Journal Publications (2025)

Source: Research Activities of Electrical Engineering (2025) | Records: 143

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
Abdul Wase Mohammed	Design and Assessment of Graphene Nanoribbon (GNR) Based Energy-Efficient Cascode Operational Transconductance Amplifier	Journal of Nanoelectronics and Optoelectronics	2025.0		No	https://www.ingentaconnect.com/content/asp/jno/2025/00000...
Abdulilah Mayet	Digital Low-Cost FPGA Implementation of Two-Coupled and Grid-Based Network of 2D Artificial Cochlea Using the Hopf Resonator Approach					
Abdulilah Mayet	ACO-based feature selection and neural network modeling for accurate gamma-radiation based pipeline monitoring in the oil industry					
Abdulilah Mayet	An investigation on inner ear operation in sense of hearing: High-speed FPGA-based circuits for digital realization of 2D cochlea modeling					
Abdulilah Mayet	FPGA implementation of a complete digital spiking silicon neuron for circuit design and network approach					
Abdulilah Mayet	MLP ANN Equipped Approach to Measuring Scale Layer in Oil-Gas-Water Homogeneous Fluid by Capacitive and Photon Attenuation Sensors					
Abdulilah Mayet	A microstrip-based sensor for glucose monitoring: towards non-invasive blood glucose detectio					
Abdulilah Mayet	MLP ANN Equipped Approach To Measuring Scale Layer in Oil-Gas-Water Homogeneous Fluid by Capacitive and Photon Attenuation Sensors (vol 44, 40, 2025)					
Abdulilah Mayet	An investigation on inner ear operation in sense of hearing: High-speed FPGA-based circuits for digital realization of 2D cochlea modeling (vol 118, pg 371, 2025)					
Abdulilah Mayet	Integrated 4E evaluation and optimization of a hybrid solar-biogas gas turbine system for sustainable hydrogen and desalinated water production					
Abdulilah Mayet	Salinity-independent measurement of void fraction with temperature variation consideration in homogeneous saltwater-gas flow by a sensor-ANN method					
Abdulilah Mayet	Novel application of COMBI learning models and multi-objective Lichtenberg algorithm in HVAC system design					
Abdulilah Mayet	Optimized spectral feature selection with lightweight CNN for precise volume fraction estimation in three-phase flows					
Abdulilah Mayet	Efficient Multiplierless FPGA Architecture for Brain-Inspired Rulkov Neuron Mapping					
Abdulilah Mayet	Pareto-optimaldesignofintegratedsolar–geothermalenergysystemsusing anintelligenthybridoptimizationanddecision-makingapproach					
Elfatih .A.A.Elsheikh	Review on Millimeter Wave Propagation Through Sand and Dust Storm—Impact of Humidity	IEEE Access	2025.0	Yes/WOS	No	10.1109/ACCESS.2025.3599995

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
Elfatih .A.A.Elsheikh	Dust Storm Attenuation Prediction Using a Hybrid Machine Learning Model Based on Measurements in Sudan	IEEE Access	2025.0	Yes/WOS	No	DOI:10.1109/ACCESS.2025.3530262
Elfatih .A.A.Elsheikh	Modeling the Effects of Dust Storm Intensity Variations on Earth–Satellite Link. Electronics	MDPI/Electronics	2025.0	Yes/WOS	No	https://doi.org/10.3390/electronics14224377
Hamada Esmaiel	Fully signed quadrature space shift keying MIMO modulation	Ain Shams Engineering Journal	2025.0	WOS		https://doi.org/10.1016/j.asej.2025.103703
Hamada Esmaiel	Single-atom catalysts for next-generation energy storage and conversion	Alexandria Engineering Journal	2025.0	WOS		https://doi.org/10.1016/j.aej.2025.10.036
Hamada Esmaiel	Automated diabetic retinopathy classification using vision transformers on optical confocal microscopy images	Applied Optics	2025.0	WOS		https://doi.org/10.1364/AO.562201
Hamada Esmaiel	Blockchain-Enabled Framework for Cross-Sector Integration in Smart Cities Facilitating Risk Assessment and Interdependency Analysis	Blockchain: Research and Applications	2025.0	WOS		https://doi.org/10.1016/j.bcra.2025.100343
Hamada Esmaiel	DualNetIQ: Texture-Insensitive Image Quality Assessment with Dual Multi-Scale Feature Maps	Electronics	2025.0	WOS		https://doi.org/10.3390/electronics14061169
Hamada Esmaiel	Unique Word OFDM With Joint Time-Frequency Channel Estimation for Internet of Underwater Things	IEEE Internet of Things Journal	2025.0	WOS		10.1109/JIOT.2025.3585510
Hamada Esmaiel	Identification of irradiated food through hyperspectral imaging assisted by deep learning techniques	Multimedia Tools and Applications	2025.0	WOS		https://doi.org/10.1007/s11042-025-21104-6
Hamada Esmaiel	Deep learning-based receiver structure with superimposed channel estimation for autonomous underwater vehicles	Vehicular Communications	2025.0	WOS		https://doi.org/10.1016/j.vehcom.2025.100926

