



CONFERENCE PROGRAM

International Conference on Industrial Systems and Processes SPIn 2024

GREEN AND SUSTAINABLE ENERGY
WATER-FOOD NEXUS AND CHALLENGES



4th edition International Conference On Industrial Systems and Processes

Themes:

Theme 1: Hydrogen – Renewable Energy - Bioenergy

Theme 2: Phosphoric and Nitrogen-Based Fertilizer

Theme 3: Waste Water Treatment – Desalination – Brackish water treatment

Theme 4: Materials: Conception, Elaboration and Valorisation

Theme 5: Supply Chain, Modelling, Simulation and Optimisation

Theme 6: Management of Industrial Organizations and CSR

SPIIn2024 PROVISIONAL PROGRAM

Tuesday November12	
08:30-09:30	Welcoming Participants& registration
09:30-10:30	<p>Official Opening of the SPIIn 2024</p> <p>Pr. K. MEHDI, Acting President of Sultan Moulay Slimane University, Beni Mellal, Morocco</p> <p>Pr. M. SAJIEDDINE, Director of National School of Applied Sciences of Khouribga, Sultan Moulay Slimane University, Morocco</p> <p>Pr. A. HAJJAJI, Director of National School of Applied Sciences of El Jadida, Chouaib Doukkali University, Morocco</p> <p>Pr. Amir Sido Ismail, Director of Development, Innovation, and External Relations, SUPMTI Group, Morocco</p> <p>Pr. M. ACHAK, <i>SPIIn Chair</i>, School of Applied Sciences - El Jadida, Chouaib Doukkali University, Morocco</p> <p>Pr. S. TOUIL, <i>General Chair of SPIIn2024</i>, School of Applied Sciences - Khouribga, Sultan Moulay Slimane University, Morocco</p>
10:30-11:00	Coffee Break
11:00-11:45	<p>Plenary 1: Pr. Mohamed AZAROUAL</p> <p>Predictive Geosciences for Georesources Exploration/Management – Soil and Underground Exploitation and Environmental Issues</p> <p><i>Institute of Earth Sciences of Orléans - Orléans University. FRANCE</i></p> <p>Moderator: Pr. Mounia ACHAK, ENSA EL Jadida, Morocco</p>
11:45-12:30	<p>Plenary 2: Pr. Mounir EL ACHABY</p> <p><i>Mohammed VI Polytechnic University (UM6P) Benguerir, MOROCCO</i></p> <p>Moderator: Pr. Mounia ACHAK, ENSA EL Jadida, Morocco</p>
12:30-14:00	Lunch
14:15-15:00	<p>Plenary 3 : Pr. Jamal CHAOUKI</p> <p>Pourquoi les universités doivent-elles investir dans l'extrapolation des Procédés ?</p> <p><i>Polytechnique, Montréal, CANADA</i></p> <p>Moderator: Pr. Mohamed AZAROUAL, <i>Institute of Earth Sciences of Orléans - Orléans University. FRANCE</i></p>

Tuesday November 12

ORAL SESSION 1				
	<p>Theme 1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. K. TABIT, Pr. H. BIH Room:</p>	<p>Theme 3: Waste Water Treatment – Desalination – Brackish water treatment Moderator : Pr. M. KHAMAR, Pr. M. ABENNOURI Room :</p>	<p>Theme 4: Materials: Conception, Elaboration and Valorization Moderator : Pr. M. SADIK, Pr. A. HASSANI Room :</p>	<p>Theme 5: Supply Chain, Modelling, Simulation and Optimization Moderator: Pr. R. ELMAANI, Pr. A. HATEM Room :</p>
15:00-15:15	<p>Dynamic and Kinematic Viscosities, Density, and Refractive Index, of Alkoxyethanols + 1-Propanol Binary Mixtures at (298.15 and 313.15) K: Experimental Data and Modeling Lifi Mohamed, Abala Ilham, M'hamdi Alaoui Fatima Ezzahrae, Muñoz-Rujas Natalia, Aguilar Fernando</p>	<p>A Hydroxyapatite Biocrystal and Poly(aniline-o-phenylenediamine) Copolymer Composite for Effective Anionic Dye Removal from Wastewater Aziz khalid, El Achaby Mounir, Jacquemin Johan</p>	<p>A Novel Polymer Inclusion Membrane Containing an Organometallic Complex Carrier for The Extraction and Recovery of Chromium and Nickel from batteries lithium-ion. Elkahlaoui Chaimaa, Kamil Nourredine</p>	<p>A simulation model to schedule a remanufacturing system with returns of varying quality Abid Salma, Mhada Fatima Zahra</p>
15:15-15:30	<p>Energy System Simulation Model to Assess Energy Transition Policies in Tanzania Bartolom Quevedo Laura, Lifi Mohamed, Miguel Luis Javier</p>	<p>A Review of Cactus Juice as a Sustainable Method for Wastewater Treatment Elazzouni Oussama, Touil Salah, Abid Aziza, Hamzaoui Ihssane, Meftah Khadija, Kharifi Omar, Fathi Jihane</p>	<p>Advancements in Synthesizing Zinc Nanoparticles for Catalytic Applications Chennani Ahlam, Anter Nadia, Alaoui Abdelouahed. Médaghri, Hannioui Abdellah</p>	<p>Optimising the dynamic placement of mobile units in a hybrid network under uncertainty Fergani Charifa, El Bouzekri El Idrissi Adiba, Hajjaji Abdelouahed, Marcotte Suzanne</p>
15:30-15:45	<p>Analysis of the scintillation characteristics of Cs₂LiLuCl₆ double perovskite chloride using DFT and TD-DFT approaches. Ouhenuou Hakima, Zaghrane Abderrahmane, Agouri Mohamed Abbassi Abderrahman, Taj Souad, Manaut Bouzid</p>	<p>Advanced material synthesized from straw for treatment of the OMW by adsorption Elamraoui Sabah, El Achaby Mounir, Achak Mounia, Asdiou Nouhaila, Boumya Wafaa, Benhida Rachid, Barka Noureddine, Lamy Edvina, M'hamdi Alaoui Fatima Ezzahrae, Chhiti Younes</p>	<p>Antioxidant effects of pomegrenate peel and carob leaves extracts on semi-refined fish oil compared to synthetic antioxidants Lekrati Mounia, Elfazazi Kaoutar</p>	<p>Optimizing Vaccine Supply Chains through Advanced Modelling, Simulation, and Data Management Allam Sanae, El Bouzekri El Idrissi Adiba, Sekhari Seklouli Aicha, Ouzrout Yacine</p>
15:45-16:00	<p>Effect Of Cu-Water-Based Nanofluid On Thermal Performances Of Coaxial Heat Exchangers Nfaoui sadik, Bendaraa anass, Charafi m.mustapha</p>	<p>Biosorption of Rhodamine B from aqueous solution using Eichhornia crassipes powder Rachdi Younes, Hamid Saufi, Youssef Gherraby, Bassam Amal, Bassam Rajaa</p>	<p>Effect of friction stir welding parameters on microstructure and mechanical properties of the dissimilar alloys of AZ91D and AA7075 Nait Salah Abdellah</p>	<p>Quantifying uncertainties related to reverse logistics implementation: state of the art. Dnaya Soukaina, Adiba Elbouzekri El Idrissi</p>

