

(Design, Engineering & Consultancy Services For Electrical Transmission & Distribution Substations (HV/EHV), Industrial Power Distribution Projects and EHV Transmission Lines)
(GST number: 19AEGPM0707E1ZS)



(ISO 9001-2015 Certified)

# **CURRICULAM VITAE**

# OF

# CHIEF ENGINEER (EHV/HV/MV/LV ELECTRICAL SYSTEMS)





# **CURRICULAM VITAE**

Name: Satyaki Mukherjee

Company: SATCON, Kolkata, India

Position: Chief Engineer (EHV/HV/MV Electrical and associated

Civil, Mechanical)

Experience Summary: Thirty six (36) years' experience in Electrical design engineering. Experienced in Electrical design calculations, Electrical system studies using software technique (ETAP), design/project engineering, Leading a team of Electrical, Civil, Mechanical Engineers, Erection supervision activities at site and commissioning in the field of thermal power plants (coal fired/ oil fired/ gas), industrial cogeneration plants, captive power plants, chemical & mineral beneficiation projects, HV/EHV outdoor/indoor/GIS substations (upto 765kV), EHV Transmission Lines and Material handling plants.

## **JOB SUMMARY**

- > SATCON, Kolkata (from Jan 2004 till date) (https://satcon.in)
- Saudi Electricity Co (SEC) EAST (through Dar Al Riyadh Consultants), Dammam HQ, Saudi Arabia (from Jan 2000 to Jan 2004)
- Development Consultants Pvt. Ltd, Kolkata, India (from May 1999 to Jan 2000)
- The Kuljian Corporation, Philadelphia, USA (from Sept 1998 to April 1999)
- Development Consultants Ltd, Kolkata, India (from July 1989 to Aug 1998)

## **EDUCATION:**

B.E. Electrical (1<sup>st</sup> class) from Jadavpur University, Kolkata in 1989.

# MEMBERSHIP OF PROFESSIONAL ORGANIZATIONS:

Fellow - Institute of Engineers, India.

Professional Engineer (India)

Chartered Engineer (IEI)

Member – IEEE

Solar Chartered Engineer (Solar Energy Society of India)

### **KEY CAPABILITIES:**

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- ➤ Electrical high voltage system design upto 765kV
- ➤ Leading a large team of electrical, Civil, Mechanical and Instrumentation engineers for Power generation, Transmission, Distribution, Renewable energy projects
- > Feasibility study
- > Detail project reports
- > Training on EHV electrical system design
- > Project management
- Quality control
- > Supervision of erection, testing and commissioning
- ➤ Advisory services to Plant Owners / Directors / Policy makers / Govt.

Countries visited on work: USA, UK, UAE, Nigeria, Sierra Leone, Sudan, Oman, Qatar, Saudi Arabia, China, Lebanon, Bhutan, Nepal, Bangladesh, Uganda, Tanzania, Rwanda, Central African Republic, Botswana.

### SOFTWARE KNOWLEDGE

- ETAP 20.0.2
- PLS CADD
- Autocad

## **EXPERIENCE IN DETAIL:**

SATCON

**Position: Proprietor** 

Period: January 2004 till date.

**Projects:** 

# CURRENT & EXECUTED PROJECTS IN INDIA (only major projects indicated)

- Site visit, Data collection, attending various meetings with the Client, Basic Engineering, Detail Engineering services, ETAP Power system studies (Load flow, Short circuit studies) for Electrical, Civil, Structural, Mechanical and Substation automation systems of 33/220kV Switchyard with 3x150MVA Power Transformers and 220kV Grid interconnection of 400MW Solar Power Plant of M/s Brooksfield at Bikaner, Rajasthan.
- 2. Leading a team of electrical, civil and structural design engineers to design **220kV Switchyard** structures and foundations of **400MW Solar Power plant** of M/s Brooksfield at Barmer, Rajasthan.
- 3. Basic Engineering, Detail Engineering services, attending frequent meetings with the end client regarding approval of drawings, ETAP Power system studies (Load flow, Short circuit studies) for Electrical, Civil, Structural, Mechanical and Substation automation systems of 220/132kV outdoor





