



جامعة أحمد زبانة - غليزان
Ahmed Zabana - Relizane University

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Université de Relizane
كلية العلوم والتكنولوجيا
قسم الإلكترونيات والآلية



International Conference on Artificial Intelligence and Sustainable Development (ICAISD 2025)

April 12-13, 2025 in Relizane, Algeria

Organized by

Industrial Engineering and Sustainable Development Laboratory (GIDD) and

Electrical Engineering and Automation Department, Sciences and Technology Faculty,

Ahmed ZABANA - Relizane University

TECHNICAL PROGRAM



مركز البحوث والدراسات التطبيقية



Saturday, April 12th, 2025 | Face-to-Face Conference Day

08:00 – 09:00	Welcoming Participants at Auditorium of the Ahmed ZABANA - Relizane University	Auditorium	
09:00 – 09:30	Conference Opening Ceremony https://meet.google.com/ezh-rpxa-mwb	Lecture Hall 1	
09:30 – 10:30	First Plenary Early Detection of Neurological Diseases by Artificial Intelligence and Speech Processing Pr. Adnen CHERIF (Univ. El Manar, Tunis, Tunisia) Session Chairs: Pr. CHAKER Abdelkader, Pr. ALLAOUI Tayeb and Pr. Yassine BELLEBNA https://meet.google.com/ezh-rpxa-mwb	Lecture Hall 1	
10:30 – 11:30	Second Plenary Intelligent AI-Driven Diagnosis for Power Electronics and Machine Drives in Electric Vehicle Pr. Khaled LAADJAL (CISE, Portugal) Session Chairs : Pr. LAOUER Mohamed, Pr. ALLALI Ahmed and Pr. TALEB Rachid https://meet.google.com/ezh-rpxa-mwb	Lecture Hall 1	
11:30 – 11:50	Coffee Break	Auditorium	
	Poster Session 1 Session Chairs: Pr. SBAA Morsli, Pr. BOURDIM Mokhtar, Dr. NEMMICH Said, Dr. BENAZZA Baghdadi and Dr. BERMAKI Mohammed Hamza		
11:50 – 12:50	Third Plenary Emerging Technologies for the Future Electricity Networks Pr. Mouloud DENAI (HSEEE, Oran, Algeria) Session Chairs : Pr. RAHLI Mostefa, Pr. ARDJOUN Sid Ahmed and Pr. LOUNIS Mourad https://meet.google.com/ezh-rpxa-mwb	Lecture Hall 1	
13:00 – 14:30	Lunch Break	ST	
14:30 – 16:30	Oral Session 1	Robotics and Automation	Lecture Hall 1
		Intelligent Electrical Systems	Lecture Hall 2
		Maintenance and Intelligent Diagnosis	Lecture Hall 3

Sunday, April 13th, 2025

Online Conference Day

09:00– 14:15	Oral Session 2	Robotics and Automation https://meet.google.com/uzz-bqak-pzd	Room 1
		Intelligent Electrical Systems https://meet.google.com/swh-qvxj-qcy	Room 2
		Maintenance and Intelligent Diagnostics https://meet.google.com/ifr-nupq-yqe	Room 3
		Smart Power Grids https://meet.google.com/uqe-irri-sqh	Room 4
		Electrical Systems https://meet.google.com/bhu-tcgi-yvf	Room 5
14:15– 14:30		Conference Closing Ceremony https://meet.google.com/ezh-rpxa-mwb	Lecture Hall

