



KOUSTAV SAHA, M. Tech, MIET

CONTACT

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Kolkata-WB

PROFILE

Highly skilled substation design professional with extensive experience in primary and secondary substation design, team leadership, and design management across a spectrum of AIS, GIS, and Hybrid substation up to 765kV. Proven track record in projects spanning regions such as the UK, Africa, India, and SAARC nation.

SKILLS

DIA lux 4.12VV



Auto-CAD 2022



ETAP 21.0.0



M.S Excel, M.S Word



LANGUAGE

English



Hindi



Bengali



Nepali



PERSONAL DETAILS

Date of Birth ⇒ 3rd July, 1988

Father's Name ⇒ Lt. Kousik Saha

Nationality ⇒ Indian

EMPLOYMENT DETAILS

J JACOBS SOLUTION IND PVT. LTD. Sep2022 to Current
(Lead Engineer)

Roles and Responsibility:

- Responsible for preparation, submission & approval of all HV plant deliverables.
- Design management.
- Development of optioneering layout for feed stage.
- Preparation of deliverable list including man-hours estimation & cost estimation.
- Conducting design review meeting & Supporting Bid & Proposal engineering.

Presently handling following project:

- 400kV sub-station, Grain West, National Grid-UK-FEED 4.2 and 4.3 stages.
- 400/220/110kV Belcamp Station, EirGrid, Planning stage.
- 400/275/132kV Harker Substation 4.4 detailed design (National Grid).
- 400kV Duns town Station, EirGrid, Planning Stage (SSE).
- Fiddlers Ferry BESS Project (SSE).

ReNew RENEW POWER PVT. LTD. Nov 2021 to Sep2022
POWER (Deputy Manager)

Roles and Responsibility:

- Preparation and modification of project specific EBoP technical specification for wind projects pulling sub-station.
- Approval & technical vetting of all pulling and grid substation related documents.
- Issuing RFC & MFC of PSS & GSS engineering documents.
- Asset management & new initiatives.

Presently handling following project:

- 300 MW with 220kV/33kV sub-station, Peak Power RTC-1 Hombal, Karnataka.
- 300 MW with 220kV/33kV sub-station, Peak Power Thondiha, Karnataka.



GE RENEWABLE ENERGY Nov2019 to Nov2021
(Electrical Component)

Roles and Responsibility:

- Identify risks and opportunities with respect to tender estimation & technical specifications.
- Interface management with various inter engineering disciplines like civil & structure, control and protection, mechanical and main equipment.
- Driving technical negotiation with customers/consultants during detail engineering.
- Conceptualize and prepare Key single line diagram based on contract specification/customer requirement and developing layout plan and section.
- Performing calculations of sag tension, short circuit force, cantilever strength, bus bar sizing.
- Developing erection key layout, plan & estimation of bill of quantity.

- Conceptualizing trench routing & section for building and switchyard.
- Performing battery & charger sizing calculation.
- Calculation of auxiliary transformer sizing & LT switchboards.
- HV & LT cable sizing calculations and preparation of power schedules.
- Engineering of equipment (e.g., circuit breaker, Instrument transformers, switchgear, power transformer etc.).
- Self-motivated with an ability to balance multiple projects under tight deadlines.
- Preparation of technical specifications of main equipment, bus bar materials, hardware and other sundry items.

Executed project:

- 400/33kV AIS substation at Bikaner.
- 220/66kV GIS substation with 2 nos. 63 MVA transformer at Gumma Extn-II of HPPTCL.
- 220/132kV AIS substation of HPPTCL at Kangoo.



KEC INTERNATIONAL LTD.

(Senior Engineer)

Sep 2017 to Oct 2019

Project: 2x150MVA, 220/66/11kV Gas insulated substation of KPTCL at Brindavan in Bangalore.