**Switchyard of HPPTCL** including extension of existing Control building at Tahliwal, Himachal Pradesh.

- 4. Site visit, Data collection, Feasibility checks for different technical solutions, Discussions with Client regarding 220kV and 33kv Trans. Line directions, Basic Engineering, Detail Engineering services, ETAP Power system studies (Load flow, Short circuit studies) for Electrical, Civil, Structural, Mechanical and Substation automation works of 220/33kV GIS Substation at Khanakul, 132/33/11kV GIS Substation at Silicon Valley, 2x 220kV Line Bay extension at Krishnanagar existing 220/132kV Substation, 125MVAR 400kV Bus reactor at PPSP 400kV GIS Substation and extension of 1 x 132kV Line bay extension at existing 132/33kV New Town AA-1 Substation of WBSETCL.
- 5. Detailed engineering services, attending frequent meetings with AEGCL, vendors and leading a team of electrical, civil, structural, mechanical and automation engineers for 220/33kV Gas Insulated Substations (GIS) at Jakhalabandha and Bihpuria of Assam Electricity Grid Corporation Ltd. (AEGCL) in Assam (Job was entrusted by M/s Neccon Power and Infrastructure Ltd., Guwahati).
- 6. Detailed engineering services and leading a team of electrical, civil and structural engineers for construction of 33kV double circuit overhead line, 20km and two nos. 33kV outdoor switchyard substations at NTPC, Talcher power plant in Orissa (Job entrusted by M/s Macawber Beekay Pvt. Ltd., Delhi).
- 7. Prebid engineering services for **400/220kV GIS substation** at Kalawad and 220/66kV GIS Substation at Bhildi of GETCO, Gujarat (On behalf of Gupta Power Infrastructure Ltd., Bhubaneswar).
- 8. Preparation of **400kV Transmission Tower spotting data for 400kV D/C Transmission line crossing of existing 132kV D/C Transmission line** near Ulijhari Grid substation of JUSNL, Jharkhand (On behalf of Udayan Heavy Electricals Pvt. Ltd., Jharkhand).
- Site visit for data collection, Tower spotting data, complete detail engineering services for Electrical, Civil & Structural works 400kV D/C Transmission line crossing of existing 132kV D/C Transmission line near Ulijhari Grid substation of JUSNL, Jharkhand (On behalf of Udayan Heavy Electricals Pvt. Ltd., Jharkhand).
- 10. Detail engineering services for Electrical, Civil & Structural works of **3 x 50MVA, 132/33kV outdoor substation** at EKMA, BSPTCL, Bihar (On behalf of Rew Contracts Pvt. Ltd., Ghaziabad).
- 11. Detail engineering services for Electrical, Civil & Structural works of **2 x 50MVA, 132/33kV outdoor substation** at Palasi, BSPTCL, Bihar(On behalf of Rew Contracts Pvt. Ltd., Ghaziabad).
- 12. Preparation of Detail project report (DPR) for conversion of existing **132/33kV outdoor air** insulated substations at Pasighat, Aalo and Deomali of Dept. of Power to Gas insulated substations (GIS) in Arunachal Pradesh.