DETAILED PROGRAM

Saturday, April 12th, 2025

11:30 – 11:50		Poster Session Saturday, April 12 th , 2025
Poster Session Chairs: Pr. SBAA Morsli, Pr. BOURDIM Mokhtar, Dr. NEMMICH Said, Dr. BENAZZA Baghdadadi, and Dr. BERMAKI Mohammed Hamza		
ID33	A modified Reconfigurable Patch Antenna Design for MIMO Systems: Enhancing Performance through Dynamic Frequency Tuning and Compact Integration Frouda Nour El Houda ; Berkat Abdellatif ; Salima AZZAZ RAHMANI	
ID 36	Modeling of an asynchronous motor for using in photovoltaic panel control Fatima Zohra Baouche; Sabah Benzeghda; Ihssen Hamzaoui; Bilal Abderezzak; Abdennour LADMI; Karim ARBAOUI	
ID 83	Teaching -Learning Based Optimization for economic dispatch problem Naima Hassani; Mimoun Younes	
ID 84	Differential Evolution in a Uniform Step Nine-Level Inverter for Harmonic Elimination Feyrouz ABDELGOUI; TALEB Rachid; Hafidha RERIBALLAH; BENAOUA Imen	
ID104	Performance of Direct Torque Control for Permanent Magnet Synchronous Motor with SMC speed controller Lachi Brahim; Abderrahmane Berkani; Karim Negadi	
ID122	Study of the effect of temperature on carbon nanotube-based nanotransistors under the influence of a longitudinal magnetic field using first-order non-local methods Abdelwahed Semmah; Belkacem SELMOUNE; Abdelnour BENZAIR	
ID125	The solar photovoltaic energy capacity project at Higher school of electrical and energy engineering of oran, "ESGEE" Bourahla Nessim Abderrahim; Benghanem Mustapha; Bouzeboudja Hamid; Bendjeddou Yacine ; Taib Mustapha	
ID130	AI-driven vibration signal analysis for accurate bearing fault detection Afia Adel; Gougam Fawzi; Touzout Walid; Meloussi Mounir; Sahraoui Mohammed Amine; Rahmoune Chemseddine; Benazzouz Djamel	
ID132	Dynamic Analysis of Shear-Thickening Fluid Jets Using Advanced Image Processing Techniques in MATLAB Meloussi Mounir; Touzout Walid; Afia Adel; Gougam Fawzi	
ID138	Optimizing Machine Learning Models for Accurate Battery State-of-Charge Estimation Touzout Walid; Meloussi Mounir; Gougam Fawzi; Afia Adel; Ouelmokhtar Hand; Tedjani Mohammed Ridha; Bouchikh Mohamed El-Amin	
ID141	Accurate multi-faults diagnosis in gearbox using advanced signal processing and machine learning Gougam Fawzi; Afia Adel; Meloussi Mounir; Touzout Walid; Damou Ali; Rahmoune Chemseddine; Benazzouz Djamel	
ID148	Fault Detection System for Robot Manipulators Using Neural Networks Moussa Aberkane; Abdelouahab Ghrieb; Ramzi Salim	
ID152	Differentiation between rotor cage faults and mechanical load oscillations in an induction motor using a neural network. Ghrieb ABDELOUAHAB; Moussa ABERKANE; Ramzi SALIM	
ID162	Machine Learning-Based Intrusion Detection for Unmanned Aerial Vehicles Using Black Widow Optimization Algorithm Khellat Kihel Badra; Chouraqui Samira	
ID198	Robust Finite-Time Tracking Control for Consensus Protocol of Unicycle-Type Agents with Non-Holonomic Restrictions Abdelkrim KHERKHAR; Mohamed DINE; Mohamed MILOUDI; Abdelkader GOURBI; Houcine MILOUDI	
ID102	Euler Lagrange control for thermoelectric generator system Asma TOUALBIA; Rachid TALEB	

14:30-17:30		Oral Session Saturday, April 12 th , 2025
Lecture Hall 1 Smart Power Grids; Robotics and Automation		
Oral Session Chairs: Pr. DENNAI Mouloud, Pr. MERABET Boulouiha Houari and Pr. KHAIT Mounir		
14:30-14:45	ID 14	Investigation in the Miniaturization of a Circular Patch Antenna with Enhanced Bandwidth for 5G Mobile Application Tabet Derraz Radia; Berkat Abdellatif; Boukli Hacene Nouredine
14:45-15:00	ID 41	Garra_Rufa-Optimized Backstepping Controller for Drone Path Tracking in Windy Conditions GHOUAL Bouziane; Benyssaad YSSAAD; Youssef MEDDAHI; Bouziane MELIANI
15:00-15:15	ID 58	The automation of critical clearing time determination based on SIME and PSAT in presence of photovoltaic generators RAHMOUNI Walid; Bachir GHALEM ; DJARI Mohammed Adel
15:15-15:30	ID 76	Leveraging Deep Learning for Accurate Electricity Consumption Forecasting: A Practical Deployment on NVIDIA Jetson Nano Kheir Eddine HAMZI; Samia BENTAIEB; Mohamed Nabil BENMAROUF; Driss NEHARI
15:30-15:45	ID108	ANN Control of Permanent Magnet Synchronous Motor fed by SVM matrix converter ACHOURI Fouzia; Karima MENANI
15:45-16:00	ID115	Precision Agriculture: Utilizing Deep Learning for Effective Plant Disease Detection Megaiz Mohammed Djawed; Hocine Chebi
16:00-16:15	ID117	Integration of Artificial Intelligence in Finger Vein Recognition Systems for Sustainable Development Khellat-Kihel Souad
16:15-16:30	ID151	Egg incubator system control based on ANFIS Boudebouda Oussama; Zatla Hicham; Atmane Mohamed Amine; Nouar Fadila; Tolbi Bilal; Djeriri Youcef; Bouhamama Mohamed
16:30-16:45	ID154	Optimization of the Training Process of an AI Model Belhadri Abdelkader; Benchennane Ibtissem