Tuesday November 12

ORAL SESSION 1				
	<p>Theme 1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. K. TABIT, Pr. H. BIH Room:</p>	<p>Theme 3: Waste Water Treatment – Desalination – Brackish water treatment Moderator: Pr. A. ALAOUI BELGHITI, Pr. F. BOUYAHYA Room:</p>	<p>Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. SADIK, Pr. A. HASSANI Room:</p>	<p>Theme 5: Supply Chain, Modelling, Simulation and Optimization Moderator: Pr. R. ELMAANI, Pr. A. HATEM Room:</p>
16:00-16:15	<p>Engineering novel biochar from Alfa plant for CO2 capture Akaya hicham, Ouzrour zineb, Aziz khalid, Altamash tausif, Jacquemin johan</p>	<p>Biosynthesis of iron oxide nanoparticles as efficient material for dyes degradation El Ghanjaoui Meryem, Soufi Amal, Barka Noureddine, Tounsadi Hanane</p>	<p>Biobased phase change materials in energy storage and their applications: A State-of-art review of recent advancements Nahairy Wissal, Zamma Abdellah, Belouaggadia Naoual</p>	<p>Finite element modeling of the human middle ear using medical imaging Elghanaoui Souad, Faiz Adil, Assif Safa, Hajjaji Abdelouahad</p>
16:15-16:30	<p>Flow topology of turbulent 2D natural convection within an enhanced air channel cooling attached behind photovoltaic panel El Kharaz hafid, Khallaki kaoutar, Kadiri my. Saddik, Choukairy khadija</p>	<p>Conservation of a Bio-Flocculant Produced from Cactus Paddles "Opuntia ficus indica" for Use in Water Treatment Kharifi omar, Hamzaoui ihssane, Meftah khadija, Fathi jihane, Elazzouni oussama, Abid aziza, Touil salah, El Bazi wail</p>	<p>Nickel ferrite Micro- and Nanoparticles: A Study of Their Structural, Morphological, Optical, and Magnetic Properties in Thermoplastic Composites Baayyad sarah, Esshouba youssef, Barhoumi soufiane, El Kebirhlil, Ez-Zahraoui siham, Semlali Aouragh Hassani fatima-Zahra, Mahfoud tarik, El Moussaoui Hassan, El Achaby Mounir</p>	<p>Experimental Study and Thermodynamic Modeling of Cadmium Behavior in the PO4-SO4-Ca-H2O System Belkhair raja, Khamar Ihachmi, Baali Fatima Ezzahra</p>
16:30-16:45	<p>No Vacuum Monotube CPC Receiver for Linear Fresnel Concentrator: CFD Modelling and Simulation Taibi Wissal, Almers Ahmed, M'bark Bakkas, Filali Baba Yousra, Mmadi Hassane Mohamed</p>	<p>Integrated process for electrochemically assisted battery material recovery: modeling and techno-economic assessment Chaouhajar, El Ghrib Mohamed Bachir, Saadouna Ismael, Zaabout Abdelghafour</p>	<p>Innovative Valorization of Phosphogypsum into Calcium Oxalate and Ammonium Sulfate: A Sustainable Approach Labouihi Asmae, Mansouri Said, Tamraoui Youssef, Alami Jones</p>	<p>Hydrogen supply chain: an overview Abousalim Zineb</p>
16:45-17:00	<p>Advancing Sodium-Ion Battery Technology with High-Performance Hard Carbon Derived from Alfa Plant Kasbaji Meriem, Noureddine Sara, Mennani Mehdi, Oulbaz Lamiae, Chari Abdelwahed, Kassab Zineb, Dahbi Mouad, El Achaby Mounir</p>	<p>Investigating Erosion Dynamics in Straight Hydraulic Channels Under Applied Wave: Effects of Viscosity and Water Depth Using the Lattice Boltzmann Method El Ghazali Ibrahim, Bendaraa Anass, Charafi Moulay Mustapha</p>	<p>Innovative Strategies for Enhanced Piezoelectricity: Phosphate Particle Integration in PVDF (nano) composite Films for energy harvesting application. Bahloul Chaymae, El Achaby Mounir, Semlali Fatimazahra</p>	<p>The Application of Dynamic Weighing in Industry 4.0: Optimizing Processes and Improving Accuracy Fangachi Najoua, Yessari Madiha, Hajjaji Abdelwahed</p>

