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|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TUESDAY OCTOBER 28, 2025                                                                                                     |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                           |
| Auditorium                                                                                                                   |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                           |
| 8h00                                                                                                                         |                                                                                                                                                                                                                                                  | RECEPTION & REGISTRATION                                                                                                                                                                                                  |
| 8H30                                                                                                                         |                                                                                                                                                                                                                                                  | OPENING CEREMONY<br>Representative of Ibn Badis University of Mostaganem<br>Representative of the Faculty of Science and Technology<br>Representative of the local authorities<br>Representative of Conference Organizers |
| CAP-HYPROC Auditorium                                                                                                        | KEYNOTE SPEAKERS                                                                                                                                                                                                                                 |                                                                                                                                                                                                                           |
|                                                                                                                              | Moderator                                                                                                                                                                                                                                        | Prof. Cherif BENOUDJAFER (Univ. Bechar)                                                                                                                                                                                   |
| 09H00                                                                                                                        | Dr. Abdallah KHELLAF<br>CDER, Bouzaréah, Alger. ALGERIA<br><br>Overview of artificial intelligence applications in hydrogen chain value                                                                                                          |                                                                                                                                        |
| 09H45                                                                                                                        | Pr. Adel MELLIT<br>Seddik Benyahia University, Jijel. ALGERIA<br><br>The role of artificial intelligence in advancing the solar energy sector: Bridging the gap between academic research and industry                                           |                                                                                                                                       |
| 10H30 – 11H00 COFFEE BREAK offered by FST-Mostaganem                                                                         |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                           |
| 12H15                                                                                                                        | Dr. Benameur NEHAR<br>Abou Bekr Belkaid University, Tlemcen. ALGERIA<br><br>Cultivating Global and Smart Citizenship through Virtual Exchange on the UN SDGs in Higher Education                                                                 |                                                                                                                                      |
| Online                                                                                                                       | Dr. Gokul PANDY<br>IEEE-SM, Richmond section chair, USA<br><a href="https://meet.google.com/mrf-syzy-hch">meet.google.com/mrf-syzy-hch</a><br>Revolutionizing Client Service Agreements: Selenium-Driven Open-Source Robotics Process Automation |                                                                                                                                      |
| 11H00<br>12H00                                                                                                               | POSTER SESSION-1- CAP-HYPROC Hall<br>Moderators: Prof. Youcef SOUFI (Univ. Tebessa); Mr. Kheireddine MERHOUM (UMBB)                                                                                                                              |                                                                                                                                                                                                                           |
| AI-Based Optimization and Control Systems<br>Prof. Abdelghani AISSAOUI (Univ. Bechar); Dr. Abdelkader HADJ DIDA ( ASAL-Oran) |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                           |
| 11H00                                                                                                                        | 22                                                                                                                                                                                                                                               | - Souad TAHRAOUI<br>AI-Powered Fault Diagnosis in Dynamic Systems with Tornado Algorithm Optimization                                                                                                                     |
| 11H10                                                                                                                        | 29                                                                                                                                                                                                                                               | - Azeddine BELOUFA<br>PSO-Optimized High-Gain Observer-Based Backstepping Control for TRMS Trajectory Tracking                                                                                                            |
| 11H20                                                                                                                        | 191                                                                                                                                                                                                                                              | - Fatima Zohra MEDJAOUI<br>Experimental Validation of a Square Planar Micro-Coil Model                                                                                                                                    |

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|------------------------------------------------------------------------------------------------------------------------------------------------|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11H30                                                                                                                                          | 218 | - Nawres BOUAM<br><i>Optimization of Robotic Navigation for Safety and Efficiency in the Oil and Gas Industry Using the A Algorithm*</i>                                                                                 |
| 11H40                                                                                                                                          | 149 | - Soumia TOUAMI<br><i>Control of Brushless Doubly-Fed Generator BDFIM using Neuro-fuzzy Controllers</i>                                                                                                                  |
| <b>Photovoltaic Systems and MPPT Techniques</b><br><b>Prof. Abdelghani HARRAG (Univ. Setif); Dr. Fatima BOUTILIS (Univ. Mostaganem)</b>        |     |                                                                                                                                                                                                                          |
| 11H00                                                                                                                                          | 106 | - Amel ABBADI<br><i>Enhanced Accuracy in Estimating PEM Fuel Cell Parameters Using the Walrus Optimization Algorithm</i>                                                                                                 |
| 11H10                                                                                                                                          | 216 | Yamina BELGAID<br><i>Optimal tuning of a PI controller using the Particle Swarm Optimization (PSO) algorithm for wind turbine applications</i>                                                                           |
| 11H20                                                                                                                                          | 147 | - Khadidja DERBALI<br><i>Optimization of the Solar Cell Double Diode Model Estimation Using the Dung Beetle and Arctic Puffin Optimizers with Lambert-W Function and Newton-Raphson Methods</i>                          |