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- 13. Basic and Detail engineering services (electrical, civil, structural, Substation automation) including contour survey and geotechnical investigation for installation of 220/132/33KV, 2x150MVA & 2x50MVA Outdoor grid substation of JUSNL at Godda, Jharkhand.
- 14. Basic and Detail engineering services (electrical, civil, structural, Substation automation) including contour survey and geotechnical investigation for installation of 220/132/33KV, 2x150MVA Outdoor grid substation of JUSNL at Garwah, Jharkhand.
- 15. Detail engineering (Electrical) for **400/220/132kV Outdoor Substation** of APTRANSCO at Jammalamadugu, A.P (On behalf of Techno Electric & Engg. Co., Kolkata).
- 16. Detail engineering services (electrical) for **220/132/33kV GIS Substation** at Sagardighi of WBSETCL, West Bengal (On behalf of Godrej & Boyce Mfg. Co. Ltd., Mumbai).
- 17. Basic and Detail engineering services (electrical, civil, structural) for installation of **220/132/33kV Outdoor grid substation** of JUSNL at Jainamore, Bokaro, Jharkhand (On behalf of Technofab Engineering Ltd., Faridabad).
- 18. Basic and Detail engineering services (electrical, civil, structural) for installation of **5 nos. 132/33kV Outdoor grid substation** of JUSNL at Chatra, Baharagora, Rajmahal, Jamua & Chandankiyari, Jharkhand (On behalf of Flowmore Ltd., Ranchi).
- 19. Design, Engineering and Consultancy services for **220/132/33kV Outdoor substation** at Ithkori, Jharkhand of JSEB (On behalf of Flowmore Ltd.)
- 20. Detail engineering for 5 nos. **132/33kV Outdoor Substations** at Jorhat, Bordubi, Bilasipara, Matia, Hailakandi and 1 no. 132/33kV GIS substation at Kamakhya in Assam (On behalf of Alstom T&D India Ltd., Kolkata).
- 21. Detail engineering for 2 x 50 MVA, **132/33kV Outdoor Substation** at Serakol for WBSETCL (On behalf of Alstom T&D India Ltd., Kolkata).
- 22. Detail engineering for line bay extension at **400kV Outdoor Substations** at Patna, Ranchi and Malda, 220kV substation at Mariani and 132kV substation at Imphal of PGCIL (On behalf of Sterling & Wilson Ltd., Kolkata).
- 23. Detail engineering for **400/220/132/33kV** new substations at Howrah Foundry park and bay extensions at Laxmikantapur, Arambag, Uluberia of WBSETCL on behalf of Siemens Ltd.
- 24. Total Consultancy service for electrical, instrumentation, control and plant communication system of **Coal Handling plant** of BCCL at Mahespur, Dhanbad (on behalf of S.K. Samanta and co. (p) Ltd.)
- 25. Detail engineering for 33/0.433kV system upgradation for augmentation of Steel Melting and Forge shop at Arcvac Forgecast Ltd., Dankuni, and West Bengal.

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- 26. Detail engineering for EBOP (Electrical balance of plant) package of **4x270MW thermal power** plant of Abhijit Infra Pvt. Ltd. at Chitarpur, Jharkhand (On behalf of Sterling & Wilson Ltd.).
- 27. Prebid Engineering and price estimation for **400/220 KV GIS substation** and EBOP package of 2x500 MW Thermal Power plant of Neyvelli Lignite Corporation in Tamilnadu (on behalf of GTL Limited, Pune).
- 28. Detail engineering for 132/33/6.6kV GIS substation and downstream ring main system for Construction power system of NMDC for 3 MTPY Integrated steel plant at Nagarnar, Chattisgarh. (On behalf of KEC, International, Gurgaon).
- 29. Detail engineering for **1x400kV Bus reactor bay extension** of PGCIL in Amritsar, Hissar, Nalagarh and Jalandhar on behalf of Sterling & Wilson Ltd.
- 30. Detail engineering for four (4) nos. **33/11/3.3kV** Indoor substations for DSP Modernization MV package (On behalf of Sterling & Wilson Ltd.)
- 31. Design & engineering services for 132/33kV AIS substation at Suryamaninagar of Tripura State Electricity Co. Ltd. (on behalf of Areva T&D India Ltd.).
- 32. Electrical Survey & Audit work for **33kV and 415V power distribution system** and 12MVA electric Arc furnace for Steel Melting Shop and Forging Complex of Arcvac Forgecast Pvt. Ltd. at Dankuni, West Bengal.
- 33. Consultancy services for **33kV ring main system** including **11nos. 33/0.433kV substations** for National Institute of Technology (NIT), Rourkela, Orissa.
- 34. Design and engineering services for **3x132kV** bay extension at DPL, DPPS, Durgapur, W.B (On behalf of Siemens Ltd, PTD).
- 35. Complete Consultancy services for 11/0.415kV power distribution system and plant controls for Coal Tailings Dewatering Plant at Tata Steel West Bokaro Coal Washery Plant (on behalf of Naresh Kumar & Co. Pvt. Ltd.).
- 36. Design & engineering services for two nos. **400kV Line dia. extension** at OPTCL, Meeramundali Substation in Orissa (On behalf of Areva T&D India Ltd.).
- 37. Design & engineering services for 400/33kV switchyard of 4x270MW Thermal power plant of Abhijit Infra Pvt. Ltd. in Jharkhand (On behalf of Areva T&D India Ltd.)
- 38. Many other 400/220/132/33kV substation design on behalf of Alstom/ Siemens/ Sterling & Wilson and other MNCs as Proprietor of Satcon.



