

International Conference on Research and Advancements in **Electronics**, **Energy**, and **Environment** (ICRAEEE 2025)

11-12 December 2025, El Jadida, Morocco

Organized by



Partnership



Conference Program of ICRAEEE 2025

Thursday, December 11, 2025	
8:00 – 9:00	Registration
9:00 – 9:30	Opening Ceremony
9:30 – 10:00	Coffee Break / Poster Session
Session Chairs: Prof. Hamid Nebdi and Prof. Mohssin Aoutoul	
10:00 – 10:45	Conference 1: When Noise Speaks: Decoding Aerospace Faults Through Signal Processing Prof. Mohamed El Badaoui , University Jean-Monnet (IUT of Roanne), France
Session Chairs: Prof. Najib Elkamoun and Prof. Khalid El Khadiri	
10:45 – 11:30	Conference 2: Development of solid electrolytes based on functionalized biopolymers and composites for high-performance & safer Lithium batteries Prof. Hicham Ben Youcef , University Mohamed VI Polytechnic, Morocco
Session Chairs: Prof. Abdelhadi Kotri and Prof. Ouidade Laboudiya	
11:30 – 12:15	Conference 3: Earth-abundant materials for energy conversion: photovoltaics and beyond Prof. Lahoucine Atourki , Mohamed V University, Morocco
12:15 – 13:15	Oral Session 1
13:15 – 14:45	Lunch Break
14:45 – 16:15	Oral Session 2
16:15 – 17:45	Coffee Break / Poster Session
17:45 – 19:15	Oral Session 3
Friday, December 12, 2025	
Session Chairs: Prof. Aziz Dkiouak and Prof. Samir Elouaham	
9:00 – 9:45	Conference 4: Transport properties of semimetals and transition metal chalcogenides Prof. Ahmed Jellal , Chouaib Doukkali University, Morocco
Session Chairs: Prof. Redouane Mghaiouini and Prof. Said Amrane	
9:45 – 10:30	Conference 5: Innovation, a Pillar of Resilience and Industrial Sovereignty Dr. Khalid Mnawer , Manager of SITELECM Entreprise, Morocco
Session Chairs: Prof. Wissam Jenkal and Prof. Chouaib Ennawaoui	
10:30 – 11:15	Conference 6: Development and application of Hybrid photovoltaic-thermal solar systems Prof. Monica Siroux , University of Strasbourg, France
11:15 – 11:45	Coffee Break / Poster Session
11:45 – 12:45	Oral Session 4
14:00 – 15:00	Lunch Break
15:00 – 15:45	Conference 7: Advanced Control and Energy Storage Integration for Sustainable Maritime Electrification: Insights from the AENEAS Horizon Europe Project Prof. Kamal Tariq , Vaasa University, Finland
15:45 – 16:45	Oral Session 5
16:45 – 17:15	Coffee Break / Poster Session
17:15 – 18:15	Closing Ceremony

Thursday December 11, 2025

Oral Session 1

Topic 1 : Electrical and Electronic Engineering

Moderators : Prof. M. Aoutoul and Prof. H. Banouni

ID	Title and Authors
007	Denoising abnormal and normal biomedical signal using optimal wavelet transform <i>Fatima-ezahrae Belkadi and Samir Elouaham</i>
008	Performance Analysis of VMD for Phonocardiogram (PCG) Signal Processing <i>Jamal Isknan, Samir Elouaham</i>
009	Denoising and compression ECG signal with empirical wavelet transform <i>Boujemaa Nassiri and Samir Elouaham</i>
016	Characterization and prediction of the Group Velocity of the Different Circumferential Waves of a Cooper Cylindrical Shell by fuzzy logic Computing Technique <i>Youssef Nahraoui, Elhoucein Aassif and Samir Elouaham</i>

Topic 2: Renewable energy systems and energy storage

Moderators : Prof. S. Elouaham and Prof. W. Jenkal

ID	Title and Authors
011	Modeling and Control of a Photovoltaic System Connected to an Electrical Grid <i>Hamza Kamel, Fatima Id Ouissaaden, Fahd Elmourabit, Abdelaziz Khoukh and Said Dlimi</i>
012	Modeling and Simulation of a PV System for Water Pumping in Remote Rural Areas <i>Fatima Id Ouissaaden, Said Dlimi, Hamza Kamel, Abdelaziz Khoukh, and Fahd Elmourabit</i>
013	Modeling of Perovskite Tandem Photovoltaic Cells for Advanced Efficiency <i>Fahd Elmourabit, Yassine Essakali, Said Dlimi, Fatima Id Ouissaaden, Hamza Kamel and Abdelaziz Khoukh</i>
019	Sustainable Development in Low Carbon, Green Energies and the Environment <i>Abdeen Mustafa Omer</i>