| 11H30                                                                                                                                          | 134 | - Fethia HAMIDIA<br><i>Enhanced MPPT Algorithms for PV Panels: Review and Comparative Analysis</i>                                                                                                                       |
| 11H40                                                                                                                                          | 188 | - Fatima SALHI<br><i>A Comparative Analysis of MPPT Techniques for Grid Connected PV System</i>                                                                                                                          |
| 11H50                                                                                                                                          | 209 | - Fatima SALHI<br><i>Photovoltaic Pumping System Based On MPPT-DNN</i>                                                                                                                                                   |
| 12H00                                                                                                                                          | 194 | - Mokhtaria DERKAoui<br><i>Stand Alone Photovoltaic Module with an Integrated On-Chip Circular Spiral Inductor</i>                                                                                                       |
| <b>Power Electronics and Advanced Converters</b><br><b>Prof. Mouloud DENAI (ESGEE-Oran) ; Dr. Fethi AKEL (UDES-CDER)</b>                       |     |                                                                                                                                                                                                                          |
| 11H00                                                                                                                                          | 183 | - Oqeyl DJEBouri<br><i>A Performance Analysis of a High-Gain three Phase Interleaved Boost Converter with Switched Capacitor Network for Photovoltaic Systems under Different Environmental Conditions</i>               |
| 11H10                                                                                                                                          | 132 | - Brahim LACHI<br><i>Direct Torque Control (DTC) of a Synchronous Drive Using a Three-Level NPC Inverter in an Electric Traction Application</i>                                                                         |
| 11H20                                                                                                                                          | 150 | - Abdelkader RABAH<br><i>A Novel Method for Inverter Open-Circuit Fault Diagnosis Using Improved Variational Mode Decomposition</i>                                                                                      |
| 11H30                                                                                                                                          | 116 | - Oqeyl DJEBouri<br><i>A Comparative Evaluation of Metaheuristic Algorithm Using Two Different Simulation Current Calculation Methods for Extracting Photovoltaic Single-Diode Model Parameters</i>                      |
| 11H40                                                                                                                                          | 138 | - Kada BECHAREF<br><i>Development of a Compact Wideband Bandpass Filter Incorporating Complementary Interdigital Resonator E (CIRE) on a Half-Mode Substrate Integrated Waveguide Coupled with Corrugated Structures</i> |
| <b>13H30-14H30 POSTER SESSION -2- CAP-HYPROC Hall</b><br><b>Moderators: Prof. Youcef SOUFI (Univ. Tebessa); Mr. Kheireddine MERHOUM (UMBB)</b> |     |                                                                                                                                                                                                                          |
| <b>Hybrid Energy Systems and Storage Technologies</b><br><b>Dr. Rafika BOUDRIES (CDER Bouzareah); Dr. Missoum IBRAHIM (Univ. Mostaganem)</b>   |     |                                                                                                                                                                                                                          |
| 13H30                                                                                                                                          | 42  | - M'hamed SEKOUR<br><i>Energy Management in a Hybrid Fuel Cell–Battery–Supercapacitor System for Drone</i>                                                                                                               |
| 13H40                                                                                                                                          | 130 | - Abdeldjalil DAHBI<br><i>An Experimental Study of a Stand-alone Hybrid system installed in Adrar</i>                                                                                                                    |
| 13H50                                                                                                                                          | 172 | - Henia FRAOUCENE<br><i>Effect of Rectifier load resistance on the RF received Wake-up Signal at 2.45 GHz</i>                                                                                                            |
| 14H00                                                                                                                                          | 220 | - Abdallah BOUAM<br><i>Experimental Feasibility Study of a Cogeneration System Based on the Coupling of a Vortex Tower and NPP Cooling System for Sustainable Energy Production</i>                                      |

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|------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14H10                                                                                                                                                | 7   | - Rachid KHELFAOUI<br><i>Smart Control and Energy Optimization of a Solar-Driven Absorption Cooling System in Béchar (Algerian Sahara)</i>                                   |
| <b>Smart Agriculture and IoT Applications</b><br><b>Prof. Baghdad HADRI (Univ. Mostaganem) Prof. Saliha AREZKI (USTHB Algiers)</b>                   |     |                                                                                                                                                                              |
| 13H30                                                                                                                                                | 49  | - Zoubir BELGROUN<br><i>Development of an ontology-based solution to agricultural semantics</i>                                                                              |
| 13H40                                                                                                                                                | 50  | - Zoubir BELGROUN<br><i>A Smart Solution for Monitoring Greenhouses Utilizing the Internet of Things</i>                                                                     |
| 13H50                                                                                                                                                | 101 | - Mouloud TIZZAOUI<br><i>Design Considerations for a Stand-Alone PV-Powered Evaporative Cooling of Greenhouse in the Saharan Environment</i>                                 |
| 14H00                                                                                                                                                | 27  | Ali BOUZIANE<br><i>Clean Combustion Modeling of Premixed DME Flames with LES: A Step Toward RCCI-Compatible Fuels for Green Mobility</i>                                     |
| 14H10                                                                                                                                                | 204 | - Tewfik LAMRANI<br><i>Advancements and Challenges in Multimodal RFID Sensors: From Industrial IoT to Smart Applications</i>                                                 |
| 14H20                                                                                                                                                | 165 | - Mokrane MEHDI<br><i>Enhancing Energy Efficiency in Domestic Refrigerators: Experimental and Statistical Evaluation of Phase Change Material Integration</i>                |
| <b>Energy Forecasting and Predictive Maintenance</b><br><b>Prof. Mohamed Arezki MELLAL (Univ. Boumerdes) Dr Mohamed BENZIDANE (Univ. Mostaganem)</b> |     |                                                                                                                                                                              |
| 13H30                                                                                                                                                | 222 | - Dalila CHERIFI<br><i>Predictive Maintenance of Wind Turbines Using Machine Learning: Addressing Fault Detection with SCADA Data</i>                                        |
| 13H40                                                                                                                                                | 155 | - Walid BOUKERNE<br><i>Study and Implementation of an End-to-End OFDM-Based Data Transmission System Using SDR</i>                                                           |