# CURRENT & EXECUTED PROJECTS OUTSIDE INDIA (only major projects indicated)

- Basic and complete detail engineering services including site visit, data collection, frequent meeting with Transmission Company of Nigeria (TCN) for 132/33kV, 2x66MVA Outdoor substation with staff quarters, DG room, Store at Ekori UGEP in Calabar state, 2 nos. 132kV Line bay extension at existing Odukpani Power plant and Ikom 132/33kV substation of Nigeria (Job entrusted by Lagace Power, Abuja, Nigeria).
- 2. Basic and complete detail engineering services including site visit, data collection, frequent meeting with Transmission Company of Nigeria (TCN) for 132/33kV, 2x66MVA Outdoor substation with staff quarters, DG room, Store at Birnin Kudu and 2 nos. 132kV Line bay extension at existing Dutse 132/33kV substation of Nigeria (Job entrusted by Sanrouk Engineering Services Ltd., Abuja, Nigeria).
- 3. Feasibility study, Electrical Power system study, Preparation of Scope of work and Technical specifications for Installation of 2 nos. 380/13.8kV Station Transformers and modifications of the existing 380kV GIS Substation at 950MW Jeddah South Thermal Power Plant (JSTPP) of SEC-WOA, Saudi Arabia (Job entrusted by Top Development Consult, Al Khobar).
- 4. Detail engineering services for the 20MW/80MWh Battery Energy Storage System (BESS) at PGE, Wilsonville, Oregon / Washington County, USA. The project includes synchronizing of the BESS with the existing substation, Protection and metering infrastructure (Job entrusted by Energy System Studies, Wyoming, USA).
- 5. Detailed engineering services and leading a team of electrical, civil, structural, mechanical and automation engineers for Installation of two nos. 33/11kV Indoor GIS Substation at Zubair and Rafidiya DGS and 5km long 33kV D/C overhead line on slim lattice towers of Basra Oil Company in Iraq (Job entrusted by Hambleton Holding Inc. British Virgin Island).
- 6. Consultancy services for Control, Supervision, Review, Electrical Studies and Management of Construction works for 33kV and 400V Rural Electrification works in 29 Communities in Sierra Leone (AFDB funded) (on behalf of Electricity Distribution and Supply Authority, Sierra Leone).
- 7. Prebid Engineering services for Electrical, Civil, Structural, Mechanical, Substation Automation system and F.O communication system of 220/132kV Substation extension at Letlhakane, 132/11kV new Substation at Karowe and 132kV S/C Transmission line from Letlhakane to karowe in Botswana (On behalf of Joe's Electrical Contractor, Gaborone, Botswana).

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- 8. Consultancy services for preparation of Drawings and Design calculations for the Earthing, Electrical and structural works of the 132kV Switchyard of the Madhya Solu Khola Hydropower **Project** in Nepal (On behalf of GH Energy Pvt. Ltd., New Delhi, Austria & Germany).
- 9. Detail engineering for extension of 220/20kV transformer bay at existing 220kV Khost substation and 20kV overhead line from Khost substation to Camp Clark ANSF base in Afghanistan (on behalf of Masterlogist Group Co., Afghanistan).
- 10. Preparation of Technical specifications, System studies by ETAP, Basic and Detail engineering services for Electrical, Civil, Structural, Mechanical and Automation system works of 110/63kV Substations at Bangui-B & Boali-1, 110-63/15kV Mobile Substation and 110kV Transmission line (renovation of 100km) in Central African Republic (On behalf of Jaguar Overseas Ltd., Delhi).
- 11. Basic and Detail engineering services for 330/132/33kV New Kano substation, 132/33kV Billiri substation and modification of 132/33kV Gusau substation of TCN in Nigeria (Supreme & Co. Pvt. Ltd., Kolkata, India).
- Detail engineering services for 63/20kV, 2x10MVA outdoor substation at Franceville, Gabon, 12. West Africa (Gabon Special Economic Zone (GSEZ), Libreville).
- Basic and Detail Engineering services including Data monitoring system for Reinforcement of 13. 161/33kV Kingtom substation, 33/11kV Wilberforce, Wellington, Ropoti and Blackhall substations under UPGRADE OF FREETOWN PRIMARY DISTRIBUTION NETWORK FOR ENERGY ACCESS PROJECT, MINISTRY OF ENERGY (MOE), SIERRA LEONE (BES Europe Ltd, Middlesex, UK).
- Detail engineering services including Substation automation system for 132/13.8kV Al Bader GIS 14. substation # 8131 in Riyadh of National Grid, Saudi Arabia, Central (Dar Al Riyadh Consultants, Riyadh).
- Basic and Detail Engineering services (including SCADA and FO/PLCC communication system) 15. for electrical, civil & structural works of 220/22kV Pule Alam Substation, 110/20kV Pushmol and 110/20kV Mainwand Substations of US Army Corps in Afghanistan (Assist Consultants Inc., Afghanistan).
- 16. Electrical system study (Load flow, Short circuit, Protection coordination, Harmonic analysis by ETAP), verification and stamping of electrical Layout and Line diagram drawings, Electrical design calculations, Earthing and Lightning protection system design calculations and layout drawings, attending meetings with Kahramaa, revision of drawings as per Kahramma comments for 22/0.433kV power distribution system of New Port Project (NPP0064) near Doha in Qatar