Tuesday November 12

ORAL SESSION 1				
	Theme 1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. K. TABIT, Pr. H. BIH Room:	Theme 3: Waste Water Treatment Desalination, Brackish water treatment Moderator: Pr. A. ALAOUI BELGHITI, Pr. F. BOUYAHYA Room:	Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. SADIK, Pr. A. HASSANI Room:	Theme5: Supply Chain, Modelling, Simulation and optimization Moderator: Pr. R. ELMAANI, Pr. A. HATEM Room:
17:00-17:15	Molecular Dynamics Simulations of the Solvation, Dynamics, and dielectric Properties of {NaBF4-Dimethyl sulfoxide} Electrolytic System for Sodium-Ion Batteries at various Temperatures Chliyah Soumia, Errougui Abdelkbir	Multi-Criteria Analysis for Integrated Management of Irrigation Water Resources in the Chtouka Region Ramdi Ayoub, Bourziza Rqia, El Fellah younes, Elkhoumsi wafae, Karaaoui Marwa, Manser Nouhaila	Optimization of Catalytic Graphitization for Enhanced Nano-Carbon Production from Lignin Mennani Mehdi, El Achaby Mounir, Moubarik Amine, Kassab Zineb	Improvement of NRTL Model for Accurate Vapor-Liquid Equilibrium Calculations of Binary Systems Chatit Radouane, Elmaazouzi Hamid, Messnaoui Brahim, Tounsi Abdessamad
17:15-17:30	Resilient and Sustainable Electrical Architectures: Mini-Grids and Hybrid Systems for Africa's Future Aissi Tarik, Kandoussi Khalid, Rabie El Otmani, Abouelmahjoub Younes	Multi-residue methods for the analysis of priority organic micropollutants in aqueous environmental matrices Azaal Aouatif, Elguerrouj Bouchra, Ouasrhir Abdelali, Madani Hamid, Smiri Youssef	Walnut Shell Particles Employed in Development of Sustainable and High-Performance Reinforced Cement Composites El Hamri Anas, Mouhib Yassine, Chkala Hassan, Chigr Mohamed, El Mansouri Nour-Eddine	Improving the fidelity of measurement system through preventive maintenance and standardisation: a case study Sadraoui Youssef, Er-Ratby Mohamed, Kadiri Saddik, Kobi
17:30-17:45	Solvation Shell Structures, Dynamics, and Dielectric Properties of the Energy Storage System {NaBF4 GammaButyroLactone}: A Molecular Dynamics Approach Sanaa Rabii, Errougui Abdelkbir	Nitrate removal from water using adsorption and flocculation Fathi Jihane, Abid Aziza, Touil Salah, Meftah Khadija, Hamzaoui Ihsane, Kharifi Omar, Elazzouni Oussama	Thermal behaviour of double pipes heat exchanger using Ag-Cu hybrid nanofluid: Thermal analysis Ghazal Youssef	New Modeling Approaches for Ethylene Oxychlorination in Fluidized Bed Reactors El Bazi Wail, Bideq Mustapha, El-Abidi Abderrahim, Yadir Said
17:45-18:00	Synthesize and electrochemical study of amorphous and calcined FePO4 in in aqueous medium for battery lithium-ion Laouini Elmahjoub, Moukhless Youssef, Qourzal samir, Ait Al Brimi Youssef, Ait Akbour Rachid	Optimization of Reverse Osmosis demineralization: Prediction of silt density index using machine learning models machine learning models Lahlou Cherki, Bengourram Jamaa, Latrache Hassan, Bouikhalen Belaid	Tailoring hydrophobic Paper for Water Repellency: Thermochemical Modification and Structural Insights Majoudi Naji	
18:00	Break& Poster Session 1			
	End of the first day			

Wednesday November 13				
09:45-10:30	Plenary 3: Pr. Abdelghafour ZAABOUT Carbon Capture, Utilization, and Sequestration in the Process Industry <i>Mohammed VI Polytechnic University (UM6P) Benguerir, MOROCCO</i> Moderator: Pr. M. ABDENNOURI, FPK Khouribga, Morocco			
10:30-11:00	Break & Poster Session 2			
ORAL SESSION 2				
	Theme1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. M. ACHAK, Pr. KAMAL Room:	Theme 3: Waste Water Treatment – Desalination – Brackish water treatment Moderator: Pr. M. KHAMAR, Pr. M. ABDENNOURI Room:	Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. TAHIRI, Pr. A. EL HASSANI Room:	Theme 2: Phosphoric and nitrogen-based Fertilizer Moderator: Pr. H. BIH, Pr. R. ELMAANI Room:
11:00-11:15	Optimized Photovoltaic/Thermal Hybrid System with D-Shaped Tubing for Enhanced Heat Dissipation Riad Ayoub, Amiry Houssam, Touhtouh Samira, Belhora Fouad, Hajjaji Abdelowahed	Pollutant removal efficiency and antifouling enhanced by adding bentonite clay to the aerobic ceramic membrane bioreactor treating real wastewater from pharmaceutical industry Elmoutez Salaheddine, Ayyoub Hafida, Necibi Mohamed Chaker, Elmidaoui Azzedine, Taky Mohamed	Valorization of Natural Products via Catalytic Pathway Using Iron-based Waste Materials as Efficient Heterogeneous Catalyst Labyad salim Adam, Mekkaoui Ayoub Abdelkader, Laayati Mouhsine, Orfi Hamza, El Houssame Soufiane	A review on granulation process in the phosphate fertilizer production: Experiment studies and modeling by CFD approach Baali Fatima Ezzahra, Khamar Lhachmi, Belkhair Raja
11:15-11:30	Optimization of Sugar Production from Acid Hydrolysis of Opuntia ficus-indica Fruit Wastes Nori Insaf, Khallaki Kaoutar, Touil Salah	Storage post-harvest of opuntia ficus indica and its impact on the efficiency of bio-coagulants flocculants extracted. Meftah Khadija, Hamzaoui Ihssane, Meftah Said, Fatihi jihane, Kharifi Omar, Elazzouni Oussama, Touil Salah, Abid Aziza	Study the inter-building effects on building energy balance and solar energy use: an application to the climate of Morocco. Ryahi Amina	Phosphoric acid concentrating using microwave technology: the effect of some parameters on the energy efficiency Bagoun Rachid, El Khouakhi Mohamed, El Asri Mohammed
11:30-11:45	Simulation of ten samples of biomass gasification in bubbling fluidized bed reactor using ASPEN PLUS-Electricity production Krouit Rania, Bahiri Ikram, Medhat Mohamed Ibrahim, Zaabout Abdelghafour	Study of the Energy Efficiency of a Aerated Lagoon Wastewater Treatment Plant at Hattane - Morocco El Hannani Mohamed, Touil Salah	First investigation of the effect of pressure on the structural, electronic and optical properties of perovskite InGeCl3 Mohammed Miri	Preparation and performance of a water-retaining and slow-release triple phosphate fertilizer coating biobased polymers by a ionic crosslinked hydrogels Hamiach Houda, Atlas Salima, Barakat Abdellatif, Raihane Mustapha