| 13H50                                                                                                                                                | 113 | - Kacem GAIRAA<br><i>Intra-Hour Solar Irradiance Forecasting Based on Feature Selection Techniques</i>                                                                       |
| 14H00                                                                                                                                                | 159 | - Lamia MAY<br><i>A Dynamic Stress-Reset Model for maintenance Optimization Integrating Physics-Informed Fatigue Accumulation and Resource-Aware Intervention Efficiency</i> |
| 14H10                                                                                                                                                | 196 | - Abderrahmane KHELFAOUI<br><i>Solar Declination Measurement Test and Comparison with Declination Tables and Theoretical Methods</i>                                         |
| <b>Thermal Systems and Advanced Energy Technologies</b><br><b>Dr. Mohamed AYAD (UDES); Dr. Slimane SOUAG (Univ. Mostaganem)</b>                      |     |                                                                                                                                                                              |
| 13H30                                                                                                                                                | 181 | - Amina Lyria DEGHAL<br><i>Numerical and Analytical Study of the Influence of Geometrical Parameters on the Performance of a Vortex-Type Cooling Tower</i>                   |
| 13H40                                                                                                                                                | 219 | - Amel DADDA<br><i>Influence of Chimney Geometry on Coriolis Force Generation in a Vortex Tower Prototype</i>                                                                |
| 13H50                                                                                                                                                | 186 | - Ridha ALLICHE<br><i>Dimensionless Analysis and Correlation of Nusselt Number in a Regenerator-Free LTD Stirling Engine</i>                                                 |
| 14H00                                                                                                                                                | 127 | - Kheira BELHAMIDECHE<br><i>The effect of heat transfer fluid flow rate and heat exchanger installation depth on the performance of low enthalpy geothermal energy</i>       |
| 14H10                                                                                                                                                | 109 | - Abdellah MEKEDEME<br><i>Modeling and Simulation of Herschel-Bulkley Drilling Fluids in Vertical Boreholes with Rotating Bits</i>                                           |
| 14H30 – 15H30 LUNCH                                                                                                                                  |     |                                                                                                                                                                              |

| REMOTE SESSION                                                          |     |                                                                                                                                                                               |
|-------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ROOM A-1-28                                                             |     |                                                                                                                                                                               |
| Dr. Akshay SHARMA (SM-IEEE); Dr. Hadj Larbi BEKALOUZ (Univ. Mostaganem) |     |                                                                                                                                                                               |
| ::meet.google.com/mrf-szyz-hch                                          |     |                                                                                                                                                                               |
| 15H30                                                                   | 33  | -Hamza BENYEZZA<br>IoT-Based Platform for Monitoring and Managing Fuel Delivery Trucks                                                                                        |
| 15H45                                                                   | 58  | - Ahmed BOURAIOU<br>Design of Sustainable IoT-Based Weather Monitoring                                                                                                        |
| 16H00                                                                   | 85  | - Lynda OUZANE<br>Design and simulation of a smart energy meter for real time monitoring                                                                                      |
| 16H15                                                                   | 96  | - Faycal BENYAMINA<br>Enhanced LVRT Control of Grid-Tied Inverters under Unbalanced Grid Faults Using Notch Filter-based Sequence Extraction                                  |
| 16H30                                                                   | 137 | - Halima MAHIDEB<br>Indoor and Outdoor Air Quality Monitoring with IoT-AI Technologies: Current State and Integration Challenges                                              |
| ROOM B-1-28                                                             |     |                                                                                                                                                                               |
| Prof. Amel ABBADI (Univ. Medea); Dr. Sakina ATOUI (UDES-CDER)           |     |                                                                                                                                                                               |
| ::meet.google.com/nzt-jvxh-icq                                          |     |                                                                                                                                                                               |
| 15H30                                                                   | 60  | - Mustapha MEROUAH<br>Enhanced MPPT in PV Systems Using k-Nearest Neighbors and Integral Backstepping Control                                                                 |
| 15H45                                                                   | 64  | - Hizia ABED<br>Real time identification of the parameters of a photovoltaic panel by ant colony optimization in the continuous domain                                        |
| 16H00                                                                   | 94  | - Ryma LEBIED<br>Robust Solar System with Different advances techniques                                                                                                       |
| 16H15                                                                   | 98  | - Samah BOUAROUDJ<br>Novel High Efficiency ZCS DC/DC Interleaved Boost Converter For Photovoltaic Solar System                                                                |
| 16H30                                                                   | 206 | - Alla Eddine TOUBAL MAAMAR<br>A simple and accurate script to simulate solar panel models at variable environmental conditions of temperature and irradiation                |
| ROOM A-2-28                                                             |     |                                                                                                                                                                               |
| Prof. Lamia HAMZA (Univ. Bejaia); Dr. Anup KAGALKAR (SM-IEEE)           |     |                                                                                                                                                                               |
| ::meet.google.com/mrf-szyz-hch                                          |     |                                                                                                                                                                               |
| 17H00                                                                   | 25  | - Amina MAZIGHI<br>Innovation in infiltration estimation: From empirical model to AI-based solutions                                                                          |
| 17H15                                                                   | 37  | - Sonia BAAZIZ<br>AI-Assisted Design and Characterization of a Novel Cytosine-Based Hybrid Material for Renewable Energy Applications                                         |
| 17H30                                                                   | 76  | - Abdesselem BEGHRICHE<br>AI-Driven Smart Management and Optimization of Green Hydrogen Production in Renewable Energy Grids Using Bio-Inspired Algorithms and Edge Computing |
| 17H45                                                                   | 158 | - Sara OUARTI<br>A Hybrid Deep Learning Approach for Anomaly Detection in Smart Grid Systems                                                                                  |
| 18H00                                                                   | 199 | - Mohamed ADAIKA<br>Intelligent Fault Detection in Transformer Magnetic Oil Level Indicators Using Machine Learning for Smart Renewable Grids                                 |
| ROOM B-2-28                                                             |     |                                                                                                                                                                               |
