Numerical study of the effect of the presence of an obstacle inside the channel on the cooling of a heat sink using ahybrid nanofluid		

EE_060	Performance Of Air-Ground Heat Exchanger in Cooling, Heating And Reducing Carbon Emissions In An Industrial Poultry Farm	Pr. Hocine Djemai Pr. Tarek Djoudi
ME_023	Elaboration et caractérisations d'un matériau hiérarchisé par différentes méthodes en presence de tension actif CTA+	
ME_025	Effect of Aspect Ratio and Volume Fraction of Steel Fibres on the Shear Behaviour of Reinforced Concrete Beams.	
ME_027	Effect of Treatment Temperature and Time on Wear Damage of Borided AISI H13 Tool Steel in Aluminium Hot Extrusion Process	
ME_028	Evolution of Microstructure and Mechanical Properties of Aluminum TIG-weld Joint Using Different Filler Metal	
ME_030	The equivalence electrical performance between the plane-plane and multiple rods-rods configurations of a uniform polluted glass insulator	
ME_033	Dynamic Recrystallization in Dissimilar Al6061-T6 / steel Friction Stir Welds	
ME_037	Study by numerical simulation of the solar cell based on CIGS by SILVAC	
ME_041	Magnetic and Structural Properties of Fe/SiO ₂ /Al ₂ O ₃ nanocomposite	
ME_047	The study of the ability to use the Algerian slag for the development of glass-ceramic materials	
ME_049	The effect of the lubricating filme transformation characteristics with the Ostwald indices variations	
ME_065	Contribution to the modeling of the mechanical behavior of sandwich structures subjected to bending	
MS_007	Étude expérimentale des propriétés mécanique de traction du Bois de Régime de Dattes de la Variété de Deglet Nour	Pr. Abd Elfouhail Bouhjar Pr. Zineb Almi
MS_013	An Investigation on Nonlinear Postbuckling of FGM Sandwich Composite Plates with Tangential Edge Constraints	
MS_017	Evaluation of the fracture parameters for different geometric models: aluminum alloy, study and analysis	
MS_021	Buckling Analysis of Separation System Structures	
MS_024	Numerical modeling of a fiber-reinforced polymer composite using an RVE	
MS_029	Numerical and experimental study of fracture behavior of welded and unwelded cts specimens under mixed-mode loading of aluminum alloy aa3003.	
MS_031	Three-dimensional analytical study of dental implants under the influence of different forces	

2nd Day

11th December 2023

Process of participation Oral presentation

Room 1	Topic A: Energy Engineering		
Time	Name/ Surname	ID	Title
14 :00 14 :15	Antar Tahiri	EE_002	Effect of Joule Heating and Viscous Dissipation in MHD Flow Under Constant Heat Flux Between Parallel Plates.
14 :15 14 :30	Amal Boulemtafes	EE_039	Prefeasibility assessment of Industrial Solar Drying in Algeria : Energy performance and environmental impact
14 :30 14 :45	Khaled Athmani	EE_051	Chebyshev Orthogonal Collocation Technique to Solve a Model of Energy Storage by Adsorption on Zeolithes
14 :45 15 :00	Mohammed Nadjib Hamlaoui	EE_014	Numerical simulation of an isolated HAWT operating under different thermal stratification conditions

Jury Members	Pr. Abdelouahed Aliouali U. Biskra	Pr. Abdelhafid Moummi U. Biskra	Pr. Salah Guerbai U. Biskra	Pr. Adnane Labeled U. Biskra
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16 :00 16 :15	Romaissa Hachana	EE_005	Enhancing Indoor Air Quality through Numerical Analysis of Carbon Monoxide Dispersion in a Residential Area
16 :15 16 :30	Ezzine Bennour	EE_046	Enhancing Heat Transfer in Laminar Flow Using a Sinusoidal Tube with Vortex Generators
16 :30 16 :45	Okba Boucherit	EE_064	Experimental Study Of A Peripherally Integrated Heat Exchanger Around An Underground Water In Arid And Semi-Arid Regions
16 :45 17 :00	Atmane Thelib	EE_073	One-thousand-Newton-seconds Laboratory-scale Hybrid rocket simulation for HDPE-GOx performance characterization
17 :00 17 :15	Zied Driss	EE_076	Study and Development of Helical Savonius Wind Rotors