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
Javed Khan Bhutto	Hydrogen production by the water-gas shift reaction: A comprehensive review on catalysts, kinetics, and reaction mechanism					
Javed Khan Bhutto	Green hydrogen for a sustainable future: A review of production methods, innovations, and applications					
Javed Khan Bhutto	An adaptive controlled STATCOM and SMES for LVRT augmentation of the renewable integrated AC-microgrid					
Javed Khan Bhutto	Evaluation of a novel environmentally friendly cascade combined cooling					
Javed Khan Bhutto	Enhanced fault protection coordination in wind-solar distribution grids utilizing improved hyper spherical search-based optimization					
Javed Khan Bhutto	Sustainable aviation fuels from bio resources: Technological pathways,					
Javed Khan Bhutto	GrCRA PCRTAM net based hybrid approach for intelligent control and optimal power management in renewable integrated power distribution systems					
Javed Khan Bhutto	Second-life batteries for a greener grid: strategies for sustainable energy					
Javed Khan Bhutto	Coordinated Hybrid VAR Compensation Strategy with Grid-Forming BESS and Solar PV for Enhanced Stability in Inverter-Dominated Power Systems					
Javed Khan Bhutto	A DFT study for evaluation of the electrochemical performance of hydrogen					
Javed Khan Bhutto	Enhancing education quality with hybrid clustering and evolutionary neural networks in a multi phase framework					
Majahar Hussain Mahammad	High-sensitivity NH■ sensors based on spray-pyrolyzed cadmium-modified tin oxide thin films	Applied Physics A	2025.0	WOS		
Majahar Hussain Mahammad	Frequency control of hybrid power system with fractional order secondary controller using improved biogeography-based krill herd algorithm	International Journal of Applied Power Engineering (IJAPE)	2025.0	SCOPUS		
Majahar Hussain Mahammad	Transmission line fault detection using empirical mode decomposition in presence of wind intermittency	International Journal of Applied Power Engineering (IJAPE)	2025.0	SCOPUS		
Majahar Hussain Mahammad	Implementation of DC-DC Boost & Luo Converters for Photovoltaic Applications	International Journal of Electrical and Electronics Research (IJEER)	2025.0	SCOPUS		
Majahar Hussain Mahammad	Frequency Profile Improvement of Hybrid Power System with PIFODD Controller using White Shark Optimizer	Journal of Engineering Science & Technology Review	2025.0	SCOPUS		
Mohammad Irshad Shaik	Ultrahigh-performance NiWO4 nanoparticles anchored ZnO nanoflakes as a potential electrode for energy storage applications	Fuel	2025.0	Yes	No	https://www.sciencedirect.com/science/article/abs/pii/S00...
Mohammad Irshad Shaik	Integration of Photovoltaic Systems With Hydrogen Production: A Review of Current Technologies and Future Perspective	IEEE Access	2025.0	Yes	No	10.1109/ACCESS.2025.3595057
Mohammad Irshad Shaik	Modified Model-Free Predictive Control for Reliable Operation of Multiple Parallel Grid-Forming Inverters	IEEE Access	2025.0	Yes		https://ieeexplore.ieee.org/abstract/document/11077120
Mohammad Irshad Shaik	Recent progress in bimetallic and monometallic sulfides and their composites with carbon, MOF, and conductive polymers for high-energy supercapacitor	Inorganic Chemistry Communications	2025.0	Yes	No	https://www.sciencedirect.com/science/article/abs/pii/S13...