| Prof. Fethia HAMIDIA (Univ. Medea); Dr. Nouamen KELLIL (UDES-CDER)      |     |                                                                                                                                                                               |
| ::meet.google.com/nzt-jvxh-icq                                          |     |                                                                                                                                                                               |
| 17H00                                                                   | 43  | - Mokhtar Mahmoud MOHAMMEDI<br>SMO Speed Sensorless Fault Assessment Technique Based on DFIG-WECS                                                                             |
| 17H15                                                                   | 104 | - Mourad NAIDJI<br>A Novel Nature-Inspired Approach for Wind Farm Location Optimization Considering Wake Effects                                                              |
| 17H30                                                                   | 115 | - Hadjira MECHRI<br>Efficient Wind Energy Extraction and Fault Detection in a PMSG-Based WECS with NPC Inverter                                                               |
| 17H45                                                                   | 153 | - Lakhdar SAIHI<br>Fuzzy Logic Control of Variable-Speed Wind Turbine Base on DFIG                                                                                            |
| 18H00                                                                   | 92  | - Samira HADIBI<br>Impact of System Complexity on the Nonlinear Dynamics of Coupled Axial-Torsional Drilling Models                                                           |
| COFFEE BREAK                                                            |     |                                                                                                                                                                               |

| WEDNESDAY OCTOBER 29, 2025                                                                                                     |     |                                                                                                                                                                                            |
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| INTERNET OF THINGS :: <a href="https://meet.google.com/mrf-szyz-hch">meet.google.com/mrf-szyz-hch</a>                          |     |                                                                                                                                                                                            |
| <b>Room A</b> Prof. Abdellah CHAOUCH (Univ. Mostaganem); Dr. Fatiha BECHIRI (Univ. Mostaganem)                                 |     |                                                                                                                                                                                            |
| 08H00                                                                                                                          | 162 | - Rafika BOUDRIES<br><i>Methanation of CO<sub>2</sub> Removed From Raw Natural Gas for Smart Urban Centers in the In-Salah Region</i>                                                      |
| 08H20                                                                                                                          | 74  | - Ibtissam CHEKKAL<br><i>Artificial Intelligence Applications for Indoor Thermal Comfort in Residential Buildings: A Scoping Review of Early Design Methods</i>                            |
| 08H40                                                                                                                          | 17  | - Farouk BENAHMED<br><i>Home Monitoring System using IoT and Deep Learning model</i>                                                                                                       |
| 09H00                                                                                                                          | 177 | - Imane YAHIAOUI<br><i>State of Health Estimation of Lithium-Ion Batteries in Electric Vehicles</i>                                                                                        |
| ELECTRICAL VEHICLE & CONTROL :: <a href="https://meet.google.com/nzt-jvxx-icq">meet.google.com/nzt-jvxx-icq</a>                |     |                                                                                                                                                                                            |
| <b>Room B</b> Prof. Emrt Fateh KRIM (Univ. Setif); Dr. Mansour ABED (Univ. Mostaganem)                                         |     |                                                                                                                                                                                            |
| 08H00                                                                                                                          | 81  | - Abdelmoumene TOUABI<br><i>A Concise Survey on Neural Networks Compression Techniques</i>                                                                                                 |
| 08H20                                                                                                                          | 175 | - Chahrazad BENGANA<br><i>AI-Based Fault Detection for PDC Bit Wear Monitoring Using Random Forest Classification</i>                                                                      |
| 08H40                                                                                                                          | 135 | - Sarah Kawther SEDJAR<br><i>Intelligent Optimization and Modeling of Miniaturized Photovoltaic Cells for Embedded Applications using Hybrid AI Techniques</i>                             |
| 09H00                                                                                                                          | 14  | - Fatna LAZGHEM<br><i>Artificial intelligence and plant disease detection: A critical analysis of advances, challenges and strategies for resilient agriculture</i>                        |
| GRID-CONNECTED CONTROL SYSTEMS:: <a href="https://meet.google.com/mrf-szyz-hch">meet.google.com/mrf-szyz-hch</a>               |     |                                                                                                                                                                                            |
| <b>Room A</b> Prof. Katia KOUZI (Univ. Laghouat) ; Dr. Saliha REZINI (Univ. Mostaganem)                                        |     |                                                                                                                                                                                            |
| 09H30                                                                                                                          | 110 | - Oussama HARROUZ<br><i>Short-Term PV Power Forecasting Using LSTM: A Case Study of grid-connected PV system in Adrar City</i>                                                             |
| 09H50                                                                                                                          | 213 | - Amira LAGHOUATI<br><i>A Novel Method for Cost-Effective Green Hydrogen Production Using Sound Wave-Assisted Electrolysis</i>                                                             |
| 10H10                                                                                                                          | 161 | - Fayçal Hadj Mihoub SIDI MOUSSA<br><i>Modeling and Control of a Grid-Connected Hybrid Wind-Photovoltaic System with a PMSG-Based Wind Turbine and PSO-MPPT Algorithm for the PV Array</i> |
| 10H30                                                                                                                          | 65  | - Toufik TRIF<br><i>Photovoltaic and Wind Power Forecasting Using LSTM Networks with Adaptive Hyperparameter Tuning</i>                                                                    |
| ENERGY MANAGEMENT & MATERIALS in RENEWABLES :: <a href="https://meet.google.com/nzt-jvxx-icq">meet.google.com/nzt-jvxx-icq</a> |     |                                                                                                                                                                                            |
| <b>Room B</b> Dr. Merzak FERROUKHI (USTHB, Algiers) ; Dr. Saadiya BENATMANE (Univ. Mostaganem)                                 |     |                                                                                                                                                                                            |
| 09H30                                                                                                                          | 128 | - Idriss Hadj MAHAMMED<br><i>Estimating Power Outputs of Thin Film CIS PV Modules Using Neuronal Approach: A case Study in Arid Environment</i>                                            |
| 09H50                                                                                                                          | 152 | - Walid REZIG<br><i>Biomass Diatomite-Supported Ferrihydrite Silicide Hybrid Granule Catalyst TiO<sub>2</sub>: Synthesis and Evaluation for Photocatalytic Dye Removal</i>                 |
| 10H10                                                                                                                          | 19  | - Abdelkarim CHERHABIL<br><i>Metaheuristic Approaches for Medical Image Denoising</i>                                                                                                      |
| 10H30                                                                                                                          | 129 | - Ayoub MEGHEBBAR<br><i>When Machines Speak Human: Detecting Computer Generated Reviews Using Transformer Models</i>                                                                       |