14:30-17:30		Oral Session Saturday, April 12 th , 2025
Lecture Hall 2 Intelligent Electrical Systems		
Oral Session Chairs: Pr. Khaled LAADJAL, Pr. CHALLALI Benaichiba, and Dr. KHOUIDMI Houari		
14:30-14:45	ID 55	Improved MPPT Performance in Standalone PV Systems Using a Hybrid FNN and PSO Algorithm Approach Hadjer Benfatma; Houari Khouidmi; Bessedik Boubaker
14:45-15:00	ID 70	Minimising Inverter Losses by Optimised Control using Genetic Algorithms: Electric Vehicle Application Zerdani Mohammed; Ardjoun Sid Ahmed El Mehdi Mohammed ZERDANI1; Sid Ahmed El Mehdi ARDJOUNI; Mouloud DENAI; Houcine CHAFOUK
15:00-15:15	ID71	Coot optimizer algorithm-based MPPT for PV systems under partial shading conditions. Ilyas MIMOUN, Youcef MIHOUB, Said HASSAINE, Aicha ASRI
15:15-15:30	ID118	Optimization of a Perovskite Solar Cell Structure Using Machine learning: AI-Powered TensorFlow Simulations, for future photovoltaic energy Belbachir Mohammed Anes; Rouigueb Hichem; Kerai Salim; Khaouani Mohammed; Djennati Abderrahmane Zakarya
15:30-15:45	ID123	Electric Vehicle Lateral Stability Improvement using Sensorless DTC with MRAS Observer Ahmed Taibi; Kada Hartani; Norediene Aouadj
15:45-16:00	ID124	Discrete IDA_PBC control of permanent magnet synchronous generator in wind turbine generator Achouri Fouzia; Karima Menani ; Boubekour MENDIL
16:00-16:15	ID171	Enhancing PI Controller Performance in DFIM Using Genetic Algorithms Habib Chaib; Hossein CHAIB; Ahmed BENBIGAA; Abdeljabar KOUDRIA

16:15-16:30	ID53	An Energy-Efficient Routing Algorithm for Underwater Wireless Sensor Networks Based on Pelican Optimization Algorithm KHELIFA Said
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14:30-17:30

Oral Session | Saturday, April 12th, 2025

Lecture Hall 3 | Maintenance and Intelligent Diagnosis

Oral Session Chairs: Pr. AYAD Ahmed Nour EL Islam, Pr. CHERIF Adnen and Dr. DINE Mohamed

