

DR. ZIYAD S. D. ALMAJALI

Vice Dean, College of Engineering • Associate Professor, Electrical Engineering
Jordan

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Professional Summary

Associate Professor and Vice Dean of Engineering (Mutah University) with a Ph.D. from the University of Liverpool and 11 years of post-PhD academic leadership in power systems, protection, and AI applications. Brings 7 years, 8 months of combined administrative leadership across three roles — currently directing 7 engineering programs, 70+ faculty members, and 35+ administrative staff as Vice Dean, after two terms as Head of Department and a term as Assistant Director overseeing a 5 MW solar plant — alongside a sustained 81.14% average teaching evaluation across 20+ courses over 10+ years, 9 Master's theses supervised to completion, and 36 peer-reviewed research contributions since 2013 with primary or corresponding authorship on 12 of 18 published works. Secured JD 79,360 in combined competitive and internal research funding as principal investigator and team member.

7.7 yrs Combined administrative leadership (3 roles)	70+ Faculty overseen as Vice Dean, across 7 programs	5 MW Solar plant overseen as Assistant Director
28 yrs Professional experience	36 Research contributions since 2013	12/18 First-author on published works
9 Master's theses supervised	JD 79,360 Combined research funding (PI + team)	81.14% Avg. teaching evaluation

Education

Ph.D. in Electrical & Electronics Engineering — University of Liverpool, UK (2015)
M.Sc. in Electrical and Computer Engineering — New York Institute of Technology, Amman, Jordan (2004)
B.Sc. in Electrical Engineering (Power) — Mutah University, Jordan (1997) — Top BSc Student, Department of Electrical Engineering

Leadership & Administrative Impact

7 years, 8 months of combined administrative leadership across three consecutive/overlapping roles (92 months: 12 as Vice Dean + 37 as Head of Department across two terms + 43 as Assistant Director).

Vice Dean, College of Engineering *Mutah University* Sep 2025 – Present

- Direct academic, budgetary, and accreditation operations across 7 engineering programs, more than 70 faculty members, and more than 35 administrative staff, sustaining continuous ABET/JNQF compliance.

Head, Electrical Engineering Department *Mutah University* Jul 2017–Aug 2018; Oct 2023–Oct 2025 (3+ years combined, two terms)

- Led department strategy, faculty performance evaluation, and curriculum modernization across two non-consecutive terms, improving accreditation readiness as measured by ABET.

Assistant Director, Prince Faisal Center for Environmental and Energy Research *Mutah University* Mar 2020 – Oct 2023

- Directed operation and maintenance of a 5 MW photovoltaic solar plant, sustaining uninterrupted renewable-energy research capacity for the university.

Academic Appointments & Teaching Impact

Associate Professor *Department of Electrical Engineering, Mutah University* *Mar 2023 – Present*

Assistant Professor *Department of Electrical Engineering, Mutah University* *Aug 2015 – Mar 2023*

- Sustained an 81.14% average teaching evaluation score across more than 20 undergraduate and graduate courses over 10+ years (2015–Present) in Power Systems, Protection, Control, and Renewable Energy.
- Rebuilt curriculum across 15 courses to meet ABET outcome-based education (OBE) standards and integrated JNQF assessment criteria, supporting the department's continuous accreditation cycle.
- Supervised 9 Master's theses to completion in HVDC protection, microgrid stability, renewable-energy integration, and power-quality monitoring.

Lecturer *King Saud University, Sakaka, Al Jawf, Saudi Arabia* *Sep 2004 – Sep 2005*

- Taught undergraduate Computer Engineering courses and contributed to academic advising and curriculum support at the departmental and college level.

Teaching Assistant (while pursuing Ph.D.) *University of Liverpool, UK* *Nov 2011 – Aug 2015*

- Supported faculty across teaching and assessment functions, including exam invigilation and grading verification, laboratory instruction, and tutorial sessions.

Electrical Engineering Lab Supervisor / Part-Time Electrical Engineer *Mutah University Apr 1998 – Oct 2011*

- Managed laboratory operations, equipment calibration, and safety compliance for undergraduate electrical engineering courses over 13 years.

Research Funding

- Secured JD 4,500 as Principal Investigator for a 24-month project on optimal operating control of electrical water heaters (Mutah University), producing 2 peer-reviewed publications (IEEE JEEIT 2021; IJETT 2021).
- Contributed as research team member to a JD 74,860 Ministry of Higher Education grant to design and validate a Hardware-in-the-Loop Wide-Area Controller for the Jordanian national power system.

Editorial & Professional Service

Editorial Secretary *Jordan Journal of Energy, Mutah University* *Sep 2022 – Sep 2026*

- Manage end-to-end peer-review workflow between authors, reviewers, and the editorial board, coordinating board meetings and maintaining review records.

Awards & Recognition

- Best Paper Award — IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies (AEECT), 2026.
- Best Ph.D. Poster Presentation — University of Liverpool, 2013.
- Ph.D. Scholarship — Mutah University, 2011.
- Top B.Sc. Student, Electrical Engineering — Mutah University, 1997.

