



Summary

Director of Innovation and Entrepreneurship Center	Specializes in electric vehicles, renewable energy, and data analysis	Expert in the applications of United Nation Sustainability Goals SDGs
Published research papers in high-impact journals	Expert in electric vehicle charging infrastructure in Saudi Arabia	
Committed to societal contributions and sustainable development projects	Active in research, development, innovation, entrepreneurship, and volunteer work	Strives for a positive impact on national and international societies

Contact



Address
Al Majma'ah, Riyadh, 15341



Phone
+966540611180



E-mail
ad.almutiri@mu.edu.sa



Websites
<https://www.linkedin.com/in/ad-dulaziz-almutairi-phd-12163a220/>
<https://scholar.google.com/citl/ontaswexvDZyEAAAjA83d-en>



Soft skills

Communication
Emotional intelligence
Negotiation
Adaptability
Problem-solving
Leadership
Critical thinking



Hard skills

Data analysis & interpretation
Computer software packages
Project management
Industry knowledge
Technical expertise
Strategic planning
Risk management



Abdulaziz Almutairi

PhD in Electrical and Computer Engineering



Work History

2022-04 Current	Director of Innovation and Entrepreneurship Center <i>Majmaah University, Al Majma'ah, Riyadh, KSA</i>
2023-04 Current	Associate Professor <i>Electrical Engineering Department, Majmaah University, KSA</i>
2019-03 2023-03	Assistant Professor <i>Electrical Engineering Department, Majmaah University, KSA</i>
2011-05 2018-08	Researcher/Teaching Assistant <i>University of Waterloo, Waterloo, Ontario, Canada</i>
2009-09 2010-04	Teaching Assistant <i>Electrical Engineering Department, Majmaah University, KSA</i>
2009-04 2009-09	Electrical Engineer <i>Saudi Electricity Company, Riyadh, Riyadh, KSA</i>



Education

2018-09 / 2014-05	2011-05 / 2014-04	2005-09 / 2009-03
Ph.D: Electrical & Computer Engineering <i>University of Waterloo – Waterloo, Ontario, Canada</i>	Master of Science: Electrical & Computer Engineering <i>University of Waterloo – Waterloo, Ontario, Canada</i>	Bachelor of Science: Electrical Engineering <i>Qassim University – Buraydah, Qassim, Saudi Arabia</i>



Key Graduate Coursework: Selective and Impactful Courses (2011-2017)

- Power System Management and Electricity Markets
- Operation and Control of Restructured Power Systems
- Asset Management and Risk Assessment of Power Systems
- Energy Processing and Conversion
- Power System Components and Modeling
- Sustainable Distributed Power Generation
- Data Mining and Data Warehousing
- Operation Research and Applied Optimization
- Statistical Methods for Data Analytics



Teaching Portfolio: Courses Taught as a Professor (2019-2024)

- Asset Management and Risk Assessment of Power Systems
- Electric Power System Modeling and Analysis
- Energy Economics
- Renewable Energy Resources
- Statistics and Probability for Engineers
- Probabilistic Reliability Models for Power systems
- Research Methods, Data Analysis, and Statistical Software Packages



Initiatives and Achievements

Self-Sufficiency Platform Development	Innovation and Entrepreneurship Promotion in Remote Villages	Talent Support in National Creativity Olympiad	Hackathon for Sustainable Development Goals 2030	Alignment of the National Aspiration for Research, Development, and Innovation
Definition: Creating a platform for faculty and students to tackle university projects, enhancing practical skills in IT, engineering, administration, and finance.	Definition: An initiative to enhance innovation and entrepreneurship in remote villages using a university's accessible bus, providing financial, technical, and funding consultations in collaboration with the Development Bank.	Definition: Supporting talented individuals in the National Creativity Olympiad by supervising scientific projects and innovations, qualifying 15 projects for local and international competitions.	Definition: An initiative fostering innovative projects aligned with Sustainable Development Goals 2039 through a two-month incubation program and 30 hours of training.	Definition: An initiative focused on building policies and strategies that promote the development of human resources, technology transfer, and manufacturing in the field of research, development, and innovation.
Impact: Fosters collaboration, empowers students, and develops relevant skills for real-world scenarios, improving employability and readiness for professional challenges.	Impact: This initiative involved visiting four villages, reaching over 400 beneficiaries, providing over 40 hours of consultation, and offering funding for several projects	Impact: Empowering talented individuals, guiding their innovative projects, and enabling them to compete at the national and international levels, showcasing their skills and potential.	Impact: Reached 77 innovators, developed 28 innovative ideas serving sectors like energy, health, environment, and education, promoting sustainable development.	Impact: The initiative teams have designed training, qualification, and support programs to serve its objectives. It has formed extensive partnerships with approximately 20 public private entities and factories.



