Yousef Alamri

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OBJECTIVE

An ambitious Electrical Engineer dedicated to pursuing goals in the competitive professional landscape, striving for advancement and growth.

EDUCATION

PhD's degree in electrical engineering **2024-Current**

Electrical Engineering, University of South Carolina, United States.

Project:

A Modular Solid-State Transformer (SST) Using 10kV Switching Devices

- Developed system requirement and work breakdown for the MV SST system.
- Designed and simulated high frequency transformer (HFT).
- Designed and built a grid inductor.
- Developed a 3D model of the MV SST system.
- Designed and simulated the MV SST system.
- Designed measurement and control boards.
- Designed PCB-busbar.

Master's degree in electrical engineering **May 2024**

Electrical Engineering, University of Tennessee-Knoxville, United States.

Final project:

State of Health Models for Second Use Electric Vehicle Batteries for Use in Grid Energy Storage

- Explore the critical need for efficient energy storage systems in the face of increasing demand and intermittent renewable energy sources.
- Addresses the imperative need for advanced energy storage technologies, focusing on second life batteries as a potential solution.
- Highlights the significance of second life batteries in addressing the challenges of energy storage, emphasizing their potential for cost-effective and eco-friendly alternatives by repurposing retired electric vehicle batteries.
- Delves into the development of a State of Health (SoH) model, crucial for assessing battery performance and longevity.
- Proposed SoH model aims to predict the SoH of batteries and enables the identification of optimal storage and cycling conditions.

PROFESSIONAL EXPERIENCE

Summer Trainee **Jul 2017 – Aug 2017**

Saudi Electricity company (SEC), Baljurshi (Al Baha), Saudi Arabia.

- Familiarity with overhead transmission systems and underground cables through in-depth study

of insulators, conductors, towers, and transformers.

- Understanding of electric distribution systems acquired by delving into substations.
- Extensive knowledge gained through studying various types and components of transformers.

Summer Trainee **Jun 2016 – Jul 2016**

Saudi Electricity company (SEC), Baljurshi (Al Baha), Saudi Arabia.

- Understanding overhead transmission systems and underground cables was acquired through comprehensive study of insulators, conductors, towers, and transformers.
- Additionally, knowledge of electric distribution systems was obtained through focused examination of substations.

PERSONAL SKILLS

- Applying creative thinking within the workplace.
- Formulating suitable solutions for various problems.
- Strong communication skills to interact effectively with others.
- Eagerness to enhance personal development and abilities.
- Enthusiastic approach towards embracing challenges.

TECHNICAL PROFICIENCY

- Applications: MATLAB, Simulink, Arduino, LTSpice, Altium Designer, Code Composer Studio, and Ansys Icepak.

CIRTIFICATES

- IEEE Applied Power Electronics Conference and Exposition Mar 2025
- IEEE Energy Conversion Conference and Expo 2023 Nov 2023
- First Aid Course, OSHA academy. Oct 2018
- General Industry Safety and Health course, OSHA academy. Oct 2018
- Leadership and Project Management Skills course, Doroob. Aug 2018
- IT in The Workplace Course, Doroob. Sep 2017
- Creative Thinking in the Workplace Course, Doroob. Jul 2017

LANGUAGES

- Arabic: Mother Tongue.
- English: Perfect.

REFERENCES

- Dr. Adel Nasiri
University of South Carolina
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- Dr. Saban Ozdemir
University of South Carolina
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