

MUHAMMAD FARAZ ALI, PMP®

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Electrical Engineer | PMP-PMI | E.I.T (APEGA) | Project/Construction Management | EPC Contracting | Electrical Power System Design | Troubleshooting | Preventive Maintenance | Entrepreneur | Leadership

- Electrical Engineer & Project Manager with over a decade of experience coordinating & working in EPC Contracting and Engineering Consultancy
- Leader in providing strategic and tactical advice on operation & optimization of the electrical distribution system.
- Proficient in overseeing the design and implementation of MV/LV electrical systems for residential, commercial, industrial and infrastructure projects.
- Demonstrated success in managing projects through project lifecycle and carrying out operation, maintenance and troubleshooting activities on electrical equipment.

SKILLS

Project Management (PMP Certified)
Electrical Power System Design
Grounding Network
UPS Systems
EPLAN

Technical Drawings
Project Documentation
Project & Client Coordination
Technical Procurement
Asset Management

Leadership & Problem Solving
Oral & written communication skills
ETAP, Dialux, AutoCAD
MS Project, MS Office, Adobe Photoshop
Short circuit & load flow analysis

PROFESSIONAL EXPERIENCE

Senior Engineer, MDP (Pakistan Atomic Energy Commission)

12/2018 – 04/2024

- Lead the design, procurement, installation, and commissioning of electrical power systems & grounding network for commercial, industrial, and residential projects spanning distribution, electrification, illumination, grounding, and lightning protection while emphasizing economy, safety, reliability and quality.
- Managed project scope, budget, and schedule, ensuring adherence to client requirements, industry standards & specifications.
- Performed load flows, circuit loadings, and capacities analysis, and short circuit calculations to maintain system efficiency.
- Analyzed and optimized operating configurations for improved reliability and economic performance and safety.
- Conducted feasibility studies, and risk assessments to inform project decision-making and optimize resource allocation.
- Coordinated with architects, contractors, and subcontractors to integrate electrical systems with overall project design and electrical / mechanical construction activities, coordinate & plan shutdowns and maintenance of equipment.
- Conducted real-time reviews of operating constraints for switching and loading activities, ensuring smooth daily operations.
- Proficiency in root cause analysis & problem solving techniques (i.e. Pareto Analysis, Root Cause Failure Analysis, etc.)
- Oversaw procurement, vendor selection, and contract negotiations to secure equipment, & services for project implementation.
- Provided technical expertise and guidance to project team members, resolving complex technical issues and ensuring compliance with engineering codes and building regulations (IEC, IEEE, NEC, NEMA, ANSI, BS, CEC, NFPA, CSA, ATEX etc).
- Monitored project progress, identified potential bottlenecks or delays, and implemented corrections to keep projects on track.
- Communicated project status, and key milestones to stakeholders, fostering transparency throughout the project lifecycle.
- Participated in project reviews, lessons learned sessions, and continuous improvement initiatives to enhance project delivery processes and outcomes.

Junior Design Engineer, MDP (Pakistan Atomic Energy Commission)

03/2014 – 11/2018

- Establishing design criteria to guide project development & creating comprehensive power distribution strategies.
- Designing and implementing internal and external electrical systems for illumination and electrification at project sites.
- Assist Project Managers in updating and achieving schedule requirements, mechanical and electrical Requests for Information (RFI), RFQ, shop drawing reviews and coordinate mechanical/electrical project completion requirements
- Assessing requirements and selecting appropriate medium voltage (MV) and low voltage (LV) electrical equipment, such as switchgear, automatic transfer switches, panels, transformers, generators, UPS, batteries, solar photovoltaic (PV) systems, power factor improvement (PFIP) equipment, and cables and carrying out Factory acceptance tests on them.

- Choosing hazardous area equipment, including lighting, sockets, switches, and panels, in compliance with safety standards.
- Conducting various design calculations and for MV/LV systems, including load, voltage drop, short circuit analysis, protection coordination, lighting, wiring and cable sizing.
- Generating detailed electrical drawings, including single-line diagrams, power and lighting layouts, grounding and lightning protection layouts, equipment location layouts, panel board schedules, cable and conduit schedules, and cable routing plans.

Junior Site Engineer, STP (Pakistan Atomic Energy Commission)

02/2012 – 03/2014

- Supervision of Installation, testing and Commissioning of Transformer substations, Generators, MV/LV Panels, Power Factor Improvement (PFI) Panels, Motor Control Centre (MCC), ATS/AMF Panel, Cable laying and jointing, cable trays, modular cabling.
- Conduct routine maintenance on electrical equipment such as motors, transformers, switchgear, and generators up to 800KVA.
- Troubleshoot and diagnose faults in electric, hydraulic, pneumatic & mechanical equipment for repair and maintenance.
- Conduct electrical testing and inspections to ensure that equipment is functioning correctly
- Protection settings of ABB, Schneider, SEL MV switchgear relays.
- Develop and maintain an inventory of electrical equipment, tools, and supplies

Datacom Engineer, Relacom Pvt Ltd Pakistan

12/2010 – 02/2012

- Was a part of PTCL BRAS and Metro Ethernet Project having on hands on Installation/Configuration experience on Huawei CX-600, NE-40 Routers, ME-60 BRAS Server, U2000 NMS, 8080 Firewall, and Policy & Elog Servers.
- Configured network equipment to meet customer requirements and ensure proper functionality using Routing protocols.
- Collaborated with other network engineers and administrators to resolve complex network issues.

ADDITIONAL EXPERIENCE

Franchise Owner, New Yorker Pizza, Gulberg Greens Islamabad

10/2022 – 06/2024

- Demonstrated entrepreneurial expertise by being the first franchisee of New Yorker Pizza Pakistan; led its strategic growth with annual growth rate of 25 % and subsequently flipped it achieving 153% ROI in 17 months.

Investment Property Renovation Project, Naval Anchorage Islamabad

06/2021 – 01/2024

- Purchased a 1350Sqft House sensing niche in the market by securing financing from Bank & rented it out initially to offset mortgage installments and later renovated it and sold it achieving an ROI of 130%.

EDUCATION

Bachelor of Science in Electrical Engineering, University of Engineering & Technology Taxila, Pakistan

82% | 09/2006 – 09/2010

Verified International Academic Qualification, WES, Canada (ID: 5774113IMM)

03/2023

LICENSES & CERTIFICATIONS

Project Management Professional (PMP), Project Management Institute (PMI) (ID: 3780322)

02/2024 – 02/2027

E.I.T Membership, APEGA (ID: 319508) *Application in process

06/2024

Member, Project Management Institute (PMI) (ID: 10079061)

02/2024 – 02/2025

Professional Electrical Engineer (Skill Level-1), Engineers Australia (ID: 9667346)

08/2024

Registered Electrical Engineer, Pakistan Engineering Council (ID: Elect/29657)

10/2010

COURSES

Specialization in Engineering Project Management (Online), Rice University, USA

96% | 11/2023 – 02/2024

Graphic Design (Online), LUMS, Pakistan

04/2024

Electric Power System (Online), University of Buffalo, USA

04/2024

Modules: Smart Grids, Green Energy, BESS