Jury Members	Pr. Rachid Athmani U. Biskra	Pr. Adel Benchabane U. Biskra	Pr. Nacer Chouchane U. Biskra	Pr. Arfaoui Benarfaoui U. Biskra
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Room 2		Topic B: Materials Engineering		
Time	Name/ Surname	ID	Title	
14 :00 14 :15	Nadjle Debabeche	ME_003	Effect of fiber surface treatments on the fiber–matrix interaction reinforcement polypropylene composites	
14 :15 14 :30	Ouarda Tebermacine	ME_006	Electrochemical and Optical Characterization of Ni _{1-x} Fex Al ₂ O ₄ Spinel Oxides	
14 :30 14 :45	Youcef Djebloun	ME_024	Creation, Evaluation and Characterization of a Laminated Bio-composite Material Reinforced by Luffa Mats	
14 :45 15 :00	Rahil Azizi	ME_008	The Effect of The Substrates Nature on Properties of Indium Oxide Thin Films by Ultrasonic Spray	
15 :00 15 :15	Khalil Zouaoui	ME_035	Optimization of Heat-treatment Parameters with Taguchi Method for API X52 Pipe steel	
15 :15 15 :30	Nadjle Debabeche	ME_048	Effect of successive fiber treatment on the mechanical and dynamic mechanical properties of palm petiole fiber reinforced LLDPE composites	

Jury Members	Pr. Djemoui Mohamdi U. Biskra	Pr. Abdelmalek Boulagroune U. Biskra	Pr. Abdelhakim Begar U. Biskra	Pr. Messaoud Benmachiche U. Biskra
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16 :00 16 :15	Filipe Fernandes	ME_018	Tribological Characterization Of Novel Multilayered TMD Coatings For Low Friction Applications	
16 :15 16 :30	Fabio Ferreira	ME_013	Synergistic effects of chemical modifications in the lubricant and substrate coating boost friction reduction	
16 :30 16 :45	Hoda Hella	ME_068	Evaluation of the Photocatalytic Activity in Thin Films of Bismuth Oxide Synthesized via the Sol-Gel Method	
16 :45 17 :00	Abdelhafid Boukellouda	ME_058	Modélisation du comportement de béton à la compression	
17 :00 17 :15	Dalila Smail	ME_026	Influence of reprocessing on the mechanical and structural properties of low density polyethylene (LDPE) containing talc	

Jury Members	Pr. Hamida Boussehel U. Biskra	Pr. Fateh Chouia U. Biskra	Pr. Karima Ouannes U. Biskra	Pr. Faiçal Djani U. Biskra
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Room 3			
Topic C: Mathematics & Mechanics / Mechanical and Structural Analysis			
Time	Name	ID	Title
14 :00 14 :15	Ali Zine	MS_011	Seismic Analysis of Concrete Gravity Dams under Simultaneous Horizontal and Vertical Components
14 :15 14 :30	Taqiyeddine Assas	MS_034	Strain-based finite element formulation for the analysis and modelling of structures
14 :30 14 :45	Rania Kherachi	MS_038	Characterizing the binding interaction of new spirooxindole-pyrrolidine derivatives for acetylcholinesterase inhibition Using Molecular Docking Studies

Jury Members	Pr. Kamel Meftah U. Batna 2	Pr. Lakhdar Sedira U. Biskra	Pr. Nouredine Drias U. Biskra	Pr. Belhi Guerira U. Biskra
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Process of participation

Poster presentation

Time	ID	Title	Jury Members
10 :45 11 :15	EE_004	Thermal Evaluation of a Tray Food Dehydrator During Beetroot Cube Drying	Pr. Cherifa Bourenmel Pr. Adel Sakri
	EE_013	Effect of HTL and ETL material on the J-V characteristic of perovskite solar cell.	
	EE_044	Comparison of Hydrothermal Characteristics of Various Annular Fins Patterns	
	EE_045	Investigation of a Magneto-Hydrodynamic micromixer for two miscible fluids.	
	EE_047	Non-equilibrium conjugate local thermal heat transfer in a cavity filled with porous media with a rotating cylinder: analysis and information	
	EE_052	Simulation numerique du transfert de chaleur convectif dans un moteurs stirling fdt	
	EE_053	The Autonomous Photovoltaic-Wind Microgrid With Battery Storage for Rural Electrification: A Case Study in Algeria	
	EE_054	Energy Efficiency and Air Quality Monitoring in Algeria: Challenges and Solutions	
	EE_055	A Novel Heat Sink Design Utilizing a Convex-Parabolic Microchannel and Hybrid Nanofluid for Enhanced Cooling of Core I7 CPU	
	ME_029	Impact of Recycled Aggregate on the Properties of Concrete.	
ME_031	The Characterization of the Date Palm Tree Leaflet for Using That as Green Materials for Building House.		
ME_036	Impact of Sr Doping on the Microstructure, Morphology and Optical Properties of ZnO Thin Films Prepared by SILAR Method		
ME_039	Investigation with Local Technical SVET in Study of Electrochemical Behaviour of 316Ti Austenitic Stainless Steel 316Ti in Acid Solution H2SO4		
ME_040	الشكل دراسة تنبؤية للخصائص البنوية والإلكترونية والمرونية للبوريدات الثلاثية ذات ScBNi		
ME_045	Synthesize and characterization of technical ceramics of perovskite structure ABO3 type.		