Roles and Responsibility:

- Development of detailed overall SLD, Layout plan and section.
- Preparation and review of Protection single line diagram.
- Development of Erection key diagram, DSLP layout drawings.
- Cable trench layout drawing, Control room building equipment layout with cutout details.
- DSLP calculation, short circuit force calculation.
- Battery sizing calculation, CT, VT sizing, Cable sizing and Voltage drop calculation.
- Review of LCC, CRP schematic drawings, lighting calculation and layout drawing.
- Vendor drawings review of GIS, LTAC panel, Battery & battery charger.
- Design coordination with other department (Civil, Mechanical, Architecture, and Procurement).

Project: Upper Tamakoshi Hydroelectric Project, 220/132 kV New Khimti substation.

Roles and Responsibility:

- AC and DC cable sizing and voltage drop calculation, erection key diagram preparation.
- Control room building equipment layout, indoor and outdoor cable trench layout drawing preparation.
- Vendor drawing review of Battery & Battery Charger, ACDB, EHV cable, Earthing material.

Project: GIS Package 1 & 2, 220/66kV Kargil, Drass, Khalsti and Leh Substation of JKPDD.

Roles and Responsibility:

- Preparation of Layout plan and section drawing of 66kV Bus interconnection for Kargil Substation with existing 66/11kV NHPC substation and extension of 66kV existing bus bar for back charging.
- Sag-tension calculation, building lightning calculation for all four substations.
- Modification on GIS protection scheme, ACDB as per project requirement.
- Vetting of CRP drawing, equipment drawings.
- Closing of all electrical punch point and supported site team for successful charging of all substations.

Tender:

765kV TBCB based 2 Nos. Line Bay extension of Bhuj & Banashkhanta substation.

400/220 kV, 2X500 MVA Substation at Dumka (Client PGCIL).

400/220/132 kV substation at Firozabad (Client UPPTCL).

220/132/33 kV Substation at Basantpur & Tumlingtar (Client NEA).

220/20 kV substation at Kunar (Client DABS).

Roles and Responsibility:

- Preparation of complete optimized BOQ and major drawing as per project requirement.
- Equipment sizing and technical evaluation of vendor offer for various equipment's.



N_ARC CONSULTING LTD.
(Electrical Engineer, Substation designing)

Jun 2016 to Aug 2017

Roles and Responsibility:

- Development of detailed layout (plan & section) drawings, single line diagram, protection single line diagram, LTSLD, DCSLD preparation loading diagram.
- AC/DC Cable Sizing Calculation, Battery and charger sizing, CT/PT Sizing, Aux. Transformer sizing
- Calculation of static and dynamic force load and selection of spacer spans and equipment terminal loading.
- SCF calculation, DSLP calculation, earthing calculation, Lux level calculation & layout preparation.
- Cable trench layout and section and construction drawings, power & control cable laying and termination.
- Development of earthing system, lightning protection system, interlocking schemes, clearance diagrams.
- Development of indoor-outdoor cable trench layout, earthing layout, lightning protection layout.
- Review and preparation of erection key diagram with bill of material, control room building equipment layout.
- Conductor sizing and battery & charger sizing calculation, preparation of cable scheduling.
- Review of all electrical drawings & calculation providing approval.
- Vetting of equipment drawings and GTP in line with client technical specification.
- Preparation of specification, tender stage drawings and BOQ, factory inspection of electrical equipment.
- Vendor drawing review of transformer, ISO, circuit breaker, instrument transformer, HV & EHV cable etc.

Executed Projects:

- 400/220/132/33 GIS substation at Sec.-148 and Sec.-123 of UPPTCIL.
- 132/33 kV Grid Sub-Station of BSPTCL at Siwan Bihar.
- 110/20 kV Sub-station of Abu Dhabi Fund for Development at Kabul, Afghanistan.
- Providing Consulting Services for Creation of 20 MVA, 132/11kV Transformer Bay Extension at Kundli.
- Providing consulting services for creation of new 66kV Sub-station at HSIIDC I.E Manakpur.



