



1st International Conference on Water, Energy, Environment and Materials Engineering (WEEME'24)

Kasdi Merbah University, Ouargla, December 10th-11th, 2024

Agenda

First Day, Tuesday, December 10th

08:00 am - 09:30 am Registration

Opening

09:30 am - 10:30 am

09:30 am - 09:45 am	Opening of the International Conference Pr. Mohamed Tahar HALILETE <i>Rector of Kasdi Merbah University</i>
09:45 am - 10:00 am	A word of the Dean of Faculty of Applied Science Pr. AbdElouahed KRIKER <i>Kasdi Merbah University</i>
10:00 am - 10:15 am	A word of the Mechanical Department Head Dr. Djamila DAMENE <i>Kasdi Merbah University</i>
10:15 am - 10:30 am	A word of the Conference's Chairman Dr. Imad KEMERCHOU <i>Kasdi Merbah University</i>

10:30 am - 11:00 am Coffee Break

1st Plenary Session

11:00 am - 01:00 pm

11:00 am - 11:30 am	Thermal Regulation and Thermal Energy Storage by Phase Change Materials Pr. Muslum ARICI <i>Kocaeli University, Turkey</i>
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1st International Conference on
Water, Energy, Environment
and Materials Engineering
WEEME'24



11:30 am - 12:00 noon Adsorption, Kinetic, and Thermodynamic Investigations of Neem Fruit (*Azadirachta Indica*) Activated with H₃PO₄ for Adsorption of Hexavalent Chromium
Pr. Imad HAMADNEH *University of Jordan*

12:00 noon - 12:30 pm Study and Development of Hydroponic Greenhouse Systems
Pr. Driss ZIED *National School of Engineers of Sfax (ENIS), Tunisia*

12:30 pm - 01:00 pm Biofuel Production from Microalgae as sustainable and Renewable Energy
Pr. Mostafa Mohamed EL-SHEEKH *Tanta University, Egypt*

01:00 pm - 03:00 pm Lunch and Break

1st Oral Session

03:00 pm - 05:00 pm

Room A

Water Management & Energy Systems

Session Chairs: Pr. Belkhir NEGROU and Pr. Driss ZIED,

assisted by: Dr. Abderrahman GOUAREH and Dr. Abderrahmane KHECHEKHOUCHE

03:00 pm - 03:15 pm ANN and WANN waves-based artificial neural network models with K-means clustering for modelling Daily suspended sediment load
WEEME'24-102-Or **Abdelouahab LEFKIR** *TPiTE Lab., ENSTP*

03:15 pm - 03:30 pm Performance investigation of innovative system designed for cereal irrigation in desert climate
WEEME'24-405-Or **Boubekeur DOKKAR** *University of Kasdi Merbah Ouargla*

03:30 pm - 03:45 pm Optimization and Modelling of Operating Parameters for MB Adsorption by Treated Activated Carbon
WEEME'24-103-Or **Abdelkader GUEMGAM** *University Amar Telidji of Laghouat*

03:45 pm - 04:00 pm Obtaining a hybrid electrode based on imidazonium ion- terminated and metallic nano-clusters for battery electrode use
WEEME'24-413-Or **Mourad MECHOUET** *LPCM lab., Université Mouloud Mammeri de Tizi Ouzou*

04:00 pm - 04:15 pm Spatial evaluation of hydrochemical facies and influence of seawater intrusion in coastal aquifer of Sebaou Valley, Eastern Algeria
WEEME'24-112-Or **Sabrina AGROUCHE** *Department of Geology, UMMTO*

04:15 pm - 04:30 pm Empirical modelling of thin layer drying kinetics of mint leaves: Influence of transparent cover materials of greenhouse-type solar dryer
WEEME'24-414-Or **Chihabeddine NETTARI** *LENREZA lab., Kasdi Merbah University, Ouargla*

04:30 pm - 04:45 pm Review of dew point evaporative system
WEEME'24-113-Or **Zoheir DERGHOUT** *University of Kasdi Merbah, Ouargla*

04:45 pm - 05:00 pm Enhancement of Power Supply Reliability Based on Diversifying Energy Sources, A Multi-Objective Study in Algerian Oil and Gas Sector