| 10H50                                                                                                                          | 13  | - Nadir MAHAMMED<br><i>Fake no More: Smarter Social Media Detection With RTGBO</i>                                                                                                         |
| COFFEE BREAK                                                                                                                   |     |                                                                                                                                                                                            |

| SMART ENERGY MANAGEMENT & IoT :: <a href="https://meet.google.com/mrf-szyz-hch">meet.google.com/mrf-szyz-hch</a>              |     |                                                                                                                                                                                                                                 |
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| <div> <div>RooM A</div> <div>Prof. Adel MELLIT (Univ. Jijel); Dr. Leila GHOMRI (Univ. Mostaganem)</div> </div>                |     |                                                                                                                                                                                                                                 |
| 11H30                                                                                                                         | 221 | <div>- Saliha AREZKI</div> <div>Hybrid Simulation-Experimental Framework for Dynamic PV Reconfiguration in Agricultural Applications with Real-Time IoT Supervision</div>                                                       |
| 11H50                                                                                                                         | 68  | <div>- Abderrahmane HALLOUI</div> <div>A Review on Optimized Task Offloading Strategies in Fog Computing and IoT</div>                                                                                                          |
| 12H10                                                                                                                         | 87  | <div>- Mohammed BEKHTI</div> <div>Comparative Techno-economic and environmental performance of Standalone hybrid energy systems for Telecommunications Towers: A Case study of the African Unity Road in Southern Algeria</div> |
| 12H30                                                                                                                         | 141 | <div>- Mansour BENDREF</div> <div>AI-Driven Real-Time Adaptive Beam Steering for 5G Fixed Wireless Access Antenna Systems</div>                                                                                                 |
| ELECTRICAL NETWORK CONTROL :: <a href="https://meet.google.com/nzt-jvxh-icq">meet.google.com/nzt-jvxh-icq</a>                 |     |                                                                                                                                                                                                                                 |
| <div> <div>RooM B</div> <div>Prof. Benaissa BEKKOUCHE (Univ Mostaganem); Prof. Cherif BENOUDJAFER (Univ. Bechar)</div> </div> |     |                                                                                                                                                                                                                                 |
| 11H30                                                                                                                         | 54  | <div>- Seif Elislam CHELLI</div> <div>Proportional resonance controller versus PI controller performances of PWM controlled rectifier connected to an unbalanced three-phase grid voltages</div>                                |
| 11H50                                                                                                                         | 11  | <div>- Zana KARI</div> <div>The Interest of Shielding for Integrated Inductance</div>                                                                                                                                           |
| 12H10                                                                                                                         | 59  | <div>- Abdelhak FLIH</div> <div>HVDC fault location using Artificial Neural Network method</div>                                                                                                                                |
| 12H30                                                                                                                         | 117 | <div>- Samia SAIB</div> <div>Improvement of the performance of the electrical network by the integration of FACTS devices</div>                                                                                                 |
| 12H50                                                                                                                         | 131 | <div>- Tahani nor el Houda TSRIAT</div> <div>Performance Analysis of Adaptive P&amp;O, ANN and PSO Based MPPT Algorithms for Photovoltaic Systems</div>                                                                         |
| 13H00 – 14H00 LUNCH                                                                                                           |     |                                                                                                                                                                                                                                 |
| STORAGE and ELECTRICAL VEHICLE :: <a href="https://meet.google.com/mrf-szyz-hch">meet.google.com/mrf-szyz-hch</a>             |     |                                                                                                                                                                                                                                 |
| <div> <div>RooM A</div> <div>Prof. Hadj Adda BENTOUNES (Univ. Mostaganem); Prof. Mohamed Arezki MELLAL (UMBB)</div> </div>    |     |                                                                                                                                                                                                                                 |
| 14H00                                                                                                                         | 139 | <div>- Bouziane BOUSSAHOUA</div> <div>A New Priority List Algorithm for power system unit commitment problem solution</div>                                                                                                     |
| 14H20                                                                                                                         | 182 | <div>- Aissa HAMLAT</div> <div>Advanced Non-Linear Control Designed for Fuel Cell/Super-Capacitor Hybrid Electric vehicle</div>                                                                                                 |
| 14H40                                                                                                                         | 212 | <div>- Houaria NEDDAR</div> <div>Towards a Decarbonized Life: Impact of Fuel Cell Performance Parameters</div>                                                                                                                  |
| 15H00                                                                                                                         | 123 | <div>- Wiame GUENAYA</div> <div>Evaluating The Performance of NMC and NCA Battery Technologies for Electric Vehic</div>                                                                                                         |
| 15H20                                                                                                                         | 223 | <div>- Salim DJAHFA</div> <div>Estimating parameters values of battery lead-acid using Simulink Design Optimization</div>                                                                                                       |
| ENERGY MANAGEMENT & MICROGRIDS :: <a href="https://meet.google.com/nzt-jvxh-icq">meet.google.com/nzt-jvxh-icq</a>             |     |                                                                                                                                                                                                                                 |
| <div> <div>RooM B</div> <div>Prof. Mostefa RAHLI ( USTO); Dr. Khadidja BERADJA (Univ. Mostaganem)</div> </div>                |     |                                                                                                                                                                                                                                 |
| 14H00                                                                                                                         | 168 | <div>- Zohra OUCHIHA</div> <div>Effect of EGV cluster on working 2-blade Savonius rotor</div>                                                                                                                                   |
| 14H20                                                                                                                         | 154 | <div>- Randa BENKHELIFA</div> <div>Adaptive Preprocessing for Improving Early Detection and Classification of Anomalies on Photovoltaic Panels</div>                                                                            |