14:30-14:45	ID202	Analysis of the correlation between the surface potential of the charged conveyor belt and the efficiency of electrostatic separation AOUIMEUR Djillali; BENAOUA Imen; MOSTEFA Abdelkader; MILOUA Farid
14:45-15:00	ID 73	Revolutionizing Renewable Energy: Thermoelectric Generator (TEG) as a Viable Source of Sustainable Power Moulay Omar Mohammed; Lounis Mourad; Mohamed Mankour; Saada Adel
15:00-15:15	ID 91	Adaptive LQR Control with Neural Network Tuning for Energy Saving in 6-DOF Quadcopter Systems Belalia Sif Eddine; Bouziane GHOUAL
15:15-15:30	ID74	LP-Metric and E-Constraint-Based Multi-Objective Optimization of Cycle Time and Number of Machines in an AS/RS Amina Oulhaci; Latefa Ghomri; Ali Rimouche; Housseyn Amin Kahouadji
15:30-15:45	ID155	Intelligent Diagnosis of Misalignment Defects using Intrinsic Time Decomposition and Artificial Neural Networks Attou Youcef; Saidani Djamaledine ; Flitti Madjid ; Rahmoune Chemseddine
15:45-16:00	ID199	Experimental comparison of a new corona-loaded separator configuration with a conventional free-fall separator Imen BENAOUA; AOUIMEUR Djillali; ABDEGOUI Rim Feyrouz; RERIBALLAH Hafida; MOSTEFA Abdelkader
16:00-16:15	ID57	Assessment of Repair Approaches on Hydrogen Tank Durability Under Thermal Stress Leila BELKADDOUR; Hayet BENZINEB
16:15-16:30	ID203	Experimental Evaluation of Aerosol Collection Efficiency Using a Capacitive Electrostatic Sensor Based on Electric Charge Measurement BENAOUA Imen; AOUIMEUR Djilali; MOSTEFA Abdelkader

Sunday, April 13th, 2025

09:00– 14:15

Oral Session | Sunday, April 13th, 2025

Room 1 | Robotics and Automation | <https://meet.google.com/uzz-bqak-pzd>

Oral Session Chairs: Dr. MEDDAHI Youssef, Dr. BELALIA Karim and BENMILOUD Tarek

09:00-09:15	ID6	Automated animal surveillance and repulsion for child protection: a Hybrid approach based on sensors and AI RAHMOUNA EL BOUSLEMTI; SAYAH abd el kader
09:15-09:30	ID28	Analysis of the FOPID System for Crane Stabilization and Control ANTEUR Souad; BABESSE Saad
09:30-09:45	ID46	Design and Implementation of trading bot based on technical analysis YOUNSI Fatima-Zohra ; Sihem ZIANE ; Fatima Zohra BETTAHAR
09:45-10:00	ID52	Automatic heart localisation in congenital heart disease using YOLOv8 DJELLOULI Aymen; Mohammed MERZOUG; HADJILA Mourad
10:00-10:15	ID88	Vision-based approach for an autonomous landing system on moving target for quadrotor Gharsa Oumaima; TOUBA Mostefa Mohamed; Boumehraz Mohamed; abderrahmani nesrine
10:15-10:30	ID93	A New Approach for the Identification of the Times Constants of Synchronous Machines from the Results of Frequency Response Tests Leguebedj Farid

10:30-10:45	ID113	Real-Time Image Watermarking for Drones: A C++ Based Reversible Data Hiding Approach Benhamida Adel; Guessas Laarem; Reffoufi Salim; Boutalbi Oussama
10:45-11:00	ID121	Requirements Modeling for Self-Adaptive Embedded Systems: SysML4SAS Profile MECIBAH Zina; BOUTEKKOUK Fateh
11:00-11:15	ID127	Comparative Study of Agricultural Robots: Performance Analysis of SoilBot and Robocrop in Agricultural Soil Monitoring and Management Amira KESSAB; GUIMER kamel; Nadjib MEBRIOUK; RAHMOUNE Hadjer
11:15-11:30	ID128	Autonomous Robotic Collaboration Based On Deep Q-Learning for Optimal Performance and Safety BENAISSA Ahlem; BABESSE Saad
11:30-11:45	ID134	Exploration of the YOLO Models' Potential in Fruit Health Detection AIT ISSAD Hassina; Sarah OUBABAS; Samia LAZIB ; Rachida AOUDJIT ; Malika BELKADI ; Mehammed DAOUI
11:45-12:00	ID145	Improving Traffic Conditions: A Hybrid Approach Using LSTM Networks and Reinforcement Learning ZIZI kahina; chenache Tinhinane; Zoubeyr Farah; AISSANI Sofiane
12:00-12:15	ID149	Control of tram signaling in an urban traffic network SASSI Ahmed Walid; ZATLA hicham; TOLBI bilal; HASSANI Youcef
12:15-12:30	ID161	Robust Integration of Fault Estimation and Fault Tolerant Control for Nonlinear Systems AZIZI Abdesamia; YOUSSEF Tewfik; KOUADRI Abdelmalek
12:30-13:00	ID170	FLAMES: Federated Learning-Assisted Multi-Criteria Decision-Making Solution for UAVs Service Selection BOUAZZA ABDELHAMMID; Mohammed Hadjkouider Abdessalam; Sahraoui Yesin
13:00-13:15	ID189	Adaptive robust fuzzy PI speed controller based direct vector control applied to five-phase PMSM drive MEHEDI Fayçal; BOUYAKOUB Ismail; YOUSFI Abdelkader; REGUIEG Zakaria; BOT Youcef
13:15-13:30	ID193	A Novel Keyframe Extraction Approach for Video Summarization Using Deep Features Benoughidene Abdelhalim; Boughida Adil
13:30-13:45	ID194	A Review of Fine-tuning Techniques in Large Language Models Boughida Adil; Kouahla Mohammed Nadjib; Benoughidene Abdelhalim

