



# MANAS BANDYOPADHYAY

E-mail: [manas\\_b6@rediffmail.com](mailto:manas_b6@rediffmail.com); Mob No: +(91)9871303367

**B.E(Electrical) from NIT and EDP(Operation Management) from IIM with 22 Yrs of Exp in Power Industry (T&D/EPC/DISCOM) –Engineering/R&D/Maintenance/Project Execution/Testing/Quality Process**

=====

### Brief Synopsis of Work Experience

**21 + Years of** Journey starts from **Generation, Transmission & Distribution, Automation/SCADA & SAS** right from **Project Engineer** position to **Head of Engineering** (HOD)

- |   |   |
|---|---|
| Power Generation  | <ul style="list-style-type: none"> <li>HINDALCO INDUSTRIES LTD, Renusagar Thermal Power Plant with total capacity of 742MW</li> </ul>   |
| DISCOM/ Power Distribution/Automation                   | <ul style="list-style-type: none"> <li>NDPL (TATA Power &amp; Delhi Govt JV)</li> <li>BSES (RELIANCE Energy &amp; Delhi Govt JV)</li> </ul>   |
| EPC/Transmission & Distribution/Substation              | <ul style="list-style-type: none"> <li>CEMEX India Pvt. Ltd- New Delhi</li> <li>Sterling &amp;Wilson (Shapoorji &amp; Pallonji Gr)-Kolkata</li> <li>KEC International (RPG Gr)-Gurgaon</li> <li>EMC Power Ltd –Delhi</li> </ul> |
| Substation/Protection& Automation Product/Manufacturing | <ul style="list-style-type: none"> <li>ABB Global –R&amp;D /Automation –Bangalore</li> </ul>  |

### Core Competencies/Skill

- |   |  |
|---|--|
| Project/Site                                | Engineering coordination/Site services                 |
| Testing/Commissioning                       | Substation/Switchgear/TRF/CB/CT/PT/ISO/CRP             |
| Tender Support & Services                   | Engineering support/BOQ/Drawing during tender stage    |
| Detail Engineering –Electrical/Automation   | 33kV to 765kV AIS & GIS Substation                     |
| Technical Validation- Substation Product    | LT to EHT voltage level detail V&V done with deviation |
| Quality/QA/QMS/TQM/TPM/ISO 9001             | Process and Procedure with standard                    |
| Project Management                          | Planning & Coordination through MS Project             |
| Training/Knowledge Sharing/Transfer         | Internal & External process based                      |
| Product Inspection                          | Client end & Suppliers end both as per SCOPE           |
| Research & Development of Product/IED/Relay | Relay Panel/Control & Protection /ABB RE670            |

.....

### Career Highlights : Presently from Jan 2019 onwards working as **ADVISOR (Energy)** CBIP , New Delhi

- Our state-of Art ELCT and C&I Lab development for Power SCADA application with real time access
- Power Distribution schemes like DDUGJY, IPDS, SHAUBHAGYA and UDAY are implementing.
- Roof top solar grid for DISCOM Engineers implementation
- Condition monitoring of 33kV to 400kV Grid Sub-station and it's individual equipment assessment including Earthing healthiness checking with the help of software CYMGRID
- Smart Metering with SCOPE T&M with SCADA implementation within the vicinity of DISCOM.
- Smart Grid and Micro-Grid implementation
- Two day Solar Certification Program :“ Roof Top Solar Grid for DISCOM ” by National Skill Development Corporation and National Skill Council for Green Job.
- 11/0.433kV 400kVA CSS from ABB –Technical Evaluation, Ordering, ETC
- Contractor Evaluation and Order placing followed by complete supervision including charging of CSS and payment
- 500kVA DG , LT SWBD, Cable Tray, Power and Control cable, Indoor Lighting designing and implementation
- Building Fire Fighting order evaluation and Execution to contractor
- 40KW Roof Top Solar –Tendering and Order placement , now Execution is pending

.....  
**Feb 2016 to Sep 2018 working with M/s EMC Power Ltd, New Delhi as **GM-Design & Engineering****  
.....