Wednesday November 13

	Theme 1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. M. ACHAK, Pr. KAMAL Room:	Theme 3: Waste Water Treatment – Desalination – Brackish water treatment Moderator: Pr. M. KHAMAR, Pr. M. ABDENNOURI Room:	Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. TAHIRI, Pr. A. EL HASSANI Room:	
11:45-12:00	2D Dirac TiP2C2 as a High-Capacity Anode Material for Lithium-Ion Batteries Etrini Ayoub, Oukahou Said Elomrani Abdelali, Sbiaai Khalid, Hasnaoui Abdellatif	Removal of a textile Azo Dye Yellow Bemacid on Zn-Al Layered Double Hydroxides in Aqueous Solutions: Structural, Kinetic, Equilibrium, and Thermodynamic Studies Seman Adnane, Ait Addi El Habib, Badreddine Dalal	Eco-Friendly Catalysis: Hydration of Nitriles to Amides Using Silver-Phosphate Catalysts in Aqueous Media Essebbar Fatima-Ezzahraa, Aflak noura, Sbiaa Salah Eddine, Hicham ben El Ayouchia, Ananehafid, Stiriba Salah-Eddine	
12:00-12:15	Techno-Economic Analysis of Biochar Production Pathways Using Biomass Waste Pyrolysis Bahiri Ikram, Medhat Mohamed Ibrahim, Gautam Gautam, Zaabout Abdelghafour	Desalination in Morocco: Past, Present, and Future A Short Systematic Review Ait Baha asmaa, Belouaggadia naoual, El Bouariabdsalam, Zamma abdellah	Crystal structure, microstructure and optical properties of Ba_{2x}Sr_xTiZrO₆ double perovskites El Aamrani Moulay Abdelaziz	
12:15-12:30	Towards a Comprehensive Database for Circular Economy Initiatives: Challenges, and Opportunities Mansouri Abderrahman	The adsorption of anionic and cationic dyes in aqueous solution on activated carbon produced from Thapsiatranstagana stems: Insights from experimental, MD simulation, and DFT calculations Machrouhi Aicha, Elhalil Alaeddine, Elmoubarki Rachid, Abdennouri Mohamed, Barka Noureddine	Edible coatings enriched with cinnamon extend the technological quality of pomegranate fruit during storage. El-Rhouttais chaimae, El Kettabi zahra, Salma ouisouad	
12:30-14:00	Lunch			

Wednesday November 13

ORAL SESSION 3				
	Theme 1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. M. ACHAK, Pr. KAMAL Room:	Theme3: Waste Water Treatment – Desalination – Brackish water treatment Moderator: Pr. M. KHAMAR, Pr. M. ABDENNOURI Room:	Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. TAHIRI, Pr. A. EL HASSANI Room:	Theme5: Supply Chain, Modelling, Simulation and Optimisation Moderator: Pr. H. BIH, Pr. R. ELMAANI Room:
14:15-14:30	Optimization Strategies for Used Cooking Oil Collection via the Green Vehicle Routing Problem Riyad ayoub, Fedouaki Faycal, Aqil Said	Utilizing Yellow Nightshade (Solanum elaeagnifolium) as a Natural Adsorbent for Dye Removal in Wastewater Treatment Mouhriz Tarek	Effect of Thermal and Chemical Treatment of Date Palm Waste Fibers on the Mechanical Properties of Polypropylene Random Chakir Afaf, Elamarty Fahed, Alami Mohammed, Assouag	Improving the NRTL Model for Liquid-Liquid Equilibrium Optimization and Calculating Plait Point Coordinates Elmaazouzi Hamid, Chatit Radouane, Messnaoui Brahim, Tounsi Abdessamad
14:30-14:45	Cost-Effective Synthesis of UiO-66 from ZrOCl₂ 8H₂O: Application in CO₂ Adsorption Ouzrour Zineb, Moumen El Mehdi, Altamash Tausif, El Hankari Samir, Jacquemin Johan	Enhancing Water Recovery with Hybrid Solar-Powered Desalination: Integration of RO and Thermal Processes for Sustainable Freshwater Production Rabhi Ahmed, Touil Salah, Abid Aziza	Elaboration and improvement of the mechanical properties of Al metallic glass studied by molecular dynamics simulation Bogtob Said	Supply Chain Demand Distortion: The Unexpected Increase in Consumption Saib Reda, Salahddine My Abdelouhab
14:45-15:00	Effect of renewable energy mix and intermittency on the production cost of electrochemical production of formic acid El Ghrib Mohamed Bachir, Bouaboula Houssam, Zaabout Abdelghafour	Towards Integrated Water Management at the Faculty of Sciences Ben M'Sick in Casablanca (Morocco): Experimental wastewater treatment using a pilot Biological Membrane Reactor (MBR) Grimah Khaoula, Nahli Abdelmottalib, Lazrak Asmaa, Chlaida Mohemd	Elaboration, characterization and energy harvesting using Various Designs of Micro Piezoelectric Generators Cherkaoui Jaouad Nada, Belhora Fouad, Alaoui Belghiti Amine, Salhi Imane	Enhancing Materials Procurement with Blockchain Technology Hajji Hasna , Zamma Abdellah, Elkhaili Mohammed
15:00-15:15	Potential anodic application of 2D o-Al₂N₂ for Li ion batteries Agouri mohamed, Abbassi a., Manaut b., Taj s., Driouich m	Optimizing constructed wetlands for agricultural irrigation: A Study on Locally available adsorbing materials in Morocco Hdidou Meryem, Necibi Mohamed Chaker, Labille jérôme, Elmidaoui azzedine, Roche nicolas	Enhancing Lignocellulosic Paper Performance through the Synergistic Integration of Terpene-Phenolic Resin and Phosphate Waste Rock Bendalahcen Oumaima, Bouhfid Rachid, El Achaby Mounir, Semlali Fatimazahra	Modelling the energy consumption function in the electric vehicle routing problem: a novel simplified model Jraif Amine, El Bouzekri El Idrissi Adiba, Messaoud Elhassania