- (Construction Development Company LLC, Qatar, United Construction Establishment, Doha, Qatar and Sinohydro, China).
- 17. Site visit, Data collection, Discussions with ECG, System studies, Basic and Detail Engineering services, Project management, Design, Engineering, Site supervision and Project Management services for construction of 168km, 330KV D/C Transmission line from Kumasi Metropolitan District to Keta District, Ghana.
- 18. Independent design verifier services including Relay setting calculations, coordination charts by ETAP, preparation and vetting of Earthing and Lightning protection drawings and design calculations, Power distribution SLDs including protection and metering schemes, attending meetings with Kahramaa and revision of drawings as per Kahramma comments for 22/0.415kV Power distribution system for General Cargo Terminal (GCT), Offshore Terminal (OST) and Multiuse Terminal (MUT) of New Port Project in Qatar (On behalf of Transgulf International Electro Mechanical WLL, Doha).
- 19. Electrical Consultancy services for Load flow study, Short circuit study, Relay setting calculations by ETAP, Earthing & Lightning protection calculations, MV & LV cable sizing calculations for 22/0.415kV Visitor Center Substation # 08 at Hamad Port, Qatar (On behalf of United Construction Establishment, Doha, Qatar).
- 20. Review and preparation of Lightning protection risk assessment study, LPS calculations and stamping of Earthing drawings, calculations and Lighting protection system drawings for support facility buildings at New Port Project (NPP0032) near Doha in Qatar (On behalf of Shapoorji Pallonji Qatar WLL (Afcons, Qatar)).
- 21. Review of the Existing Electrical Infrastructure to produce a narrative describing the of distribution in terms of HV, MV and LV (street lighting etc), existing calculations if such calculations become available, estimation of electrical for the existing buildings, where existing infrastructure load calculations are not available. Calculations to be presented in the form of spreadsheets with accompanying narrative for inclusion in a concept master plan report, comparison / analysis of calculated loads versus a schedule of actual connected loads, to presented in the form of spreadsheets with accompanying narrative for inclusion in a master plan report, a calculation of electrical loads for the targeted areas, an analysis of the impact of the loads for the targeted areas upon the existing including identifying any short fall, proposals for electrical utility infrastructure distribution within the targeted areas from connections to the existing utility infrastructure, proposals for improvement / reinforcement of the existing electrical infrastructure for the Pearl Qatar in Doha (On behalf of ASAS ENGINEERING & PROJECT MANAGEMENT CONSULTANCY EST, Abu Dhabi).