WEEME'24-415-Or

Abdenmour BENCHEIKH

University of Batna 2

Room B

Mechanics and Emerging Technologies & Materials Engineering

Session Chairs: Dr. Mohammed Salah BENNOUNA and Pr. Muslum ARICI, assisted by: Pr. Djamel MENNOUCHE, Pr. Arief MAALEJ and Dr. Nabil KEBAILI

03:00 pm - 03:15 pm Optimizing Queue Management with AI-Driven Wait Time Predictions in Postal Services

WEEME'24-201-Or

Fairouz Rayane BENNAI

FNTIC, Ouargla university

03:15 pm - 03:30 pm A comparison between the piezoelectric effect of sandstones and their thin films

WEEME'24-306-Or

Noura MEBROUKI

LRPPS lab., University of Kasdi Merbah, Ouargla

03:30 pm - 03:45 pm Modeling of the Behavior of Thermo-Mass Transfers during Successive Treatments by Hot Water Dipping and Hot Steaming of Deglet-Nour Dry Dates

WEEME'24-204-Or

Mohamed Hafed BERREBEUH

University of Kasdi Merbah, Ouargla

03:45 pm - 04:00 pm Hybrid beads synthesis for amoxicillin-controlled release

WEEME'24-309-Or

Karima BAGHDAD

University of Science and Technology of Oran - Mohamed Boudiaf

04:00 pm - 04:15 pm Study, Design, and Manufacturing of a Burnishing Tool

WEEME'24-336-Or

Mourad ABDELKRIM

LAMES lab., University of Kasdi Merbah, Ouargla

04:15 pm - 04:30 pm Energy Efficiency and Sustainable Cooling: A Parametric Study of Lithium Bromide Absorption Refrigeration Systems.

WEEME'24-316-Or

Khadra ALIOUAT

LMASE lab., Université Kasdi Merbah, Ouargla

04:30 pm - 04:45 pm An Efficient Method for Estimating the Fractal Dimension of Color Images of Discharges on a Polluted Insulator Model

WEEME'24-318-Or

Imene FERRAH

Lecturers-researchers

1st Poster Session & Coffee Break

05:00 pm - 05:30 pm

05:00 pm - 05:30 pm Presentations and questions answering

Room A

Water Management & Energy Systems

Session Chairs: Dr. Djilali MESSAOUDI and Dr. Youssef REHOUMA, assisted by: Dr. Elhocine CHIBA and Dr. Abdelkader BOUKAROURA

Water quality of the groundwater aquifer: case city El Oued.

WEEME'24-108-Ps

Azzeddine MANSOUR

University of Mohamed Cherif Messadia, Souk-Ahras



WEEME'24-109-Ps	Effect of Water quality on Chemical Formulation: Application in Enhanced Oil Recovery Celia MECHOUK <i>LRSPGA lab., Université Kasdi Merbah, Ouargla</i>
WEEME'24-104-Ps	Green synthesis of carbon dots from date seeds and its application in waste water treatment Abir DJEDDA <i>Université Kasdi Merbah Ouargla</i>
WEEME'24-105-Ps	Analysis of water quality for agricultural use in the Adrar region Alia Sara LAKHDARI <i>Université Kasdi Merbah Ouargla</i>
WEEME'24-106-Ps	The Origin of groundwater mineralization in the Adrar region (Algerian Sahara) Alia Sara LAKHDARI <i>Université Kasdi Merbah Ouargla</i>
WEEME'24-107-Ps	Saving Bechar's Future: The Impact of Climate Change and Strategic Water Resources Management through Water Quality Assessment Aymen ATBI <i>Tahri Mohammed University of Bechar</i>
WEEME'24-110-Ps	Investigation the solids retention time in biological reactors influences sludge morphology and affects the dewatering process Imene KADRI <i>LIPE lab., Université Salah Bounider Constantine 3.</i>
WEEME'24-111-Ps	Examination of Experimental Data and Breakthrough Curves for Hexavalent Chromium Biosorption Using Eucalyptus Chips in a Fixed-Bed Column Ali ALOUACHE <i>LNCSM lab., Ecole Normale Supérieure Kouba</i>
WEEME'24-114-Ps	Enhancing Solar Desalination Efficiency Through Intermittent Water Supply: A Case Study in Arid Oases Regions Zineb KORICHI <i>Ecole Normale Supérieure de Ouargla</i>
WEEME'24-116-Ps	Adsorption Study of Methylene Blue Dye On leaves of Phragmites australis Othmane MEZZAR <i>University of Laghouat</i>
WEEME'24-117-Ps	Synthesis, Characterization, Antimicrobial activity. and Molecular Docking Studies of N-acetyl-para-aminophenol-Nanoparticles Mahboubia HAMMOUDI <i>VPRS lab., Kasdi Merbah Ouargla University</i>
WEEME'24-118-Ps	Assessment of the physicochemical water quality in Miocene springs of the southeastern Upper Cheliff Plain, Algeria Azouz BOUDERBALA <i>University Kasdi Merbah of Ouargla</i>
WEEME'24-120-Ps	Impact of climate variability on land occupation. The case of Wadi Fekan (NW Algeria) Abdelkader OUIKHLEF <i>Water and Soil Resources lab., University of Tlemcen</i>
WEEME'24-121-Ps	Decontamination of water polluted by toxic heavy metals (Mercury and Lead) using a low-cost and environmentally-friendly bioadsorbent Mohammed Cherif TERKHI <i>LESV, University of Mostaganem.</i>

