Name: Sultan Sh. Alanzi
Rank: Assistant Professor
Department: Electrical Engineering
Email: sultan.alanzi@ku.edu.kw
Telephone: +965-24985063
Specialty: Power Systems and Sustainable Energy
Research Interests:
Power System Engineering. Power System Analysis. Power System Stability. Power System Protection. Power Distribution Networks.
Sustainable Energy, Solar Photovoltaic Power Plants, Wind Turbines.
Location: College of Engineering and Petroleum – South Building – Second Floor – Office: S02-E2-249

Degree

Degree	Field	Institution	Year
Ph.D.	Electrical and Computer Engineering	The Ohio State University	2013
M.S.	Electrical and Computer Engineering	The Ohio State University	2009
B.S.	Electrical and Computer Engineering	University of Wisconsin – Milwaukee	2004

Academic Rank

Rank	Year
Assistant Professor	2013

Memberships

Organization	Country	Membership	Period
Institute of Electrical and Electronics Engineers	USA	Member	2006-Present
Power Energy Society	USA	Member	2006-Present
Kuwaiti Society of Engineers	Kuwait	Member	2014-Present

Experience (Academic)

Institution	Designation	Period
Kuwait University	Assistant Professor	2013-Present
Kuwait University	Teaching Assistant	2005-2006

Professional Activities and Administrative Positions

Designation	Details	Period
Consultant	Minister of Electricity and Water and Renewable Energy - Ministry of Electricity & Water & Renewable Energy - Kuwait	2024, 2023, 2021

Conference Technical Program Committee

Designation	Conference	Period
Session Chair	The International Conference on Power Engineering and Electrical Technology (PEET)	2025
Session Chair	The 6th IEEE Sustainable Power and Energy Conference (iSPEC)	2024
Session Chair	The International Conference on Power and Renewable Energy Engineering (PREE)	2023
Technical Committee	The 2025 International Conference on Power Conversion and Control Engineering (PCCE)	2025
Technical Committee	The 2025 International Conference on Applied Electrical Engineering and Technology (AEET)	2025
Technical Committee	The 4th International Conference on Power Systems and Electrical Technology (PSET)	2025
Technical Committee	The 3rd International Conference on Power and Renewable Energy Engineering (PREE), 2025	2025
Technical Committee	The International Conference on Power Engineering and Electrical Technology (PEET), 2025	2025
Technical Committee	The 6th IEEE Sustainable Power and Energy Conference (iSPEC)	2024
Technical Committee	The 2nd International Conference on Power and Renewable Energy Engineering (PREE)	2024
Technical Committee	The 3rd International Conference on Power Systems and Electrical Technology (PSET)	2024

Courses

Institution	Course No.	Course Name	Level
Kuwait University	EE205	Fundamental of Electrical Circuits	Undergraduate
Kuwait University	EE213	Linear Circuits Analysis	Undergraduate
Kuwait University	EE343	Energy Conversion I	Undergraduate
Kuwait University	EE350	Power System Analysis I	Undergraduate
Kuwait University	EE399	Electrical Engineering Field Training	Undergraduate
Kuwait University	EE440	Sustainable Energy Technologies	Undergraduate
Kuwait University	EE452	Power System Analysis II	Undergraduate
Kuwait University	EE456	Power Systems and Apparatus	Undergraduate
Kuwait University	EE490	Special Topics in Electrical Engineering	Undergraduate
Kuwait University	EE497	Engineering Design	Undergraduate
Kuwait University	EE553	Optimization and Economic Operation of Power Systems	Graduate
Kuwait University	EE556	Introduction to Renewable Energies	Graduate
Kuwait University	EE559	Special Topics in Power Engineering	Graduate

Journal Papers

No.	Information
1	S. S. Alanzi, R. M. Kamel, and M. Hashem, “Steady-state and transient performance assessment of power system under simultaneous optimal power flow and optimal integration of multi-type DGs based on geometric mean optimizer,” Journal of Engineering Research, 2025, https://doi.org/10.1016/j.jer.2025.09.006.