Skills & Certifications

- Technical: MATLAB, Simulink, LabVIEW, Python (pandapower, scikit-learn)
- Instructional design and delivery aligned with ABET and JNQF outcome-based education (OBE) standards
- Certifications: ICDL (International Certification of Digital Literacy); Data Science & Machine Learning (Mutah University)
- Languages: Arabic (Native), English (Fluent — Teaching & Academic Writing)

Professional Affiliations

- Jordan Engineers Association — Member since 1997

List of Publications

Published :

- Z. S. Almajali, "Accelerated Real-Time State Estimation and Voltage Magnitude Monitoring in Transmission Networks Using Multi-Output Regressor Chains: A Case Study on the IEEE 39-Bus System" September 2026, International Journal of Advanced Technology and Engineering Exploration
- Z. S. Almajali, "Intelligent scheduling and thermal-aware control of Domestic Electric Water Heaters using user behavioral profiles", September 2026, Revista Română de Informatică și Automatică
- Z. S. Almajali, "Comparative Analysis of Proactive Tracking Strategies for Mobile PV Systems: From Discrete Brute-Force to Continuous Metaheuristic Optimization" Clean Energy Science and Technology (2026)
- Z. S. Almajali, "Chromatic Feedback Systems in Smart Meters: A Review of Methodological Approaches and Behavioral Impact", July 2026, WSEAS TRANSACTIONS ON POWER SYSTEMS
- H. Al-helalat, R. Alrawashdeh, Z. S. Almajali, "Power Quality Disturbance Detection and Classification Based on Chromatic Monitoring and Fuzzy Logic" IEEE Jordan Conference on Applied Electrical Engineering and Computing Technologies AEECT Amman (2026)
- Z. S. Almajali, "Chromatic Feedback Systems in Smart Meters: A Review of Methodological Approaches and Behavioral Impact," WSEAS Power Systems 2026.
- Z. S. Almajali, "Optimizing Solar Car Performance: GPS-Enhanced Dual Axis Precision and Single-Axis Southward Orientation in Solar Tracking Solutions", International Journal of Engineering Trends and Technology, August 2025
- Z. S. Almajali, M. N. Bashabsheh, S. A. Alleimon, L. R. Btoosh, "Fault Classification in HVDC Systems: A Fuzzy Logic Classifier Approach", IEEE IC_ASET 2024.
- Z. S. Almajali and S. A. Aldmour, "Global Positioning System Based Dual Axis Tracker for Solar Car," ICCEP 2023.
- Ali Alqatawneh, L. Al-Tarawneh, Z. S. Almajali, "Indexed-channel estimation..." IJECE, June 2023.
- Z. S. Almajali and S. A. Aldmour, "Single-Axis Solar Tracker for Solar Cars," JEEIT 2023.
- Z. S. Almajali, "HVDC Faults Classification by Lab Color Based Monitoring System," WSEAS, 2022.
- B. Malahmeh, K. M. Alawasa, Z. S. Almajali, "Virtual Inertia Emulation in Microgrids," IJRER 2022.
- A. Al-Dmour, H. D. Al-Majali, Z. Almajali, "GWO-Based CHB-MLI Modulation," IJETT 2021.
- Z. S. Almajali, "Transformer Inrush vs Fault Current via Chromatic Monitoring," WSEAS Power Systems 2021.
- Z. S. Almajali, "Monitoring Water Heater Energy Efficiency," IJETT 2021.
- Z. S. Almajali, "Water Heater Discomfort Monitoring System," IEEE JEEIT 2021.

- Z. S. Almajali et al., ‘Transmission Line Fault Diagnosis Using Chromatic Monitoring’, in Advanced Chromatic Monitoring, 2020.
- H. D. Al-Majali, B. H. Al-Majali, Z. S. Almajali, ‘Harmonics Reduction in HVDC Converters,’ WSEAS Systems and Control, 2020.
- S. Al-Juboori, S. Al-Dmour, Z. S. Almajali, ‘Smart Residential Energy Saving System’, Industry 4.0, 2019.
- Z. S. Almajali et al., ‘Asymmetrical Fault Classifier for Transmission Lines’, IET PEMD 2014.
- Z. S. Almajali et al., ‘Fault Locator for Parallel Transmission Lines’, JIEEEEC 2013.

Accepted . Copyediting phase: Camera ready:

- Robust Chromatic Classification for PV Soiling Detection based on Advanced Polynomial Forests
- An Electro-Thermal State Matrix Framework for Interpretable PMSM Inverter Fault Diagnosis Using Chromatic Fingerprints
- AI-Driven Chromatic ECG Representation for Automated Arrhythmia Classification

Submitted/ Under Review :

- A Simulation-Based Framework for Evaluating Chromatic Smart-Meter Feedback in Residential Demand Response
- Hybrid Red Deer Algorithm–Based Selective Harmonic Elimination for Seven-Level Cascaded H-Bridge Inverters with Unequal DC Source
- A Proactive Heuristic Framework for Smart Domestic Electric Water Heater (DEWH) Management: Integrating Thermal Inertia and Chromatic Comfort Constraints
- Physics-Informed Hybrid Machine Learning Framework for Accurate Critical Clearing Time Prediction in Power Systems
- A Multi-Representation ECG Classification Framework with Chromatic Signal Decomposition and Stacking Ensemble Learning

In Preparation :

- Real-Time Power System Stability Evaluation using Regressor Chains and Ensemble Classifiers: A Multi-Parameter Prediction Approach
- Physics-Guided Probabilistic Voltage Security Assessment Using Calibrated Machine Learning
- Optimal Coordination of Directional Overcurrent Relays Using a Modified Red Deer Algorithm

- Adaptive Multi-Objective Optimization of Low-Carbon Off-Grid Hybrid Energy Systems Using Battery–Hydrogen Storage
- Antenna Condition Monitoring: Transitioning from Rule-Based Fuzzy Systems to Intelligent Ensemble Learning
- Heading-Aware Predictive Optimization Framework for Mobile PV Electric Vehicles: A Multi-Scenario Aerodynamic and Solar Harvesting Co-Design
- A Chromatic-Feature-Augmented Optimization-Labelled Machine Learning Framework for Demand Response Strategy Selection in Distribution Networks