WEEME'24-122-Ps	Calculation of irrigation dose using climatic data available to the farmer Sofiane GHERIANI <i>National Institute of Agronomic Research of Algolia</i>
WEEME'24-123-Ps	Contributing to the elimination of inorganic pollutants using waste from the palm trees of Ouargla (southern Algeria) Zineb BENSACI <i>University of Ouargla</i>
WEEME'24-125-Ps	Treatment of injection water in Oil Field Mohamed Ali ARBAOUI <i>University of Ouargla</i>
WEEME'24-126-Ps	Study of the adsorption mechanism of hexavalent chromium onto zeolitic imidazolate framework-11 Rachid LAMARI <i>URMPE Research Unit, Boumerdes University</i>
WEEME'24-127-Ps	Enhancing Wastewater Microbiological Quality through Bio-Sand Filtration as a Point-of-Use Treatment Solution Mohamed Laid HADJADJ <i>VPSR Laboratory, University of Kasdi Merbeh, Ouargla</i>
WEEME'24-128-Ps	Experimental study a brackish water desalination unit using a parabolic trough collector Mokhtar LATI <i>Process Engineering Laboratory, University of Ouargla</i>
WEEME'24-409-Ps	Numerical study of laminar flow by force convection of a hybrid nanofluid in a uniformly heated horizontal cylinder Mohammed BENKHEDDA <i>M'hamed Bougara Boumerdes University</i>
WEEME'24-130-Ps	Treating winery wastewater using a new absorbent PLBC Mebarka KADDOURI <i>University of Biskra</i>
WEEME'24-401-Ps	An attempt to unlock the potential of Algeria's rare earth bearing phosphorites through machine learning for industrial growth and green energy Tahar Belkacem NASREDDINE <i>LRSPGA lab., Université Kasdi Merbah Ouargla</i>
WEEME'24-402-Ps	Performance Analysis of Hybrid Heat Sinks with Various Configurations in a Forced Convection Environment Noureddine MENECEUR <i>UDERZA Unit, University of El Oued</i>
WEEME'24-403-Ps	Investigation of the Thermodynamic Performance Parameters and Environmental Impact of (1,1,1,2-Tetrafluoroethane/Hydrocarbons (HCs)) Blends in Cooling Machinery Youcef MAALEM <i>National Polytechnic School of Constantine (ENPC)</i>

Room B

Mechanics and Emerging Technologies & Materials Engineering

Session Chairs: Dr. Rabie KAREK and Dr. El Hadj ACHORI,
assisted by: Dr. Abdelhafid GHERFI and Dr. Soufiane HALIMI

