

AHMED ALI ALANAZI, PE

Electrical Power Engineer | Data Analytics Lead | EV Charging Researcher

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PROFESSIONAL SUMMARY

Professional Engineer (Saudi Council of Engineers) with 14+ years spanning oilfield operations, hospital electrical engineering, and healthcare HR data analytics. Holds an M.Sc. in Renewable Energy Engineering (GPA 4.81/5) and a B.Sc. in Electrical Engineering with First Class Honours (GPA 4.91/5), with two peer-reviewed publications on electric vehicle charging load estimation (Wiley, MDPI). Founding Member and Vice Chairman of the Board of the Saudi Association for Electric Vehicle Technologies (AEVTSA). Led a 360-degree competency assessment for 500 employees and the data quality project that prepared workforce records for the transition to Health Holding Company.

CORE SKILLS

Data Analysis & Visualization (Power BI, Excel, SPSS, MATLAB) • Data Quality & Governance • HR Analytics & Competency Assessment • Electrical Power Systems (ETAP) • UPS & Standby Generators • Renewable Energy & EV Charging Infrastructure • Statistical Modeling • Project & Risk Management • Technical Reporting • Team Leadership & Contractor Management • OSHA Safety

Languages: Arabic (Native), English (Fluent)

PROFESSIONAL EXPERIENCE

Leading Specialist Electrical Engineer (Team Lead – HR Data Analytics)

Aug 2024 – Present

Hafr Al-Batin Health Cluster, Executive Administration for Human Resources – Hafr Al-Batin, KSA

- Designed and delivered an end-to-end 360-degree competency assessment covering 500 employees across behavioral, technical, and leadership competencies, translating results into individual training needs.
- Led a data quality and validation project to prepare employee records for the transition from the Ministry of Health to Health Holding Company, correcting qualification records, removing redundant entries, and realigning employees to the correct organizational units.
- Built the workforce baseline dataset for the HR strategic plan: designed the data template, distributed it to all facilities, consolidated and completed missing data, and maintained it with stakeholders.
- Produce a detailed monthly HR analytics report and Power BI dashboards (headcount, Saudization, turnover, stability) for the Executive HR Administration.

Data Analyst – Command and Control Center (Assignment)

Feb 2024 – Aug 2024

Hafr Al-Batin Health Cluster, Office of the CEO – Hafr Al-Batin, KSA

- Assigned by administrative decision to support data analysis for cluster-wide operational monitoring and executive reporting.

Electrical Engineer – Electrical Works Supervisor (later also Laundry Operations Manager)

Jun 2017 – Feb 2024

Hafr Al-Batin Central Hospital, Ministry of Health – Hafr Al-Batin, KSA

- Supervised hospital electrical works and assigned contractor technicians and engineers to daily and planned tasks.
- Ran preventive maintenance on UPS battery banks, replacing failed cells, and carried out routine inspection of standby generators.
- Measured and calculated the electrical consumption of kitchen equipment to bill the catering operator for its electricity use.
- Prepared the monthly contractor progress and payment certificates for electrical works.
- Took on management of the hospital laundry alongside electrical works: ran daily operations, evaluated the operating contractor, and led a team of 5 Saudi staff and 10+ contractor employees across both units.

Lecturer (Part-time Contract) – Electrical Technology Department

Aug 2023 – Jan 2024

Technical College at Al-Artawiyah, TVTC – Al-Artawiyah, KSA

- Delivered lectures across several electrical courses, set and ran monthly and final exams, and managed grading.

Electrical Maintenance Technician

Dec 2012 – Jun 2017

Hafr Al-Batin Central Hospital, Ministry of Health – Hafr Al-Batin, KSA

- Monitored electrical maintenance works and service requests, and evaluated the quality of contractor work.
- Verified spare parts against specifications and kept the electrical spare parts inventory.
- Assigned contractor workers to tasks and prepared regular maintenance reports.

Field Operator III – Artificial Lift Systems (ALS)

Mar 2012 – Nov 2012

Baker Hughes Saudi Arabia – Dammam, KSA

- Installed and maintained ALS equipment; certified in H2S/SCBA and HUET (OPITO) offshore safety.