Wednesday November 13

ORAL SESSION 3				
	<p>Theme 1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. M. ACHAK, Pr. KAMAL Room:</p>	<p>Theme3: Waste Water Treatment – Desalination – Brackish water treatment Moderator: Pr. M. KHAMAR, Pr. M. ABDENNOURI Room:</p>	<p>Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. TAHIRI, Pr. A. EL HASSANI Room:</p>	<p>Theme5: Supply Chain, Modelling, Simulation and optimization Moderator: Pr. H. BIH, Pr. R. ELMAANI Room:</p>
15:15-15:30	<p>Green Hydrogen Impact on Economic Growth: A Cross-Sectional Analysis of 29 European Countries Sarsar Lamiae</p>	<p>Production of a natural flocculant: Comparison of the effectiveness between cactus and nettle in water treatment Hamzaoui Ihssane, Meftah Khadija, Meftah Said, Fathi jihane, Kharifi Omar, Elazzouni Oussama, Abid Aziza, Touil Salah</p>	<p>Enhancing NaBH₄ Stability and Dehydrogenation Kinetics via 3d Transition Metal Modifications for hydrogen storage Belkoufa Ikram, Assila Abdelmajid, Alaoui Belghiti Amine, Laasri Said, Hlil El Kebir, Hajjaji Abdelwahed</p>	<p>Ability of Retail Stores to Meet Increased Demand during the Pandemic Period Saib Reda, Salahdine My Abdelouhab</p>
15:30-15:45	<p>Advancements in Roadside Energy Harvesting Technologies Zouine Ihssane, Belhora Fouad, Houssam Amiry, Cherkaoui Jaouad Nada</p>	<p>Efficient removal of methylene blue and methyl red dyes using a novel adsorbent derived from Saponaria officinalis Root via H₃PO₄, H₂SO₄, and KOH-activation: Optimization, kinetics, and isotherm study Ghazoui Mohssine, Elkacimi Reda, Sylla aboubacar Sidigh, Moulakhnif Kaoutar, Boudouch Otmane</p>	<p>Green synthesis of iron nanoparticles using plant extract and electrochemical application Bendehhou atif, Elrhazi Mama, Ezzahi Amine</p>	<p>Investigating the Impact of Cooling Rate, Composition, and Tensile Stress on Medium-Range Order in Mg-Al Binary Metallic Glasses. El Ayoubi Mohamed, Khmich Abderrahim, Samiri Abdelali, Houba Adil, Hasnaoui Abdellatif</p>
15:45-16:00	<p>Large-scale bio-desulfurization of biogas from anaerobic digestion of WWTP sludge: performance and stabilization El Haidani Lamiae, Nizar Youness, El Azhar Fatima, Elmidaoui Azzedine, Taky Mohamed</p> <p>Helping to convert wood waste into biomass in Burundi Ndikumana Sylvere</p>	<p>Valorization of tea waste in the adsorption of methylene blue contained in wastewater. Kinetic and thermodynamic study Ifrah Hafsa, Berradi Mohamed, Houmia Iman, Sadraoui Khadija, Guedira Taoufik</p>	<p>In Situ Spectroelectrochemical Investigations of 1,3,6,8-tetrakis (p-benzoic acid) pyrene Fluorophore in a Zirconium-Based Metalâ Organic Framework El Guerraf Abdelqader, Zeng Wenyi, Mantel Arthur, Benhsina Elhassan, Chin ia Min, Shiozawa Hidetsugu</p>	<p>Numerical study of the critical exponents and magnetic properties of the random field mixed spin Mouhrach Tawfik, Fathi Ahmed, Elgarraoui Omar, Khairi Meryem, Sbiaai Khalid, Rachid Fatim Zahra, El Bouziani Mohammed</p>

Wednesday November 13

16:00-16:30	Break & Poster Session 3			
	<p>Theme 1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. M. ACHAK, Pr. KAMAL Room:</p>	<p>Theme3: Waste Water Treatment – Desalination – Brackish water treatment Moderator: Pr. M. KHAMAR, Pr. M. ABDENNOURI Room:</p>	<p>Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. TAHIRI, Pr. A. EL HASSANI Room:</p>	<p>Theme5: Supply Chain, Modelling, Simulation and Optimization Moderator: Pr. H. BIH, Pr. R. ELMAANI Room:</p>
16:30-16:45	<p>Improving NaBH₄ Stability and Dehydrogenation with 3d Transition Metal Enhancements Belkoufa Ikram, Assila Abdelmajid, Alaoui Belghiti Amine, Laasri said, Hlil elKebir, Hajjaji Abdelowahed</p>	<p>Conversion of Two Phase Olive Mill Waste to Activated Carbon through Hydrothermal Carbonization: A Sustainable Approach for Water Treatment Azaryouh Leila, Miftah Amine, Ouahouah Zineb, Kassab Zineb, Khalifa elHarfi, El Achaby mounir, Aboulkasadil</p>	<p>In-depth Morphological and Performance Study of Polypropylene/Ethylene-Vinyl-Acetate (PP/EVA) Blend Reinforced with Fly Ash By-Product Ez-Zahraoui Siham, Qaiss Abou El Kacem, Bouhfid Rachid, El Achaby Mounir, Semlali Fatimazahra</p>	<p>Controlling half-metallic ferromagnetism character in diluted magnetic semiconductor for spintronics. Amzaoued Mourad, Zriouel Sanae, Mabrouki Mustapha</p>
16:45-17:00	<p>Influence des stratégies de commande sur la qualité de l'énergie électrique injectée au réseau d'une chaîne de conversion éolienne Elgarouaz Mohammed, Halimi Hicham, Lazrak Loubna, El Daoudi Soukaina</p>	<p>Design and filling of infiltration-percolation columns for Olive Mill Wastewater treatment with hydrodynamic flow study using sawdust and straw as adsorbents Asdiou Nouhaila, Elamraoui Sabah, Boumya Wafaa, Barka Benhida Rachid, Achak Mounia</p>	<p>Integrating Experimental Techniques and Theoretical Models for Optimizing Perovskite Solar Cells Laouid Amina, Abouais Ali ,Alaoui Belghiti Amine, Wisniewski Krzysztof, Przemysław Płociennik, Hajjaji Abdelowahed, Zawadzka Anna</p>	<p>Influence of temperature on the hydration, transport, and dielectric properties of the ternary aqueous system {NaF - Na₂CO₃}(aq) using a molecular dynamics approach and FTIR spectroscopy Lahmidi Ayoub, Rabii Sanaa, Chliyah Soumia, Chtita Samir, El Kouali Mhammed, Talbi Mohamed, Errougui Abedlkbir</p>
17:00-17:15	<p>Parametric Study of Polymer Electrolyte Membrane Fuel Cell Performance, challenges and opportunities Boudounit Hicham, Nachit Ibrahim</p>	<p>Developing an innovative approach for industrial wastewater treatment: Assessing the effectiveness of electrocoagulation in the removal of chromium VI from electroplating Salim Ahmed, Tanane Omar</p>	<p>Low-Cost Panels from Natural Fibers for Improved Buildings Thermal Performance: Inferential Review Ziraoui Jihane</p>	<p>Simulation and analysis of hybrid absorption-compression refrigeration system behavior M'madi Hassane Mohamed, Filali Baba Yousra, Taibi Wissal, Al Mers Ahmed, Boutammachte Noureddine, M'bark Bakkas</p>