WEEME'24-322-Ps	Study of the durability of Fiber-reinforced lime mortars Saad CHAIB <i>Amar Telidji University, Laghouat</i>
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WEEME'24-209-Ps	The numerical calculation of spatial derivatives distribution functions (MDFs) in one component plasma (OCP) through screened G. Kelbg potential Salima GUERRICHA <i>University Kasdi Merbah Ouargla</i>
WEEME'24-202-Ps	Numerical study of Ternary Hybrid Nanofluid Flow in Concentric Cylinders Mohamed KEZZAR <i>LMGE lab., 20 Aout 1955 University of Skikda</i>
WEEME'24-203-Ps	Nanoparticle aggregation effects on MHD nanofluid flow over a Permeable Stretching/Shrinking Sheet with velocity slip and thermal radiation Sihem GHERIEB <i>20 Aout 1955 University of Skikda</i>
WEEME'24-301-Ps	Structural and Optical Properties of NiO Thin Films with Carbon Dots for Photocatalytic Application Boudjemaa BOUAQUINA <i>M'hamed Bougara University of Boumerdes</i>
WEEME'24-302-Ps	Weibull Statistic of the Mechanical Performances of Chamaerops humilis Palm Fibers for Eco-Friendly Green Composites Soumia ATOUI <i>Université de Skikda</i>
WEEME'24-303-Ps	Biosynthesis, characterization of Copper nanoparticles and evaluation of their antimicrobial activity Hadjer BOUT <i>Université Amar Telidji-Laghout</i>
WEEME'24-304-Ps	Removal of some organic pollutants using photocatalytic degradation method Maroua OUEZZANI <i>University Kasdi Merbah Ouargla</i>
WEEME'24-305-Ps	First principles study of the Structural, Electronic and mechanical properties of intermetallic compounds Djalel MEBARKI <i>École Nationale Polytechnique d'Oran Maurice Audin</i>
WEEME'24-307-Ps	Thermal properties of plaster filled with date palm rachis Brahim BENAMARA <i>Laboratory EVRNZA University of Ouargla</i>
WEEME'24-308-Ps	Effect of Adding Alfa Plant Powder on Thermal and Mechanical Properties of Fired Earth Bricks Youcef BALI <i>Laboratory EVRNZA University of Ouargla</i>
WEEME'24-312-Ps	Comparison of Si/Al ₂ O ₃ and TiO ₂ /Al ₂ O ₃ One-Dimensional Photonic Crystals as Omnidirectional Bragg Reflectors in the Visible and Infrared Spectrum Ahlam AOUACHIR <i>LENREZA lab., University Kasdi Merbah Ouargla</i>
WEEME'24-311-Ps	Influence of annealing temperature on indium oxide thin films properties Anouar YAHIA <i>Université Mohamed Kheider</i>

WEEME'24-310-Ps	Characterization of Antioxidant Activity and Release Kinetics of Essential Oil Encapsulated in Sodium Alginate and Gelatin Aicha DEHANE	<i>University of Bejaia</i>
WEEME'24-313-Ps	Fractional Modeling of Dopant Diffusion in Silicon for the Formation of p-n Junctions in Photovoltaic Cell by using Caputo-Fabrizio Derivative Nesserine TARTAR	<i>Echahid Cheikh Larbi Tebessi University - Tébessa</i>
WEEME'24-314-Ps	Contribution to The Modeling of The Short-Term Behavior of Cured Concrete in Hot Weather Kamel REBAI	<i>FIMAS lab., Tahri Mohammed University, Bechar</i>
WEEME'24-315-Ps	Assessment of The Impact of Pressure on Stresses in a Damaged Pipeline Conducted Analytically and Using FEM Ghizlene Rahma RENNOU	<i>Laboratory of Mechanics and Energetics</i>
WEEME'24-317-Ps	Photocatalytic Degradation of Methylene Blue Dye From Aqueous Solution Imane DAOUI	<i>Kasdi Merbah University</i>
WEEME'24-319-Ps	La_{1-x}Sr_xFe_{0.7}Ni_{0.3}O₃, new material for energy applications Manel MELOULI	<i>University of Kasdi Merbah Ouargla</i>
WEEME'24-321-Ps	Factors Influencing the Fracture Toughness of Bioplastic Starch Reinforcements in Date Palm Fiber. Rabie KAREK	<i>LMASE lab., University of Kasdi Merbah, Ouargla</i>
WEEME'24-325-Ps	Preparation and characterization of NiO nanoparticles Hichame CHEKIMA	<i>University of Biskra</i>

Second Day, Wednesday, December 11th

2nd Plenary Session

08:00 am - 09:00 am

Room A

Water Management & Energy Systems

08:00 am - 08:30 am	The Climate is Changing, Flash Floods Intensify, What to do? Pr. Boualem REMINI	<i>University of Blida 1, Algeria</i>
08:30 am - 09:00 am	Three Strange Things in Solar Still Dr. Abderrahmane KHECHEKHOUCHE	<i>EL-oued University, Algeria</i>

