



Conference ICAM2IA'2024 Program

Date	Time	Event
Day 1 – Friday April 19, 2024	08:30 am – 09:30 am	Registration
	09:30 am – 10:00 am	Opening Ceremony Prof. Houssine Azeddoug & Prof. Omar Bouattane (Honorary Chairs) Prof. Abdellah Zamma & Prof. Mohamed El Khaili (General Chairs)
	10:00 am – 10:45 am	Keynote Speaker 1 Prof. Mimoun Elboujdaini (ACME, USA)
	10:45 am – 11:15 am	Coffee Break
	11:30 am – 12:15 am	Keynote Speaker 2 Prof. V.S. Raja (Indian Institute of Technology Bombay, India)
	12:15 am – 01:00 pm	Keynote Speaker 3 Prof. Ihsan Al-Taie (MET-ICG, Canada)
	01:00 pm – 02:30 pm	Lunch
	02:30 pm – 03:30 pm	Keynote Speaker 4 Prof. Aziz Aspahani (QuesTek, USA)
	03:30 pm – 04:00 pm	Coffee Break
	04:00 pm – 06:00 pm	Session P1 / Session P2 / Session P3
Day 2 – Saturday April 20, 2024	9:30 am – 10:30 am	Keynote Speaker 5 Prof. V.S. Raja (Indian Institute of Technology Bombay, India)
	10:30 am – 11:30 am	Coffee Break
	11:30 am – 01:00 pm	Keynote Speaker 6 Prof. Ihsan Al-Taie (MET-ICG, Canada)
	01:00 pm – 02:30 pm	Lunch
	02:30 pm – 03:30 pm	Keynote Speaker 7 Dr. James Wallace, President, (WIGPC, USA)
	03:30 pm – 04:30 pm	Keynote Speaker 8 Dr. Magdy Girgis (ACME-TEK - Technical Consulting Company, Canada)
	04:30 pm – 04:45 pm	Coffee Break
	04:45 pm – 06:00 pm	Session P4 / Session P5 / Session P6
06:00 pm	Closing Ceremony	

Friday, April 19, 2024

Time	Event
08:30 am – 09:30 am	Registration
09:30 am – 10:00 am	Opening Ceremony Prof. Houssine Azeddoug & Prof. Omar Bouattane (HonoraryChairs) Prof. Abdellah Zamma & Prof. Mohamed El Khaili (General Chairs) Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151
10:00 am -10:45 am	Keynote Speaker 1 : Stimulating Struggling Economy: Crucial Role of Youth in Advancing Science, Technology & Innovation Prof. Mimoun Elboujdaini (ACME, USA) Chair: Prof. Naoual Belouaggadia (ENSET) Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151
10:45 am –11:15 am	Coffee Break
11:30 am –12:15 am	Keynote Speaker 2 : Study of Oxidation Behavior of Alloys for Advanced Ultra Super Critical Power Plants Prof. S. V. Raja (Indian Institute of Technology Bombay, India) Chairs: Prof. Mimoun Elboujdaini (ACME, USA), Prof. Naoual Belouaggadia (ENSET) Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151
12:15 am -01:00 pm	Keynote Speaker 3 : Importance of strategic planning for an effective materials and corrosion program in the oil and gas industry. Prof. Ihsan Al-Taie (MET-ICG, Canada) Chair: Prof. Mimoun Elboujdaini (ACME, USA), Prof. Abdellah Zamma(ENSET) Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151
01:00 pm -02:30 pm	Lunch
02:30 pm -03:30 pm	Keynote Speaker 4: Advanced Materials Design: Integrated Computational Materials Engineering (ICME) and Innovative Applications in Industries and Key Sectors Prof. Aziz Asphahani (Questeck, USA) Chairs: Prof. Mimoun Elboujdaini (ACME, USA), Prof. Mohamed El khaili (ENSET) Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151
03:30 pm – 04:00 pm	Coffee Break
04:00 pm – 06:00 pm	Parallel Sessions

