

ABDELMAGEED HASSAN

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PROFESSIONAL SUMMARY

Results-driven and detail-oriented Electrical Engineer with comprehensive expertise in building electrical systems, building services, and MEP coordination. Proficient in executing electrical design, technical load calculations, sizing of MDB/SMDB panels, and implementing robust power distribution networks. Adept at managing low-current systems, indoor/outdoor lighting, testing, commissioning, and operations & maintenance (O&M) in strict compliance with international engineering codes and safety standards (OSHA, H2S). Advanced skills in AutoCAD for layout designs, and MATLAB/Simulink for electrical systems modeling, simulation, and control.

EDUCATION

Bachelor's Degree in Electrical Engineering

University of Kordofan – Faculty of Engineering and Technical Studies

Graduation Date: May 2026

Graduation Project: Modeling and Simulation of Two-Area Load Frequency Control (LFC) and Active Power Control using MATLAB/Simulink.

- Designed and simulated a dynamic model to regulate power system frequency and inter-area tie-line power flows under sudden load disturbances.
- Applied advanced control strategies within MATLAB/Simulink to optimize active power distribution and maintain grid stability across multi-area interconnected power systems.

TECHNICAL SKILLS

Power & Building Systems: Power Distribution Systems, Electrical Load Calculations, MDB & SMDB Panel Sizing, Indoor, Outdoor & Emergency Lighting, Cable Tray, Busbar & Cable Routing.

Low Current & Security Systems: Building Management Systems (BMS), CCTV Surveillance, Fire Alarm Systems, Public Address Systems, Structured Cabling Systems, Telephone & Access Control Systems, SMATV, Time Attendance Systems.

Protection & Quality: Electrical Protection & Earthing Systems, Lightning Protection, Power Quality Assessment, Surge Protective Devices (SPD).

Operations & Renewable Energy: Operations & Maintenance (O&M), Preventive Maintenance, Testing & Commissioning, Solar Energy Systems, Motors & Generators.

Engineering Tools & Standards: MATLAB/Simulink (Power Systems Simulation), AutoCAD, MEP Coordination, Site Execution, International Engineering Codes & Standards.

WORK & ACADEMIC EXPERIENCE

Trainee Electrical Engineer

Sudanese Electricity Distribution Company (SEDC) | Sep 26, 2025 – Dec 27, 2025

- Gained hands-on technical experience within the Low Voltage (LV) Department, focusing on network connections and line maintenance.
- Participated actively in the Operations and Maintenance (O&M) Department, assisting in troubleshooting electrical faults and ensuring network reliability.
- Monitored low voltage distribution systems and learned standard operating procedures for safe grid maintenance and field operations.

TRAINING & CERTIFICATIONS

- Mechanical, Electrical, and Plumbing (MEP) Systems Certification
- Advanced Electrical Distribution & Lighting Design Certification

- Low Voltage (LV) Systems Design Certification
- Integrated Fire Safety Systems Certification
- OSHA Standards Certification
- H2S (Hydrogen Sulfide) Safety Certification
- International Computer Driving License (ICDL)

CORE COMPETENCIES

- Technical Problem-Solving & Analytical Thinking
- Cross-functional MEP Coordination & Team Collaboration
- Project Execution under Pressure & Time Management
- Effective Professional Communication

LANGUAGES

- **Arabic:** Native Speaker
- **English:** Professional Working Proficiency