Room B

Mechanics and Emerging Technologies & Materials Engineering

08:00 am - 08:30 am	Industrial Metals: Advanced Study and Characterization Pr. Mosbah ZIDANI	<i>Batna 2 University, Algeria</i>
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2nd Oral Session

09:00 am - 10:30 am

Room A**Water Management & Energy Systems**

Session Chairs: Pr. Nouredine CHERRAD and Pr. Mostafa Mohamed EL-SHEEKH, assisted by: Dr. Mohammed Laid MECHRI and Dr. Mohamed Abdelbasset MAHBOUB

- 09:00 am - 09:15 am Altering bentonite through acid treatment: The use of Rhodamine B in water purification
WEEME'24-115-Or **Halima GALLOUZE** *University of Sciences and Technology Houari Boumediene*
- 09:15 am - 09:30 am Enhancing Energy Efficiency through Solar Absorption Cooling: A Numerical Analysis of key Performance Factors
WEEME'24-418-Or **Khadra ALIOUAT** *LMASE lab., Université Kasdi Merbah, Ouargla*
- 09:30 am - 09:45 am Assessment of BOD Kinetic Parameters Using Graphical and Mathematical Methods in Wastewater
WEEME'24-119-Or **Souhail NESRI** *University of Mohamed Khaider, Biskra*
- 09:45 am - 10:00 am Improved Energy Optimization in Hybrid Microgrids with MATLAB/Simulink-Controlled PV, Fuel Cells, and Batteries
WEEME'24-419-Or **Chakib GUEBLI** *Kasdi Merbah University, Ouargla*
- 10:00 am - 10:15 am Preparation and validation of metallic electrodes used in electrolysis of water
WEEME'24-124-Or **Abdelkader SAILA** *University of Djelfa*
- 10:15 am - 10:30 am Comparative Performance and Power Generation of 100 kWp Fixed Photovoltaic Sub-fields in Ghardaïa City
WEEME'24-439-Or **Abderraouf BOURAMDANE** *University of Ouargla*

Room B**Mechanics and Emerging Technologies & Materials Engineering**

Session Chairs: Dr. Moussa GUEBAILIA and Pr. Sabih ZIDANI, assisted by: Dr. Toufik AMEUR and Pr. Imad HAMADNEH

- 09:00 am - 09:15 am Impact of Cutting Parameters on Surface Quality in Face Milling of X2CrNi18-9 Stainless Steel: Insights from Response Surface Methodology and Genetic Algorithms
WEEME'24-320-Or **Hadjira LOT** *BLIDA1 University*
- 09:15 am - 09:30 am Perovskite Solar Cells: The Way in the Future of Efficient and Accostable Solar Energy Title
WEEME'24-323-Or **Elhocine CHIBA** *University of Ouargla*

09:30 am - 09:45 am Carbon nanotubes characterization and their potential for increased hydrocarbon production

WEEME'24-328-Or **Mustapha MILOUDI** *FHERSTU-UKM Ouargla*

09:45 am - 10:00 am Efficient Eddy Current Detection of 3D Cracks Through Probe Signal analysis

WEEME'24-331-Or **Abderrahmane ABBASSI** *University of Kasdi Merbah, Ouargla*

2nd Poster Session & Coffee Break

10:30 am - 11:00 am

10:30 am - 11:00 pm Presentations and questions answering

Room A

Water Management & Energy Systems

Session Chairs: Dr. Mohamed Mabrouk DRID and Dr. Moukhtar LATI, assisted by: Dr. Abdeldjabbar MESSAOUDI, Dr. Slimane HACINI and

Design and Sizing of a Solar Pumping system for an agricultural field

WEEME'24-404-Ps **Nabil OUAZAA** *Ecole Nationale Polytechnique Constantine*

An Experimental Study of Hydrogen Production Through a Photovoltaic System in The Ouargla Region, Algeria.

