Balasubramanian

Senior Electrical Engineer

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EDUCATION

Bachelor of Engineering in Electrical and Electronics from Bharathiar University, Coimbatore - 1992, Tamil Nadu, India.

Project Management Professional (PMP) Certificate No. 3149749.

CRPEP License Category-A Project Manager (Electrical)

Advanced Certificate in Software Engineering (ACSE), IBM, Tamil Nadu, India

PROFESSION

Electrical Engineer

NATIONALITY

Indian

LANGUAGES

English
Tamil

SUMMARY

I have more than 33 years of professional work experience in the GCC and India, I am recognized graduate of Electrical Engineering with a solid background in Project Management and Supervision Consultancy for Electrical and knowledge of ICA works. I am familiar in detail Engineering, Construction, Installation, Testing and Commissioning of electrical system for various process industries under BOOT/EPC/EPCM Contracts to the required specifications to meet the national (India, Oman and Bahrain Electrical Standards), and international standards (IEC, BSEN etc), and codes which are required to focusing on economy, safety, reliability, quality and sustainability. I have wealth of professional experience which includes sewage treatment plants (STP) in Oman and Bahrain, Desalination/RO Plants, Paper industry, Steel industry, Textile industry, and Power plants.

PROFESSIONAL EXPERIENCE

KEO International Consultants, Kingdom of Bahrain
Project Name - Tubli STP Expansion Phase 4, Tubli
Senior Electrical Engineer, September 2020 - May 2025

The scope of the Contractor's project includes design, procure, construct, commission, operate and maintain the 200,000 m^3/d capacity of existing plant as well as the additional expansion 200,000 m^3/d capacity (Tubli STP Expansion Phase 4), for a total capacity 400,000 m^3/d for Tubli STP.

Bahrain is also included in the Roles and Responsibilities listed below

KEO International Consultants, Sultanate of Oman
Project Name - Oman Waste Water Company, New Darsait STP
Senior Electrical Engineer, February 2012 - August 2020

The Scope of the Contractor's project includes design, procure, construct, commission, operate and maintain for New Darsit STP, for an ultimate average daily flow of 50,000 m3/d capacity.

My roles involves, directing and coordinating the activities of a team of electrical engineers involved in the project, review of design outputs and vendor data equipment technical submittals and recommend improvements, and acceptance of appropriate for the project requirement. Detail Engineering, and to review of the MAS, Equipment schedules, Equipment data sheet, Shop drawings, Vendor documents, Method statement, Inspection and Testing of FAT for major Electrical equipment's such as MVSG, RMU's, Transformers, Generators, MCC and VFD & SS Panels.

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- Reviewing of Contractor's submissions such as Basie Design, Detailed Design, MAF, Shop drawings, Materials, RFI, Engineering drawings, IFC drawings and As-Built drawings, close out documents, etc., with respect to the Equipment schedules, Equipment data sheet, Manufactures input data's/documents, Method statement, Inspection and Testing of Factory Acceptance Test (FAT) for major Electrical equipment's.
- Directing and coordinating to complete the Substation Layout, Cable Layout Single Line Diagram for Electrical systems, Earthing Layout, and Lighting Layout.
- Liaising with local authorities such as EDD/EWA to complete the installation of 11KV Cables from Tubli STP 66KV Primary Substation to Tubli STP Expansion Phase 4, Inlet Power Substation.
- Liaising with local authorities such as MEDC, Muscat Municipality and ROP, to complete the installation of 11KV Cables from Jibroo Primary Substation to the Darsait STP.
- Reviewing MAS for 11KV Cable, Metering Units, RMU's, Transformers, 11KV Metering Panels and associated electrical equipment's.
- Installation of 11KV Cable, 240 Sq.mm, Cu/XLPE/SWA/PVC, from Jibroo Primary Substation (3.5 KM distance) to the Secondary Substations, and up to connection point of 11KV Metering Panels
- Inspection and Testing of Factory Acceptance Test (FAT) for Transformers, and MCC & VFD Panels at Manufacturer's premises.
- Review and approval of key engineering drawings such as Substation/Equipment Layout, Single Line Diagrams, Load Schedules, Sizing
- Calculations, Cable Routing, Lighting and Earthing, Emergency and Critical Power Layouts, Technical submittals from vendors/contractors, Bill of quantities, Project Schedules etc.
- Defining data collection parameter and obtaining information from internal and external sources to support the development of design options for overall electrical system.
- Directing and coordinating the activities of a team of electrical engineers involved in the project. Review of design outputs and vendor data equipment technical submittals and recommend improvements, and acceptance of appropriate for the project requirement.
- Inter discipline coordination, Project coordination, decision-making, Coordination with Client and Contractor's.
- Periodic meeting with Contractor's Construction Managers, MEDC, and Clients to discuss about the development and status of documentation and Site related works.
- Ensure the installed electrical equipment is according to approved Design drawings and Shop drawings, which is confirmed through the individual inspection raised by Contractor.
- Lead the investigation of technical aspects of project work as related to electrical systems and plants according to general project requirements.
- Evaluate/endorse modification requests involving a wide variety of electrical systems.
- Experience with HAZOP actions, and implementation on Site.
- Enforce the Health, Safety and Environmental (HSE) policy, procedures, regulations and objectives.
- Excellence in performing various tests & inspections for several processes, Control Systems and checking the quality standards.
- Reviewing relevant project Drawings, Documents, specifications, Control Philosophies and ITPs and evaluating the same as per the actual site conditions.