| 14H40                                                                                                                         | 89  | <div>- Djamel SELKIM</div> <div>Optimal Power Management and Control of Islanded Microgrid to Prevent Under-Frequency Load Shedding During Load Variations</div>                                                                |
| 15H00                                                                                                                         | 133 | <div>-Hadj Abderrahim MEBARKI</div> <div>Space Vector Modulation Control of a Three-Level NPC Inverter</div>                                                                                                                    |
| 15H20                                                                                                                         | 184 | <div>- Ahmed DAHIA</div> <div>Numerical study of the behavior of air flow circulation through Novel Vortex Tower Prototype using CFD code</div>                                                                                 |

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| 15H40                                                                                                                                                                                                                                       | 192 | - Fatna BAHLOULI<br><i>Heat Dissipation Strategies for Planar Inductive Components</i>                                                                                                   |
| COFFEE BREAK                                                                                                                                                                                                                                |     |                                                                                                                                                                                          |
| THURSDAY 30 OCTOBER 2024                                                                                                                                                                                                                    |     |                                                                                                                                                                                          |
| Welcome COFFEE & TEA                                                                                                                                                                                                                        |     |                                                                                                                                                                                          |
| <b>Room A-1-30</b> <b>Intelligent Control Systems for Renewable Energy::</b> <a href="https://meet.google.com/mrf-szyz-hch">meet.google.com/mrf-szyz-hch</a><br><b>Dr. Khereddine DJOUZI (UMBB) ; Dr. Aoued MEHARRAR (Univ. Tissemsilt)</b> |     |                                                                                                                                                                                          |
| 9H00                                                                                                                                                                                                                                        | 88  | - Kheira MENDAZ<br><i>Artificial Neural Proportional Integral control Wind Turbine Based Doubly Fed Induction Generator</i>                                                              |
| 9H15                                                                                                                                                                                                                                        | 32  | - Nesrine NESRINE<br><i>Dual-Loop Control Strategy for a Standalone PV Boost Converter Using PSO-Tuned PI and Model Predictive Current Control</i>                                       |
| 9H30                                                                                                                                                                                                                                        | 148 | - Mohammed Kabir BOUMEGOUAS<br><i>Robust Nonlinear Control for Buck-Boost Converter Using Sliding Mode Control For Battery Storage System of Electric Vehicle</i>                        |
| 9H45                                                                                                                                                                                                                                        | 121 | - Amina Dounia BABOU<br><i>Genetic Algorithm Enhanced Backstepping for Real-time Trajectory Tracking of a Twin Rotor MIMO System</i>                                                     |
| 10H00                                                                                                                                                                                                                                       | 151 | - Habiba HOUARI<br><i>Advancing PID Control Quarter-Car Suspension System with Metaheuristic Optimization Comparative Study</i>                                                          |
| <b>Room B-1-30</b> <b>AI-Based Fault Detection and Diagnostic Systems::</b> <a href="https://meet.google.com/nzt-jvxh-icq">meet.google.com/nzt-jvxh-icq</a><br><b>Dr. Bhushan B. CHAUDHARI (IEEE-SM, India); Dr. A. TAMILSARAN (India)</b>  |     |                                                                                                                                                                                          |
| 9H00                                                                                                                                                                                                                                        | 40  | - Fatima Zohra BOUDJELLA<br><i>Hybrid Approach for DGA Diagnosis of Transformers: Comparison of Supervised Classifiers with Advanced Preprocessing</i>                                   |
| 9H15                                                                                                                                                                                                                                        | 83  | -M. ALLAM<br><i>Intelligent Control of a doubly fed induction generator for wind energy conversion systems in variable speed</i>                                                         |
| 9H30                                                                                                                                                                                                                                        | 70  | - Abderrahmene MOKHTARI<br><i>Neural Network Sliding Mode Observer Based Fault diagnosis for Wind Turbine Benchmark Model</i>                                                            |
| 9H45                                                                                                                                                                                                                                        | 173 | - Ahmed DJERBOUB<br><i>Intelligent Fault-Tolerant Control for Boost Converter IGBT Failures Using SVM within PV-Integrated Four-Leg SAPF Systems</i>                                     |
| 10H00                                                                                                                                                                                                                                       | 197 | - Mohamed ADAIKA<br><i>Deep Learning-Based Detection of Environmental Faults in Photovoltaic Systems under Dust and Humidity Conditions</i>                                              |
| <b>Room C-1-30</b> <b>Electric Vehicles and Advanced Motor Drives::</b> <a href="https://meet.google.com/siz-ewma-buv">meet.google.com/siz-ewma-buv</a><br><b>Prof. Mounir BOUHEDDA (Univ. Medea); Dr. Ahmed MEDIANI (CDER)</b>             |     |                                                                                                                                                                                          |
| 9H00                                                                                                                                                                                                                                        | 4   | - Nawal TOUHAMI<br><i>Classification of Electric Vehicles: A Comprehensive Overview</i>                                                                                                  |
| 9H15                                                                                                                                                                                                                                        | 28  | - Norediene AOUDJ<br><i>Independent Control with MTPA-DTC of Five-leg inverter-dual IPMSM motors powertrain used in Vehicle propulsion system</i>                                        |
| 9H30                                                                                                                                                                                                                                        | 52  | - Norediene AOUDJ<br><i>Enhanced Direct Torque Control of PMSM Drives for Electric Traction Systems: A Comparative Study Between Classical DTC and a Hybrid Fuzzy Logic–SVM Approach</i> |
| 9H45                                                                                                                                                                                                                                        | 71  | - Mohamed MILOUDI<br><i>AI-Driven EMI Analysis and Experimental Measurement in DC Motor Drives: Comparative Study of Chopper Topologies for Enhanced Electromagnetic Compatibility</i>   |