	MS_043	Assessment and ABAQUS Implementation of a Special finite element based on the SFR concept for the analysis of elastoplastic behavior of structures			
	ME_050	Effect of incorporating waste plastic powder on physical and mechanical properties of composite sand concrete			
	ME_051	Joining of Dissimilar Stainless Steels by Friction Welding			
	ME_052	Evaluation of Limestone Filler Impact on the Physical and Mechanical Performance of Sand Concrete			
	ME_053	Optoelectronic Properties Of DL-Aspartic Acid Crystal And Its Applications			
	MS_004	Structural Analysis of the Mechanical Behavior in Bending of Sandwich Composite Beams	Pr. Mahdi Abdeddaim Pr. Aoun Yacine		
	MS_005	Experimental study on the Tensile Mechanical Properties of Epoxy Composite Materials Reinforced by Hybrid TWARMAT, Woven Glass and Carbon Fibers			
	MS_006	Vibration analysis of biologically inspired helical laminated composite plates in thermal conditions.			
	MS_015	The effect of chemical composition in (%) of the steel on the hardness of weld metal formed during SAW of gas (LPG) cylinders			
	MS_016	On improved rectangular finite element for plane linear elasticity analysis			
	MS_022	Valorisation et traitement chimique des fibres végétales pour préparer des matériaux composites.			
	MS_023	استغلال الموارد النباتية (نبات القرع) في تحضير المواد المركبة			
	15 :30 16 :00	EE_056		Faculté de Technologie, Université Hassiba Ben Bouali de Chlef; Laboratoire Laboratoire de Physique Théorique et de Physique des Matériaux LPTPM	Pr. AdaiKa Kalthoum Pr. Laiadi Djemoui
		EE_059		Numerical study of the effect of baffle shape on mixing efficiency in a tank agitated by a Rushton Turbine	
EE_062		Thermocouples in Energy Harvesting: From Heat to Power			
EE_063		The Graphical interface of the behavior of Autonomous PV system backed up by the Grid			
EE_065		Evaluation of Heat Transfer in Tube Bundles Using Al ₂ O ₃ Nanofluids			
EE_066		A Deep Learning Model for Short Term Solar Irradiance Forecasting			
MS_035		Evaluation of a plane finite element based on the SFR concept for linear analysis of thermoelasticity problems			
EE_068		Utilisation de la dynamique computationnelle pour l'étude du mélange et de la dispersion des rejets marins			

EE_071	Natural Ventilation in a Horticultural Greenhouse: Computational Fluid Dynamics Simulation	
EE_061	Experimental Study of Heat Transfer Enhancement in Double Pipe Heat Exchanger Equipped With Coiled Circular Wires	
ME_032	Thermo-mechanical and physic-chemical study of a bio-composite based on waste paper	Pr. Mounir Djelab Pr. Hamza Bentrah
ME_054	Mathematical Modeling To Explore The Mechanical Properties Of A Metal By Indentation	
ME_055	Modelisation Des Contraintes D'interfaces D'une Poutre Metallique Penforcee Par Une Plaque Composite.	
ME_057	التراخي اللين تأثير مخلفات الطوب المحروق على متانة الطوب	
ME_059	Hydrogen embrittlement in tensile of duplex stainless steel X15CrNiSi25.21 loaded in aqueous solution H2SO4 at +_20'C.	
ME_062	Influence of Rotational Speed on the Thermal Performance and Tensile Strength of Friction-Welded Joints between AISI 316L and Copper	
ME_066	Experimental Study of Cathode Tip Behavior in TIG Welding Process	
ME_071	Production of lightweight clay bricks natural	
ME_074	Flexional and thermal characterization of a lightweight clay and sawdust based compressed bricks	
ME_079	Fatigue-Induced Effects of Prolonged Holding Time on Corrosion in AISI 4130 Steels Welded with a Nickel-based Electrode via the Pulsed TIG Process	
MS_036	Optimizing Gear Pump Body Design for Enhanced Performance and Efficiency using ANSYS and Response Surface Methodology	Pr. Taher Masri Pr. Youcef Djehoun
MS_037	Geometric Study for FGM Spinning Shaft Using P-Version of The Finite Element Method	
MS_040	Topology Optimization and Fatigue Life Prediction of a Double-Edged Blade for a Single-Shaft Shredder.	
MS_041	Bending Analysis of Functionally Graded Cylindrical Shell Under An Uniform Load	
MS_042	The Buckling Analysis OF Functionally Graded Plate Using An Improved First Shear Deformation Theory	