Topic 3: Environmental Technology and sustainable practices

Moderators : Prof. R. Lahkal, Prof. A. Brakate And Prof. M. Elhousse

ID	Title and Authors
001	Seasonal dynamics of heavy metals accumulation in natural and man-made water bodies in the mining district <i>Vasyl Popovych, Oleh Tyndyk, and Nataliia Popovych</i>
015	A review study of seawater desalination using thermal and electromagnetic methods <i>Noura Azzi, Rachid El Bouayadi, Hicham labrim and Redouane Mghaiouini</i>
021	Valorization of Mehdia Harbor Dredged Sediments (Morocco) as Construction Materials <i>Mohamed Rabouli, Meryem Bortali, Ahmed Ait Errouhi, Redouane Mghaiouini</i>
025	New Frontiers in Civil Engineering: Valorization, Magnetization, and Green Materials <i>R. Mghaiouini, B. Mohammed, A. El Bouari, H. Labrim</i>

Topic 4: Materials and applications

Moderators : Prof. A. Amine and A. Elmelouky

ID	Title and Authors
002	Research on Benchmarking of Physical Vapor Deposition (PVD Coating) Equipment <i>Ying Wang, Rui Han, Jingying Li, and Mingwei Sun</i>
005	Triple Cation Halide perovskites: Enhancing Stability and Efficiency in Next-Generation Solar Cells <i>Nadia Ouassa and Lhoussine Limouny</i>
006	Electronic Transport in Topological Semimetals: Novel Mechanisms and Technological Potential <i>Lhoussine Limouny</i>
058	Valorization of Crushed Mussel Shells in Compressed Earth Blocks: Impact on Mechanical and Thermal Properties <i>Chaïmaa Khalil and Mohamed Barbachi</i>

Thursday December 11, 2025

Oral Session 2

Topic 1 : Electrical and Electronic Engineering

Moderators : Prof. S. Amrane and Prof. O. Mesbahi

ID	Title and Authors
020	Design of a compact MIMO Antenna for 5G applications by combining DMS and DGS techniques <i>Aziz Dkiouak, Abderrahim Mohammadi, Souad Akkader, Asmae Mimouni and Abdelhafid El Farnane</i>
028	Design Treatment of Circumferential Waves and analysis by fuzzy subtractive clustering Technique <i>Youssef Narhraoui, Elhoucein Aasssif and Samir Elouaham</i>
030	Failure Analysis of a New Three-Phase High-Voltage Power Supply for Microwave Generator Systems <i>Hayat Elkhatat, Boubaker Bahni, Aziz Dkiouak and Said Dlimi</i>
039	Enhancing Trust-ORBAC through Adaptive Trust Evaluation: A Survey on Identity Threat Detection Integration <i>Asmaa Kassid, Dounia El Idrissi, Khalid El Khadiri, Najib El Kamoune</i>
042	The Paradox Between Security and Privacy in TLS 1.3 Traffic <i>Dounia El Idrissi, Asmaa Kassid, Khalid Elkhadiri and Najib Elkamoune</i>
045	Design of Low Mutual Coupling MIMO Antenna for 2.4 GHz Using Orthogonal Polarization Diversi <i>Rajae Tribak, Hicham Setti, Aziz Dkiouak and Larbi Setti</i>