Session P1 : In Person

Session Chairs : Elhassane ACHOUYAB, Idriss BENNIS, and Hammadi CHAITI

Room: 1

1. Surface Plasmon Resonance Properties and Optical Enhancement Electric Field of Single and Dimers Gold Nanoparticles in the Proximity a Graphene Structure
 - E. Farkouch , A. Akouibaa, R. Masrour, M. Benhamou, A. El Assyry, and A. Derouiche
2. Bending analysis of FG-rGORC polymer nanocomposite beams using the VGDQ method
 - Mustapha Fouaidi, Achraf Wahid, Naoual Belouaggadia, and Mohammad Jamal
3. Investigation of the concentration effects on the hydration, transport, and dielectric properties of the Na₂CO₃ aqueous system: Molecular dynamics simulation and Spectroscopic techniques (FTIR and NMR)
 - Ayoub LAHMIDI, Sanaa RABII, Soumia CHLIYAH, Samir CHTITA, M'hammed EL KOUALI, Mohammed TALBI, and Abdelkbir ERROUGUI
4. Wavelet analysis of ultrasonic guided wave displacements. Hilbert envelope versus Shannon 1-1.5
 - Mustapha Azkour, Hassan Rhimini, and Mhammed El Allami
5. Structural, dynamic, and dielectric properties of the energy storage system {NaBF₄ – Dimethyl sulfoxide} used in Sodium-Ion Batteries at various temperatures: A molecular dynamics approach
 - Soumia Chliyah, Sanaa Rabii, Ayoub Lahmidi, Samir Chtita, Mhammed El Kouali, Mohammed Talbi, and Abdelkbir Errougui
6. Analysis of woven fabric reinforced composites
 - I. ESSAKET, A. EL MALIKI, AND O. CHERKAOUI
7. Study on the corrosion impact on the service life of the wires of 19*7 wire rope.
 - Youssef Bassir, Achraf Wahid, Mustapha Fouaidi, Fatima Gugouch, and Mohamed Elghorba
8. Molecular dynamics simulations of the solvation, dynamics, and dielectric properties of the {NaF – Gamma ButyroLactone} energy storage system at different temperatures
 - Sanaa RABII, Ayoub LAHMIDI, Soumia Chliyah, Samir CHTITA, Mhammed EL KOUALI, Mohammed TALBI, and Abdelkbir ERROUGUI

Session P2 : In Person

Session Chairs : Abdelaziz DAIF, Mohammed QBADOU and Laidi ZAHIRI

Room: 2

1. Morphing wing skins review, exploring the Frontier of Variable Stiffness skins for Morphing Applications
 - Walid Abouzoul, Souad Tayane, Mohamed Ennaji, Jaafar Gaber, and Ahmed Amine Chafik
2. Examining Damage Mechanisms and Predicting Service Life of A36 Double-Notch Steel Specimens
 - Mustapha El baroudi, Youssef Mouqr, Fatima Gugouch, Achraf Wahid, and Lmoukhtar Ikhrazen
3. Analytical estimation of the mechanical fatigue behavior of a wire rope based on its hierarchical structure
 - Achraf Wahid, Mustapha Fouaidi, Fatima Gugouch, bassir youssef , and Naoual Belouaggadia
4. Preparation of a Reference Material for Soil Matrix : Review
 - A.SOULAIMANI and S. GMOUH
5. Experimental Characterization and Analytical Modeling of The Mechanical Behavior of CPVC Elbows
 - Houria Ouaziz, Sadek El Mostafa, Wahid Achraf, Mouhib Nadia, and Lahlou Mohammed
6. Active Matter : Elaboration, characterization and applications in electrode development
 - Fatima-Ez-Zahra Grini, Souad Tayane, Mohamed Ennaji, and Jaafar Gaber
7. A new, greener approach to seawater desalination based on brine recovery using a MHD-electromagnetic process coupled with centrifugation
 - ABDELBAST KARBAL, DRISS BOUGMOUM, MUSTAPHA FARAJI, REDOUANE MGHAIOUINI, MOULAY YOUSSEF ELHAFIDI, AND ABDEESLAM EL BOUARI
8. Experimental study and analytical modeling of the mechanical behavior of acrylonitrile butadiene styrene (ABS) during operation.
 - Youssef Mouqr, Mustapha Elbaroudi, Fatima Sabah, Lmokhtar Ikharrazne, and Achraf Wahid
9. Assessment of the Corrosion Inhibition Properties of a Newly Developed Organic Phosphonic Acid in Sulfuric Acid Environments on Carbon Steel
 - Hayat Jafil, Marya Bouanis, Charafeddine Jama, and Fouad Bentiss
10. Buckling of porous FGM plates supported by Winkler-Pasternak elastic foundations
 - Hamza Chaabani, Chafik El Kihal, Abdessamed Baaddi, Lhoucine Boutahar, and Khalid El Bikri