Awards and Recognitions

2014 –2016  2 Outstanding Researcher Award	2013 –2016  4 Distinguished Academic Performance Awards	2020 –2023  400,000 SAR 4 Research Grants from MOE
2021  1 Best Research Project at Majmaah University	2020  1 Innovative University Challenge for the STS Learning Platform project	2022  2 Social Investment Hackathon for the Educational Sports Games project by the Development Bank
2022  4 Water and Renewable Energy Technologies Hackathon for the Energy Storage, Public Water Desalination Authority	2022  1 Entrepreneurship Professor for AI Technologies for Energy Storage Systems Management project	



Research Interests and Scientific Publishing

- Renewable energy modeling and integrations.
- Electric vehicle infrastructure
- Demand response program
- Sustainable development goals





Selected Professional Certifications



“Expert of The United Nations Applications for Sustainability Development Goals 2030”,
United Nation for Training and Researches (2023)



“Scientific Research Skills”,
Leadership Development department at the Consultancy Institute at Majmaah University (2023)



“Professional in Development Project Management (PMD)”,
Cifal Saudi Arabia for UN-SDGs, (2023)



“Strategic Technology Management”, *University of Illinois at Urbana-Champaign, Coursera (2022)*



“Building a Vision and Managing the Change in an Administrative Work”, *Deanship of Skills Development at Majmaah University (2021)*



Recent Projects (Principal Investigator)

- **Smart and Renewable Energy Applications in Modern Power System,**
Oct 2022 – Present, Supported by the Deputyship for Research and Innovation, Ministry of Education in Saudi Arabia, through project number (IFP-2022-06).
- **Charging Infrastructure Portfolio for Mitigating Grid Impact of Plug-In Electric Vehicles,** Oct 2021 – Oct 2022, Supported by the Deanship of Scientific Research, Majmaah University under Grant R-2022-17.
- **Evaluating the Potential Impacts of the Renewable Energy and Electric Vehicle on the KSA's Grid,** Oct 2020 – Oct 2021, Supported by the Deputyship for Research and Innovation, Ministry of Education, Saudi Arabia under project number (IFP- 2020-02).



Selected Short Courses and Workshops

- “The National Strategy for Research, Development and Innovation Sector”,
Research, Development and Innovation Authority (2023)
- “Solutions and Recommendations for Promoting Innovations”,
Ministry of Education, KSA (2023)
- “Innovation Marketing for Building a Knowledge Society”,
Ministry of Education, KSA (2023)
- “Innovation and Entrepreneurship Centers Strategy”,
Ministry of Education, KSA (2023)
- “Empowering Universities to Manage Intellectual Property”,
Ministry of Education, KSA (2023)
- “Investment in Intellectual Assets of Universities”,
Ministry of Education, KSA (2022)
- “Enabling the Entrepreneurial Professor”,
Ministry of Education, KSA (2022)
- “The Training Meeting of Innovation Track Arbitrators”,
King Abdulaziz and His Companions Foundation for Giftedness and Creativity (2022)
- “Description of Programs, Courses, and Reports”
National Commission for Academic Accreditation and Assessment (2021)



Professional Activities

- Innovation and Entrepreneurship committee at the University level, coordinator, (Sept. 2022 – present).
- Award Evaluation committee for Majmaah University President's Award for Quality and Excellence, Member, (Jan. 2023 – present).
- Innovation and Entrepreneurship committee, coordinator, College of Engineering, Majmmah University. (Sept. 2020 – present)
- Development and Planning committee, coordinator, College of Engineering, Majmmah University. (Sept. 2019 – May-2021)
- Senior Design committee, coordinator, Electrical Department, College of Engineering, Majmmah University. (Sept. 2019 – present)
- Graduate and Scientific research committee, member, Electrical Department, College of Engineering, Majmmah University. (Sept. 2019 – present)
- Quality and Accreditation committee, member, Electrical Department, College of Engineering, Majmmah University. (Sept. 2019 – present)



Selected Conference Papers

- **Almutairi A**, Alotaibi M, Salama M. “Goodness of Fit Statistical Analysis for Different Variables of PEV Driver Behaviour”. *IEEE Canadian Conference on Electrical & Computer Engineering (CCECE)*. 2018
- Alotaibi M, **Almutairi A**, Salama M. “An Approach for Managing DG Investment Proposals Considering System Constraints and DG Incentives”. *IEEE Canadian Conference on Electrical & Computer Engineering (CCECE)*. 2018
- **Almutairi A**, Humayd A, Salama M. “Quantifying the impact of PEV charging loads on the reliability performance of generation systems”. *IEEE Power and Energy Society General Meeting (PESGM)*. 2016
- Alotaibi M, **Almutairi A**, Salama M. “Effect of wind turbine parameters on optimal DG placement in power distribution systems”. *IEEE Electrical Power and Energy Conference (EPEC)*. 2016
- **Almutairi A**, Salama M. “Statistical evaluation study for different wind speed distribution functions using goodness of fit tests”. *IEEE Electrical Power and Energy Conference (EPEC)*. 2016



