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List of Publications 2025

Faculty Name	Research Title	Journal Name	DOI / Link
Ali Saeed Almuflih	Simulation and projection of land use and land cover using remote sensing data and CA–Markov model case study	Geocarto International	https://doi.org/10.1080/10106049.2025.2450441
Ali Saeed Almuflih	Experimental optimization of energy absorption in foam-filled square multicell composite tubes under quasi-static loading	Polymer Composites	https://doi.org/10.1002/pc.70127
Ali Saeed Almuflih	Predicting Quality of Care Outcomes in Diabetes Patients Using Boosted Tree Models: A Clinical Factor Analysis	Securing Health	https://www.taylorfrancis.com/chapters/edit/10.1201/9781003543596-15/
Ali Saeed Almuflih	Geometric optimization of the crashworthiness performance of 3D-printed PLA-GF tubes with square-to-circular transitions via squircle geometry	Journal of Thermoplastic Composite Materials	https://doi.org/10.1177/08927057251404447
Ali Saeed Almuflih	Investigation of the quasi-static crash response of circular glass-aramid hybrid composite tubes	Journal of Composite Materials	https://doi.org/10.1177/00219983251406371
Ali Saeed Almuflih	Hybridization of thermoplastic/glass fiber reinforced epoxy composites for lightweight structures	Mechanics of Advanced Materials and Structures	https://doi.org/10.1080/15376494.2024.2391545
Ali Saeed Almuflih	Electro sprayed tungsten oxide-aluminium oxide hybrid coatings: Revolutionizing anti-reflection strategies for photovoltaics	Ceramics International	https://doi.org/10.1016/j.ceramint.2025.01.393
Ali Saeed Almuflih	Analysis of Arc Re-Ignition in Vacuum Interrupter-Based HVdc Circuit Breakers	IEEE Access	https://ieeexplore.ieee.org/abstract/document/10870339
Ali Saeed Almuflih	Innovative, high-performance, and cost-effective hybrid composite materials for crashworthiness applications	Polymer Composites	https://doi.org/10.1002/pc.29714

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Ali Saeed Almuflih	Discovering the impact of printing parameters on the crashworthiness performance of 3D-printed cellular structures	Fibers and Polymers	https://doi.org/10.1007/s12221-024-00799-8
Ali Saeed Almuflih	High-efficiency polycrystalline solar cells via COC-SiO2 anti-reflective coversheets: A study on power conversion and thermal impact	Ceramics International	https://doi.org/10.1016/j.ceramint.2024.11.215
Mohamed Rafik Noor Mohamed Qureshi	Simulation and projection of land use and land cover using remote sensing data and CA–Markov model case study	Geocarto International	https://doi.org/10.1080/10106049.2025.2450441
Mohamed Rafik Noor Mohamed Qureshi	Exploring the operational performance of Indian smes: an integrated PLS-SEM and NCA approach	Scientific Reports	https://doi.org/10.1038/s41598-025-26806-3
Mohamed Rafik Noor Mohamed Qureshi	A systematic review of generative AI: importance of industry and startup-centered perspectives, agentic AI, ethical considerations & challenges, and future directions	Artificial Intelligence Review	https://doi.org/10.1007/s43681-024-00611-6
Mohamed Rafik Noor Mohamed Qureshi	Evaluating Risk Factors of Health and Safety Practices for Managing Hazardous Chemicals in a Fuzzy Environment: A Case Study of Saudi Hospitals	The Open Public Health Journal	10.2174/0118749445416451250902111720
Mohamed Rafik Noor Mohamed Qureshi	Analysing Lean 4.0 adoption factors towards manufacturing sustainability in SMEs: A hybrid ANN-Fuzzy ISM framework	Scientific Reports	https://doi.org/10.1038/s41598-025-01076-1
Mohamed Rafik Noor Mohamed Qureshi	Strategic Framework for Additive Manufacturing with Smart Polymer Composites: A Pathway to Net-Zero Manufacturing	Polymers	https://doi.org/10.3390/polym17101336
Mohamed Rafik Noor Mohamed Qureshi	Enhancing Post-Lung Transplant Care with AlloHome: Early Impact Evaluation	The Journal of Heart and Lung Transplantation	10.1016/j.healun.2025.02.1215
Mohamed Rafik Noor Mohamed Qureshi	Comparing environmental sustainability of additive manufacturing and investment casting:	Materials Science and	https://doi.org/10.1016/j.msea.2024.147765