09:00– 14:15		Oral Session Sunday, April 13th, 2025
Room 2 Intelligent Electrical Systems https://meet.google.com/swh-qvxj-qcy		
Oral Session Chairs: Pr. MELIANI Bouziane, Dr. NOUR Mohamed, Dr. RAHMOUNI Walid		
Dr. Bouadjemi Abdelkrim and Dr. Medjahed Seyyid Ahmed		
09:00-09:15	ID27	Grey Wolf Optimised TS-type Fuzzy Modeling BOUDOUAOUI Yassine; Norediene AOUADJ
09:15-09:30	ID50	OPTIMIZED BI-GRU MODELS FOR ENHANCED HEART DISEASE PREDICTION THROUGH DATA MINING TECHNIQUES Namburajan Chakkaravarthi; R Venkateshprabu; Anbarasu PeriyaNayaki
09:30-09:45	ID60	Fuzzy Logic Control of an Agricultural Greenhouse Kheira MELOUK; Mohamed DELLA KRACHAI
09:45-10:00	ID77	Hybrid Optimization Method for Parameter Estimation of Three Phase Induction Motors Rabiaa HOUILI; Mohamed Yacine HAMMOUDI; Abir BETKA; Marah BACHA; Abdennacer TITAOUINE

10:00-10:15	ID89	Prediction of Photovoltaic Power Output: A Machine Learning Approach Meghraoui Mohamed Hamza ; BENAIRE Noredine
10:15-10:30	ID90	Classification of photovoltaic Efficiency States: A Machine Learning Approach Meghraoui Mohamed Hamza; BENAIRE Noredine
10:30-10:45	ID99	Study and comparison of the performances of MPPT techniques based on artificial neural networks Belgacem AIS; Lalia Merabet ; Hichem HAMIANI
10:45-11:00	ID103	Particle Swarm Optimization for Optimal Sizing of Hybrid Renewable Energy Bacha Badis; Ghodbane Hatem; Zouai Meftah; Terki Nadjiba; Hamel Lmjde; Betka Abir ; Brahim Bacha ; brikel Alaeddine ; Benabdi Soufiane
11:00-11:15	ID106	Machine Learning Clustering Techniques for IoT Networks: Comparative Study BENGHERBIA Ayoub
11:15-11:30	ID142	Fuzzy logic control of a microgrid comparative analysis with conventional PI control. Bouziane MAROUA; Laid ZAROOUR; Khaoula Nermine KHALLOUF
11:30-11:45	ID159	Dynamic Intrusion Prevention in PV Grid-Connected Systems Using Real-Time Neural Networks FERGANI Okba; MAZARI Ali; MECHGOUG Raihane; AIT ABBAS Hamou; NACERI Billel
11:45-12:00	ID163	Neural network Active and Reactive power control of doubly fed induction generator combined to NPC5 Level KHADRAOUA Narimene; kheira MENDAZ; Mohamed FLITTI
12:00-12:15	ID174	Optimized Control for Series-Connected Two Five-Phase Permanent Magnet Synchronous Machines Using Fuzzy Logic OUANOUI Abdesslam; Katia KOUZI; Djamel DIFI; Mohamed GHIBECHÉ
12:15-12:30	ID 43	Deep Learning Classifier for DDoS Attacks Detection Across CSE-CIC-IDS2018 Dataset Boudaine Al Baraa ; Ferhi Wafaa; Hadjila Mourad ; Moussaoui Djillali