Selected Journal Articles

- Alrumayh, O., **Almutairi A.** "Novel secured distributed energy management structure for solar based smart grids incorporating miners." *Solar Energy*, 2023
- **Almutairi A.**, Alrumayh, O. "An intelligent deep learning based prediction model for wind power generation". *Computers and Electrical Engineering*, 2022
- **Almutairi A.**, Alrumayh O. "Optimal Charging Infrastructure Portfolio for Minimizing Grid Impact of Plug-In Electric Vehicles". *IEEE Transactions on Industrial Informatics*. 2022
- **Almutairi A.** "Plug-In Electric Vehicles and their Impact on Power Generation Availability: A Real Survey-Based Analysis in Saudi Arabia." *Sustainable Cities and Society*, 2021
- Mansour A, **Almutairi A.**, Alyami S, Obeidat M, Almkahles D, Sathik J. "A Unique Unified Wind Speed Approach to Decision-Making for Dispersed Locations". *Sustainability*, 2021
- Kavousi-Fard A, **Almutairi A.**, Al-Sumaiti A, Farughian A, Alyami S. "An Effective Secured Peer-to-peer Energy Market Based on Blockchain Architecture for the Interconnected Microgrid and Smart Grid". *International Journal of Electrical Power & Energy Systems*, 2021.
- **Almutairi A.** and Alyami S. "Load Profile Modeling of Plug-in Electric Vehicles: Realistic and Ready-to-use Benchmark Test Data". *IEEE Access*, 2021
- Malik H. and **Almutairi A.** "Modified Fuzzy-Q-Learning (MFQL)-Based Mechanical Fault Diagnosis for Direct-Drive Wind Turbines Using Electrical Signals". *IEEE Access*, 2021
- Mahto T, Malik H, Mukherjee V, Alotaibi A, **Almutairi A.** "Renewable Generation Based Hybrid Power System Control Using Fractional Order-fuzzy Controller". *Energy Reports*. 2021
- Singh S, Fozdar M, **Almutairi A.**, Alyami S, Malik H. "Strategic Bidding in the Presence of Renewable Sources for Optimizing the Profit of the Power Suppliers". *IEEE Access*, 2021
- **Almutairi A.**, Sayed K, Albagami N, Abo-Khalil A, Saleeb H. "Multi-Port PWM DC-DC Power Converter for Renewable Energy Applications". *Energies*, 2021
- Alharbi W, **Almutairi A.** "Planning Flexibility With Non-Deferrable Loads Considering Distribution Grid Limitations". *IEEE Access*, 2021
- Malik H, Khursheed T, **Almutairi A.**, Alotaibi M. "Multi-step Ahead Time-Series Wind Speed Forecasting for Smart-grid Application". *Journal of Intelligent & Fuzzy Systems*, 2020
- Al-Ameri S, **Almutairi A.**, Kamarudin M. "Application of Frequency Response Analysis Technique to Detect Transformer Tap Changer Faults". *Applied Sciences*, 2020
- Malik H, Alotaibi M, **Almutairi A.** "A New Hybrid Model Combining EMD and Neural Network for Multi-step Ahead Load Forecasting". *Journal of Intelligent & Fuzzy Systems*, 2020
- Malik H, **Almutairi A.**, Alotaibi M. "Power quality disturbance analysis using data-driven EMD-SVM hybrid approach". *Journal of Intelligent & Fuzzy Systems*, 2020
- **Almutairi A.**, Abo-Khalil A, Sayed K, Albagami N. "MPPT for a PV grid-connected system to improve efficiency under partial shading conditions". *Sustainability*, 2020
- Malik H, Ahmad W, Alotaibi M, **Almutairi A.** "Development of Wide Area Monitoring System for Smart Grid Application". *Journal of Intelligent & Fuzzy Systems*, 2020
- **Almutairi A.**, Salama M. "Assessment and Enhancement Frameworks for System Reliability Performance Using Different PEV Charging Models". *IEEE Transactions on Sustainable Energy*, 2018
- **Almutairi A.**, Mohammed A, Salama M. "Use of MCMC to Incorporate a Wind Power Model for the Evaluation of Generating Capacity Adequacy". *Electric Power Systems Research*, 2016
- **Almutairi A.**, Mohammed A, Salama M. "Probabilistic Generating Capacity Adequacy Evaluation: Research Roadmap". *Electric Power Systems Research*, 2015
- **Almutairi A.**, Mohammed A, Salama M. "Evaluation of the Generating Capacity Adequacy of the Saudi Arabian Central Operating Area". *Electric Power Components and Systems*, 2014