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Raafat Elshaer	A hybrid multi-level ant colony optimization framework for integrated production scheduling and vehicle routing	Scientific Reports	https://doi.org/10.1038/s41598-025-21231-y
Raafat Elshaer	Integrated Production and Outbound Distribution Scheduling: a hybrid framework	The Egyptian International Journal of Engineering Sciences and Technology	10.21608/eijest.2024.308544.1283
Raafat Elshaer	Multi-echelon reverse supply chain network design using new ant colony optimisation algorithms	International Journal of Operational Research	https://doi.org/10.1504/IJOR.2025.145240
Mohammad Mukhtar Alam Hoda	Performance enhancement of trapezoidal salt gradient solar ponds using reflectors and glazing	Applied Thermal Engineering	10.1016/J.APPLTHERMALENG.2025.128893
Mohammad Mukhtar Alam Hoda	A Hybrid Troposkein Wind Turbine with Piezoelectric Energy Harvesting Patches and Solar Panels : Design and Performance Evaluations	Ain Shams Engineering Journal	10.1016/J.ASEJ.2025.103277
Mohammad Mukhtar Alam Hoda	Optimal energy management for multi-energy microgrids using hybrid solutions to address renewable energy source uncertainty	Scientific Reports	10.1038/S41598-025-90062-8
Mohammad Mukhtar Alam Hoda	Synergistic integration of transition metal oxides and conducting polymers for high-performance supercapacitors: Advances, challenges, and future prospects	Surfaces and Interfaces	https://doi.org/10.1016/j.surfin.2025.108117

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Mohammad Mukhtar Alam Hoda	Advancing Capabilities With UAVs: A Comprehensive Review of Sensor Fusion, Path Planning, Energy Management, and Deep Learning Algorithms.	International Journal of Energy Research	10.1155/er/9959245
Mohammad Mukhtar Alam Hoda	Experimental investigation to enhancing the energy efficiency of a solar-powered Visi cooler	Scientific Reports	https://doi.org/10.1038/s41598-025-01620-z
Mohammad Mukhtar Alam Hoda	A sun flower optimization based modified high step up SEPIC converter for electric vehicle applications	Scientific Reports	https://doi.org/10.1038/s41598-025-99994-7
Mohammad Mukhtar Alam Hoda	Quaternion generative adversarial -driven Soc estimation using Tyrannosaurus optimizer for improving hybrid electric vehicles renewably powered energy management	Scientific Reports	https://doi.org/10.1038/s41598-025-99321-0
Mohammad Mukhtar Alam Hoda	Experimental investigation on the flow mixing and core length of a supersonic multiple jet configuration using cross-wire as vortex generators	Aerospace Science and Technology	https://doi.org/10.1016/j.ast.2025.110214
Mohammad Mukhtar Alam Hoda	An integrated approach using active power loss sensitivity index and modified ant lion optimization algorithm for DG placement in radial power distribution network	Scientific Reports	https://doi.org/10.1038/s41598-025-87774-2
Mohammad Mukhtar Alam Hoda	FEM based thermal and mechanical analysis of comparative study of TIG and A-TIG welding on P91 steel	Scientific Reports	https://doi.org/10.1038/s41598-025-90998-x
Mohamed Mansour AbdelFattah	Part Detection Model for Aerospace Manufacturing Quality Control using Convolutional Neural Networks	Journal of Advanced Research Design	10.37934/ARD.133.1.110
Mohamed Mansour AbdelFattah	Exploring the operational performance of Indian smes: an integrated PLS-SEM and NCA approach	Scientific Reports	10.1038/s41598-025-26806-3