Wednesday November 13

	Theme 1: Hydrogen – Renewable energy -Bioenergy Moderator: Pr. M. ACHAK, Pr. KAMAL Room:	Theme3: Waste Water Treatment – Desalination – Brackish water treatment Moderator: Pr. M. KHAMAR, Pr. M. ABDENNOURI Room:	Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. TAHIRI, Pr. A. EL HASSANI Room:	Theme5: Supply Chain, Modelling, Simulation and Optimization Moderator: Pr. H. BIH, Pr. R. ELMAANI Room:
17:15-17:30	Measurements and Modeling of Thermophysical Properties of Binary Mixtures of DBE with Alcohol Abala Ilham, Lifi Mohamed, M'hamdi Alaoui Fatima Ezzahrae, Muñoz-Rujas Natalia, Aguilar Fernando	Effect of Tilapia (Oreochromis Niloticus) Parasitic Fish Disease on Survival Rate Khadija Ouaisa, Hmamou m'hamed, Hasnaoui Mustapha	Innovative Surface-Modified Stipa Tenacissima Derived Hard Carbon as a High-Performance Anode for Sodium-Ion Batteries Noureddine Sara, Kassab Zineb, Chari Abdelwahed, Daoudi hamza, Alami jones, Dahbi Mouad, El Achaby Mounir	Study of the elasto-plastique densification mechanism for pharmaceutical powders: numerical modeling by the continuous approach. Ramli Sara, Kadiri My. Saddik
17:30-17:45	Enhanced Energy Conversion in Piezoelectric Harvesting: Performance Analysis of Diode Types and Active Rectifiers Bensaid loubna, Ennwaoui chouaib, Hajjaji abdelwahed	Solar Drying of Phosphate Sludge Using a Single Slope Solar Distiller with Internal Reflectors Rezki mohammed, Elamraoui Sabah, Asdiou Nouhaila, Abouricha Noureddine, Achak Mounia	Nanoscience and Green Synthesis: Applications in Environmental Remediation and Sustainable Development Goals Adraoui Imane	CFD Simulation for Wind Comfort and Safety in Urban Area: A Case Study of the Mohammed VI Tower Idrissi Abdellah, El Amraoui Rachid, El Mghari Hicham
17:45-18:00	Numerical analysis of phase-change materials cooling with different fin configuration to enhance the Photovoltaic panel performance Zineb Ouaoua, Khallaki Kaoutar, Choukairy Khadija, El Kharaz Hafid	Synthesis of a novel nanoparticles coated with Bio-Material polyphenols to effectively remove dyes from synthetic wastewater: Insights from isotherm kinetic and thermodynamic modeling, optimization using BBD-RSM Raihani Soufiane, Bannour Othmane, Anouar Mohamed, Babassa nabil, Kadmi Yassine, Anouar Abdellah	Optical and Thermal Characterizations with DFT Calculations of Zn,Mg S Mixed Crystals Abouais Ali, Alaoui Belghiti Amine, Strza kowski Karol, Hlil El Kebir, Hajjaji Abdelwahed	Etude expérimentale et computationnelle du médicament périmé Lévocétirizine comme inhibiteur de corrosion écologique pour l'acier au carbone El Adnani Redouane, Ennabely Mohamed, Youbi Boubaker, Lghazi Youssef, Aynaou Aziz, Bimaghra Itto
18:00-18:15	Integrating Biomass Utilization and Carbon Capture and Storage (CCS) for Phosphate Drying and Calcination Decarbonization Ibrahim mohamed Medhat, Zaabout abdelghafour, Elbagari zakaria	Synthèse et la caractérisation d'HDLs MgFeCO3 et MgZnFeCO3 et leurs efficacités à l'adsorption des colorants Laouini Elmahjoub, Sofiane Asma, Moukhless Youssef, Qourzal Samir, Ait Al Brimi Youssef	Potential of using industrial by-products/ wastes in geopolymer technology: a pathway for sustainable future Sbi sanae, Tamraoui Youssef, Alami Jones	In silico study of the antibacterial activity of fluoroisoxazolidine derivatives against Staphylococcus aureus Boutiddar Rachid
End of the second day				