09:00– 14:15

Oral Session | Sunday, April 13th, 2025

Room 3 | Maintenance and Intelligent Diagnosis | <https://meet.google.com/ifr-nupq-yqe>

Oral Session Chairs: Pr. BENAIRE Nour Eddine, Pr. RAHLI Mostefa and Dr. ABDELGOUI Rim Feyrouz

09:00-09:15	ID8	Elimination circuits heuristics for electrical distribution networks reconfiguration Lahouari ZERNA
09:15-09:30	ID11	Machine learning-based quantification of subsurface cracks in aluminium alloy plates using non-destructive testing signals BARRARAT Fatima; BENSALD Samir; RAYANE Karim; HELIFA Bachir; LEFKAIER Ibn Khaldoun
09:30-09:45	ID23	Cleaning photovoltaic panels using a needle/rectangle configuration ionic wind actuator Zeid BENDAOUDI; NAMOUNE Abdelhadi; Nezha KADOUS; BENABOUNE Adel; Khelifa YANALLAH; Yassine BELLEBNA; Amar TILMATINE
09:45-10:00	ID25	Instantaneous Histogram Normalization for Medical Image Houaria BENDOUMA; BECHAR Hassane; BABA HAMED Amel
10:00-10:15	ID48	Binary Tree Growth Optimization for Feature Selection Applied in Bearing Fault Diagnosis SOUAIDIA Chouaib; Fares NOUREDDINE; THELAIDJIA Tawfik
10:15-10:30	ID56	Study electron energy exchange processes in Vacuum arc Habiba KHORIEZ; Mohammed MESSAAD; Benhalima BESSIS
10:30-10:45	ID65	High-Efficiency MPPT Algorithm for PV Systems under Partial Shading and Fault Conditions

		HALASSA Elmamoune; SEGHIOUR Abdellatif; MOSTEFAOUI Imene Meriem; BENDJEDDOU Yacine; Rabhi Abdelhamid; DENAI Mouloud
10:45-11:00	ID66	Common and Differential Modes for Series Chopper and Synchronous Switching Chopper Mohammed Elamine LAHLACI Mohamed MILOUDI Houcine MILOUDI Abdelkader GOURBI Mohammed Hamza BERMAKI Mohamed MANKOUR Abdelkader MOSTEFA
11:00-11:15	ID79	Evaluation of Machine Learning Algorithms for Predicting Failures in Elevator Systems Lahcen LAKHDARI; Mohamed HABBAB; Mammam BELAGRA; Moulay Abdellah ALHACHEMI
11:15-11:30	ID92	Federated Learning Framework for Respiratory Illness Detection using CNN-Attention Benameur Rabaie; Dahane Amine; Ghazali Mohguen; Belalem Ghalem; Snouber Abdelmadjid; Laouadi Saad; Madani Rihab
11:30-11:45	ID111	A Chaotic Gaining-Sharing Knowledge Algorithm with Opposition-Based Learning for the Infinite Impulse Response System Identification Problem Zga Adel; Zitouni Farouq; Cheradid Abdellatif; Toumi Chahrazad; Harous Saad ; Sallam Karam Mohamed ; Limane Abdelhadi; Ferhat Aridj; Lakbichi Rihab; Mohamed Ali Wagdy ; Ekinici Serdar ; Izci Davut
11:45-12:00	ID114	Assessment of magnetic Pollution Generated by Power Transmission Lines Wafa Krika; Ziani Djamel; Ahmed Nour El Islam Ayad; Benyekhleuf Larouci; Boudjella Houari; Rezzag Bara Ilies
12:00-12:15	ID119	Fault Tree Analysis of a Robot KUKA KR 1000 titan Haithem MEHAR; Zohra MEHAR; Assil MEHAR
12:15-12:30	ID131	A Federated Meta-Learning Framework for Adaptive Edge Caching in IoV: Enhancing Scalability and Privacy BAGHIANI Radouane
12:30-13:00	ID133	Advancements in Computer-Aided Diagnosis Systems using Deep Multimodal Fusion: A Comprehensive Review Youssera Zoukha MECIFI; Mohammed MERZOUQ; Fethallah HADJILA
13:00-13:15	ID136	Fault Diagnosis of Capacitor Failures in Modular Multilevel Converters Using Artificial intelligence based technique MOULAY Kheireddine; MERZOUK Imad; HAFAlFA Ahmed
13:15-13:30	ID182	Rolling Bearing Defects Diagnosis Based on EEMD, MED, and Correlation Coefficient Rabah ABDELKADER; NAAR Djilali; NAAS Youcef
13:30-13:45	ID183	Detection of weld defects in radiographic images using a chan-ve-se model, C-Means clustering, and an enhanced wavelet-based denoising approach Rabah ABDELKADER; NAAS Youcef; NAAR Djilali
13:45-14:00	ID196	Effective Broken Rotor Bar Fault diagnosis in Induction Motor: A Hybrid Signal Processing and Machine Learning Approach Ali DAMOU; Azeddine RATNI; Djamel BENAZZOUZ; Mohamed Amine SAHRAOUI
14:00-14:15	ID200	A Novel Machine Learning Approach for Driver Fatigue Detection Using ECG Signals Mohamed Hamza MEGHRAOUI; BENAIREN Noredine