2	S. S. Alanzi, R. M. Kamel and Y. K. Abualia, "Effects of varying operating conditions of different renewable energy sources on steady state, fault performance, and transient stability of power systems," in IEEE Access, https://ieeexplore.ieee.org/abstract/document/10945306
3	M. W. Baidas, N. I. AbdAli, S. S. Alanzi, "Hybrid solar PV/hydrogen fuel cell-based cellular base-stations in Kuwait," Journal of Engineering Research, 2024, https://doi.org/10.1016/j.jer.2024.12.015
4	N. H. Alzuabi and S. S. Alanzi, "Feasibility study of hybrid renewable energy systems for off-grid electrification in Kuwait's rural national park reserve," International Journal of Sustainable Energy, Volume 43, No. 1, 2024. https://doi.org/10.1080/14786451.2024.2353369
5	R. M. Kamel, M. E. Badawi, and S. S. Alanzi, "An optimum design and economic feasibility analysis of wind farms in Kuwait using different wind generation technologies," Journal of Engineering Research, 2023, https://doi.org/10.1016/j.jer.2023.10.028
6	S. S. Alanzi, B. Aldalali, R. M. Kamel, Effects of sandstorms on hybrid renewable energy sources and load demand in arid desert climates: A case study, Energy for Sustainable Development, Volume 81, 2024, 101473, ISSN 09730826, https://doi.org/10.1016/j.esd.2024.101473
7	R. M. Kamel, S. S. Alanzi, and Y. M. Alhashemi, "Effect of photovoltaic penetration level and location on power system transient stability during symmetrical and unsymmetrical faults," Sustainable Energy, Grids and Networks, Volume 38, 2024. https://doi.org/10.1016/j.segan.2024.101322
8	M. W. Baidas, M. F. Almusailem, R. M. Kamel, and S. S. Alanzi, "Renewable-Energy-Powered Cellular Base-Stations in Kuwait's Rural Areas," Energies, vol. 15, issue 7, 2022. https://doi.org/10.3390/en15072334
9	M. W. Baidas, R. W. Hasaneya, R. M. Kamel, and S. S. Alanzi, "Solar-Powered Cellular Base Stations in Kuwait: A Case Study," Energies, vol. 14, issue 22, 2021. https://doi.org/10.3390/en14227494
10	S. S. Alanzi and R. M. Kamel, "Photovoltaic Maximum Penetration Limits on Medium Voltage Overhead and Underground Cable Distribution Feeders: A Comparative Study," Energies, vol. 14, issue 13, 2021. https://doi.org/10.3390/en14133843

Conference Papers

No.	Information
1	S. S. Alanzi and G. Shehada, " Data-Driven Operational Diagnostics and Performance Mapping of a 20 MW Hybrid PV–Wind Installation," 2025 International Conference on Power Engineering and Electrical Technology (PEET), Shinga, Japan, 2025
2	S. S. Alanzi and Ghada Shehada, "Different Models to Calculate Spinning Reserve between Interconnected Grids: Case Study," 2024 IEEE International Conference on Power Systems and Electrical Technology (PSET), Tokyo, Japan, 2024.
3	S. S. Alanzi, R. M. Kamel, and M. Hashem, "Optimal Performance of Power System Using an Optimal Power Flow Along with Optimal Inclusion of Distributed Generators Considering Voltage-Dependent Load Models", 2024 IEEE Sustainable Power and Energy Conference (iSPEC), Sarawak, Malaysia, 2024.

Research Projects

Project Code	Title	Position	Period
XS01/24	Effects of Different Types of Distributed Generators on Impedance Relay for Radial Distribution Systems	PI	2024-2025
RE02/23	Enhancing Electric Grid Resilience and Efficiency through Advanced Load Forecasting, Renewable Energy Integration, and Substation Optimization	PI	2025-2028