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
Mohammad Irshad Shaik	In-situ engineering of 3D amorphous/crystalline NiFeP/NiMoP/NF composite for improved hydrogen evolution	International Journal of Hydrogen Energy	2025.0	yes	No	https://www.sciencedirect.com/science/article/abs/pii/S03...
Mohammad Irshad Shaik	Frequency Profile Improvement of Hybrid Power System with PIFODD Controller using White Shark Optimizer.	JOURNAL OF Engineering Science and Technology Review	2025.0	Yes	No	https://www.jestr.org/downloads/Volume18Issue4/fulltext11...
Mohammad Irshad Shaik	Reducing power ripple for multi-rotor wind energy systems using FOPDPI controllers	Scientific Reports	2025.0	yes	No	https://www.nature.com/articles/s41598-025-96625-z
Mohammad Irshad Shaik	Statistical and machine learning analysis of diesel engines fueled with Moringa oleifera biodiesel doped with 1-hexanol and Zr2O3 nanoparticles	Scientific Reports	2025.0	Yes	No	https://www.nature.com/articles/s41598-025-87818-7
Mohmamed Ali Ismeil	ANN-SVM-IP: An Innovative Method for Rapidly and Efficiently Detecting and Classifying of External Defects of Apple Fruits	IEEE Access	2025.0	WOS		https://ieeexplore.ieee.org/document/11072687?denied=
Mohmamed Ali Ismeil	Novel Mathematical Modeling Parameters of PEMFC Based on Newton-Raphson Iterative Method	IEEE Access	2025.0	WOS		https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1103...

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
Mohmamed Ali Ismeil	Automated defect detection in solar cell images using deep learning algorithms	IEEE Access	2025.0	WOS		https://ieeexplore.ieee.org/abstract/document/10820315
Mohmamed Ali Ismeil	Maximum power point tracking of photovoltaic module based on Particle Swarm Optimization enhanced with Quasi-Newton method	PloS one	2025.0	WOS		https://doi.org/10.1371/journal.pone.0327542
Mohmamed Ali Ismeil	Various optimization algorithms for efficient placement and sizing of photovoltaic distributed generations in different networks	PloS one	2025.0	WOS		https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=1103...
Mohmamed Ali Ismeil	A novel inverter control strategy for maximum hosting capacity photovoltaic systems in distribution networks using power factor	PloS one	2025.0	WOS		https://journals.plos.org/plosone/article?id=10.1371/jour...
Mohmamed Ali Ismeil	Evaluating Machine Learning and Deep Learning models for predicting Wind Turbine power output from environmental factors	PloS one	2025.0	WOS		https://journals.plos.org/plosone/article?id=10.1371/jour...
Monji Zaidi	A dual adaptive semi-supervised attentional residual network framework for urban sound classifiation	Advanced Engineering Informatics	2025.0	WOS		https://doi.org/10.1016/j.aei.2024.102761
Monji Zaidi	Generative AI-Driven Context-Aware BDI-Based Smart Routing Protocol for Intelligent Transportation Systems	EEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS	2025.0	WOS		DOI: 10.1109/TITS.2025.3570237
Monji Zaidi	An intelligent Q-learning-based tree routing method in underwater acoustic sensor networks	Engineering Applications ofArtificial Intelligence	2025.0	WOS		https://doi.org/10.1016/j.engappai.2025.110753
Monji Zaidi	QRCF: A new Q-learning-based routing approach using a smart cylindrical filtering system in flying ad hoc networks	Vehicular Communications	2025.0	WOS		https://doi.org/10.1016/j.vehcom.2025.100905
Muneer Parayangat	A Comprehensive Material Analysis for Enhancing Energy Production Through Pyrolysis of Wood Apple Shell	BioEnergy Research	2025.0	WOS		10.1007/s12155-025-10910-3
Muneer Parayangat	Oxidized agarose-based 3D printed scaffold reinforced with Ag-MBGNs, a detailed study on fabrication and in-vitro investigations	Colloids and Surfaces A: Physicochemical and Engineering Aspects	2025.0	WOS		https://doi.org/10.1016/j.colsurfa.2025.138600
Muneer Parayangat	Structural, interfacial and electrochemical investigation of simplistically developed ZnO, ZnO/Ag2S and ZnO/Ag2O nanostructured films	Colloids and Surfaces A: Physicochemical and Engineering Aspects	2025.0	WOS		https://doi.org/10.1016/j.colsurfa.2025.138580
Muneer Parayangat	Transformers for Multi-Modal Image Analysis in Healthcare	Computers, Materials & Continua	2025.0	WOS		10.32604/cmc.2025.063726
Muneer Parayangat	Advances in nanomaterials for targeted drug delivery: emerging trends and future prospects in nanodrug development	Current Cancer Drug Targets	2025.0	WOS		https://doi.org/10.2174/0115680096362452250301054711
Muneer Parayangat	Emerging Approaches in Data-Driven Drug Discovery for Rare Diseases	Current Drug Metabolism	2025.0	WOS		https://doi.org/10.2174/0113892002383220250729100138
Muneer Parayangat	Electrophoretic Deposition of Chitosan/Mesoporous Bioactive Glass Nanoparticles/Hexagonal Boron Nitride Composite Coating on AZ31 Mg Alloy for Orthopedic Applications	Materials Today Communications	2025.0	WOS		https://doi.org/10.1016/j.mtcomm.2025.114370
Muneer Parayangat	Lateral flow and colorimetric assay for ketamine detection reinforced with deep learning model interfaced with mobile app for smart alert	Microchimica Acta	2025.0	WOS		Lateral flow and colorimetric assay for ketamine detectio...
Muneer Parayangat	Reconfigurable Intelligent Surfaces for Joint Sensing and Communication: A Beamforming-Optimized Approach	Physical Communication	2025.0	WOS		https://doi.org/10.1016/j.phycom.2025.102733