WEEME'24-406-Ps **Madjeda RAMDANI** *University of Kasdi Merbah Ouargla.*

Speed Control of a Permanent Magnet Synchronous Wind Turbine

WEEME'24-407-Ps **Mohammed Tahar LATRECHE** *University of Batna 2*

An Artificial Neural Network-Based Predictive Control Model for Grid-Connected Inverter

WEEME'24-408-Ps **Lamine MEDEKHEL** *LMSE lab., University of Biskra*

Wastewater Treatment and Sustainable Use of Water Resources in Arid Areas

WEEME'24-129-Ps **Abdellatif RAHMANI** *University of Kasdi Merbah Ouargla*

Stopping power calculation of 12C, 16O ions in Mylar and Polycarbonate targets for the energy range from 1,1 to 7,1 MeV/n

WEEME'24-410-Ps **Sihem FOUL** *LTPRMI lab., University of Blida1*

Stopping power calculation of 1H, 7Li ions in Mylar and Polycarbonate targets for the energy range from 1,1 to 7,1 MeV/n

WEEME'24-411-Ps **Sihem FOUL** *LTPRMI lab., University of Blida1*

Feasibility Study of Solar Drying of Clay Bricks

WEEME'24-412-Ps **Messaoud SANDALI** *University of Kasdi Merbah, Ouargla*

Comparative study of EAHE system in different regions of Algeria

WEEME'24-416-Ps **Abbes ATTIA** *University of Kasdi Merbah Ouargla*

WEEME'24-417-Ps	Neutronic simulation of the small modular reactor CAREM-25 using Open MC code Karima ZICHE <i>Farhat Abbas University, Setif1</i>
WEEME'24-420-Ps	Electrochemical Behaviour of Modified Electrode: GCE/Poly [4 -(Pyrrol-1-Yl Methyl) Benzoic Acid]-Nickel Faiza NESSARK <i>LEM lab., Université Ferhat Abbas Sétif 1</i>
WEEME'24-421-Ps	Optimal Integration of PV/DSTATCOM Systems in Reconfigured Distribution Networks Fares SADAOU <i>University of Kasdi Merbah Ouargla</i>
WEEME'24-422-Ps	Techno-Economic Optimization of Integrating Renewable Distributed Generation into Distribution Networks Considering Hourly Variations in Load, Climatic Conditions, and Energy Prices Fares SADAOU <i>University of Kasdi Merbah Ouargla</i>
WEEME'24-423-Ps	Numerical Investigation of Eccentricity effects on Laminar Free Convection in a Gap between Two Cylinders. Oussama BENHIZIA <i>University of Kasdi Merbah Ouargla</i>
WEEME'24-424-Ps	Optimization of energy storage in a solar water heater Djamila DAMENE <i>Kasdi Merbah University – Ouargla</i>
WEEME'24-428-Ps	Effect of fins number on the thermal performance of a parabolic trough collector Adel LAARABA <i>University of BATNA 1</i>
WEEME'24-430-Ps	Optimal working pairs for adsorption cooling application Nassima BAKHALED <i>University kasdi Merbah Ouargla</i>
WEEME'24-432-Ps	Green hydrogen production potential for M'sila province in Algeria with solar energy Youssef REHOUMA <i>LEVRES lab., University of El Oued</i>
WEEME'24-433-Ps	Design and Cost Evaluation of Photovoltaic Systems Based on Real-World Results in Algeria Anouar Bella BACI <i>Ferhat Abbas University 1 Setif</i>
WEEME'24-434-Ps	Optimal Renewable Distributed Generators Allocation in Distribution Network with Various Load Models Abdelkader BOUKAROURA <i>University of Kasdi Merbah</i>
WEEME'24-435-Ps	Numerical Investigation of Very Low Reynolds Octagonal Jet for Personalized Ventilation Hacene KADI <i>University of Mohamed El-Bachir El-Ibrahimi, El-Anasser, Algeria</i>
WEEME'24-436-Ps	Optimization of photovoltaic PV using a new control strategy for renewable energy Abdelkrim KHIREDDINE <i>University of Bejaia</i>

Modeling of a PV system with different MPPT techniques using MATLAB/Simulink and Implementation in Arduino of MPPT Using P&O, InC Algorithm

WEEME'24-437-Ps

Djaafar TOUMI

University of El Oued

Power Quality Enhancement of Grid Connected Brushless Doubly-Fed Induction Generator Using Robust Fuzzy Logic Algorithm

WEEME'24-438-Ps

Mohamed Abdelbasset MAHBOUB

University of Ouargla

Modeling and simulation of five-phase Permanent Magnet Synchronous Generator Used in Wind Energy Conversion System with variable speed wind turbine

WEEME'24-440-Ps

Mohamed Abdessalam NESSIL

University of Ouargla

Advanced Hydrogeological Modeling of the Miocene Aquifer in the El Malabiod Region, N.E. Algeria Using VISUAL MODFLOW Flex: Strategies for Sustainable Water Management

