Ganesh Gawali Associate Electrical Design Engineer SgurrEnergy, Pune, Maharashtra, India

Professional summary

- Experienced Electrical Design Engineer working in the renewable energy industry. Design of solar PV plant and Substation, equipment specification finalizations, and estimation.
- Pre-Bid Support, Pre-Feasibility report, technical specification for World's largest 600MW Floating Solar PV Plant in Omkareshwar, MP, India
- Prepared DPR and Request for Proposal for 3.6MW Solar PV Plant at Goa International Airport
- Prepared Pre-Feasibility Report for 50MW Floating Solar PV Plant in Assam, India
- Secured 3rd Rank in Bachelor of Electrical Engineering from Savitribai Phule Pune University, published 4 research papers in international journals (IJSR, IOSR, IJSART).
- Worked as project coordinator for 11.52MWac detailed engineering project and 50MWac Owner's engineering project, have the ability to work on multiple projects.
- Substation electrical equipment selection and sizing calculation for Lighting Arrester, Instrument Transformer, Circuit Breaker, Isolator as per latest IS and IEC standards.
- Electrical system design parameter selection which includes a selection of voltage levels, short circuit/fault level, creepage distance, and preparation of technical specification of High Voltage equipment as per the relevant IS and IEC standards.
- Engineering design of substation which includes substation equipment sequence and interconnection, electrical clearances, substation layout plan, sectional drawing preparation, Substation switching scheme study, and short circuit force calculation.
- Selection and sizing of power Cables, earthing design and calculations, preparation of Electrical equipment earthing drawings, Design and Engineering of Transmission line, substation lightning protection calculation, power transformer selection, sizing, and protection project cost estimation.
- Preparation of single line diagram and selection of busbar scheme along with a selection of protection and metering scheme for Air-insulated Substation (AIS) and Gas Insulated Substation (GIS).
- Remote construction monitoring for 40MWac Solar PV Plant in the Philippines, working on site-related issues that arise during project construction. Coordinating with client and internal team to resolve the issue.
- Supported project Engineer and senior project Engineer for detailed Engineering project 100MWac project in Malaysia, 10MWac project in Saudi Arabia, 50MWac project in Karnataka.
- Coordination with client, for Submission approvals, Coordination with the site team and internal departments to sort out project-related queries for smooth completion of a project. Project Support Activities Preparation of Fortnight Progress Report, Folder Management System, Master Deliverable list preparation and updating, preparation of resource planning sheet.
- Preparation of technical specifications and BOQ of solar PV equipment according to national and international standards, Review of vendor documents.

Academic Credentials

Graduation:

B.E. in Electrical-2019 with CGPA of 7.76 (First Class) from Dr. Vikhe Patil College of Engineering, Ahmednagar, Savitribai Phule Pune University.

<u>Skills: -</u>

- AutoCAD
- ETAP Power system simulation software
- DIALux Illumination Software
- SpaRISK Lightning risk assessment software
- MS Word, Excel, PPT
- ZOHO (ERP Tool)
- Selenium IDE
- Eclipse
- Web Driver 2.0
- C Programming Language
- Core Java
- SQL

Projects

1. 11.52MWac Solar PV Plant Nigeria- Detailed Engineering

- Preparation of AC and DC Single line diagram, DC system configuration, PV plant layout, Auxiliary SLD and Bill of Quantity (BOQ), SCADA Architecture.
- Load flow study and short circuit study analysis for the project and review of the PV plant component documents.
- Preparation of Technical Specification of String Inverter, Inverter Duty Transformer, ICOG/RMU panel, and other electrical components.
- Preparation of Auxiliary System calculation which includes Auxiliary Transformer sizing, UPS sizing, Battery and Battery charger sizing calculation.
- Sizing of DC string cable, LVAC power cable, MVAC power cable, Auxiliary cable along with cable schedule.
- Performing Lightning risk assessment and calculation and earthing system design calculation and Layout.
- Preparation of layout along with drafting team DC grouping layout, Equipment layout for Transformer/ Inverter Station and Main Control Room AC/DC/Auxiliary/Communication cable routing layout, Equipment layout for Transformer/ Inverter Station and Main Control Room, Illumination layout, Fire Alarm system layout, Vigilance layout.

2. 50MWac Solar PV Plant Karnataka India- Owner's Engineering

- 110kV Switchyard document review of Protection and metering SLD and Major capital equipment that is 50MVA Power Transformer, SF6 Circuit Breaker, ACSR conductor, Instrument Transformer, Lightning Arrester, Isolator with Earth switch and Insulator.
- Review of Switchyard calculation document: earthing calculation, CT PT sizing calculation, ACSR conductor sizing calculation, short circuit force calculation, Sag and Tension, DSLP calculation, Illumination System calculation, Battery charger sizing calculation.

- Review of 110kV Switchyard layout: Switchyard plan and elevation, earthing layout, DSLP layout, Erection key diagram, and Transmission line route survey.
- Review of PV Plant Component: Inverter, Inverter duty Transformer, HT panel, ICOG panel, AC/DC power cable, Auxiliary Transformer, Auxiliary LT Panel, CCTV, UPS, Franklin rod, ESE LA, String Monitoring Box, 33kV Lightning Arrester.
- Review of PV Plant basic planning and engineering: AC SLD, DC SLD, Auxiliary SLD, AC and DC cable sizing calculation, Plant auxiliary load calculation, Fault level calculation, short circuit calculation, Earthing Calculation, Lightning risk assessment.
- Review of PV plant layout: Array layout, DC cable routing layout, AC cable routing layout, communication cable routing layout, earthing layout, lighting layout, fire alarm system layout.

Awards and Achievements

- Published research paper in International Organization of Scientific Research (IOSR) on topic Current Trends in High Voltage Products and Overlook in Transmission Capacity after 5 years.
- Published 2 research papers in the International Journal of Science and Research (IJSR) on topics Emerging Scarcity and Sustainable Water Management of Ahmednagar district and Real-Time Smart Waste Management for Developing City.
- Published research paper in International Journal for Science and Advance Research in Technology (IJSART) on final year project Elimination of Transient Recovery Voltage in High Voltage Circuit Breaker in MATLAB/Simulink and presented it in project competition organized by IEEE at AISSMS Pune.
- Runner up in the competition organized by "The Institution of Engineering Technology (IETPATW)" in 2019.

Personal Details:

Name:	Ganesh Dinkar Gawali
Date of Birth:	1 st March 1998.
Passport Number:	T3327174
Languages Known:	English, Hindi, and Marathi.
Current Address:	Pune, Maharashtra

I hereby declare that the above information furnished is true to the best of my knowledge and belief.

Place: Pune Date:

Ganesh Dinkar Gawali