

# Ahmed Hassan Abdulraheem

Senior Electrical Site Engineer | LV/MV Systems | Fiber Optic & BIM Coordination

Riyadh, Saudi Arabia | +966 0550052775 | Ahmdhasn546@gmail.com | Transferable Iqama | SCE Registered

## PROFESSIONAL SUMMARY

Results-driven Electrical Site Engineer with 5+ years of progressive experience delivering landmark infrastructure projects across KSA, including NEOM, Riyadh Metro, and Royal Commission for Riyadh City (RCRC). Specialized in LV/MV power distribution, fiber optic commissioning (OTDR/LSPM), BIM-coordinated cable containment, and QA/QC management (WIR/MIR/RFI). Google-certified Project Manager with a proven record of zero-defect delivery under international standards (IEC 60364, NTS, BACS). Holder of transferable Iqama, SCE registered, and fluent in English and Arabic.

## TECHNICAL SKILLS

Electrical Systems	LV/MV power distribution, MDB/MCC/LCP panels, cable sizing, short circuit analysis, load estimation, SLD, earthing/grounding, insulation resistance testing
Standards & Codes	IEC 60364, NEOM Technical Standards (NTS), NEC, BACS/RMTC specifications, HSE/Zero Harm compliance
Fiber Optic & Comms	OTDR testing, fusion splicing, LC/SC/ST connectors, single-mode/multimode, Visual Fault Locator (VFL), LSPM, telecom network infrastructure
BIM & CAD	AutoCAD 2D/3D, BIM-coordinated cable routing, Revit MEP coordination, spatial clash resolution
Lighting Design	DIALux (indoor/outdoor/emergency), lux level calculations, energy efficiency optimization
Project Management	WIR/MIR/RFI management, Agile & Waterfall methodologies, stakeholder management, budget tracking, risk mitigation
Testing Equipment	OTDR, Power Meters (LSPM), multi-meters, insulation resistance testers, VFL
Software	AutoCAD, DIALux, Microsoft Office (Excel – load schedules, cable sizing, project tracking)

## WORK EXPERIENCE

### Electrical Site Engineer | Advanced Construction Co. (ACC)

Jan 2025 – Present

Project: CIG Project — Royal Commission for Riyadh City (RCRC) | Consultant: Parsons & IDS | Client: RCRC

- Lead site supervision for high-specification government electrical infrastructure across 3 active work fronts, ensuring 100% compliance with RCRC standards.
- Serve as primary technical liaison between ACC (main contractor) and Parsons (international consultant), managing 15+ RFIs per month with zero unresolved technical queries exceeding 72 hours.
- Oversee QA/QC execution for LV distribution systems, achieving zero NCR (non-conformance reports) across all inspected installations to date.
- Coordinate daily site workflows for a team of 8 technicians, ensuring safety and milestone adherence on Riyadh urban development infrastructure.

### Electrical Site Engineer | Arail Company

Aug 2024 – Dec 2024

Project: NEOM | Consultant: BACS Consortium | Standards: NEOM Technical Standards (NTS) + IEC

- Executed LV electrical installations across 4 NEOM building zones in full compliance with NEOM Technical Standards (NTS) and IEC 60364, achieving 100% sign-off on all WIR/MIR submissions.
- Supervised installation of 2.8 km of cable tray systems and LV distribution networks within BIM-modeled corridors, resolving 12+ spatial clashes through BIM coordination prior to execution.
- Directed deployment of sub-circuits and silicone-insulated cabling, maintaining  $\pm 5\text{mm}$  precision relative to Finished Floor Levels (FFL) across all electrical points.
- Managed end-to-end fiber optic backbone works: pulling, fusion splicing, and OTDR testing of 1.4 km of single-mode fiber to support NEOM's high-speed cognitive network, achieving  $<0.3\text{dB}$  splice loss on all joints.
- Enforced NEOM "Zero Harm" HSE policy across all electrical work fronts with zero LTI (Lost Time Injuries) recorded during tenure.