**Detail engineering of total 76 no's Sub-station** [ New, Extn, Augmentation under **JKPDD-R-APDRP** order (**WO-633, 634 & 635**) with full scale activities

**List of Electrical activities covered under design and engineering SCOPE** are as follows

- SLD with protection drawing with BOM preparation and approval from client
- Electrical Layout (Plan and Section) preparation and approval from client
- EKD (Section and Plan) drawing with BOM preparation and approval from client
- Earthing designing and its Earthmat drawing with mandatory input like soil resistivity via approved ERT
- Cable schedule preparation and approval from client
- Illumination design and drawing with BOM for Switch-yard and Control Room building preparation and approval from client

Detail engineering of **Traction Sub-station** (132/25kV) for Jaipur starting from all switch-yard equipment (CT, PT, ISO, TRF, LA, CB) including individual's foundation design and drawing with approval from RDSO/CORE as per project SCOPE.

.....  
**M/s KEC International Ltd, (Part of leading business RPG Group) Gurgaon -as **Sr. Manager/ Engineering Services (South Asia Region) EPC****  
.....

Complete engineering support during Pre-bid/Tender stage to M&BD team specific to PGCIL/TANTRANSCO/WBSETCL/KPTCL/APTRANSCO/BSPTCL project from 132kV to 765kV both AIS and GIS sub-station as and when required basis

- 765/400kV Koteshwar GIS sub-station (JV with NHVS China) and 765/400kV Meerut AIS sub-station -PGCIL detail engineering complete support.
- 132kV 2 No's Line Bay Extn in Tripura-Surajmaninagar SS under PGCIL
- 400kV D/C Raichur YTPS to RTPS & BTPS under KPTCL -PLCC detail engineering support
- **TSS, SP & SSP of Railway Electrification project in India**

.....  
**M/s Sterling & Wilson Ltd Kolkata as **DGM -Design and Engineering /EPC****  
.....

Design and Engineering of High Voltage Systems /Switch Yards/Distribution Systems in compliance of International codes and Standards.

Preparation of equipment/system specification , single line diagram, schematic diagrams, Power system studies, Cable, Earthing & Lighting layout, Switch yard and substation layout etc.

- **Project completed under PGCIL** – Biharsarriif (From Aug 2009- 2011)  
Scope: 2 no's Line bay extension
- **Project completed under APTRANSCO**- Mamidipally, Karnool and Vizak  
Scope: 3 no's reactor's bay (Started on May 2011- completed on April 2013)
- **Project Synopsys under WBSEDCL**: Started June 2011 RE (*Rural Electrification* RGGJY Scheme Pkg No 16 & Pkg 17 WBSEDCL – Starts with drawing preparation with the help of Map-info software and AutoCAD (which is in closing shape now with as built drawing with handing over format), R-APDRP project in 7 nos different location under WB(Durgapur, Raiganj, Chinsurah, Chandannagar, Katwa, Sreerampur, Kanchrapara), **BRGF** project in different location of WB (**SAGAR** project)  
Master List of Drawings with details updated status data like whether it is already approved or submitted to customer and waiting for approval, as built drawing status with handing over format signed and stamped by customer.
- **Tender support to Solar** BU from engineering team especially all off-grid detail engineering 132/33kV SS right from Transmission line evacuation to switch-yard system engineering, supply, installation and commissioning to our internal team in Mumbai –Solar Div
- Tender support to BD Team in preparing BOQ and Technical Validation of all supplier's offer
- Solar Power: Engineering support in doing BOQ and complete technical validation of equipment TS and suppliers offers. Details drawing and design calculation of project of 10MW Off-Grid PV Solar plant/IPP
- Power System Basic module and Load Flow Studies with ETAP software as applicable to SCOPE

Indian Railway **TSS design & engineering job of Balichowk station**: Complete civil and electrical design and drawing for 1 no TRF done . SLD, Plan & Section drawing, EKD, Earthing with BOM

.....  
**ABB Global Engineering & services Ltd, Bangalore as **Lead. -PDI/SWETA****  
.....

Product development and integration, Project Management, Software testing & test automation, Design, Engineering & Configuration, Software tool (related to Substation automation), , IED/Relay engineering

- Numerical Relay (IED) like REF 630, REC 650, REX 521, RET 670 designing, configuration, testing and final delivery to the customer based on ABB PCM 600 software tool (Protection and Control manager of IED).
- ACT ( Application configuration tool), PST ( Parameter Setting tool ), GDE ( Graphical Display Editor), DR (Disturbance Recorder), EVT ( Event Viewer tool), MT ( Monitoring tool), UMT ( User management tool), HWT ( Hardware tool), SMT ( Signal Matrix Tool), CMT ( Communication Management Tool component of IED design & engineering mainly).
- Integration of PCM 600 tool with IET & CCT tool (Substation design right form the SLD and all equipment with all detail Logical nodes and IEC61850 Data Engineering with NCC Gateway Engineering) for Controlling, Monitoring, and Relay setting verification or update the relay from Remote end also by Micro-SCADA.
- QE & QM with CMMI audit for project GHI analysis.