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
Muneer Parayangat	Sustainable Power Generation Through Offshore Energy Systems Integrated with Solar Water Heating	Process Integration and Optimization for Sustainability	2025.0	WOS		Sustainable Power Generation Through Offshore Energy Syst...
Muneer Parayangat	Bio-hybrid 6G networks with synthetic biology-enabled base stations for energy-autonomous telecommunications	Scientific Reports	2025.0	WOS		10.1038/s41598-025-27597-3
Muneer Parayangat	Bio-Hybrid 6G Networks: Mathematical Modelling of Synthetic Biology-Enabled Base Stations for Energy-Autonomous Telecommunications		2025.0	WOS		10.21203/rs.3.rs-7180864/v1
Ramkumar Raja	Design of hybrid MAC protocol using modified marine predators optimization algorithm for machine-to-machine communication	Ain Shams Engineering Journal				
Ramkumar Raja	Dual temporal gated multi-graph convolution network based neurodegenerative disease detection and severity prediction	Biomedical Signal Processing and Control				
Ramkumar Raja	Exploring transition metal-based electrocatalysts for carbon dioxide reduction: Towards enhanced product	Chemical Physics Letters				
Ramkumar Raja	A review on different control strategies applied to power filter for power quality improvement	Electrical Engineering				
Ramkumar Raja	Performance analysis of Chalcogenide material in hollow core metamaterial cladding optical ¯ber	International Journal of Modern Physics B				

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
Ramkumar Raja	Ultra■Efcient Broadband Tungsten Plasmonic Solar Absorber Optimized by Stacking Ensemble Machine Learning for Thermal Energy Harvesting	Plasmonics				
Ramkumar Raja	Blockchain framework with IoT device using federated learning for sustainable healthcare systems	Scientific Reports				
Ramkumar Raja	A novel mixed technique for order abatement in linear time invariant systems and robustness analysis of DC motor	Scientific Reports				
Ramkumar Raja	Graphene-enhanced symmetrical plasmonic biosensor for high-sensitivity terahertz refractive index detection with machine learning optimization	Surfaces and Interfaces				
SALMAN ARAFATH MOHAMMED	A novel approach for measuring the void fraction in stratifidair-water systems utilizing an 8-blade capacitance-based sensor, sinogram, and a deep neural network	Advances in Science and Technology Research Journal				
SALMAN ARAFATH MOHAMMED	ACO-based feature selection and neural network modeling for accurate gamma-radiation based pipeline monitoring in the oil industry	Applied Radiation and IsotopeS				
SALMAN ARAFATH MOHAMMED	Harnessing TLBO-Enhanced Cheetah Optimizer for Optimal Feature Selection in Cancer Data	Computer Modeling in Engineering Sciences				
SALMAN ARAFATH MOHAMMED	Silicone Rubber-Based Flexible Optical Sensor for Precise Twist Angle Measurement	IEEE Access				
SALMAN ARAFATH MOHAMMED	MLP ANN Equipped Approach to Measuring Scale Layer in Oil-Gas-Water Homogeneous Fluid by Capacitive and Photon Attenuation Sensors	J Nondestruct Eval				
SALMAN ARAFATH MOHAMMED	Enhanced Model Predictive Speed Control of PMSMs Based on Duty Ratio Optimization with Integrated Load Torque Disturbance Compensation	Machines				
SALMAN ARAFATH MOHAMMED	Machine learning analysis of thermo-bioconvection in a micropolar hybrid nanofluid-filled square cavity with oxytactic microorganisms	Nanotechnology Reviews				
SALMAN ARAFATH MOHAMMED	Assessing the viability of the gig economy framework for the nursing workforce in Saudi Arabia: A neural network approach	Neural Comput & Applic (2025)				
SALMAN ARAFATH MOHAMMED	Enhancing MPPT optimization with hybrid predictive control and adaptive P&O; for better efficiency and power quality in PV systems	Sci Rep				
Syed Suraya	Frequency control of hybrid power system with fractional order secondary controller using improved biogeography-based krill herd algorithm	International Journal of Applied Power Engineering	2025.0	Yes	No	https://ijape.iaescore.com/index.php/IJAPE/article/view/2...
Syed Suraya	Electric Three Wheeler Loader	Journal of Dalian University of Technology	2025.0	Yes	No	https://drive.google.com/file/d/1-El-qIrhM9jMtcFklnJA9fxH...
Syed Suraya	Frequency Profile Improvement of Hybrid Power System with PIFODD Controller using White Shark Optimizer.	Journal of Engineering Science & Technology Review18(4)2025	2025.0	yes	No	fulltext11842025.pdf
Syed Suraya	Influence of carbon free gaseous ammonia induction on combustion, performance and emissions in an agricultural diesel engine operated on dual fuel mode	Scientific Reports	2025.0	Yes	No	Influence of carbon free gaseous ammonia induction on com...
Thafasalijyas Vayalpurayil	Advances in nanomaterials for targeted drug delivery: emerging trends and future prospects in nanodrug development					