Topic 2: Renewable energy systems and energy storage

Moderators : Prof. H. Doghmi and Prof. C. Hajjaj

ID	Title and Authors
024	Thermal insulation materials and aims for future developments <i>Hayate El Fokari, Abderrazzak Graich, Mostapha Siniti, Redouane Mghaiouini</i>
054	Modeling the Outlet Temperature of a Hybrid PV-T Collector Using Artificial Neural Networks under Moroccan Saharan Climate <i>Bouchta Jaouad, Nait Alla Abderrahmane, Bouchta Said and Benshab Mouna</i>
087	Modeling and Optimization of Marine Renewable Energy Conversion Chains: Perspectives for Sustainable Production <i>Boubker Koudair, Abderrahmane Ouchatti, and Boujemaa Nassiri</i>
101	Numerical Simulation and analysis of the n-i-p structure of the double junction <i>Yassine Essakali, Fahd Elmourabit, Fatima Id Ouissaaden, Hamza Kamel and Said Dlimi</i>
117	Prediction of the monthly power of a 1 kW photovoltaic module in Marrakech, Morocco using artificial intelligence <i>Salma Riad, Naoual Bekkioui, and Hamid Ez-zahraoui</i>
127	Smart Wind Energy for Rural Uzbekistan: Feasibility of Small-Scale Wind Turbines in Bukhara region with ANFIS Control <i>Ulugbek Muinov and Botir Usmonov</i>

Topic 3: Environmental Technology and sustainable practices

Moderators : Prof. M. Elhousse, and Prof. J. Hassoune

ID	Title and Authors
035	Sustainable mortars based on industrial sludge for energy-efficient building applications <i>El Mokhtar El Hafidi, Abdelhadi Mortadi, El Ghaouti Chahid and Said Laasri</i>
036	Optimization of Ammonia Nitrogen and Color Removal from Leachate Using Kaolin <i>Mahmoud H. Abubakar, Zaynab A. Belel, Sabo Bala, Abubakar Sadiq Mahmoud and Zawawi Daud</i>
040	Factors of soil protection, abundant and quality harvesting of crops <i>Sabirjan Isaev, Sunnat Tajiev, Munisakhon Burkhonova, Sanoatkhan Zakirova, Ghulam Yuldashev, Bijan Dauletbayev, Yusuf Ashirov</i>
041	Biological and ecological features of western thuja and the role of the sum of effective temperatures in the development and growth of its cultivars <i>Volodymyr P. Kycheryavyj, Volodymyr S. Kycheryavyj, Vasyi Popovych and Pavlo Bosak</i>

Oral Sessions			
Thursday December 11, 2025			
14:45 -16:15	Oral Session 2		
	Room3	056	Mapping Global Research on Environmental Governance and Sustainability <i>Riski , Eko Priyo Purnomo and Tiara Khairunnisa</i>
		057	Seasonal variability of physico-chemical parameters of water in Tamalout dam (Midelt, Morocco): Environmental implicateons <i>Lhoussaine Jait, Abdelkader Chahlaoui and Youssef Haddadi</i>
	Room4	Topic 4 : Materials and Applications	
		Moderators : Prof. A. Nait Alla, and Prof. N. Hachem	
		ID	Title and Authors
		075	Investigation of structural, elastic, electronic, magnetic and optical properties for the full Heusler alloy Fe2NbSn: DFT calculation and Monte Carlo simulation <i>A. Elhania, T. Mouhrach, H. Saadi, A. Lafhal, E. B. Choubabi, M. El Bouziani</i>
		102	Theoretical study of the effect of internal acceptors insertion on phenothiazine-based dye DSSC photoelectrical properties <i>Hamoud Toubbali, Abdelhamid Khadiri, Hassan Zarrok, Mounir El Hezzat and Abdelkader Zarrouk</i>
		126	Magnetic behavior of a VI ₃ bilayer <i>Youssef Chegrane, Nabil Hachem and Mohammed El Bouziani</i>
		132	Tailoring Calcination Temperature for Enhanced Structural Properties and Catalytic Efficiency of Nickel Orthophosphates in 2-Propanol Decomposition <i>W. El kasiti, R. Lahkale, E. Sabbar</i>
		147	Optimization of Cesium Lead Iodide (CsPbI ₃) Solar Cells for Enhanced Photovoltaic Performance <i>Daruez Afonso, Oumaima Mesbahi, Amal Bouich and Mouhaydine Tlemçani</i>
		154	Development of a new nanomaterial derived from the intercalation of Remazol Red 198 into zinc-aluminium layered double hydroxide through the memory effect <i>Hind Tabia, El Khattabi El Hassan, El Hadiri Najat</i>
17:45 - 18:45	Oral Session 3		
	Room1	Topic 1: Electrical and Electronic Engineering	
		Moderators : Prof. S. Elouaham, and Prof. A. Dkiouak	
		ID	Title and Authors
		051	Novel Ring DRA for Automotive Radar Systems at 77 GHz <i>Abderrahim Haddad, A. Bhaij, R. Jouali, K. Benkhadda, F. El Moukhtafi, M. Aoutoul, S. Zarrik, N Farhane</i>
		052	Denoising electroencephalogram signals using TQWT <i>Boujemaa Nassiri, Samir Elouaham and Youssef Nahraoui</i>
		068	Redefining online assessment with AI: towards ethical and authentic personalisation <i>Kaoutar Smahi, Ouidad Labouidya and Khalid El Khadiri</i>
		071	1 Dimensional Residual Network Architecture for EEG Denoising <i>Nisrine Zaliga, Samir Elouaham, Azzedine Dliou and Amine Saddik</i>
	Room2	Topic 2: Renewable Energy and Energy Storage	
		Moderators : Prof. Y. Tounsi and Prof. E. Baghaz	
		ID	Title and Authors
		138	Enhancing Lithium-Ion Battery State of Charge Estimation Using Neural Networks <i>Abdelhakim Tabine, El Mehdi Laadissi, Abdelhadi El kake and Abdelowahed Hajjaji</i>
		139	Smart Phase-Transition Materials and AI Synergy for Next-Generation Photovoltaics <i>Kamal Fadil, Khalid Kandoussi, Rabie El Otmani</i>
		153	Transition metal doping for enhanced properties of CZTS material for photovoltaic applications <i>SafaeTorka, Naoufal Ennouhi, Imane Hamidenne and Zouheir Sekkat</i>
		171	A Predictive Parametric and CFD Modeling Framework for the Optimization of Archimedes Screw Turbines in Sustainable Low-Head Hydropower <i>Chouaib Sayaghi, M. Remaidi, Hicham Mastouri, M. El Jouad, Amine. Ennawawi and Chouaib Ennawawi</i>

