

B A D E R A L H A R B I

Address: AlMajmaah, Saudi Arabia

Phone : +966566663417

Email: b.alharbi@mu.edu.sa

EDUCATION

- PhD Degree in Electrical Engineering, University of Birmingham, Birmingham, UK (2022).
The PhD thesis title: Stress Assessment of Modern Power Systems with Dynamic Thermal Limits of Lines.
- Master's Degree in Electrical and Computer Engineering, Concordia University, Montreal, Quebec, Canada (2015).
- Bachelor's Degree of Electrical Engineering, Qassim University, Saudi Arabia (2009).

WORK EXPERIENCE

- Supervisor of the Administration of Knowledge Exchange and Scientific Societies in Majmaah University, Saudi Arabia (2023 – Now).
- Supervisor of Innovation Club in Electrical Engineering Department in Majmaah University, AlMajmaah, Saudi Arabia (2023 – Now).
- Assistant Professor in Majmaah University, Saudi Arabia (2022 – Now).
- President of Saudi Society in University of Birmingham, Birmingham, UK (2020 – 2021).
- Postgraduate researcher in University of Birmingham, Birmingham, UK (2017 – 2021).
- Lecturer in Majmaah University, AlMajmaah, Riyadh (2016 – 2022).
- Graduate Student in Concordia University, Montreal, Quebec, Canada (2013 – 2015).
- Teaching assistant in Majmaah University, AlMajmaah, Riyadh (2009 – 2016).
- Electrical Engineer for Summer Training at Qassim University (2008).

RESEARCH INTERESTS

- Power System Security and Reliability.
- Stress Mapping and Risk Management of Modern Power Systems.
- Integration of Renewable Energy Resources.
- Plug-in Electric Vehicle Stations.
- Dynamic Line Ratings.

SELECTED PUBLICATIONS

- **Bader Alharbi** and Dilan Jayaweera, "Smart Power System Operation with Dynamic Thermal Limits on Critical Transmission Lines and Integration of Large PV Systems," 2019 8th International Conference on Renewable Energy Research and Applications (ICRERA), Brasov, Romania, 2019
- **Bader Alharbi** and Dilan Jayaweera, "Impact Assessment of Plug-in Electric Vehicle Charging Locations on Power Systems with Integrated Wind Farms Incorporating Dynamic Thermal Limits," in Journal of Modern Power Systems and Clean Energy, 2021.
- **Bader Alharbi**, et al, "Climate Change Impacts Quantification on the Domestic Side of Electrical Grid and Respective Mitigation Strategy across Medium Horizon 2030" Sustainability, 2023.
- **Bader Alharbi**, et al, "Optimisation of generation unit commitment and network topology with the dynamic thermal rating system considering N-1 reliability," Electric Power Systems Research, 2023.
- **Bader Alharbi**, et al, " Load Forecasting For Regional Integrated Energy System based on Two-Phase Decomposition and Mixture Prediction Model, " Energy, 2024.
- **Bader Alharbi**, et al, "Optimizing distributed generation and energy storage in distribution networks: Harnessing metaheuristic algorithms with dynamic thermal rating technology, " Journal of Energy Storage, 2024.
- **Bader Alharbi**, et al, " Data-driven learning-based classification model for mitigating false data injection attacks on dynamic line rating systems, " Sustainable Energy, Grids and Networks, 2024.

AWARDS

- Research project grant by Ministry of Education, Majmaah University, Principal Investigator, project title “Reliability of the smart operation of transmission lines in grids that feature integrated low-carbon technologies”. 2022-2023.
- Distinguished Scholarship Student Award from Majmaah University, 2018.
- Scholarship from Majmaah University to complete a PhD degree at University of Birmingham, Birmingham, UK, 2017.
- Scholarship from Majmaah University to complete a master’s degree at Concordia University , Montreal, Canada, 2012.
- Best Student Award from Qassim University, 2006.

PROFESSIONAL ACTIVITIES

- Institutional Accreditation Committee, Member, Majmaah University.
 - Expert in Applications of the United Nations Sustainable Development, CIFAL, Saudi Arabia.
 - Intellectual Property Protection Unit, Member, Majmaah University.
 - Committee for the Affairs of Teaching Assistants, Lecturers, Language Teachers and Research Assistants, Member.
 - Interview Committee for Teaching Assistants and Lecturers, Member, Majmaah University.
 - Intellectual Awareness Unit at the College of Engineering, Head, Majmaah University, 2023.
 - Innovation Club in the Electrical Engineering Department, Supervisor, Majmaah University, (2022- Now).
 - Engineering Research and Applied Sciences Center, Member, Majmaah University, (2022 –Now).
 - Prince Faisal bin Bandar bin Abdulaziz Al Saud Award for Excellence and Creativity committee, Member, Majmaah University, 2023.
 - Assessment and evaluation committee, Electrical Department, Member, College of Engineering, Majmaah University, (2022 –Now).
 - Students research and assistance committee, Member, Electrical Department, College of Engineering, Majmaah University, (2022 –Now).
 - 2024 IEEE 18th International Conference on Compatibility, Power Electronics and Power Engineering, Participant, Gdynia, Poland, 2024.
 - Engineering Forum for Renewable Energy, Organizer, Majmaah University, Almajmaah, Saudi Arabia, 2023.
 - Saudi Arabia Smart Grid Conference (SASG), Attendance, Riyadh, 2022.
 - 8th International Conference on Renewable Energy Research and Applications (ICRERA), Participant and Chair Session, Romania, 2019.
 - Saudi Arabia Smart Grid Conference (SASG), Participant, Jeddah, 2018.
 - Postgraduate researcher representative (PGR) in the Engineering School in University of Birmingham, Birmingham, UK, (2018-2021).
 - Graduate student representative in the Faculty of Engineering and Computer Science in Concordia University, Montreal, Canada in 2014.
 - IEEE 27th Canadian Conference on Electrical and Computer Engineering (CCECE) in Ryerson University, Attendance, Toronto, Canada, 2014.
 - First gathering of talented students of higher education in King Abdulaziz University, Attendance, Jeddah, Saudi Arabia, 2006.
 - Students club in the engineering college, Co-Founder, Qassim University, (2006-2009).
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SKILLS

- Ability to work either as a team member or independently.
- Excellent written and verbal communication skills.
- Quick learner.
- Self development and self motivation.
- Knowledgeable in electrical engineering technical software such as PowerFactory – DIgSILENT and MATLAB.

RESEARCH PROJECTS

- Research Grant: (Reliability of the smart operation of transmission lines in grids that feature integrated low-carbon technologies), Ministry of Education, Majmaah University (Principal Investigator) 2022-2023.

*References available upon request