

Hamzah Issa

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[Portfolio](#)



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

Master of Science in Electrical Engineering - May 2025 GPA: 4.00

Bachelor of Science in Electrical Engineering - 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 CAPE/Gridscale X**.
- Delivered critical power system design project **2 weeks** early **15%** under budget by optimizing workflow.
- Supported project documentation and technical presentations successfully delivering **3 client-facing projects**.
- Analyzed **100+ ERCOT power system models** to recommend optimized relay settings for system modifications.
- Created standardized documentation for relay settings proposals, cutting review cycles by **20%**.

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**.
- Coordinated 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 2 power feeder lines to crude tank farm, enhancing 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 design team to **first place** on 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.
- Facilitated 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 Projects Intern

International Co-Op at BOJAMHOOR – Doha, Qatar

June 2020 – July 2021

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

Leadership & Extra-Curricular

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

Engineering Teacher Assistant

August 2020 – Jan 2024

Formula Electric SAE (F-SAE) – Electronics Team Member

June 2022 – December 2022

Engineering IT Specialist

May 2022 – May 2023

Skills

- SolidWorks, CCS, C++, PSIM, Python, MATLAB, LT Spice, Kotlin, Siemens CAPE, PowerWorld, Simulink, Kotlin, ASPEN.
- English: Native/Bilingual Proficiency, Arabic: Native/Bilingual Proficiency.