| 10H00                                                                                                                                                                                                                                       | 75  | - Justin MOSKOLAI NGOSSAHA<br><i>Next-Generation Urban Mobility for Developing Countries:AI-Supported Digital Twin Framework</i>                                                         |

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|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10H15                                                                                                                                                                                                                                               | 102 | - Abdelkader MERAH<br><i>Finite-Horizon LQR and Kalman Estimator Design for Robust Lateral Dynamics Control in Autonomous Driving</i>                    |
| COFFEE BREAK                                                                                                                                                                                                                                        |     |                                                                                                                                                          |
| <b>Room A-2-30 Smart Grid Systems and Power Quality::</b> <a href="https://meet.google.com/mrf-syzy-hch">meet.google.com/mrf-syzy-hch</a><br><b>Pr. Houaria NEDDAR (Univ. Mostaganem); Dr. Abdelhakim IDIR (Univ. M'sila)</b>                       |     |                                                                                                                                                          |
| 11H00                                                                                                                                                                                                                                               | 12  | - Khadidja MEDJDOUBI<br><i>Study of a Hybrid UPQC with Intelligent Control</i>                                                                           |
| 11H15                                                                                                                                                                                                                                               | 16  | - Khadidja MEDJDOUBI<br><i>Improving energy quality with renewable energy sources integrated into Algeria's southwest grid</i>                           |
| 11H30                                                                                                                                                                                                                                               | 111 | - Abderrezzaq ZIANE<br><i>Secure and Scalable Framework for Real-Time Net Metering in Smart Grids</i>                                                    |
| 11H45                                                                                                                                                                                                                                               | 178 | - Boubakar FARADJI<br><i>Comparative Study of Centralized and Decentralized Electrical Network Configurations for Equal Installed Power Capacity</i>     |
| 12H00                                                                                                                                                                                                                                               | 142 | - Lakhder AYHAR<br><i>Comparative Study of Synchronization Techniques for Grid-Following Inverters</i>                                                   |
| <b>Room B-2-30 IoT and Wearable Smart Systems::</b> <a href="https://meet.google.com/nzt-jvxh-icq">meet.google.com/nzt-jvxh-icq</a><br><b>Dr. Satish KABADE (IEEE-SM, India); Dr. Meriem DJEZZAR (Univ. Khenchela)</b>                              |     |                                                                                                                                                          |
| 11H00                                                                                                                                                                                                                                               | 62  | - Sabrina MEHDI<br><i>Internet of Wearable Things Systems: A Comprehensive Analysis of Development Challenges and Characteristics</i>                    |
| 11H15                                                                                                                                                                                                                                               | 169 | - Rania DJEHAICHE<br><i>Smart Environment Management Using Dual IoT/M2M Platforms</i>                                                                    |
| 11H30                                                                                                                                                                                                                                               | 205 | - Adil BAKRI<br><i>Forest Fire Detection using Sensor Networks and Mobile Communication Systems</i>                                                      |
| 11H45                                                                                                                                                                                                                                               | 215 | - Adil BAKRI<br><i>A Wearable Smart Glasses Approach for Real-Time Driver Drowsiness and Fatigue Detection to Improve Road Safety</i>                    |
| 12H00                                                                                                                                                                                                                                               | 190 | - Ibrahim ALDREES<br><i>Giving a Voice: A Novel Approach Combining Visual and Product-based Applications to Sign Language Translation</i>                |
| 12H15                                                                                                                                                                                                                                               | 125 | - Mohamed Ilyas RAHAL<br><i>Towards Smart Automation: An IoT-Integrated Control Strategy for Industry 4.0</i>                                            |
| <b>Room C-2-30 AI for Transportation and Autonomous Systems::</b> <a href="https://meet.google.com/siz-ewma-buv">meet.google.com/siz-ewma-buv</a><br><b>Dr. Rajaganapathi Rangdale Srinivasa RAO (IEEE-M), India; Dr. Mokhtar ABBASSI (Tunisia)</b> |     |                                                                                                                                                          |
| 11H00                                                                                                                                                                                                                                               | 9   | - Abdelkader MEKKAoui<br><i>A New Differential Evolution-based Routing Protocol for Surveillance Drones in Urban Areas</i>                               |
| 11H15                                                                                                                                                                                                                                               | 55  | - Chaima AYACHI AMAR<br><i>Reinforcement Learning for Energy-Aware Vehicle Routing in Renewable-Powered Microgrid Systems</i>                            |
| 11H30                                                                                                                                                                                                                                               | 67  | - Fathi Rezzag AOUID<br><i>Robust Palmprint Authentication Using Curvature-Enhanced Bifurcation Coding</i>                                               |
| 11H45                                                                                                                                                                                                                                               | 75  | - Justin MOSKOLAI NGOSSAHA<br><i>Next-Generation Urban Mobility for Developing Countries: AI-Supported Digital Twin Framework</i>                        |
| 12H00                                                                                                                                                                                                                                               | 179 | - Badia KLOUCHE<br><i>Artificial Intelligence-Based Approaches for Misinformation Detection: A Case Study of Ooredoo's Corporate Innovation Strategy</i> |
| 12H15                                                                                                                                                                                                                                               | 217 | - Abderrahmane TAMALI<br><i>A Myoelectric-Controlled 3D-Printed Prosthetic Arm: Design and Implementation</i>                                            |
| <b>Room A-3-30 Deep Learning for Energy Forecasting and Monitoring::</b> <a href="https://meet.google.com/mrf-syzy-hch">meet.google.com/mrf-syzy-hch</a><br><b>Prof. Younes CHIBA (Univ. Medea); Dr. Anup KAGALKAR (IEEE-SM), India;</b>            |     |                                                                                                                                                          |