GOLD STONE CEMENTS PVT. LTD.
(Electrical Engineer)

Aug 2015 to May 2016

Project: Greenfield project of 1700 TPD Clinkerization & 2600 TPD Cement plant with 10 MW Power Plant and 132/6.6kV Switchyard.

Roles and Responsibility:

- Review Schematic Drawing of Motor Control Center, Power Control Center, Circuit Breaker (Closing, Tripping and Interlocking), Liquid Rotor Resistance, GRR, Synchronization scheme etc.
- Installation & Commissioning of Cement plant and Power Plant equipment, Transformer, MV & LT Switchgears, LRS, Cable laying & Carrier structure, Motor Load center DC system, Electrical Control and Protection system, Plant Illumination, Earthing/Grounding.
- Responsible for Control Circuit Rectification, Modifications and Testing, Preparation of BOQ.
- Erection and Commissioning of 1500KVA DG set with PC3.3 & AMF Panel.
- Making coordination with Civil, Mechanical department and contactor for smooth work progress.
- Testing of Electrical equipment CT, PT, MV & LT Switchgears, Transformer, HIPOT, CRM & TIMMER testing.

ENGINEERS & ASSOCIATES (A professional Training Institute).

Mar 2015 to July 2015

(Trainee Designer)

Project: Sewage Pumping Station for IISCO Plant Burnpur-2.5MTPA New stream Expansion Self was responsible for Electrical system design for pumping station.

Nature of Job: On job Training on design of electrical distribution system for different industrial plants which mainly includes the following:

- Preparation of Electrical Load List / Maximum demand calculation, SLD's, Transformer, DG & Cable Sizing.
- Preparation of MTO, Fault Level, Motor starting voltage drop calculation.
- Electrical Equipment layout, Electrical Cable tray layout, Electrical Cable Schedule, Cable tray sizing.
- Earthing calculation (IS-3043), Lightning calculation, Layout drawings (earthing & Lighting).



NIPPON POWER LTD.
(Electrical Engineer)

Aug 2013 to Mar 2015

Roles and Responsibility:

- Operation and Maintenance of the power plant with 33KV & 6.6kV Switchyard.
- Monitoring generation keeping hourly records of the generation, monitoring, and recording the parameters of load supplied by the Generator, Transformer, DC system, LT Power Supply, Turbine auxiliary systems, Lubrication Systems, OPUs.
- Maintenance including Running, Breakdown, Shut-down maintenance of Horizontal Pelton Turbine, Alternators, Transformer, HT & LT Switchgears, Excitation Systems, Annunciation systems, Circuit. Breakers, OPUs, 33KV Switchyard and related equipment-Isolators, PTs, CTs, LA, VCBs.
- Fault identification, rectification and troubleshooting of the entire systems to maintain uninterrupted generation.

ACADEMIC BACKGROUND

Ph.D. Electrical Engineering (Part-time)	Indian Institute of Technology Jodhpur (IITJ)	(Pursuing)
M. Tech, Power Systems, 2011-2013	West Bengal University of Technology	DGPA-8.2
B. Tech, Electrical & Electronics Eng., 2007-2011	West Bengal University of Technology	DGPA-7.75
Higher Secondary School, 2005-2007	W.B.C.H.S.E Board	69.8 %
High School, 2005	W.B.B.S.E Board	78.25 %

MEMBERSHIP

- Member of IET, membership number-1100953015

PROFESSIONAL TRAINING & CERTIFICATIONS

DESCRIPTION	TRAINING ORGANIZATION
Training on power transformer and reactor-asset management. ⇨⇨	CGL
The digitized grid ⇨⇨	IEEE
AutoCAD 2D: A Complete Course for Beginners ⇨⇨	Cloudkampus
Testing of digital substation (process bus)-IEC61850-8-1/9-2 standard ⇨⇨	MEGGER
Application challenges in bus bar implementation ⇨⇨	MEGGER
Power system design solutions. ⇨⇨	ETAP