09:00– 14:15

Oral Session | Sunday, April 13th, 2025

Room 4 | Smart Power Grids | <https://meet.google.com/uqe-irri-sgh>

Oral Session Chairs: Dr. AIT SAID Hakim, Pr. KHODJA Mohamed and Pr. ALLALI Ahmed

09:00-09:15

ID19

Smart Nonlinear Control for a Parallel Active Filter

Mustapha Boualem KERROUCHE; Fatiha MEKRI; Kamal HIMOUR; Yassine GUETTAF

09:15-09:30	ID32	High temperature impact on semiconductor CZTS coating Salah Eddine Chouaib REFAS
09:30-09:45	ID37	Fractal and Wavelet Analysis of Leakage Current on High-Voltage Insulators Imene FERRAH; Rabie SALHI; Madjid TEGUAR
09:45-10:00	ID49	Design Dual-Band Microstrip Patch Antenna by Using a Rectangular Hole ALDEEB Hassan
10:00-10:15	ID109	Automated Classification of SPS levels on High-Voltage Insulators Using Random Forest and Edge Detection FERRAH Imene; Madjid TEGUAR
10:15-10:30	ID137	Efficient and Compact MIMO Antenna Design for 5G Applications REMILI Fatima; BOUTTOUT Farid; Asma DJELLID
10:30-10:45	ID144	Design and Assessing the Performance of a Solar Heating System for a Cold Climate: Case Study of a School in Ain Tarek, Relizane, Algeria Brahim BACHA; REBAH Nor; SENGOUGA Nouredine ; BACHA Badis; MAZOUZI Djamel Eddine
10:45-11:00	ID166	A New Approach for Integrating Hybrid Renewable Energy Systems into the Grid Adel Ilyas SAADA; Oumelkheir BOUCHIBA; Zakarya SAADA; Saliha CHETTIH; Mohammed Slimane MOULAY OMAR
11:00-11:15	ID175	High Efficiency Induction Motor Control (HEIM) Using Fuzzy LogicType-1 and Type-2 Nacer BELHOUT; Mohamed Lamine BOUBAKRI; Oussama ZEGHBA
11:15-11:30	ID181	Fault Analysis in Robotic Machining and Finishing Cells using Lambda Petri Nets (IPN) Zohra MEHAR; Rachid NOUREDDINE; Farid NOUREDDINE
11:30-11:45	ID187	Predicting Smart Grid Instability Using Machine Learning Algorithms and Dynamic Feature Analysis Atmane HADJI; Farid BOUMAZA
11:45-12:00	ID191	Energy-efficient resource management in cloud computing MEHOR Yamina; REBBAH Mohammed; SMAIL Omar
12:00-12:15	ID195	Sustainable Energy Solutions for Greenhouses: A Case Study in M'ziraa, Biskra, Algeria BRIKEL Ala Eddine; MEGHERBI Hassina ; Brahim BACHA; BACHA Badis
12:15-12:30	ID201	Smart Energy Management: Machine Learning-Based Forecasting of Power Consumption BENAIREN Noredine; Mohamed Hamza MEGHRAOUI