Co-op Trainee – WPS

Feb 2011 – May 2011

Halliburton – Al-Khobar, KSA

LEADERSHIP & VOLUNTEER WORK

Founding Member & Vice Chairman of the Board

Jan 2026 – Present

Saudi Association for Electric Vehicle Technologies (AEVTSA), supervised by the Ministry of Energy

- Built the association's website and digital platform and led publishing of digital and scientific content, growing membership to 117 members in under a year.
- As part of the Board: launched two initiatives (Bridges of Knowledge; Knowledge Empowerment Series), participated in two EV exhibitions, signed a cooperation agreement with EVIQ, and set up subcommittees for governance, programs, and training.

PROJECTS

EVSmart – EV Fleet Conversion Advisory Platform

2026

Founder & Developer

- Built a decision-support platform that sizes EV charging infrastructure for car rental offices, based on the probabilistic load models from my M.Sc. research and validated on 141 real rental contracts.
- Competed in the Transport Hackathon and the Saudi Council of Engineers Engineering Hackathon 2026 (Smart Cities track).

EDUCATION

M.Sc. Renewable Energy Engineering

2024

Majmaah University – Grade: Excellent, GPA 4.81/5

- Thesis: Estimating electric vehicle charging loads in car rental areas in Saudi Arabia.

B.Sc. Electrical Engineering

2017

Buraydah Colleges – First Class Honours, GPA 4.91/5

Associate Degree, Electronics & Electrical Engineering Technology

2011

Hafr Al-Batin Community College (KFUPM)

PROFESSIONAL MEMBERSHIPS

- **Professional Engineer (PE)** – Saudi Council of Engineers
- **Advisory Board Member** – Department of Electrical Engineering, College of Engineering, Majmaah University

PUBLICATIONS

- Alanazi, A., & Almutairi, A. (2026). Assessing EV Load Uncertainty in Rental Car Fleets: Statistical Insights for Effective Charging Infrastructure. *International Transactions on Electrical Energy Systems (Wiley)*. doi.org/10.1155/etep/4350284
- Alanazi, A., & Almutairi, A. (2026). A Probabilistic Framework for Modeling Electric Vehicle Charging Loads in Rental Car Fleets. *Processes (MDPI)*, 14(7), 1158. doi.org/10.3390/pr14071158

AWARDS & CONFERENCE PRESENTATIONS

- **3rd Place** – Scientific Research Track (Basic Sciences & Engineering), 6th Student Forum, Majmaah University (1445 AH).
- **Poster Presenter** – Sustainable Energy & Empowering the Future Conference (SEEF 2026), University of Hafr Al-Batin, Jan 2026.
- **Participant** – Engineering Forum for Renewable Energy, College of Engineering, Majmaah University (1445 AH); received an appreciation award.

PROFESSIONAL TRAINING

- **Healthcare Data Analysis Program (Power BI), 30 hrs** – Bena Academy & Saudi Society for Health Administration (2025)
- **Data Classification Training Program** – Saudi Data & AI Authority (SDAIA) (2026)
- **Data Analysis, 20 hrs** – Hafr Al-Batin Health Cluster (2024)
- **Professional Project Management (PMP) Training, 35 hrs** – Riyadh Chamber (2020)
- **Risk Management Program, 20 hrs** – Riyadh Chamber (2019)
- **Occupational Safety & Health (OSHA standards), 30 hrs** – Expert Excellence Training Center (TVTC-accredited) (2018)
- **Root Cause Analysis using PSM; Lightning Protection & Earthing Systems** – Saudi Council of Engineers (2022)
- **Solar Energy Laboratory Practical Training** – Majmaah University (2023)
- **Work Safely, 8 hrs** – alfanar Training Institute (2019)
- **IT in the Workplace – Microsoft Office, 50 hrs; Project Management; Leadership Essentials** – Doroob (2019)

REFERENCES

Dr. Abdulaziz Dakhil Almutairi

Associate Professor of Electrical Engineering (Renewable Energy & Electric Vehicles), Majmaah University; Head of the University Innovation Center; Chairman of the Board, AEVTSA; M.Sc. Thesis Supervisor
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