| 12H30                                                                                                                                                                                                                                               | 157 | - Lamis SERRAT<br><i>Hourly Global Solar Irradiance Forecasting in a Desert Region Using a Deep Neural Model with Hybrid Inputs</i>                      |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 12H45                                                                                                                                                                                                                                 | 195 | - Lydia TOUAHRI<br><i>An Empirical Attention-Based LSTM Approach for Weekly Sales Forecasting in an Agri-Food Firm</i>                                                                                                  |
| 13H00                                                                                                                                                                                                                                 | 198 | - Mohamed ADAIKA<br><i>Intelligent Classification of Partial Shading in PV Systems Using LSTM and DNN Models: A Comparative Study</i>                                                                                   |
| 13H15                                                                                                                                                                                                                                 | 210 | - Amira RAMZI<br><i>AI-Based Crop Yield Classification from Satellite Imagery: Enhancing Agricultural Monitoring in Algeria</i>                                                                                         |
| 13H30                                                                                                                                                                                                                                 | 143 | - Meryem Mamia BENOSMAN<br><i>Enhanced RVNN-Based Digital Predistortion for Wideband Power Amplifiers with Memory Effects</i>                                                                                           |
| <b>Room B-3-30 Hydrogen Production and Hybrid Energy Systems::</b> <a href="https://meet.google.com/nzt-jvxh-icq">meet.google.com/nzt-jvxh-icq</a><br><b>Dr. Maria MALVONI (ENEA-Italia); Dr. Amine HARTANI (Univ. Adrar);</b>        |     |                                                                                                                                                                                                                         |
| 12H30                                                                                                                                                                                                                                 | 95  | - Cherif MESKINE<br><i>Design and MILP-Based Optimization of Hydrogen-Integrated Multi-Energy Microgrids: Case Study at IMT Mines Albi</i>                                                                              |
| 12H45                                                                                                                                                                                                                                 | 112 | - Hani BELTAGY<br><i>Sizing and simulation of a hybrid Photovoltaic-Wind system for green hydrogen production</i>                                                                                                       |
| 13H00                                                                                                                                                                                                                                 | 100 | - Elaid BOUCHETOB<br><i>Efficiency Analysis and Reliability Prediction of DC-DC Boost Converters for PV Application: Wide Band-Gap Devices</i>                                                                          |
| 13H15                                                                                                                                                                                                                                 | 107 | - Boucif ZINA<br><i>Numerical Study of a Solar Air Heater Featuring a Corrugated Collector Plate</i>                                                                                                                    |
| 13H30                                                                                                                                                                                                                                 | 82  | -Salah Eddine ZIRAR<br><i>Control Strategy of a Wind Energy Conversion System Based on Five-phase Permanent-Magnet Synchronous Generator</i>                                                                            |
| <b>Room C-3-30 Advanced Materials and Wireless Communications ::</b> <a href="https://meet.google.com/siz-ewma-buv">meet.google.com/siz-ewma-buv</a><br><b>Prof. Abdelkader BENABDELLAH (Univ. Tيارت); Dr. Abdellah REZOUQ (UMBB)</b> |     |                                                                                                                                                                                                                         |
| 12H30                                                                                                                                                                                                                                 | 47  | - Ghania DEKKICHE<br><i>Facile sonochemical synthesis and characterization of cobalt oxide nanoparticles in the presence of ionic liquid</i>                                                                            |
| 12H45                                                                                                                                                                                                                                 | 164 | - Mayliss YOUSFI<br><i>Vulnerability Cost Hardening using Stochastic Games and K-means in VANET Environments</i>                                                                                                        |
| 13H00                                                                                                                                                                                                                                 | 156 | - Abdelouahab BOURAIOU<br><i>Study of the influence of some parameters on the performances of a superconducting patch antenna</i>                                                                                       |
| 13H15                                                                                                                                                                                                                                 | 136 | - Khadija RAHMOUNE<br><i>Control of grid-connected PV system associated with LCL filter for power production and power factor correction</i>                                                                            |
| 13H30                                                                                                                                                                                                                                 | 63  | - Yamina BEKRI<br><i>New Simple and Accurate Closed-Form Expressions for the Electromagnetic Parameters of a Novel Quasi-TEM Cylindrical Coaxial Directional Coupler for High-Power Telecommunications Applications</i> |
| 13H45                                                                                                                                                                                                                                 | 66  | - Amel HAOUZI<br><i>Spectrum and Energy Efficiency for DL - NOMA Systems in Cognitive Radio/5G Networks</i>                                                                                                             |
| 14H00 – 15H00 LUNCH                                                                                                                                                                                                                   |     |                                                                                                                                                                                                                         |
| 08H00 To 13H45 WORKSHOP                                                                                                                                                                                                               |     |                                                                                                                                                                                                                         |
| <b>Prof. Dalila CHERIFI (IGEE, UMBB, Algérie)</b><br><i>Introduction to Machine Learning</i>                                                                                                                                          |     |                                                                                                                                                                                                                         |
| 13H50 CLOSING CEREMONY                                                                                                                                                                                                                |     |                                                                                                                                                                                                                         |