Prof. Wejdan Abu Elhaija

Personal Information

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Wejdan is a Professor of Electrical Engineering/ Electrical Machines at Princess Sumaya University for Technology (PSUT), Amman-Jordan. Currently, she is an Advisor for Academic Affairs to HRH Princess Sumaya bint El Hassan, President of the Royal Scientific Society (RSS) and Vice President for Academic Affairs at PSUT.

Work Experience

7.08.2022 – Present	Acting President, PSUT, Amman, Jordan.
2020–Present	Vice President for Academic Affairs, PSUT, Amman-Jordan.
2018–Present	Advisor to HRH Princess Sumaya bint El Hassan, President of the Royal Scientific Society for Academic Affairs, Amman-Jordan.
2016–2018	Vice President at ZUJ, during my two years leave from King Abdullah II School of Engineering at PSUT.
2011–2015	Dean, King Abdullah II School of Engineering, PSUT.
2009–2011	Department Chair, Electronics Engineering Department, King Abdullah II School of Engineering, PSUT.
2007–2010	Assistant to the President for Quality Assurance, PSUT.

Education

2012	D.Sc. Doctor of Science (Engineering) Higher Doctorate [honoris causa], Queen's University of Belfast Northern Ireland, UK.
1996–1999	Ph.D. Electrical Engineering /Electrical Machines Queen's University of Belfast, Northern Ireland, UK Dissertation title: "Transient Performance of Small Salient Pole Alternators"
1993-1995	M.Sc. Courses of the Electrical Engineering Master Program Jordan University of Science and Technology, Irbid, Jordan
1988-1993	B.Sc. Electrical Engineering Jordan University of Science and Technology, Irbid, Jordan

Professional Career

2013–Present	Professor Electrical Engineering Department, PSUT, Jordan.
2006–2013	Associate Professor Electrical Engineering Department, PSUT, Jordan.
2000-2006	Assistant Professor Electrical Engineering Department, PSUT, Jordan.
1999–2000	Lecturer Electrical Engineering Department, PSUT, Jordan.
1996-1999	Laboratory Demonstrator Electrical Machines Laboratory, School of Electrical and Electronics Engineering, Queen's University of Belfast, Northern Ireland, UK.
1993-1995	Teaching Assistant Electrical Engineering Department, Jordan University of Science and Technology (JUST), Jordan

Professional Fellowships, Scholarships and Memberships

2022–Present	Member of the International Women's Forum – Jordan Chapter.
2021–Present	ABET Program Evaluator representing IEEE International Society.
2014–Present	British HEA Fellow, Teaching and Learning- Higher Education Academy, UK.
1997–1999	Full PhD scholarship granted by Queen's University of Belfast, UK.
1994–1995	Full MSc scholarship granted by JUST, Jordan.
2011–Present	Senior Member, Institute of Electrical and Electronics Engineers (IEEE).
2017–Present	Consultant Engineer (CE), Jordan Engineers Association.
1993–Present	Member, Jordanian Engineering Association.
2019–Present	Professional member, American Society for Engineering Education (ASEE).

Research Interests

Design, modeling, simulation and optimization of electrical machines, finite element and analytical methods of electromagnetic fields; fault diagnosis of electrical machines; electromagnetic field computation and fault analysis of power transformers.

Teaching Experience

Electrical Machines, Electric Machines Drives, Power Systems Analysis, Electrical Circuit Theory, Applied Electromagnetic, Measurements and Instrumentation Techniques.

Publications

Qasem, M., Mohamed, O., **Abu Elhaija, W.** Parameter Identification and Sliding Pressure Control of a Supercritical Power Plant Using Whale Optimizer. Sustainability 2022, 14, 8039. https://doi.org/10.3390/su14138039.

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Abu Al-Haija, Q.; Krichen, M.; **Abu Elhaija, W.** Machine-Learning-Based Darknet Traffic Detection System for IoT Applications. Electronics 2022, 11, 556. https://doi.org/10.3390/electronics11040556.

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Qandil M, Mohamed O, **Abu Elhaija W. A**, comparative study of wind turbine-generator modeling techniques: Physical modeling, subspace identification, and dynamic neural networks. Wind Engineering. doi:10.1177/0309524X211066623.

Rana A. M. Alhorani, **Wejdan Abu Elhaija**, Subhi M. Bazlamit Hesham S. Ahmad,"ABET accreditation requirements and preparation: Lessons learned from a case study of Civil Engineering Program", Cogent Engineering, Volume 8, 2021 - Issue 1, Published Online: 23 Nov 2021. 13. **Wejdan Abu Elhaija**, "Scientific articles for sale in black market", THE Jordan Times Newspaper, Oct 18, 2021.

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Transactions on Electrical Energy Systems. Volume 31, Issue1, January 2021, e12699 2020, DOI: 10.1002/2050-7038.12699.

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Z. Hamici and **Wejdan Abu Elhaija**," Novel Current Unbalance Estimation and Diagnosis Algorithms for Condition Monitoring with Wireless Sensor Network and Internet of Things Gateway", IEEE Transactions on Industrial Informatics, vol. 15, Issue 11, 19 November 2019, DOI: 10.1109/TII.2019.2935743. Special Section on Identification and Observation Informatics for Energy Conversion, and Applications.

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W. Abu-Elhaija, C.E. Tindall, J.P. Martin. "Finite Element Time-Stepping Method for the Prediction of Small Alternator Transient Response", Electric Power Components and Systems, Volume 31, April 2003, pp-379-388.

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