Thursday November 14			
09:45-10:30	<p align="center">Plenary 3: Pr. Pr. Abdelilah Benyoussef Green hydrogen as an energy carrier: Production and Storage <i>LaMCScl, Physics department, Faculty of Science. Mohammed V University</i> Moderator: Pr. M'bark BAKKAS, ENSAM Meknès, Morocco</p>		
10:30-11:00	Break & Poster Session 4		
	ORAL SESSION 4		
	<p align="center">Theme 6: Management of Industrial Organizations and CSR Moderator: Pr. M. AZEROUAL, Pr. A. AHDIL Room:</p>	<p align="center">Theme3: Waste Water Treatment – Desalination – Brackish water treatment Moderator: Pr. Room:</p>	<p align="center">Theme 4: Materials: Conception, Elaboration and Valorization Moderator: Pr. M. TAHIRI, Pr. A. EL HASSANI Room:</p>
11:00-11:15	<p align="center">Renewable energy impact on inward industrial foreign direct investment in Morocco Mansouri Dalal, Ait Soussane Jihad, Chentouf Amine, Ferrouhi Elmehdi</p>	<p align="center">Synthesis of new ecological and efficient adsorbent geopolymer beads based on red clay waste: sorption capacity for methyl orange dye and sustainable properties Bassam Amal, Bassam Rajaa, Rachdi Younes, El Alouani Marouane, Saufi Hamid, Belouaad Said</p>	<p align="center">Optimizing KNN-Based Piezoelectric Ceramics Synthesis: A Comparative Study between WAB Milling and Agate Mortar Mixing for harvesting energy application Misski Bouabid, Belkoufa Ikram, Alaoui Belghiti amine Mouyane Mohammed, Reboul Jean-Michel, Bernard jerôme, Hajjaji Abdelowahed, Houivet David, Belhora Fouad</p>
11:15-11:30	<p align="center">Workplace Safety as a Core CSR Commitment: Upholding Employee Well-being and Safety in the Mining Industry Biadi Wafaa, El Bouzekri El Idrissi Adiba, Assif Safaa, Hani Yasmina</p>	<p align="center">Utilizing HPLC and DFT for Efficient Removal of Phenolic Pollutant Mixtures using Nicotiana glauca Graham (NgG) as an Adsorbent: A Comprehensive Analysis and Computational Perspectives Bouzid Taoufiq</p>	<p align="center">Photoluminescence and Judd-Ofelt Analysis of Europium-Doped Strontium Phosphate Glasses for Photonic and Photovoltaic Applications Bouabdalli El Mahdi, El Jouad Mohamed, Gaumer Nathalie, Touhtouh Samira, Hajjaji Abdelowahed</p>
11:30-11:45	<p align="center">Le management du développement durable comme levier de compétitivité pour les entreprises : une approche stratégique de rupture Samhallah Soumaya, Chahboune Mounya</p>	<p align="center">Valorization of olive mill wastewater as a potential green algacide to control the potentially toxic cyanobacterium in aquatic ecosystems Elayadi Fatima</p>	<p align="center">Preparation and characterization of anti-insect capsules based on essential oil to combat Triboliumcastaneum Ammouri Wiam</p>

11:45-12:00	<p>How the regions of Morocco are performing from an economic-entrepreneurship perspective ? A comparative study using the TOPSIS method</p> <p>Hamdi El Asli, Azeroual Mohamed</p>		<p>Recent advances of MXene-based materials for energy storage</p> <p>Darkaoui el Mokhtar, Zaghrane abderrahmane, Ouhenu hakima, Abbassi abderahmane, Taj souad, Manaut Bouzid</p>
12:00-12:15			<p>Recovery of Bioactive Compounds from Spent Coffee Grounds by Microwave-Assisted Extraction: A Kinetic Modeling Study</p> <p>Louhab hajar, Bejjany Bouchra, Dani Adil, Digua Khalid</p>
12:15-12:30			<p>Stability Assessment of Nanofluids in Water and Ethylene Glycol for PVT Applications</p> <p>Chakar khadija, El Mouden Mahmoud, Hajjaji Abdelouahad</p>
12:30-14:00	Lunch		
	ORAL SESSION 5		
	<p>Theme 4: Materials: Conception, Elaboration and Valorization</p> <p>Moderator: Pr. M. KHAMAR, Pr. M. ABDENNOURI</p> <p>Room:</p>		
14:15-14:30	<p>Study of the effectiveness of free and encapsulated essential oils against the rice weevil (Sitophilus oryzae).</p> <p>Akram El Arbaoui</p>		
14:30-14:45	<p>Sustainable Energy Storage: Exploring Hard Carbon from Walnut Shells for Sodium-Ion Batteries</p> <p><i>Oulbaz Lamiae</i></p>		
14:45-15:00	<p>Synthesis and characterization of novel TiO₂ nanomaterials with hierarchical porosity by sol-gel route, using sodium alginate as surfactant</p> <p>Lagrini Hakima</p>		
15:00-15:15	<p>Synthesis and Electrochemical Testing of Phosphate-Based Materials as Positive Electrodes in Batteries</p> <p>Youssef Moukhless, Laouini Elmahjoub, Qourzal Samir, AitAlbrimi Youssef, AitAkbour rachid, Ali Assabbane</p>		
15:15-15:30	<p>Synthesis and investigation of the effect of B₂O₃ on the properties of Li₂O-ZnO-B₂O₃- P₂O₅ Glass system</p> <p>Bougrine Khadija</p>		
15:30-15:45	<p>Thermodynamic description of the molten salt as phase change material for energy storage</p> <p>Idbenali Mohamed</p>		
15:45-16:00	<p>Biomass to Electrocatalyst: Phosphate-Functionalized Cellulose-Supported Copper Nanomaterials for Efficient CO₂ Conversion</p> <p>Hadid Maria, Kassab Zineb, El Kadib Abdelkrim, Sehaqui Houssine</p>		
17:15	Break		
	CLOSING CEREMONY		
	SPIIn 2024 Conference Closing Event		