Oral Sessions

Thursday December 11, 2025

Topic 3: Environmental Technology and sustainable practices

Moderators : Prof. E. El Halba and Prof. R. Mghaiouini

ID	Title and Authors
050	Protecting cooling water systems from inorganic scale deposits using an environmentally friendly antiscalant: experimental and theoretical study <i>Mohamed El housse, Abdallah Hadfi, Said Ben-aazaa, M'barek Belattar and Ali Driouiche</i>
062	Application of artificial neural network models for predicting wastewater treatment plant performance and effluent quality <i>Karima Bakkali, Fatima Elazhara and Azzedine Elmidaoui</i>
067	Towards an Intelligent Aircraft Surface Inspection System: Image-Based Recognition and Classification of Structural Defects <i>Souhila Chabane, Oumaima Mesbahi, Nuno Pereira Santos, M. Tlemcani and J. Lourenco de Saude</i>
104	Artificial Intelligence of Things and Smart City Sustainability: Toward a Multidimensional Framework <i>Soukaina Ait Bahado, Siham Hamdani</i>

Topic 4: Materials and Applications

Moderators : Prof. R. Houça and Prof. A. Lafhal

ID	Title and Authors
159	Impact of Noise on Quantum Tunneling in Graphene <i>Kamal Azaidaoui, Ahmed Jellal</i>
162	Quantum Tunneling Phenomena in Rarita-Schwinger Semimetals <i>Otman Bouladiane, Ahmed Jellal</i>
166	Hall Conductivity behavior in multi-Weyl semimetal <i>Jellal Zakariae and Ahl Laamara Rachid</i>
176	Molecular Dynamics of Water Desalination Through Sub-Nanometer Graphene Nanopores <i>Nour El Haq El Macouti, M. El bouanounou, E. Hlil, Y. Boughaleb, A. Hajjaji and S. Laasri</i>

Friday December 12, 2025

Oral Session 4

Topic 1: Electrical and Electronic Engineering

Moderators : Prof. F. Lakrami and Prof. Y. Baddi

ID	Title and Authors
079	AI-based antenna design and optimization using MOZO algorithm <i>Bilal Jellam, Said Ahyoud, Mustapha El halaoui</i>
080	Embedded Hardware Architecture development for Electrocardiogram Signal Denoising <i>Bouchra Bendahane, Wissam Jenkal, Mostafa Laaboubi and Boujemaa Nassiri</i>
086	Reflection coefficient measurement technique for real-time monitoring of milk coagulation <i>Nidae Jaafari , Firdaous Bakkali, Abdellah Amghar</i>
088	32GHz Rhombic Microstrip Patch Antenna (RMPA) for Next Generation mmWave Systems <i>K. Benkhadda, S. Habibi, A. Haddad, F. ALtalqi, A. Bendali, S. Zarrik, Z. Sahel, M. Habibi, A. Hadjoudja</i>