---

**BSES Rajdhani Power Ltd (Reliance Energy Ltd), New Delhi as Dy.Manager (Central Engg Services/SCADA) Oct'2005 – Aug'2007**

---

117 no's new and old Switch-yard ( 66 /33 KV) , proposal engineering & configuration, Work Awarding to the contractor's, C&R Panel design, Automation like SCADA implementation ( RTU 560 designing & Communication, RTU 211,SAP (PS module)implementation:-

- Preparation of I/O list's & configuration of RTU file's as a excel format.
- Complete configurations of 117 no's 66/33/11 kV grid s/s in BSES.
- Both local and remote operation with testing of RTU 560 (M/s ABB) consisting of D/I ( Module -23BE21),D/O (Mod - 23BA20),A/I (Mod- 23AE21), MFM through RS-232 & RS-485 Modbus via protocol IEC 101 as well as IEC 104 to remote end ( OFC media)
- Data Engineering ( PED )through SPIDER software ( WS 500)
- IED done through proper integration of the existing numerical relays by gate-way communication supported by M/s Allen Bradley PLC mainly & OFC &Protection Relay which is of basically M/s Siemens O/C & E/F with Dist. also. M/s ABB SPAJ140C,SPAD mainly, M/s Alstom Micom relay
- Existing and Upcoming Grid station Load Flow studies with Power System stability with ETAP software.

---

**North Delhi Power Ltd. (TATA POWER), Delhi as Executive (NW2 -System In-charge)**

---

System proposal engineering of NW (ownership of total 3 no's 66/11 KV switch-yard) to Maintenance-- site selection, drawing preparation, System Maintenance also time to time as per Urgent trouble shooting

- 25MVA Power Transformer : Detail Testing and Commissioning
- SF6 CB -ABB : New CB commissioning
- CT & PT: Installation , Testing and Commissioning
- Earthing : Earthmat laying, Testing and safely connection to Grid
- 66kV Control and Relay Panel: Scheme verification, Testing and commissioning
- Testing of Battery charger and replacement of old with new battery for new grid's along-with all type of trouble-shooting & coordination for AMC also for each Grid of capacity 220V DC
- Selection of equipment's& cable sizing
- Normalization of Black-out condition in Remote grid within a minimum time
- Power Transformer selection, CT,PT selection, Relay coordination, setting & Commissioning of unmanned station after execution of Micro-SCADA application
- TQM presentation & 5-S implementation within the desired areas, mainly like all three no's Grid s/s.
- Load flow studies and System stability measurement with ETAP

---

**Hindalco Industries Ltd - Renuagar Thermal Power Station as Engineer (Gen Elect Maintenance)**

---

Captive power plant of 742 MW capacity (consisting of 10 units) , unit 9 & 10 commissioning consisting of 2x80 MW.( mainly BMS -Burner Management System/FSSS),ESP,Ash Plant,ETP .

Plant maintenance of all the area's like HT & LT motor side,HT Relay, ESP, CHP, DM plant, ETP,Boiler, Turbine,Generator,Switch-yard,MCC,PCC,6.6KV Switch Gear, Raw water pump.

- Replacement of Converter Panel for a particular unit within the desired time and final charging of the same, due to emergency trouble-shooting. ( Achievement)
- Replacement of GT (100MVA) for unit no #2, for flashing of the three no's bushing, within the time. Emergency trouble-shooting ( Achievement)
- Commissioning of BMS #9 with all design data and drawing verification & final testing done before the target time.
- Black-out handled single time, due to heavy shortage of coal as well under frequency occurred.
- HV /LV ( 6.6KV/415V design & drawing verification after final testing)
- Motor sizing calculation
- Unit #2 scanner commissioned.
- Plant maintenance(Prevent& Predict) and Emergency trouble-shooting of all ten no's unit.