

Mohamed Elmuataz Abdalla Mohamed Ail Abdelrazig

Electrical Engineer | Project Management | Electrical Installations & Maintenance

✉ Al hasa, Saudi Arabia | 📞 +966 551897241 | ✉ motazcl@gmail.com

Professional Summary:

Electrical Engineer with a Master's in Electrical Power Engineering and over 20 years of experience in power distribution, project management, and electrical maintenance. Proven expertise in medium/low-voltage networks, solar PV systems, electrical installations for commercial and infrastructure projects and water distribution systems. Skilled in AutoCAD, BOQ preparation, contractor supervision, and preventive maintenance for water treatment plants. Through out my career , I developed comprehensive training plans, enhanced employee progress through effective training management and performance and trained engineers while contributing to master projects and research. Strong background in project planning, risk management, and strategic execution across Sudan and Saudi Arabia.

Key Projects:

HVAC and Ventilation System Installation

- **Company:** Union National Contracting Company | Riyadh, Saudi Arabia | Feb 2025 – Present
Position: Site Engineer
- Managed on-site project execution, including material procurement, logistics, and distribution to technical teams according to work plans.
- Coordinated with consultants and client representatives to ensure compliance with technical specifications and project requirements.
- Ensured full adherence to contract terms, local standards (SBC, SASO), and approved engineering drawings.
- Conducted quality inspections and system performance tests to meet Saudi Civil Defense and municipal regulations.

Firefighting System Installation – Administrative Building

Company: Union National Contracting Company | Abha, Saudi Arabia | Oct 2024 – Dec 2024

Position: Site Engineer

- Supervised contract fulfillment, including material delivery inspections and procurement for remaining project phases.
 - Liaised with consulting engineers, client representatives, and stakeholders for seamless project handover.
 - Ensured 100% compliance with Saudi electrical and fire safety standards (SBC 801, NFPA, and Saudi Civil Defense regulations).
 - Conducted system commissioning and final testing to certify operational readiness.
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Electrical Installations – Al Rajhi Bank Branch

- *Company: Union National Contracting Company | Riyadh, Saudi Arabia | May 2024 – Sep 2024*
Position: Electrical Engineer
- *Oversaw comprehensive electrical works, including lighting, fire alarm systems, security systems, and CCTV installations.*
- *Coordinated with subcontractors, consultants, and client teams to ensure technical specification compliance.*
- *Guaranteed full alignment with Saudi electrical codes (SBC 401, SEC regulations) and contract requirements.*
- *Successfully delivered the project with zero non-compliance reports during final inspections.*

33kV & LV Overhead Lines – East Nile Locality (Oct 2016 – Apr 2023)

Company: Ministry of Infrastructure & Transportation, Khartoum, Sudan

Role: Project Manager | Budget: \$2.8M

- *Conducted site surveys, BOQ preparation, and contractor selection.*
- *Supervised 33kV and LV overhead line installations.*
- *Led project execution, ensuring timely completion and compliance.*

Work Experience:

Technical Trainer – Electrical Department

TÜV Rheinland | National Industrial Training Institute (NITI), Al Ahsa, Saudi Arabia

August 2025 – Present

- Deliver technical and practical training for Electrical Technician Diploma students in accordance with **Saudi Aramco** training requirements and **TÜV Rheinland Germany** quality standards.
- Teach electrical engineering subjects including electrical machines, power systems, industrial electrical installations, motor control circuits, electrical measurements, transformers, and electrical safety.
- Conduct workshop sessions and hands-on practical training on industrial electrical equipment, testing instruments, and troubleshooting techniques.
- Prepare lesson plans, training materials, presentations, practical exercises, quizzes, and competency-based assessments.
- Evaluate student performance through theoretical examinations, practical assessments, and continuous competency evaluations.
- Mentor and coach trainees to improve technical knowledge, practical skills, workplace safety, and professional behavior.
- Ensure compliance with Occupational Health & Safety (HSE) regulations and promote safe working practices during laboratory and workshop activities.
- Utilize modern training methodologies, simulation software, and digital learning platforms to enhance trainee engagement and learning outcomes.
- Maintain accurate training records, attendance reports, assessment documentation, and progress tracking in accordance with TÜV Rheinland quality management procedures.
- Prepare trainees for employment in the oil & gas, petrochemical, utilities, and industrial sectors by developing technical competency and problem-solving skills.

Electromechanical Engineer

Ittihad Alwatania Contracting Company | Riyadh, Saudi Arabia | June 2024 – Present

- *Manage on-site project execution, material procurement, and technical team coordination according to work plans*
- *Liaise with consultants and client representatives to ensure compliance with:*
- *Saudi Building Code (SBC 401/801) mechanical requirements*
- *Local civil defense regulations for air handling systems*
- *Implement quality control protocols for ductwork installation and equipment commissioning.*

Training Department Manager

Ministry of Infrastructure & Transportation | Khartoum, Sudan (Apr 2020– Apr 2023)

- *Developed and executed annual training plan aligned with the ministry strategic objectives and targeted projects.*
- *Designed rehabilitative training plan to enhance employee skills and bridge performance gaps, improving overall workforce competency.*
- *Managed training budget and coordinated with Higher Training Council*
- *Evaluated training program quality and trainee comprehension.*
- *Conducted training sessions in electrical engineering maintenance and Leak detection for young engineers and University students.*

Electrical Project Engineer

Ministry of Infrastructure & Transportation | Khartoum, Sudan (Oct 2015 – Apr 2020)

- *Supervised Overhead Lines and Cables medium/low-voltage projects*
- *Solar PV systems (streetlights, schools, health centers).*
- *Prepared BOQs, designs, and annual project plans.*

Training Department Assistant

Khartoum State Water Corporation | Khartoum, Sudan (Jan 2012 – Oct 2015)

- *Supported the development and execution of annual training plans to meet KSWC organizational objectives.*
- *Coordinated training programs with trainees, including scheduling and resource management.*
- *Prepared periodic reports on training program progress and outcomes.*

Electrical Engineer (Maintenance)

Khartoum State Water Corporation | Khartoum, Sudan (Jan 2007 – Oct 2012)

- *Maintained electrical panels, motors, inverters, and flow devices in water treatment plants.*
- *Implemented preventive maintenance schedules and troubleshooting.*
- *Installed and maintained water meters , pressure devices , and leak detection systems within water networks*

Teaching Assistant

Omdurman National University | Khartoum, Sudan (Jan 2006– Jan 2007)

- *Facilitated practical exercises with students.*
- *Delivered hands on instruction in electrical engineering labs.*

- *Assisted professors in preparing educational materials and conducting practical sessions*
- *Evaluated students performance in exercises and lab experiments.*

Electrical Engineer

National Electricity Corporation | Khartoum, Sudan (Jan 2005 – Jan 2006)

- *Installed 33/11kV GIS substations and power distribution systems.*

Education & Certifications

- *M.Sc. Electrical Power Engineering – University of Khartoum (2017)*
- *B.Sc. Electrical Engineering – Sudan University of Science & Technology (2004)*
- *Advanced Diploma in Industrial Automation – Sulaxim Technologies, India (2012)*

Training & Courses

- *Solar PV Systems (Nawabig Training Center)*
- *PMP Certification (ITWAY Training Centre)*
- *Risk Management & Safety (International Scientific Center for Training)*

Technical Skills

- **Design & Drafting:** AutoCAD, Electrical Calculations
- **Project Management:** BOQ, Budgeting, Contractor Supervision
- **Systems:** Medium/LV Networks, Solar PV, GIS Substations
- **Maintenance:** Electrical Panels, Motors, Inverters