



Thamer A. H. Alghamdi

Assistant Professor

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EDUCATION

Doctor of Philosophy (PhD)

Cardiff University, UK

2018-2023

Master of Science (M.Sc.)

Northumbria Newcastle University, UK

2015-2016

Bachelor of Science (B.Sc.)

Al-Baha University, Saudi Arabia

2009-2013

ABOUT ME

I am an assistant professor in the electrical engineering department at Al-Baha University, Saudi Arabia. I am a passionate electric engineer who has been inspired by technologies and innovations since childhood, and I am still learning new stuff for my skills and academic expertise. My main research interests are power systems, power quality, the integration of renewable technologies, and artificial intelligence applications in electrical engineering.

EXPERIENCES

Wolfson Centre for Magnetism

Cardiff University/ UK/ 2022-2023

Assisting MSc students with experimental work arranged by the course instructor, besides participating in the practical work of a PhD student to validate theoretical and simulation work related to power transformer protection systems against internal and external faults. This includes winding and frame arrangements and data acquisition system design.

The Centre for Integrated Renewable Energy Generation and Supply (CIREGS)

Cardiff University/ UK/ 2018-2022

I was involved in the CIREGS research group for regular meetings, teamwork, and focus group discussions with other PhD students. This was a great opportunity for teamwork, time and task management, and research group skills.

Power Electronics Laboratory

Cardiff University/ UK/ 2018-2022

Assisting BSc and MSc students with experimental work arranged by the course instructor, including the connection of components for complicated topologies and configurations, the implementation of hardware and software for control application and verification, and introducing real-time simulators for power conversion systems.

Electric Engineering Laboratories

Al-Baha University/ Saudi Arabia/ 2016-2017

Assisting BSc with experimental work arranged by course instructors, including the operation of transmission lines and distribution feeders.

Wind Turbine Laboratory Assistant

Northumbria Newcastle University/ UK/ 2015-2016

Assisting MSc students with experimental work arranged by the course instructor, including the operation and control of Doubly fed induction generators for wind power applications.

Saudi Electricity Company

Al-Baha / Saudi Arabia/ 2016-2017

Working as a power distribution engineer including fresh-engineer training sessions.

TRAINING COURSES

Data Analysis

Doroob, 2023/ Human Resources Development Fund/ Saudi Arabia

Creative thinking skills

Doroob, 2023/ Human Resources Development Fund/ Saudi Arabia

Strategic thinking

Doroob, 2023/ Human Resources Development Fund/ Saudi Arabia

Managing stress at work

Doroob, 2023/ Human Resources Development Fund/ Saudi Arabia

Leadership and management

Doroob, 2023/ Human Resources Development Fund/ Saudi Arabia

Automatic analysis of social signals in speech and conversations

Saudi Digital Library, 2018/ Saudi Arabia

PUBLICATIONS

- Highly Efficient GaN Doherty Power Amplifier for N78 Sub-6 GHz Band 5G Applications
Electronics Journal, 2023, <https://doi.org/10.3390/electronics12194001>
- An artificial neural network based harmonic distortions estimator for grid- connected power converter-based applications
Ain Shams Engineering Journal, 2023, <https://doi.org/10.1016/j.asej.2022.101916>
- Performance of different structures of artificial neural network systems for harmonic estimation of grid-tied power conversion systems
IEEE conference, 2022, 10.1109/ICPEE56418.2022.10050331
- Modelling and control development of a cascaded NPC-based MVDC converter for harmonic analysis studies in power distribution networks
Energies Journal, 2022, <https://doi.org/10.3390/en15134867>
- Optimal design of passive power filters using the MRFO algorithm and a practical harmonic analysis approach including uncertainties in distribution networks
Energies Journal, 2022, <https://doi.org/10.3390/en15072566>
- Magnetic field evaluation around 400 KV underground power cable under harmonics effects
Diagnostyka Journal, 2022, 10.29354/diag/150068
- Analysis and solutions of power harmonics in medium voltage distribution networks
Cardiff University, 2022, <https://orca.cardiff.ac.uk/id/eprint/154266/>
- Analysis of harmonic propagations in Albaha power network due to the implementation of an MVDC converter
IEEE conference, 2021, 10.1109/ISGTAsia49270.2021.9715713
- Modelling and control development of an MVDC converter implemented for Albaha power network
IEEE conference, 2021, 10.1109/ICPEE54380.2021.9662568