Poster Session

Tuesday November 12

Poster Session 1

<p>Techno-economic assessment of algae-based waste Hydrochar production via HTC technologies. Sow Massamba, Zaabout Abdelghafour, Ibrahim Mohamed Medhat, Achak Mounia, Laassiri Said</p>
<p>Enhanced Heating Value (HHV) Forecasting Model for the Effective Thermochemical Conversion of Biomass Using Artificial Intelligence Fendaoui Aissam</p>
<p>Harnessing renewable energies: towards a hybrid method to evaluate wind variability Sumaili Ndeba Bienvenu, Ghennioui Abdellatif, Jbahi Ouafa, Ouchani Fatima Zahra</p>
<p>Investigation of new materials for hydrogen storage systems. Waqdim Abderrahmane, Agouri Mohamed, Ouhenou Hakima, Derkaoui Elmoukhtar, Zeghrane Abderrahman, Abbassi Abderrahman, Taj Souad, Manaut Bouzid, El Idrissi Moha</p>
<p>A review of artificial intelligence to predict energy consumption in buildings Fellah Mohammed, Ouhaibi Salma, Belouaggadia Naoual, Mansouri Khalifa</p>
<p>Optimized ANFIS Based MPPT Controller in PV-BES system for EV charging using PSO algorithm under various conditions Nefraoui Amal, Kandoussi Khalid, Elotmani Rabie , Boutahar Abderrahim</p>
<p>Optimizing EV Charging : Hybrid DC Fast Charging Stations and Their Impact on Grid Efficiency and Battery Life Mossaddek Meriem, Laadissi El Mehdi, Ennawaoui Chouaib, Bouzaid Sohaib, Hajjaji Abdelouahad</p>

Wednesday November 13	
Poster Session 2	Synthesis of Zinc-Incorporated Hydroxyapatite via Solid-State Reaction for Enhanced Electrochemical Detection of Amoxicillin Using Ultraviolet Radiation (UV) as Step Catalytic Chhaibi Bilal, El Bouabi Younes, Lahrich Sara, Saqrane Sanaa, Farahi Abdelfettah, El Mhammedi Moulay Abderrahim
	Assessment of the impact of cesium and strontium on Moroccan agriculture: soil analysis and wheat growth patterns Ammar Ayoub
	Application of machine learning techniques for improving the performance of water desalination systems in Morocco Lydaya Ayoub
	Enhanced photocatalytic activity of hydrozincite- TiO₂ nanocomposite by copper for removal of pharmaceutical pollutant in aqueous solution El Mersly Lekbira, Belkodia Kaltoum, Edaala Mohammed Amine, Agzenai Ben Salem Yahya ,Rafqah Salah
	Whey Valorization Innovative Strategies for Sustainable Development and Value-Added Product Creation Soumati Bouchra
	Architecture of a novel anode material for rechargeable lithium ion batteries Bargani Mouad, Bih Ihassan, Khamar Lhachmi
	Co-doping effect of Cerium concentration on MgAl₂O₄(Sm) properties for energy conversion Messous Mohamed Youssef, Aitmellal Oussama, Tahri Mounia, MazouzSanae
Poster Session 3	Compositional dependence of properties of Pb(Yb_{1/2}Nb_{1/2})O₃-Pb(Mg_{1/3}Nb_{2/3})O₃-PbTiO₃ ternary ferroelectric crystals Lifi Houda, Lifi Mohamed, Khriissi Salam, Mohamed Ouakarrouch, Ilham Abala, M'hamdi Alaoui Fatima Ezzahrae
	Construction using local biosourced materials: Alternative for better energy efficiency and a tool for local sustainable development Elmountassir Abdelhamid
	Effect of Divalent Metals (M=Cu, Zn) on the Electric and Dielectric Properties of MCr-Layered Double Hydroxides (MCr-NO₃-LDH): An Impedance Spectroscopy Study Elhatimi Wafaa, Bouragba Fatimazahra, Benzarouala Khadija, Chouni Khadija, Lahkale Redouane, Sabbar Elmouloudi
	Elaboration and characterization of new TiO₂ catalytic materials by the sol-gel process and of Ag/TiO₂ by the wet impregnation method Lagrini Hakima
	Elaboration of Piezoelectrical materials for energy harvesting Cherkaoui Jaouad Nada, Belhora Fouad, AlaouiBelghiti Amine, Salhi Imane
	Improvement of dielectric properties of CoAl layered double hydroxide by in-situ polymerization of intercalated Vinylbenzenesulfonate Anions: A study monitored by impedance spectroscopy Bouragba Fatimazahra, Elhatimi Wafaa, Assekouri Abdelmonim, Moujahid El Mostafa, Sabbar Elmouloudi
	Optical, structural, dielectric and magnetic properties of oxide samples prepared by the solid-state route Doughri Doha
Optimizing Perovskite Solar Cells Efficiency using Impedance Spectroscopy Tabbai yassine, Mortadi Abdehadi, Alaoui Belghiti Amine, Laasri Said, Elmoznine Reddad, Elballouti Abdessamad	

Thursday November 14

Poster Session 4	<p>Recent advances and modification strategies of semiconductors for the photocatalytic remediation of water containing organic pollutants Mallah Safiya, Barka Noureddine, Elhalil Alaâeddine</p>
	<p>Influence of the type of activating agent on the performance of an activated carbon electrode made from Argan tree waste Ennabely Mohamed, Youssef Lghazi, Abdessamad Ouedhiri, Boubaker Youbi, Itto Bimaghra</p>
	<p>Renewable Energy Solutions for Sustainable Seawater Desalination: Addressing Global Water Demands Boudraham Salima ,Mabrouki Jamal, AitOujallal Ilham, Abrouki Younes</p>
	<p>Exploring the Effect of Bi2O3 on the Structure of Phosphate Glasses via Molecular Dynamics Simulations Bouabdalli El Mahdi, El Jouad Mohamed, Touhtouh Samira, Hajjaji Abdelwahed</p>
	<p>Modelling the behaviour of pharmaceutical powders in compression Ramli Sara, Kadiri My. Saddik</p>
	<p>Optimization of temperature during phosphoric acid process by Golden section method Abdelouahhab Mehdi, Manar Sliman, Benhida Rachid</p>
	<p>Performance Modeling and Simulation for Water Distribution and Wastewater Collection Networks. Faraj El Mahdi</p>
	<p>Balancing Competition Between Energy, Food, and Forests with the New Integrated Assessment Model WILIAM Lifi mohamed, Mediavilla margarita, Miguelluis Javier</p>
	<p>Improving product quality in manufacturing companies through Predictive Quality Belaji Noura</p>