Session P3: Online

Session Chairs : Mohamed EL KHAILI, Azeddine KHIAT, and Salah NISSABOURI

Meeting link: <https://meet.google.com/jvz-hrht-tmo?hs=151>

Room: 3

1. Retention of methylene blue by a geopolymer based on industrial waste from an aqueous solution using an adsorption process
 - Amal Bassam, Rajaa Bassam, Younes Rachdi, Marouane El Alouani, Hamid Saufi, and Said Belaaouad
2. Characterization and behavior of binary salt hydrate@Activated carbon composites for sustainable thermochemical energy storage
 - Kaoutar Moulakhnif, Abdessamad Faik, and Abdeslam El Bouari
3. Study of extra virgin olive oils: Effects of storage at different conditions and its relationship with the quality losses of these oils
 - M. DIBANE, S. ZYADE, AND M. HLAIBI
4. Detection of mode II delamination initiation and propagation in composite materials using acoustic emission monitoring
 - Hamza SEGNIDI, Achraf WAHID, Abdelkrim KARTOUNI, and Mohamed ELGHORBA
5. The Intersection of Machine Learning and Structural Health Monitoring: A Bibliometric Analysis
 - Houssine Laaz, Salah Nissabouri, Hassan Rhimini, and Moussa Mekkaoui
6. Analysis of the impact of activation functions on the accuracy of an artificial neural network predicting the bursting of a pressurized pipeline affected by a spheroidal dent
 - Yassine EL KIRI, Laidi ZAHIRI, Khalifa MANSOURI, Zakaria MIGHOUAR, and Mehdi billah OUASSIM
7. Enhancing Electric Transformer Performance through Magnetic Materials Innovation
 - Safae Bazi, Hasna Nhaila, and Mohamed El Khaili
8. Structural and mechanical behaviors of Zirconium monoatomic metallic glass under various cooling conditions
 - Abdelaziz El kharraz, Tarik El hafi, Soufiane Assouli, Omar Bajjou, and Youssef Lachtioui
9. Assessment of Wastewater Treatment By-Products: Towards Sustainable Recovery and Agricultural Reuse.
 - Hafidi Mohamed, Hasna Hajjaj, El masbahi Mohammed, Krauss Manuel, Ittoban Najim, Rhallabi Naima, and Elhafiane Fatiha

Saturday, April 20, 2024

Time	Event
9:30 am – 10:30 am	<p>Keynote Speaker 5 : Overview of Corrosion Research at Aqueous Corrosion Lab-Understanding Corrosion Mechanisms, Alloy Development, Coating and Welding Prof. S. V. Raja (Indian Institute of Technology Bombay, India)</p> <p>Chair : Prof. Mimoun Elboujdaini (ACME, USA), Prof. Naoual Belouaggadia (ENSET)</p> <p>Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151</p>
10:30 am – 11:30 am	Coffee Break
11:30 am – 01:00 pm	<p>Keynote Speaker 6: Next Generation of Materials: Non-metallic Materials an option for Oil & Gas Sustainability Program. Prof. Ihsan Al-Taie (MET-ICG, Canada)</p> <p>Chair : Prof. Mimoun Elboujdaini (ACME, USA), Prof. Naoual Belouaggadia (ENSET)</p> <p>Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151</p>
01:00 pm – 02:30 pm	Lunch
02:30 pm – 03:30 pm	<p>Keynote Speaker 7: Reservoir Management: Optimizing Hydrocarbon Recovery and Cost to Provide Sustainable Energy Resources into the Future Dr. James Wallace (WIGPC, USA)</p> <p>Chairs : Prof. Mimoun Elboujdaini (ACME, USA), Prof. Abdellah Zamma (ENSET)</p> <p>Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151</p>
03:30 pm – 04:30 pm	<p>Keynote Speaker 8: Integrity Challenges, key performance indicators, integrity operating windows and Economic process towards material selection decisions in oil and gas projects. Dr. Magdy Girgis (ACME-TEK, CANADA)</p> <p>Chairs : Prof. Mimoun Elboujdaini (ACME, USA), Prof. Mohamed El Khaili (ENSET)</p> <p>Meeting Link: https://meet.google.com/jvz-hrht-tmo?hs=151</p>
04:30 pm – 04:45 pm	Coffee Break
04:45 pm – 06:00 pm	Parallel Sessions