Topic 2: Renewable Energy and Energy Storage

Moderators : Prof. A. Amine and Prof. F. Majid

ID	Title and Authors
177	Investigation thermal performance of an emitter coated with Radiative cooling paint across different Climates Conditions in Morocco <i>Cherqi Oumayma, Kardellass Said and Malha Mustapha</i>
187	Advances in Water Electrolysis Technologies for Cost-Effective Green Hydrogen Production <i>Najat Mousabah, Youssef Naimi, Abdelhadi Kotri, Youssef Belkassmi</i>

Oral Sessions

11:45 -12:45	Room3	Topic 3: Environmental Technology and sustainable practices	
		Moderators : Prof. A. Nait Alla and Prof. R. Mghaiouini	
		ID	Title and Authors
		107	The environmental impact of no-tillage and conventional tillage systems in cereal production: A life cycle assessment <i>Imane El Bakali, Imane Fadil, Abdelkader Ait El Mekki, Nassreddine Maatala and Rachid Harbouze</i>
		121	Digitalisation microfinance for sustainable social innovation : A conceptual framework for eco-responsible micro-projets <i>Kenza Hassane, Siham Hamdani</i>
		122	Smart Urban Parking: Using IoT and RFID Technology for Street Parking <i>Fatima-Zahrae Sotor, Outman El Hichami and Adnan Souri</i>
		142	From Nuclear to Thorium: The Energy Transition Discourse in Bangka Belitung <i>Ibrahim Ibrahim, Ariandi Zulkarnain and Irvan Anshari</i>
		149	Advanced Capacitive Deionization with Amino -Functionalized Manganese Oxide for Efficient Cr <i>Yassine Slek, M. Salmi, Z. Zaroual and S. Elghachtouli</i>
		150	Climate Change and Crop Adaptation in Sahelian Savana Region of Negeria <i>Isa Magaji Azare</i>
	Room4	Topic 1 : Electrical and Electronic Engineering	
		Moderators : Prof. S. Amrane and Prof. A. Kotri	
		ID	Title and Authors
		089	Adaptive Cruise Control of a Thermal Engine Vehicle Using Model Predictive Control <i>Mohamed Bouasrya, Wissam Jenkal and Mustapha Laaboubi</i>
		097	Derivative Superposition-Based Linearization of a GaN Power Amplifier for 5GHz Applications <i>El Mouflih Abderrahim, El Bakkali Moustapha, Amar Touhami Naima and Dkiouak Aziz</i>
		103	Study and design of the RF part of a passive RFID tag at 900MHz frequency for the ISO 18000-6c standard <i>Sanae Habibi, Abdelhak Bendali, Mohamed Habibi, Abdelkader Hadjoudja</i>
		110	Scalability Evaluation Between OpenMP MPI and OpenCL <i>Mohsine Kartita, Anass Barodi, Mohamed Chahid, Mohammed Benbrahim, and Abdelkarim Zemmouri</i>
	Oral Session 5		
15:00 -16:00	Room1	Topic 1 : Electrical and Electronic Engineering	
		Moderators : Prof. Wissam Jenkal, Prof. Aziz Dkiouak	
		ID	Title and Authors
		122	Intelligent Image-Based Detection of Surface Anomalies in Aircraft Structures <i>Oumaima Mesbahi, S. Chabane, N. P. Santos, A. Del Pino Lino, M. Tlemçani, J. M. Mota Lourenço da Saúde</i>
		143	Embedded AI for ECG Monitoring: Current Limitations and Emerging Perspectives <i>Hanane Elferdaoussi, Wissam Jenkal, Mostafa Laaboubi and Rachid Latif</i>
		148	Comparative study of the effectiveness of approximation and exact models for geometric deviation <i>Jean Claude Hagabimana, Abdelhak Nafi</i>
		160	Artificial Intelligence Approaches for Processing and Analysis of Optical Coherence Tomography (OCT) Images Applied to Early Disease Diagnosis <i>Hind Sajid, Said Amrane, Khalid El Khadiri, Said Dlimi, Mostafa Abouricha and Aziz Dkiouak</i>
	Room2	Topic 1 : Electrical and Electronic Engineering	
		Moderators : Prof. A. Baroudi Prof. K. El Khadiri	
		ID	Title and Authors
		172	Modeling, Simulation and Control of a Photovoltaic System <i>Mehdi Aouda and Said Dlimi</i>
		173	Design and Implementation Strategies for Heavy-Current Electrical Installations <i>El Mostafa Abouhafs, Khalid El Khadiri and Said Dlimi</i>

