Hamzah Issa

hamzahissa@tamu.edu (682) 808-2025 Hamzah's Website

Dedicated and innovative Electrical Engineering Master's Student. Passionate about advancing sustainable energy solutions and developing efficient, reliable infrastructure to address power & energy challenges.

Education

Texas A&M University | College Station, TX — **M.S.** **May 2025** **GPA: 4.0**
Bachelors & Masters of Science in Electrical Engineering — **B.S.** **May 2024** **GPA: 3.55**
Latin Honors & Dean's Excellence Award

Work Experience

Electrical Engineering Intern
SynchroGrid – Bryan, Texas **September 2024 – Present**

- Designing protective relay system settings for **Burns & McDonnell** using **Siemens Gridscale X.**
- Performing calculations for **protective relay** settings on power lines.
- Simulating power system designs to ensure functionality of protective devices on electrical equipment.
- Analyzed **ERCOT power system models** to recommend optimized relay settings for system modifications.

Power & Reliability Engineering Intern
Valero – Houston, Texas **May 2024 – August 2024**

- Developed contingency plans for loads from overhead lines to eliminate power outages, saving **$162,500/Day**.
- Collaborated with **CenterPoint** on pad mounted transformer **backup power upgrade** to refinery tanks.
- Engineered **upgraded 4160 V CAT cooler** motors power plan to MCC at new substation.
- Managed installation of new power feeder line to crude tank farm, enhancing the refinery's **power infrastructure**.

Senior Design Project Lead
SAMSUNG – Austin, Texas **August 2023 – May 2024**

- Automated monthly generator test processes at fabrication labs in Austin, reducing cost by **65%**.
- Programmed an **Android application** streamlining generator test with advanced features & data analysis techniques.
- Led the team to **first place** on the board of directors' competition at Texas A&M.

Electrical Products Engineering Intern
SIEMENS AG – Atlanta, Georgia **May 2023 – August 2023**

- Revamped UL Dust Test Chamber resulting in **152%** reduction costs and **100%** increase testing efficiency.
- Orchestrated a comprehensive strategy for DC breaker testing used in futuristic **DC/AC** hybrid power grid.
- Collaborated with Germany Team on software simulation replicating breaker short circuit simulation saving **$695/Day**.
- Performed various tests on Siemens breakers at UL Testing lab facility in Tucker.

Electrical Engineering Intern
International Co-Op at BOJAMHOOR – Doha, Qatar **June 2020 – July 2021**

- Interpreted AutoCAD blueprints for the circuitry of **13 public schools** across the nation.
- Pulled cables from loads to distribution board.
- Collaborated with engineers on construction site planning power optimization.

Leadership & Extra-Curricular

Formula Electric SAE (F-SAE) – Electronics Team Member **June 2022 – Dec 2022**
Eta Kappa Nu National Honors Society (HKN-IEEE) – Project Team Lead and Member **January 2020 – Present**
Society of Hispanic Professional Engineers (SHPE) – Technical Division Team Member **August 2021 – May 2024**
Institute of Electrical and Electronics Engineers (IEEE) – Member **August 2020 – Present**
Engineering IT Specialist **May 2022 – May 2023**
Engineering Teacher Assistant **August 2020 – Jan 2024**

Skills

- SolidWorks, CCS, C++, PSIM, Python, MATLAB, LT Spice, Kotlin, Gridscale X.
- English: Native/Bilingual Proficiency, Arabic: Native/Bilingual Proficiency.