Session P4 : in Person

Session Chairs : My El Houssine ECH-CHHIBAT, Hasna NHAILA, and Soufiane EL OUARDI

Room: 1

1. Desalination: Brine Management -Zero Liquid Discharge: State of Art Review, Techno-Economic and Environmental Analysis, And Research Contribution to Sustainable Development Goals
 - Asmaa Aitbaha, Naoual Belouaggadia, and Abdeslam El Bouari
2. Characterization of the thermal properties of TIMAHDIT Oil Shale - Morocco
 - HANANE SGHIOURI EL IDRISSE AND EL HASSAN ACHOUYAB3.
3. Comparative study of the behavior of polycarbonate and ABS (acrylonitrile butadiene styrene) materials subjected to high temperatures
 - EL HASSAN ACHOUYAB, HANANE SGHIOURI EL IDRISSE, AND SOUFIANE ELOUARDI
4. Elastodynamic analysis of polymeric nanocomposite beams reinforced with FG-SWBNNT using the finite element method
 - Ouassim Mehdi Billah, Mustapha Fouaidi, Laidi Zahiri, Naoual Belouaggadia, and Yassine EL KIRI
5. Energy efficiency of Miscanthus insulation for building walls in various world climates
 - Fella Mohammed, Ouhaibi Salma, Belouaggadia Naoual, Mansouri Khalifa, and Sebaibi Nassim
6. Application of the Artificial Intelligence in the Plastics Industry: A Case Study of Prediction the Properties of HDPE Pipes using machine learning models
 - Ihssan Sree, Nagoor Basha Shaik, Naoual Belouaggadia, Alanssari Nasserddine, and Abdellah Zamma
7. Modeling Thermal Performance of a Wall Incorporating Phase Change Materials in a Building
 - Sabrina Jellaj, Salma Ouhaibi, Laidi Zahiri, and Naoual Belouaggadia
8. Passive safety: Simulation crash for pedestrian impact
 - Zakaria Maldani, Naoual Belouaggadia, Achraf Wahid, and Mustapha Fouaidi
9. Mastering SCM's environmental uncertainties in the Industry 4.0 era
 - Ourssoula SIKAL, Abdellah ZAMMA, and Mohamed EL KHAILI
10. Phase change materials for energy storage and their applications: A State-of-art review of recent advancements
 - Wissal Nahairy, Abdellah Zamma, and Naoual Belouaggadia