Friday December 12, 2025

Oral Session 5 - Continued

Topic 1 : Electrical and Electronic Engineering

Moderators : Prof. A. Baroudi, Prof. K. El Khadiri

ID	Title and Authors
155	Energy Recovery from Cashew Waste: Advancing Circular Economy Practices in Burkina Faso <i>Marie Sawadogo, Lauriane Mena-kintima Bongo, Fernand Zoûa, Anselme Bagoro</i>
179	Embedded Electronic System for ECG Signal Processing in Driver State Monitoring for Connected Vehicles <i>Abdelhafid El Farnane, Brahim Moudoud, Aziz Dkiouak, Omar Chahir, El Hanafi Arjdal, Mustapha Elyaqouti</i>

Topic 3: Environmental Technology and sustainable practices

Moderators : Prof. R. Lahkal, Prof. M. Elhalba

ID	Title and Authors
164	Vulnerability Mapping of the Sahel Doukkala Aquifer Using the SI Method <i>Fatima ezzahra Afri, Ilham Chennak and Mohammed Taibi</i>
167	Effect of Imidazole as a corrosion and biocorrosion inhibitor on archaeological steel associated with wood in Water-10% PEG-200 solutions <i>Fatima Ezzahra Belharcha and Mohamed Ebn Touhamia</i>
175	AI-Driven Environmental Sustainability Assessment of Desalination Technologies via Automated Literature Mining <i>Doha Ben Rouane, Redouane Mghaiouini, Ahmed Ait Errouhi</i>
182	Geospatial analysis of the Khorezm oasis in terms of its vegetation cover and the impact of vegetation criteria on the desertification process <i>Rifat Boymurodov, Muzaffar Matchanov, Q. Tajiyev, S. Dusanova, A. Rahimov and D. Amandurdiyev</i>
184	Numerical analysis and heat dissipation of mid-infrared tellurite fiber Raman laser <i>Hamid Jouah, Mohamed Zaki, Mostafa Abouricha, and Said Amrane</i>

Topic 4: Materials and Applications

Moderators : Prof. A. Amine, Prof A. Kotri and Prof. C. Elghaouti

ID	Title and Authors
178	Improvement and optimization of lead-free and eco-friendly InGeCl3 based perovskite solar cells: From first principal calculation to SCAPS-1D simulation <i>T. Garmim, N. Benaissa, L. Soussi, O. Zahot, Z. El Jouad, A. El Bachiri, A. Louardi, M. Monkade</i>
180	Impact of Uniaxial and Biaxial Constraints on the Structural, Thermodynamic, and Hydrogen Storage Properties of Mg2NiH4 <i>Abdelmajid Assila I. belkoufa , A. Alaoui Belghiti , Said laasri, El-kebir Hlil · Abdelowahed Hajjaji</i>
181	First-Principles Investigation of the Structural, Electronic, Optical, and Photovoltaic Properties of Lead-Free Halide Perovskites Ba₃XI₃ (X = As, Bi, Sb) <i>Mohamed El Bouanounou, N. E. El Macouti , A. Assila, E. Hlil, Y. Boughaleba, A. Hajjaji, S. Laasri</i>
188	Full-Kubo Electromagnetic Modeling of a Free-Standing Single Layer Graphene <i>Moumou Mohamed, Mounirh Khalid, El Adraoui Soufiane, Kanjaa Mohammed, and Khalladi Mohsine</i>
189	Dielectric and Electrical Characterization of Hexavalent Chromium Removal Efficiency Using a Ceramic Ultrafiltration Membrane System <i>E. Chahid, A. Mortadi, B. Lizoul, E. El Hafidi, R. Mghaiouini, R. El Moznine and M. Monkade</i>
190	Numerical Method for Simulating a Patterned Graphene Monolayer and its Lumped Element Model <i>Moumou Mohamed, Mounirh Khalid, El Adraoui Soufiane, Kanjaa Mohammed, and Khalladi Mohsine</i>
191	Laser-induced modulation of conductance in graphene with magnetic barriers <i>Rachid El Aitouni</i>