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Naif Almakayeel	Toward Robust Monitoring of Exponential Processes: A Memory-Driven Scheme for Zero- and Steady-State Scenarios	Quality and Reliability Engineering International	https://doi.org/10.1002/qre.70129
Naif Almakayeel	Hyperparameter tuned deep learning-driven medical image analysis for intracranial hemorrhage detection	PLOS ONE	https://doi.org/10.1371/journal.pone.0326255
Naif Almakayeel	Impacts on the Advantages and Difficulties of Implementing Quality Industry Precision Manufacturing 4.0	Smart Computing Paradigms: Sustainable Computing	https://doi.org/10.1007/978-981-96-3939-7_15
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Naif Almakayeel	Simulation and projection of land use and land cover using remote sensing data and CA–Markov model case study	Geocarto International	https://doi.org/10.1080/10106049.2025.2450441
Naif Almakayeel	Sustainable Enhancement of Photovoltaic Cell Efficiency Using RF-Sputtered Tin Oxide–Aluminium Oxide Composite Anti-Reflective Coatings	Ceramics Internationa	10.1016/j.ceramint.2025.08.215
Naif Almakayeel	A modified instantaneous reactive power algorithm for shunt compensation	Scientific Reports	10.1038/s41598-025-12315-w
Naif Almakayeel	Investigating Ternary Biogas-Hydrogen-Diethyl Ether Blends for Emission Reduction and Performance Enhancement in CI Engines: A Taguchi Approach	Results in Engineering	10.1016/j.rineng.2025.104870

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Naif Almakayeel	High-quality and sustainable antireflection coating for enhanced power conversion efficiency in silicon photovoltaic cells using CeO2- WO3 thin films	Ceramics International	10.1016/j.ceramint.2025.04.416
Naif Almakayeel	Nanotechnology and LSTM machine learning algorithms in advanced fuel spray dynamics in CI engines with different bowl geometries	Scientific Reports	10.1038/s41598-024-83211-y
Naif Almakayeel	Analysing Lean 4.0 Adoption Factors Towards Manufacturing Sustainability in SMEs: A Hybrid ANN-Fuzzy ISM Framework	Research Square	https://doi.org/10.21203/rs.3.rs-5959292/v1
Naif Almakayeel	A multi-objective decision framework for optimizing agricultural marketing using complex proportional assessment		https://doi.org/10.2298/yjor250715038p
Dr. Saleh Al Ghamdi	Are Polymer-Based Smart Materials Unlocking the Path to Sustainable Manufacturing for a Net-Zero Economy? Current Trends and Potential Applications	IEEE Access	10.1109/ACCESS.2024.3521944
Dr. Saleh Al Ghamdi	Ergonomic design for optimizing work-related strains and enhancing patient safety in the healthcare environment	Work	10.1177/10519815251346478
Dr. Saleh Al Ghamdi	Analysing Lean 4.0 adoption factors towards manufacturing sustainability in SMEs: A hybrid ANN-Fuzzy ISM framework	Scientific Reports	10.1038/s41598-025-01076-1
Dr.Mohammed Mosa Al Qahtani	Enhancing optimal power flow in power systems: A comparative analysis of recent metaheuristic optimization techniques	Energy Reports	10.1016/j.egyr.2025.03.031
Dr.Mohammed Mosa Al Qahtani	Comprehensive techno-environmental evaluation of an isolated PV/wind/biomass hybrid microgrid employing various battery technologies: A comparative analysis	PLOS ONE	10.1371/journal.pone.0317757

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Dr.Mohammed Mosa Al Qahtani	Control strategies for reverse osmosis desalination powered byphotovoltaic systems: A comprehensive review	Energy Strategy Reviews	https://doi.org/10.1016/j.esr.2025.101944
Dr.Mohammed Mosa Al Qahtani	Nonlinear Autoregressive Prediction Model for Energy Management of a VAWT Power Supply Network	Energy Reports	https://doi.org/10.1016/j.egyr.2025.04.009
Dr.Mohammed Mosa Al Qahtani	Microgrid modernization using exponential decentralized census based energy assessment by considering renewable generation uncertainties and operational price analysis	Results in Engineering	https://doi.org/10.1016/j.rineng.2025.105731
Dr.Mohammed Mosa Al Qahtani	A Technological Review on Emerging Trends and Future Outlook of Cutting-edge Charger Technologies for Next-Generation Electric Vehicles	Energy Conversion and Management: X	https://doi.org/10.1016/j.ecmx.2025.101161
Dr.Mohammed Mosa Al Qahtani	Integrating an artificial neural network with genetic, particle swarm optimization algorithms, and fuzzy rule to optimize the surface roughness in dry turning AISI 1045 steel	Materials Research Express	http://doi 10.1088/2053-1591/adf41b
Dr.Mohammed Mosa Al Qahtani	A Systematic review of topologies, control strategies, challenges, recent developments, and future prospects on emerging electric vehicle chargers	Energy Strategy Reviews	https://doi.org/10.1016/j.esr.2025.101846
Dr.Mohammed Mosa Al Qahtani	Optimizing PV systems in high-temperature environments: ASWOT-based analysis of cooling technologies	Energy Strategy Reviews	https://doi.org/10.1016/j.esr.2025.101828
Dr.Mohammed Mosa Al Qahtani	A critical review on alternative fuels for road transportation: Pollution mitigation, environment and economic perspective	Energy Strategy Reviews	https://doi.org/10.1016/j.esr.2025.101894
Dr.Mohammed Mosa Al Qahtani	Comparative Environmental Insights into Additive Manufacturing in Sand Casting and	sustainability	https://doi.org/10.3390/su17219709