3rd Day

12th December 2023

Process of participation Poster presentation

Time	ID	Title	Jury Members
09 :30 10 :30	EE_009	Drying of beetroots (<i>Beta vulgaris</i> L.) using oven dryer	Pr. Salah Guerbai Pr. Nacer Chouchane
	EE_010	Validation of the developed model for forecasting global solar radiation with measurements in Biskra	
	EE_023	Hydrogen Potential in North Africa: Algeria Overview.	
	EE_024	A brief review of fuel cells and their application areas	
	EE_025	An experimental study on the effect of salt pre-treatment of the potato slices dried in a forced indirect solar dryer.	
	EE_027	A Comparative Study of Green and Blue Hydrogen and 3E (Energy, Environmental sustainability, Economicsprospects) Analysis.	
	EE_034	Modeling Air Velocity and Temperature Distribution in An Industrial Building Equipped with An Air-Earth Heat Exchanger Using Computational Fluid Dynamics: Case of Mechanical Hall	
	EE_038	Evaluation of air-ground heat exchanger performance with different tube cross-section shapes using computational fluid dynamics	
	EE_043	Experimental study of a geothermal water-air heat exchanger for heating homes	
	EE_049	Experimental Analysis of Thermo-hydraulic Performance of Solar Air Heater Equipped with V-Shaped Porous Baffles	
EE_035	Evaluation of air-ground heat exchanger performance with different tube cross-section shapes using computational fluid dynamics		





EE_029	Effect of Rheological Model of Viscosity on Stress Tensor in Blood Flow in Aorta with Aneurysm	Pr. Karima Ouannes	Pr. Fatima Zohra Lemmadi
ME_056	Synthesis, Structural, Characterization of Perovskite $\text{LaCo}_{1-x}\text{Al}_x\text{O}_3$ ($0 = x = 0, 3$)		
ME_064	Degradation by carbonation of precast concrete at the Keddara dam		
ME_067	Effect Of heat Treatments On Microstructure And Mechanical Properties Of a Shielded Metal Arc Welded Pipeline Steel		
ME_070	A Novel Finite element model For Static bending Analysis Of Functionally Graded Beams		
ME_072	Microstructure and tribological		
ME_073	Effect of ratio of natural fibers on the physical, mechanical and thermal properties of a bio-composite insulating material (date palm fibers/gypsum)		
ME_076	Non-isothermal kinetic analysis of the dehydroxylation of kaolinite in Kaolin-Natural phosphate mixtures		
ME_081	Study the feasibility of using date palm waste as a construction material: mechanical properties.		
ARCME_04	Third-order nonlinear optical properties of ZnO:Fe thin films prepared by spin coating technique.		
MS_009	Analysis of eco-friendly inhibitor's ability to prevent corrosion on carbon steel in acid media	Pr. Mohamed-Ouejdi Belarbi	Pr. Issam Abdesselam
MS_012	Corrosion inhibition properties of eco-friendly inhibitor on carbon steel in acid media: electrochemical characterization		
MS_014	Numerical Analysis of Stiffened Plates Under Bending by Two Finite Elements Based on Two Different Approaches		
MS_019	Numerical study of the bending analysis of curved functionally graded sandwich beams		
MS_025	Digimat simulation of honeycomb sandwiches with varying weight fractions and orientations reinforced unidirectional date palm fibres in Gypsum layers		
MS_027	Evaluation of structural deformation of marine structure during an accidental event		
ARCME_01	Effect of Cu, Gr and ZnO on the magnetic and structural properties of nanostructured FeNi produced via Ball Milling process		



ARCME_02	Fatigue Induced Effects of Prolonged Holding Time on Corrosion in AISI 4130 Steels Welded with a Nickel based Electrode via the Pulsed TIG Process
ARCME_03	On the exponential behavior of the dependence of the crystallite size and lattice strain of Titanium alloy with milling time
ARCME_05	Enrichissement et agglomération du minerai de fer pauvre de L'Ouenza
ARCME_06	SiO ₂ modified conducting polymer based nanoadsorbent: Synthesis, characterization and evaluation for the removal of methylene blue from aqueous solutions
EE_072	Enhancing Electronic Component Cooling Via Examination Of Altered Upper Corner Geometry
MS_043	Composite sandwich panel natural frequency numerical investigation with variables mass ratios, orientation fiber, and layer count
EE_074	Precision increase of the axial wind turbine energy generation
EE_082	Enhancing the Morphological Structure of Palm Leaf Fibers through Alkaline Treatment.
ME_083	The effect of lubricating film transformation characteristics with the Ostwald indices variations
EE_075	Examining the thermo-hydraulic performance in a solar thermal collector equipped with baffles through experimental study
E_006	Intelligent Detection of Drinking Water Contamination

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