- Knowledge of Reviewing P&ID Diagrams, Loop Diagrams, Logic Diagrams, Data Sheets, I/O list, Instruments List, Hook-Up Diagrams, Wiring Diagrams, Cause & Effect Diagrams, MAS, Design Drawings, IFC Drawings & Shop Drawings, RFI, Method Statements, FAT/SAT Procedures and actively taking part in DCS/PLC and SCADA and SAT, Value Engineering and HAZOP Study, in coordination with the ICA Design Team, who provide remote support.
- Knowledge of Review of various process instruments such as Sensor, Transmitter, Flow Meter, Level measuring device, Pressure measuring device, Quality measuring device for PH value, Oxygen, Turbidity/suspended solids, Conductivity, UV-Absorption, Amonium/Nitrte, Phosphate, Temperature etc,. which shall be ensured as per the approved P&ID.
- Knowledge of Review of functional design specification in coordination with the Mechanical and Process team so that the software program can be developed and incorporated in SCADA system.
- Knowledge of Review and ensure the SCADA architectural drawings in line with current and existing STP and SCADA migration of existing STP to new SCADA system

Oman National Engineering & Investment Company (SAOG), Oman
Project Manager, April-2009 - January-2012

I was responsible for Inspection, Testing, Commissioning and Execution for Expansion of 48,000 M3/day Sewage Treatment Plant with existing Plant Operating Capacity is 35,000 M3/day. The Waste Water Plant is consisting of Collection Conveyance System (CCS), and Area Pumping Station (APS) 36 No's, and Main Pumping Station (MPS) 3 No's. The Raw/Wastewater is transferred to Water Reclamation Plant (WRP), which is the place to treat the tertiary treatment of effluent water. All the Area Pumping Station and Main Pumping Stations are dedicatedly connected with the PLC/SCADA System for healthy operation and Monitoring system for entire network.

Mahindra Water Utilities Ltd & United Utilities, Tamil Nadu, India
Manager, September-2001 - March-2009

I was responsible for all engineering activities, including review of bid estimates, detailed design drawings and purchase of equipment's according to specifications requisitions, project scheduling and planning, coordination of sub-contract engineering activities & managing team of engineers and draftsmen.
Projects includes Construction, Installation, Testing and Commissioning, Operation and Maintenance of 110/11 KV Substation and Installed HV, MV and LV equipment and Auxiliary electrical equipment's, 110 V Battery System, Switch Yard Inspection, Routine Maintenance and Testing of Transformers.

The EPC contract for Execution of Sewage Treatment Plant capacity is 50,000 M3/day with Main Pumping Station 4 No's which are linking with several primary network lines in the main city with fully automatic PLC/SCADA system which is controlling and Monitoring for entire network.

Technical Details:

- Raw Water Intake (RWI) motor rating 520 KW, Design Head-35 m, NPSH-8.5 meter at duty point with Variable Frequency Drive (VFD).

- Clear Water Pumping Station (CWPS) motor rating 1570 KW, Design Head-108.2-meter, Discharge-3758.4 m3/hr with FCMA Soft Starter.
- Booster Pumping Station (BPS) motor rating 1800 KW, Design Head-120-meter, Discharge-3697.2 m3/hr with FCMA soft Starter and Fluid Coupling system.
- All the above systems are connected with 110/11 KV substations and installed capacity 10 MVAx2 number power transformers.
- Transmission Main line involving Air Valve-90 No's, Scour Valve-35 No's and Butterfly valve-8 No's.

GVG Group of Companies, Tamil Nadu, India
Chief Engineer, April-1996 - August-2001

My role involves the Construction, Installation, and Execution of large Paper and Textile Industry associate with the electrical and electronic equipment's, testing, commissioning, Operation and Maintenance work of 33/11KV Sub-station, Transformers each 2500 KVA capacity, Generator power supply, Heavy duty pumps connected with A.C/D.C Drives, MCC Panels, Switch gears, and associated works.

Interfit Techno Products Ltd, Tamil Nadu, India
Electrical Engineer, May-1993 - March-1996

My role involves the Construction, Installation, Testing and commissioning of 33 KV Switchyard, Generator set and HV & LV Substations as per the approved drawings, specifications & statutory requirement, also liaison with Tamil Nadu Electricity Board to install the 33 KV system and its associated electrical equipment's.

LLasar Flow Controls Private Ltd, Tamil Nadu, India
Trainee-Electrical Engineer, June-1992 - April-1993

Operation and Maintenance of Steel Industry with Arc and Induction Furnace associated with HV and MV Equipment's, HV Transformers, RMU's and associated Electrical equipment's which are fed from Secondary Sub-Stations.

RELEVANT PROJECT EXPERIENCE

Tubli STP Expansion Phase 4, Kingdom of Bahrain
New Darsait STP, Darsait, Oman
Sewage, Desalination/RO Plants, Power Plant and Sewage Water Treatment Plant, Oman
New Tirupur Area Development Water and Sewage Water Treatment, Tamil Nadu, India
Industrial Development Projects, Tamil Nadu, India
Construction of 11 KV and 33KV Sub-Stations, Tamil Nadu, India
Operation and Maintenance of large Arc and Induction Furnace, Tamil Nadu, India
Tubli STP Expansion Phase 4, Tubli, Bahrain

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AWARDS AND RECOGNITION

Received Appreciation relevant to Energy Audit

LICENSES AND CERTIFICATIONS

- Supervisory Competency Certificate" C" License obtained from Chief Electrical Inspectorate of Government of Tamil Nadu (CEIG), India.
- Obtained Project Management Professional (PMP) Certificate No. 3149749.
- The Council for Regulating the Practice of Engineering Professions CRPEP License Category "A" for Project Manager – Electrical.