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Dr Mohammed Al Awadh	Experimental study of lubricating wear phenomena in Ag-Mg alloy systems	Scientific Reports	10.1038/s41598-025-27922-w
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Dr Mohammed Al Awadh	Integrating experimental design and machine learning for efficient dye adsorption in textile wastewater treatment	Journal of Industrial Textiles	10.1177/15280837251349315
Dr Mohammed Al Awadh	Neutral point clamped inverter for enhanced grid connected PV system performance based on hexagonal space vector modulation		10.1038/s41598-025-02506-w
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Dr Mohammed Al Awadh	Innovative AI analysis and experimental study of hydrogen- enriched clean fuel in modern fossil fuel engines	Scientific Reports	https://doi.org/10.1038/s41598-025-98201-x
Dr Mohammed Al Awadh	Mexican axolotl optimization algorithm with a recalling enhanced recurrent neural network for	Scientific Reports	https://doi.org/10.1038/s41598-025-97467-5

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Bilal Akbar Chuddher	Numerical simulation of thermal performance of graphene nanofluids in circular wavy tube for solar energy application	Multiscale and Multidisciplinary Modeling, Experiments and Design	https://doi.org/10.1007/s41939-025-01031-7
Bilal Akbar Chuddher	Impact of Biomimetic Fin on Pitching Characteristics of a Hydrofoil	Biomimetics	https://doi.org/10.3390/biomimetics10070462
Bilal Akbar Chuddher	Impact of cylinder corner modification on fluid dynamics and heat transfer: Corner cut size and cut angle	*Physics of Fluids*	https://doi.org/10.1063/5.0249807
Azeem Hafiz PA	Signature of second stable regime of modulational instability and rogue wave triplets in dual-polarity dusty plasma	Physical Review E	https://doi.org/10.1103/cpjb-yvfq
Azeem Hafiz PA	Fractional Analysis Of Time-Fractional Emden–Fowler Problem In The Fluid Flow Through A Porous Medium	Fractals	https://doi.org/10.1142/S0218348X25500744
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Azeem Hafiz PA	Computational Study of Time-Fractional Kawahara and Modified Kawahara Equations with Caputo	Fractal and Fractional	https://doi.org/10.3390/fractalfract9040247

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Boshra Taha Abdallah	Supply chain agility's impact on the sustainable procurement system's optimization and the facilitating role of workflow integration in MENA's foodstuffs sector	International Journal of Innovative Research and Scientific Studies	https://www.researchgate.net/profile/Boshra-Taha-2/publication/395215506
Heba I. Elkhouly	Predicting Quality of Care Outcomes in Diabetes Patients Using Boosted Tree Models: A Clinical Factor Analysis	Securing Health	https://www.taylorfrancis.com/chapters/edit/10.1201/9781003543596-15/
Heba I. Elkhouly	An Easy and Simple Approach for Biosynthesis of Selenium Nanoparticles; Characterization, Radiolabeling and Biomedical Application	Egyptian Journal of Chemistry	10.21608/ejchem.2025.338679.10892
Heba I. Elkhouly	A hybrid machine learning model for predicting agricultural production costs: Integrating economic sensitivity analysis and environmental factors in Egypt	Journal of Environmental Management	https://doi.org/10.1016/j.jenvman.2025.126371
Heba I. Elkhouly	Fatty acid ester biosurfactant from Lysinibacillus sphaericus HS8: Statistical modeling, characterization, and antiviral activities against Hepatitis A virus and Herpes simplex virus type 1	International Journal of Biological Macromolecules	https://doi.org/10.1016/j.ijbiomac.2025.146325
Marwa A. Abd El-baky	Experimental optimization of energy absorption in foam-filled square multicell composite tubes under quasi-static loading	Polymer Composites	https://doi.org/10.1002/pc.70127
Marwa A. Abd El-baky	A promising cellulosic natural fiber as prospective reinforcement in polymer composites materials	Materials Chemistry and Physics	https://doi.org/10.1016/j.matchemphys.2025.131884