WEEME'24-101-Ps

Rayene Sirine RAMDANI

Tebessa University

Room B

Mechanics and Emerging Technologies & Materials Engineering

Session Chairs: Dr. Zoheir DERGHOUT and Dr. Youssef TOUGUI, assisted by: Dr. Mehdi KHALFI, and Dr. Messaoud SANDALI

Calculation of radial distribution functions in hydrogen plasma using modified G. Kelbg potential

WEEME'24-206-Ps

Salima GUERRICHA

University Kasdi Merbah Ouargla

The ionic electric microfield distribution functions of one component plasma (OCP) governed by screened G. Kelbg potential

WEEME'24-207-Ps

Salima GUERRICHA

University Kasdi Merbah Ouargla

Thermal Buckling analysis of Functionally graded material beams

WEEME'24-326-Ps

Abdelhamid BENZID

LGEM lab., University of Biskra

A Review study on Physico-Mechanical Properties and Durability of Lime Mortar Based on Recycled Materials

WEEME'24-327-Ps

Halima BENCHIOUKH

LSRM lab., Amar Telidji University

Study the fluctuation at the W2A' station using OLGA simulator

WEEME'24-329-Ps

Mohamed Ali ARBAOUI

University of Ouargla

Impact of Cutting Parameters on Surface Quality in Face Milling of X2CrNi18-9 Stainless Steel: Insights from Response Surface Methodology and Genetic Algorithms

WEEME'24-330-Ps

Hadjira LOT

BLIDA1 University

- WEEME'24-332-Ps** Dielectric behavior of PLLA films during dynamic crystallization and effect of vacuum annealing
Noureddine MAKRANI *LPM lab., University of Sciences and Technologies (USTHB), Algiers*
- WEEME'24-333-Ps** Efficacy of Ag-Zeolites as a Fungicide: A New Approach
Imen BENCHIKH *Université de Laghouat*
- WEEME'24-334-Ps** Influence of HDPE on the Stiffness Modulus of Asphalt Concrete Based on Dune Sand
Abdelhamid BENZID *LGEM lab., University of Biskra*
- WEEME'24-335-Ps** The Effect of Zinc Doping Levels on Cobalt Oxide produced by Spray Pyrolysis Using a Solar Concentrator
Abderrezak GHARBI *University of Ouargla*
- WEEME'24-337-Ps** Temperature Monitoring in Machining Using Infrared Technology
Mourad ABDELKRIM *LMASE lab., University of Kasdi Merbah, Ouargla*
- WEEME'24-338-Ps** Impact of Nanosilica on the Diffusion of Phenolic Antioxidants in LDPE Matrices
Abdelhai AOUAITIA *Organic Materials Laboratory, Abderrahmane Mira University*
- WEEME'24-341-Ps** Optimization of Burnishing Parameters for Enhanced Machined Surface Finish Quality
Abderrahim BELLOUFI *LMASE lab., University of Kasdi Merbah, Ouargla*
- WEEME'24-343-Ps** Morphology Properties of Fe₂O₃, Dope Aluminum (AL) Thin Films Deposited by Spry Pyrolysis
Aboubaker CHIBANI *University of Boumerdes*
- WEEME'24-344-Ps** First principles study of Structural, Stability, and Elastic properties of Lanthanum dihydride system
Wafa CHAIB *LENREZA lab., University Kasdi Merbah Ouargla*
- WEEME'24-345-Ps** Correlation Between Vickers Hardness and Strength Indices in HSLA Steels for Pipeline Applications
Ali LAHOUEL *University of Annaba*
- WEEME'24-347-Ps** Influence of Chemical Extraction Methods Using NaOH on Mechanical Properties of Yucca Natural Fibers: A Comparative Study of 2%, 6%, and 12% Concentrations During 3 Hours
Mohamed Amine KACEM *LMASE lab., Kasdi Merbah University, Ouargla*
- WEEME'24-348-Ps** Impact of Activated Carbon on the Performance of an Adsorption Refrigeration Cycle with Methanol
Imad KEMERCHOU *Kasdi Merbah University*
- WEEME'24-349-Ps** Investigating the Influence of Activated Carbon Adsorption Capacity on water-Based Adsorption Refrigeration Cycles
Hichem HENNA *Kasdi Merbah University, Ouargla*