### **Electrical Site Engineer | BACS Consortium**

*Dec 2022 – Jul 2024*

*Project: Riyadh Metro — SAR 22B Transit Infrastructure | Client: RMTC*

- Led precision installation and fabrication of heavy-duty cable tray systems across 6 metro stations and 14 technical rooms, covering 4.5 km of containment routes.
- Managed termination of 1,200+ power and control cable cores for HVAC systems (chillers, AHUs, FCUs, DX-units, dampers), power distribution (MDB, MCC, LCP panels, standby generators), and safety systems (fire/chiller pumps, escalators, elevators, emergency disconnect switches).
- Maintained 100% compliance with BACS and RMTC international standards across all electrical works, with zero rework on final commissioning inspections for 3 metro stations.
- Managed daily workflows and site RFI resolution for a team of 10 technicians, ensuring seamless integration between electrical systems and civil structures with zero schedule slippage.

### **Electrical Site Engineer | Ethmar Real Estate Development**

*May 2022 – Nov 2022*

*Project: Ethmar Residential Project, New Damietta | Consultant: BACS Consortium*

- Managed pulling and routing of 6.2 km of single-mode and multimode fiber optic cables through underground ducts and internal conduits, achieving minimum bend radius compliance on 100% of runs.
- Performed fusion splicing and LC/SC/ST connector terminations across 48 fiber joints, with all connections verified by OTDR with  $<0.5\text{dB}$  loss.
- Conducted comprehensive fiber testing using OTDR, LSPM, and VFL, identifying and resolving 3 signal degradation faults before project handover.

### **Electrical Site Engineer | Cairo University Consulting Office**

*Nov 2021 – May 2022*

*Projects: Sakan Misr & Capital Residence, Badr City | Consultant: BACS Consortium*

- Supervised end-to-end LV electrical installation for a 220-unit high-end residential compound, ensuring 100% alignment with approved shop drawings across all phases.
- Managed branch circuit wiring, distribution board (DB) terminations, cable pulling, and silicone-insulated cabling for 4 residential blocks.
- Conducted quality inspections on insulation resistance and earthing systems across 220 units, achieving zero electrical failures during client handover inspection.

### **Electrical Site Engineer | Delta Nile Company**

*Oct 2020 – Oct 2021*

*Project: Jannah Misr Residential Project | Consultant: BACS Consortium*

- Designed and installed residential electrical systems for 180 units, covering main distribution boards through to final sub-circuits, delivered on schedule with zero rework.
- Managed material selection and installation of high-thermal resistance silicone cables and advanced insulation materials across specialized building zones.
- Led a team of 6 technicians, bridging consulting design and site execution by resolving layout discrepancies and conducting precise MEP onsite measurements for all electrical points.

## **CERTIFICATIONS & PROFESSIONAL DEVELOPMENT**

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### **Google Project Management Professional Certificate**

Project initiation, planning & execution | Agile & Waterfall methodologies | Stakeholder management, budget tracking & risk mitigation

### **Diploma in Electrical Design & Power Distribution — Egyptian Engineers Syndicate**

MV/LV network design | Load estimation | Short circuit analysis | Voltage drop calculations (IEC standards)

### **Advanced Lighting Design — DIALux**

Professional lighting modeling: indoor, outdoor & emergency layouts | Energy efficiency | Lux level optimization

### **Electrical & Avionics Aircraft Systems — EgyptAir Training Academy**

Complex electrical distribution, navigation & communication systems in high-stakes environments

### **Communication Systems & Infrastructure — Telecom Egypt**

Telecommunication networks, fiber optics & signal transmission protocols

## **EDUCATION**

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### **Bachelor of Engineering — Electrical & Communications Engineering**

Mansoura College Academy, Mansoura, Egypt | Graduated: June 2019

## **LANGUAGES**

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**Arabic:** Native | **English:** Full Professional Proficiency (Fluent)