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Marwa A. Abd El-baky	Crashworthiness Prediction of Perforated Foam-Filled CFRP Rectangular Tubes Crash Box Using Machine Learning	Polymers	https://doi.org/10.3390/polym17212887
Marwa A. Abd El-baky	Experimental crashworthiness evaluation of seahorse-inspired PETG-CF square tubes under axial compression loading	Journal of Thermoplastic Composite Materials	https://doi.org/10.1177/0892705725138849
Marwa A. Abd El-baky	Investigation of the quasi-static crash response of circular glass-aramid hybrid composite tubes	Journal of Composite Materials	https://doi.org/10.1177/00219983251406371
Marwa A. Abd El-baky	Experimental investigation of material synergy: influence of 3D printing parameters on the lateral crash performance of cellular structures stuffed in aluminum tubes	Composites Part B: Engineering	https://doi.org/10.1016/j.compositesb.2025.112902
Marwa A. Abd El-baky	Tailored Printing Parameters for Optimized Tensile Performance of PETG-CF Lightweight Structures in Industrial Use	Polymer Composites	https://doi.org/10.1002/pc.70183
Marwa A. Abd El-baky	Hybridization of thermoplastic/glass fiber reinforced epoxy composites for lightweight structures	Mechanics of Advanced Materials and Structures	https://doi.org/10.1080/15376494.2024.2391545
Marwa A. Abd El-baky	Energy Absorption Performance of Foam-Filled Multi-cell Circular E-Glass/Epoxy Composite Tubes Under Quasi-static Compression Testing	*Fibers Polym*	https://doi.org/10.1007/s12221-025-01054-4
Marwa A. Abd El-baky	Multi-criteria decision-making for optimizing crashworthiness of 3D-printed PETG-CF lightweight structures: Influence of printing parameters	Polymer Composites	https://doi.org/10.1002/pc.29826

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Marwa A. Abd El-baky	Discovering the impact of printing parameters on the crashworthiness performance of 3D-printed cellular structures	Fibers and Polymers	https://doi.org/10.1007/s12221-024-00799-8
Marwa A. Abd El-baky	Effect of alumina nano-particles on collapse behavior and energy absorption of laterally loaded glass/epoxy composite tubes	Polymer Composites	https://doi.org/10.1002/pc.27630
Marwa A. Abd El-baky	Comparative analysis of metal–thermoplastic hybrid circular structures under quasi-static lateral loading: implications for crashworthiness	Fibers and Polymers	https://doi.org/10.1007/s12221-025-00845-z
Marwa A. Abd El-baky	Integrating Bio-inspired Concepts Into Lightweight Sustainable Crashworthy Designs Under Lateral Loading Scenario	Fibers and Polymers	https://doi.org/10.1007/s12221-025-01046-4
Dr Imen Rashid BOUAZZI	Medication cold chain improvement by using IoT-based smart tracking: a case study in KSA	Engineering Research Express	https://doi.org/10.1088/2631-8695
Dr Imen Rashid BOUAZZI	Transfer learning for securing electric vehicle charging infrastructure from cyber-physical attacks	Scientific Reports	https://doi.org/10.1038/s41598-025-93135-w
Dr Imen Rashid BOUAZZI	Active Learning for Detecting Hardware Sensors-Based Side-Channel Attack on Smartphone	Arabian Journal for Science and Engineering	https://doi.org/10.1007/s13369-024-09046-x
Dr Abir Khamis Mouldi	Next-gen energy solutions: Techno-economic optimizing fossil fuel facilities with liquid CO2 storage and collins liquefaction cycle for peak load management and sustainable efficiency	Energy	https://doi.org/10.1016/j.energy.2025.138701
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