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
zakaria elbarbary	An innovative MRAS-based technique for online detection of short-circuit faults in three-phase induction motor windings	Arabian Journal for Science and Engineering	2025.0	WOS		
zakaria elbarbary	Using the rooted tree optimization to increase the performance of the improved backstepping control used to control the induction machine	Computers and Electrical Engineering	2025.0	WOS		
zakaria elbarbary	A comprehensive analysis of advanced solar panel productivity and efficiency through numerical models and emotional neural networks	Electrical Engineering	2025.0	WOS		
zakaria elbarbary	Analysis of Arc Re-Ignition in Vacuum Interrupter-Based HVdc Circuit Breakers	Energy Reports	2025.0	WOS		
zakaria elbarbary	Performance optimization of wind turbines via fractional-order type 2 fuzzy MPPT control	Energy Reports	2025.0	WOS		
zakaria elbarbary	Controlling the energies of the single-rotor large wind turbine system using a new controller	Heliyon	2025.0	WOS		
zakaria elbarbary	Experimental analysis of genetic algorithm-enhanced PI controller for power optimization in multi-rotor variable-speed wind turbine systems	IEEE Access	2025.0	WOS		
zakaria elbarbary	Using new control strategies to improve the effectiveness and efficiency of the hybrid power system based on the battery storage system	IEEE Access	2025.0	WOS		

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
zakaria elbarbary	Experimental verification of the six sectors neural DTC approach of squirrel cage induction motors	IEEE Access	2025.0	WOS		
zakaria elbarbary	Reducing power ripple for multi-rotor wind energy systems using FOPDPI controllers	IEEE Access	2025.0	WOS		
zakaria elbarbary	Novel Modular Buck-Boost Based Multiport Bidirectional DC–DC Converter (MPBC) for Hybrid Electric Vehicle Application	IEEE Access	2025.0	WOS		
zakaria elbarbary	Processor-in-the-Loop validation of direct power control based on fractional-order modified super-twisting algorithm for doubly-fed induction generators	IEEE Access	2025.0	WOS		
zakaria elbarbary	Environmental Sensor-Less Hybrid Analytical-Machine Learning (ESHAML) framework for ultra-fast solar irradiance estimation in climate-sensitive real-time applications: experimental validation	IEEE Access	2025.0	WOS		
zakaria elbarbary	Enhanced variable step sizes perturb and observe MPPT control to reduce energy loss in photovoltaic systems	Ieee Access	2025.0	WOS		
zakaria elbarbary	Characterization of lightning-induced overvoltages in wind farms	Journal of Alloys and Compounds	2025.0	WOS		
zakaria elbarbary	Optimum energy management of distribution networks with integrated decentralized PV-BES systems using SPEA2-based optimization approach	Machines	2025.0	WOS		
zakaria elbarbary	Enhanced Model Predictive Speed Control of PMSMs Based on Duty Ratio Optimization with Integrated Load Torque Disturbance Compensation	Measurement	2025.0	WOS		
zakaria elbarbary	A Hybrid Machine Learning Approach for Predicting Power Transformer Failures Using Internet of Things Based Monitoring and Explainable Artificial Intelligence	Measurement and Control	2025.0	WOS		
zakaria elbarbary	Comprehensive review of power quality disturbance detection and classification techniques	PLoS One	2025.0	WOS		
zakaria elbarbary	Technical analysis of comfort and energy consumption in smart buildings with three levels of automation: scheduling, smart sensors, and IoT	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Control of multi-level quadratic DC-DC boost converter for photovoltaic systems using type-2 fuzzy logic technique-based MPPT approaches	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Feedback action and genetic algorithm-based proportional-integral controller to improve the performance of the direct power control of a variable-speed contra-rotating wind turbine generation system	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Solving the problem of power ripples for a multi-rotor wind turbine system using fractional-order third-order sliding mode algorithms	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Genetic algorithm type 2 fuzzy logic controller of microgrid system with a fractional-order technique	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Synergetic simplified super-twisting algorithm control for stability enhancement of PV/BESS-based DC microgrid	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Novel Modular Buck-Boost based Multiport Bidirectional DC–DC Converter (MPBC) for Hybrid Electric Vehicle Application	Scientific Reports	2025.0	WOS		