Session P5 : In Person

Session Chairs : Hassan SAMRI, Es-saadia AOULA, and Abdellah ZAMMA

Room: 2

1. Impact of the Red Sea crisis on the gas sector in Morocco
 - Hasna HAJJI and Abdellah ZAMMA
2. Magnetoelastic Buckling of an Axially Compressed One-Dimensional Magnetostrictive Structure Subjected to a Magnetic Field: Application to a Magnetostrictive Sensor in Galfenol
 - Belfallah Kawtar, El Kihal Chafik, Fouaidi Mustapha, and Jamal Mohammad
3. Analysis of aerogel potential as a next-generation insulator for building applications
 - Ait khouya Oumaima, Belouaggadia Naoual, Elfarissi Latifa, and Zamma Abdellah
4. Exploration of integrated materials in WPCs for enhanced thermal properties: A comprehensive review
 - F.E. MORCHID, A. ZAMMA, L. ELFARISSI, M. IDIRI, AND N.BELOUAGGADIA
5. 5. Advancements in Sustainable Food Packaging: Exploring Animal-Based Protein Biopolymers
 - Lina Goudali, Naoual Belouaggadia, and Latifa Elfarissi
6. Optimizing Shell-and-Tube Latent Heat Thermal Energy Storage for Enhanced Building Comfort and Efficiency
 - F. REDOINE, N. BELOUAGGADIA, K. MANSOURI, AND R. LBIBB
7. Bibliographic study on the performance of night cooling plus proposals to improve the performance of this technique
 - FAHIM Othmane, BELOUAGGADIA Naoual, and EZZINE Mohamed
8. Urea-Formaldehyde Wood Adhesives with Phosphorylated Chitin Extracted from Shrimp Shells Waste for Particleboard Production
 - Hassan CHARII, Abdelghani BOUSSETTA, Kamal BENALI, Anass EL OUADDARI, Ikamal ESSIFI, El-Houssaine ABLOUH, Nadia BOUSSETTA, Henri EL ZAKHEM, Nabil Grimi, Samir Ibenmoussa, Khalid BOUTOIAL, and Amine MOUBARIK
9. Iodine removal from wet phosphoric acid using green oxidation and solvent extraction process
 - Kamal BENALI, Rachid BENHIDA, and Khaoula KHALESS
10. Magnetization plateaus in a frustrated mixed spin ($\frac{1}{2}$, 1) three-leg nanotube with single-ion anisotropy within the effective field theory
 - Abdeslam Farchakh and Mohamed El Hafidi
11. Bioclimatic Design with Recycled Textile Insulation and Phase Change Materials for Energy-Efficient Homes in Semi-Arid Climates
 - O. IMGHOURE, N. BELOUAGGADIA, M. EZZINE, R. LBIBB, and N. SEBAIBI

	<p>Session P6 : Online</p> <p>Session Chairs : Zakaria MIGHOUAR, Mohamed BELAFHAILI and Hamid AMIFI</p> <p>Meeting link: https://meet.google.com/jvz-hrht-tmo?hs=151</p> <p>Room: 3</p> <ol style="list-style-type: none"> 1. Refinement of structure and investigation of the dielectric, magnetic, and optical characteristics of a new oxide material. <ul style="list-style-type: none"> - Doha Doughri, Boubker Mehdaoui, and Abdeslam El Bouari 2. Olive by-products extracts: Assessing the Polyphenols content, Antioxidant and Antiglycation of olive cakes and olive mill wastewaters <ul style="list-style-type: none"> Btissam Benbakrim, Noamane Taarji, and Abdellatif Hafidi 3. Photo-Thermal Properties of Gold Nanoparticles of Different Morphologies Embedded in Biological Tissue <ul style="list-style-type: none"> - A. Akouibaa, R. Masrour, M. Benhamou, and A. Derouiche 4. 4. DESIGN OPTIMIZATION AND MECHANICAL CHARACTERIZATION OF ADDITIVELY MANUFACTURED LATTICE STRUCTURES <ul style="list-style-type: none"> - O. Lkadi, A. Eljihad, A. Ait Ouchaoui, M. Nassraoui, and O. Bouksour 5. 5. Poly (ethylene chlorotrifluoroethylene) (ECTFE) membranes for desalination using membrane distillation <ul style="list-style-type: none"> - Zineb Ait Fares, Rachid Ouchn, and Noureddine Kamil 6. Exploring Magnetism in a Square Single-Walled Spin-1/2 Nanotube via the Transfer Matrix Technique <ul style="list-style-type: none"> - Abderrazak Boubekri and Karima Gueddouch 7. Analyzing the flow of injection molding for water filter handle using Moldex3D software. <ul style="list-style-type: none"> - Zineb Achor, Yassine Zahraoui, Souad Tayane, Mohamed Ennaji, and Jaafar Gaber 8. Thermodynamic properties and magnetocaloric effect of mixed spins (3/2, 1) square lattice <ul style="list-style-type: none"> - Manal choubi, Said Harir, Abderrahmane El Ghazrani, Anouar Elidrysy, Mustapha Sougrati, Abdelfettah Lahbib, and Yaiya Boughaleb
06:00 pm	Closing Ceremony