09:00– 14:15

Oral Session | Sunday, April 13th, 2025

Room 5 | Electrical Systems | <https://meet.google.com/bhu-tcgi-yvf>

Oral Session Chairs: Dr. MOSTEFA TOUNSI Mahmoud, Dr. NAMOUNE Abdelhadi, Dr. BENARBIA Taha and Dr. BELLABES Adda

09:00-09:15	ID45	Nonlinear control of a multi-phase induction machine supplied with a renewable power based multilevel inverter MEZAACHE Salah Eddine; ZAIDI Elyazid
09:15-09:30	ID67	Urban sounds Classification using a Convolutional Neural Network (CNN) based on Short-Time Fourier Transform (STFT) features SOUADEC Razika; Nassir GUELLIL
09:30-09:45	ID69	Impact of Roadside units deployment Factors on network performance Aissa BELHADJ; Ali KIES; Fatima MOSTEFA; Zoulikha Mekkakiamaaza
09:45-10:00	ID82	Comparative Study of CFAR Techniques to Enhance GNSS Receiver Acquisition Performance Elbahdja Ourfella; Benkrinah Sabra; Naceur AOUNALLAH

10:00-10:15	ID112	Strip Attention-Enhanced U-Net for High-Resolution Retinal Vessel Segmentation Hedibi Hicham; Mohammed BELADGHAM; Ahmed BOUIDA
10:15-10:30	ID135	Hardware-in-the-Loop Real-Time Application for Wind Turbine and DSIG Integration benzaoui khaled; Aiche Ishaq; Ghadbane Ismail ; Boukhari Mohammed ; Bouguerra Abderrahmen ; Zeghlache Samir
10:30-10:45	ID139	Fractional Order_Predictif_Direct Power Control For Power Quality improvement of a Grid Connected System Khaoula Nermine KHALLOUF; ZAROUR laid; BOUZIANE maroua
10:45-11:00	ID143	Feature-Based Discrimination of Breast Cancer Types Using the BACH Dataset Chifa MAAROUF; Amel FEROU
11:00-11:15	ID150	A Comparative Study between P&O and PSO Algorithms for Maximum Power Point Tracking in Photovoltaic Systems BOUCHERIT yasmine; BENNECIB Nedjoua ; BOUTAGHANE Karima
11:15-11:30	ID167	Accurate sizing of a resonant passive filter based on TLBO algorithm for harmonic distortion suppression Rabah DJEKIDEL; Omar BRAHIMI; Abdechafik HADJADJ; Sid Ahmed BESSIDIK; REGUIGUE Mourad
11:30-11:45	ID169	Enhancing Energy Consumption Forecasting Using Machine Learning: A Comprehensive Study with Hourly Data Hadji Atmane; Farid BOUMAZA
11:45-12:00	ID173	Optimizing The Electrical Parameters of Solar Photovoltaic (PV) Panels Using New Stochastic Approach Zahia DJEBLAHI; Belkacem MAHDAD; Yassine HIMEUR; Kamel SRAIRI; Rabiaa HOUILI
12:00-12:15	ID177	Solving the Optimal Power flow problems of The Algerian Electric Transmission Network Applying Stochastic Algorithm Zahia DJEBLAHI; Belkacem MAHDAD; Belkacem MAHDAD; Yassine HIMEUR; Rabiaa HOUILI
12:15-12:30	ID180	Realization of mixed A/D treatment-based power converter emulator used for HVDC experiments Boumilek Radia; BOULEDROUA Mohammed
12:30-12:45	ID101	Optimizing Damping Rate for Enhanced Precision in Capacitive Accelerometers Mohamed Razi MORAKCHI; Zine GHEMARI; Selman DJEFFAL; Abdelhadi NAMOUNE; Abderahmane GUEZZI; Saida DAHMANE; Abderrahmane ABOURA

Publication

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- 1- **Przegląd Elektrotechniczny** (SCOPUS indexed, ISSN 0033-2097 e-ISSN 2449-9544). (Publication fees may apply).
- 2- **Journal of Electrical Systems JES** (SCOPUS indexed, ISSN 1112-5209). (Publication fees may apply).