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
zakaria elbarbary	Design and Architecture for Anti-Hidden Faults Multiagent Protection System in Smart Grids	Scientific Reports	2025.0	WOS		
zakaria elbarbary	3-D Unbalanced Coordinate Transformation withSuper-TwistingControl and Observation for Unbalance and Disturbance Load Voltage Mitigations in Stand Alone Four-Leg Inverters	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Management of power in single rotor wind turbine systems using fuzzy controller based on fractional order error approaches	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Experimental verification of the effectiveness of neural modified sliding mode technique in multi rotor wind turbine systems	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Author Correction: Enhancing the power quality of dual rotor wind turbines using improved fuzzy space vector modulation and super twisting sliding techniques	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Multiple-to-single maximum power point tracking for empowering conventional MPPT algorithms under partial shading conditions	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Decentralized active fault tolerant control of direct current microgrids under actuator and source disturbances using proportional integral unknown input observer	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Control of three-level quadratic DC-DC boost converters for energy systems using various technique-based MPPT methods	Scientific Reports	2025.0	WOS		

Faculty	Research Title	Journal	Year	Indexed	Student	DOI / Link
zakaria elbarbary	Author Correction: Genetic algorithm type 2 fuzzy logic controller of microgrid system with a fractional-order technique	Scientific Reports	2025.0	WOS		
zakaria elbarbary	A decentralized power injection-based approach for voltage imbalance mitigation in three-phase distribution networks	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Thermal and Structural Optimization of Parabolic Trough Systems for Enhanced Energy Conversion Efficiency	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Logarithmic mean optimization a metaheuristic algorithm for global and case specific energy optimization	Scientific Reports	2025.0	WOS		
zakaria elbarbary	MATLAB implementation of dual synergetic control for multi-rotor wind turbine systems	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Machine Learning Approach to the Possible Synergy Between Co-Doped Elements in the Case of LiFePO■/C	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Enhancing MPPT optimization with hybrid predictive control and adaptive P&O; for better efficiency and power quality in PV systems	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Digital twin technology in smart cities: A step toward intelligent urban management	Scientific Reports	2025.0	WOS		
zakaria elbarbary	Enhancing the power quality of dual rotor wind turbines using improved fuzzy space vector modulation and super twisting sliding techniques	Scientific reports	2025.0	WOS		
zakaria elbarbary	Modified Model-Free Predictive Control for Reliable Operation of Multiple Parallel Grid-Forming Inverters	Scientific reports	2025.0	WOS		
zakaria elbarbary	Sperm swarm optimization for many objective power flow problems with enhanced performance evaluation in power systems		2025.0	WOS		
zakaria elbarbary	Modified vector-controlled DFIG wind energy system using robust model predictive rotor current control					
	6 G - E n a b l e d F e d e r a t e d I n t e l l i g e n c e a n d Tr a n s p a r e n t F r a m ewo r k f o r A e r i a l S c e n e Cl a s s i f i c a t i o n	IEEE JOURNAL OF S ELECTED TOPICS IN APPLIED EARTH OBSERVATIONS AND REMOTE SENSING	2025.0	WOS		DOI: 10.1109/JSTARS.2025.3617077