Poster Sessions

Thursday December 11, 2025

12:15 -13:15	Poster Session 1	ID	Title and Authors
		14	Electronic Transport Phenomena in 2D Systems: A Comprehensive Review <i>Yassine Essakali, Fahd Elmourabit, Fatima Id Ouissaaden, Hamza Kamel and Said Dlimi</i>
		44	Mechanical characterization of cement-based composite materials by ultrasound <i>Hicham Banouni, Azzedine Bitu, Nabil Khatib, Mourad Derra, El Houssine Ouacha</i>
		48	Four-Element MIMO Antenna System for SHFB Applications using Polarization Diversity <i>Aziz Dkiouak, Khalid El Khadiri, Said Amrane, Abdelali El Aroudi and Abderrahim Haddad</i>
		61	Dissolution rate and recrystallization in Na2O- MoO3-P2O5 glasses <i>Lahbib Abbas and L. Bih</i>
		108	⁵⁶Fe capture cross sections analysis in ASPIS Iron88 benchmark using ENDF/B-VIII.0 evaluation <i>M. Kaddour, T. El Bardouni, E. Chakir, T. El Ghalbzouri, H. Boukhal</i>
		109	79 GHz Hemispherical Dielectric Resonator Antenna Design for mm-Wave Automotive Sensors <i>A. Haddad, R. Jouali, A. Bhajj, S. Habibi, F. El Moukhtafi, M. Aoutoul, A. Dkiouak, F. Altalqi, S. Dlimi</i>
		120	Integration of an Intelligent Adaptive Assessment System Based on AI and Predictive Analytics <i>Kaoutar Smahi, Ouidad Labouidya, Khalid El Khadir</i>
		128	SCAPS-1D based numerical study of CNGS serving as BSF and additional absorber in CIGS thin-film photovoltaic devices <i>Redouane Mazili, Said Amrane and Mostafa Abouricha</i>
12:15 -13:15	Poster Session 2	129	Optimal tilt angel for south facing of a Single/double-Slope Solar Still Unit case study in the southern region of Saudi Arabia <i>Saeed Alqaed</i>
		130	Energy Performance Analysis of BIPV Double-Skin Facades with Phase Change Material in a Commercial Building in a Hot-Arid Climate <i>Khaled Almazam</i>
		156	Valorization of clay for the development of geopolymers in civil engineering <i>Halima Brout, Mohammed El Bachri, Zouhair El Jouad¹ and Redouane Mghaiouini</i>
		157	Theoretical Modeling and Simulation of an All-Optical Full Adder Based on Mach-Zehnder Inte <i>Noureddine Ennadi, Said Amrane, Khalid El Khadiri, Said Dlimi and Mostafa Abouricha</i>
		158	Creation and evaluation of fly ash-based geopolymers for creative and sustainable building <i>Mohammed El Bachri, Halima Brout, Zouhair El Jouad and Redouane Mghaiouini</i>
		161	Physicochemical and isotopic characterization and vulnerability mapping of the Sahel Doukkala groundwater aquifer using the susceptibility index (SI) method <i>Fatima ezzahra afri, Ilham Chennak, Mohammed Taibi</i>

Friday December 12, 2025

11:15 -11:45	Poster Session 3	163	Analytical Framework for the Solvability of Nonlinear Integro-Differential Systems <i>Meryeme Hmamed, Mohammed Shimi , Youssef Akdim</i>
		165	Modeling Light Scattering by Capsule-Shaped Particles in the WKB Approximation <i>Redouane Lamsoudi</i>
		174	Integration of Micro-Hydropower Units for Energy Recovery in High-Flow Seawater Systems <i>Mostapha Elghyati, Khalid Elkhadiri and Said Dlimi</i>
		183	Digital Twi-Driven Optimization of Instrumentation for steam Networks and Water quality Assurance <i>Mouhsen Dani, Aziz Dkiouak and Khalid El khadiri</i>
		185	AI-Driven Personalized Video Generation for Enhanced Digital Marketing Campaigns <i>Rachida Ferras, Dounia Elidrissi, Khalid El khadiri and Said Amrane</i>
		186	IoT System Based on LoRaWAN for Early Wildfire Detection and Prediction <i>Hamza Ben Rahma, Asmaa Kassid, Khalid El Khadiri and Aziz Dkiouak</i>