WEEME'24-350-Ps	Elastic anisotropy and mechanical stability of ScAuGe: First principles investigation Larbi MESSADI	<i>University of Tiaret</i>
WEEME'24-351-Ps	The Production of Ecological Gasoline That Complies with New Environmental Requirements at the Southern Industrial Complex in Hassi Messaoud Algeria) Bilal BENABIDI	<i>Kasdi Merbah University, Ouargla</i>
WEEME'24-352-Ps	Influence of Production Parameters on Composite Mechanical Properties: A Study of Regression Models and Multi-Objective Optimization Abderrahim BELLOUFI	<i>LMASE lab., University of Kasdi Merbah, Ouargla</i>
WEEME'24-353-Ps	An Investigation into the Influence of AL2O3/water and CU/water Nanofluids on Laminar Flow Forced Convection in a Double Backward-Facing Step Zohra Souad BENGUERRAICHE	<i>University of Mila</i>
WEEME'24-208-Ps	The Electric Microfield and its Spatial Derivatives Distribution Functions Through G. Kelbg Potential: an Application on Lyman- α Spectral Line Shape of plasma Li^{+2} Sara KOBBI	<i>University of Kasdi Merbah, Ouargla</i>

3rd Oral Session

11:00 am - 12:30 pm

Room A

Water Management & Energy Systems

*Session Chairs: Pr. Boubakeur DOKKAR and Pr. Boualem REMINI,
assisted by: Pr. Arief MAALEJ, Pr. Ahmed DJAFOUR and Dr. Lakhdar LOUAZENE*

11:00 am - 11:15 am	A GIS-Driven Multi-Criteria Decision-Making Framework for Wind Energy Site Selection in Algeria	
WEEME'24-425-Or	Djilali MESSAOUDI	<i>University of Kasdi Merbah Ouargla</i>
11:15 am - 11:30 am	Impact of bypass diodes on Mismatch Induced Partial Shading in Solar Panels.	
WEEME'24-426-Or	Laid GUERRIDA	<i>University of Ziane Achour in Djelfa</i>
11:30 am - 11:45 am	Measuring and Predicting the Ground Temperature at Different Depths in Saharan Algeria Region: Application to Underground Buildings	
WEEME'24-427-Or	Belkhir HEBBAL	<i>LENREZA lab., University of Ouargla</i>
11:45 am - 12:00noon	Techno-economic analysis of standalone microgrid photovoltaic-wind hybrid system with battery storage: case study in N'goussa, Ouargla.	
WEEME'24-429-Or	Mhamed DERNOUNI	<i>LENREZA lab., University of Ouargla</i>



12:00noon - 12:15 pm An improved metaheuristic algorithm for parameter extraction of triple-diode photovoltaic cells model

WEEME'24-431-Or

Belkacem AOUI

University of Ouargla, Algeria

Room B

Mechanics and Emerging Technologies & Materials Engineering

*Session Chairs: Pr. Rassim BEAKROUM and Pr. Mustapha BOUAKBA,
assisted by: Dr. Imane REZGUI and Dr. Nadia SAIFI*

- 11:00 am - 11:15 am Numerical study of forced convection in a channel using a nanofluid
WEEME'24-205-Or Adel HAMOUCHE *École Nationale Polytechnique de Constantine*
- 11:15 am - 11:30 am Predicting Material Properties from Dynamic Displacement Responses Using Numerical Modeling
WEEME'24-339-Or Moussa GUEBAILIA *LAMES lab., University of Kasdi Merbah, Ouargla*
- 11:30 am - 11:45 am Optimizing CuGaSe₂ Absorber Layers for Enhanced Efficiency in Perovskite Solar Cells: A SCAPS-1D Simulation Study
WEEME'24-340-Or Nourelhouda MEKHAZANIA *Echahid Cheikh Larbi Tebessi University, Tebessa*
- 11:45 am - 12:00noon Advanced Predictive Modeling for Optimizing Electrical Discharge Machining (EDM) Parameters
WEEME'24-342-Or Abderrahim BELLOUFI *LAMES lab., University of Kasdi Merbah, Ouargla*
- 12:00noon - 12:15 pm Estimation of thermophysical properties of a solid plate using inverse heat conduction problem
WEEME'24-346-Or Younes BOULAADJOL *Technology Institute, University of Ouargla*

Closing

- 12:30 pm - 01:00 pm Closing
At 03:00 pm Excursion