- 22. Site visit, Data collection, Discussions with ECG, System studies, Basic and Detail Engineering services, Project management, Design, Engineering, Site supervision and Project Management services for construction of 153kM, 330kV Transmission line, linking Assin Fosu, Atebulu and Awoshie, Ghana.
- 23. Preparation of Sag & Tension calculation of 11kV Overhead lines of ADDC for distribution network expansion for Farms and Ezabs belonging to VIP Customers in Eastern Region of Abu Dhabi (On behalf of ASAS-Satcon JV).
- 24. Preparation of 'Engineering Summary' and 'Operation & Maintenance Manual' for 110/20kV Breshnakot Substation in Afghanistan (On behalf of RGM International LLC, Dubai).
- 25. Detail engineering, procurement assistance, vendor drawing review, inspection and site supervision services for 132/33 KV new substation of TCN at SONG and 2x132 KV line bay extension at YOLA existing substation (On behalf of Qingdao Wuxiao Group Co. Ltd. & Ahmin Technology & Power Systems Ltd Joint Venture).
- 26. Detail Engineering for 132/33kV WUDIL AIS Substation in Nigeria on behalf of Supreme & Co. Pvt. Ltd., Kolkata.
- 27. Detail Engineering for 4 nos. **132/33kV AIS Substations** at Oghara, Ozoro, Ughelli, Ukwa and 2x132kV Line bay extension at Ughelli power plant in Nigeria on behalf of Supreme & Co. Pvt. Ltd., Kolkata.
- 28. Detail Engineering for 2 nos. **132/33kV AIS Substations** at Dambatta & Kankara and 2x132kV Line bay extension at Daura existing substation in Nigeria on behalf of Nespak Nigeria Ltd., Nigeria.

## DAR AL RIYADH CONSULTANTS, AL KHOBAR, SAUDI ARABIA

Position: Engineer I (Electrical): Posting: SEC-EOA, HQ, Dammam, KSA

Period: 2000 to 2004

Posting: Saudi Electricity Company - Eastern Region Branch (SEC-ERB), Dammam, KSA, as Design Consultant.

# **Projects:**

- 1. 230kV Ibn Zahr GIS switching station, Jubail.
- 2. 230kV power supply to Jubail United Petrochemical Co. (JUPC), Jubail.
- 3. 230kV power supply to National Industrial Petrochemical Co. (NIPC), Jubail.
- 4. 4 X 30 MW (Frame-6) simple cycle combustion gas turbine power plant at Arar.

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- 5. 3 X 30 MW (Frame-6) simple cycle combustion gas turbine power plant at Rafha.
- 6. 132/33kV GIS substation at Arar and Markaz Zallum.
- 7. Royal Commission 45BC 115/34.5kV GIS Substation at Jubail.
- 8. Al-Mazroeyah 69/13.8kV GIS substation, Dammam.
- 9. Meridien 69kV indoor air insulated substation, Al Khobar.
- 10. SCADA system modification for 34.5/13.8kV system of Northern Operating Area (NOA) and Hassa Operating Area (HOA).
- 11. Reinforcement of Al Khobar Al Sahelia 69/13.8kV indoor air insulated substation, Al-Khobar.
- 12. 69kV underground XLPE cable installation between Rakah BSP and Al Khobar Al Sahelia 69/13.8kV substation, Al-Khobar.
- 13. 69kV underground XLPE cable installation between Khobar BSP and Khobar Industrial 69/13.8kV substation, Al-Khobar.
- Reinforcement of Anood 69/13.8kV indoor air insulated substation, Dammam.

Duties and responsibilities:

Preparation of Scope of Work & Technical Specifications, main one line diagrams, relay & metering one line diagrams, indoor/outdoor equipment layouts, cable routing drawings, grounding/ shielding/ lighting layouts, design calculations, HV/EHV schematic drawings, review of base design/detail design drawings and design calculations.

# DEVELOPMENT CONSULTANTS LTD, KOLKATA, INDIA

**Position: Project Engineer** 

Period: March 1999 to December 2000

# **Projects:**

1 X 30 MW coal fired captive power plant and 132kV switchyard for Bihar Caustic & Chemicals Ltd., Bihar,

Duties and responsibilities:

The job included detail engineering for the power plant and 132kV switchyard for interconnection with Bihar State Electricity Board grid, key one line diagrams, relay & metering one line diagrams, electrical equipment layouts, cable routing drawings, HV/EHV schematic drawings, cable schedules and interconnection diagrams etc.

# THE KULJIAN CORPORATION, PHILADELPHIA, U.S.A

Position: Senior Electrical Engineer



Period: September 1998 to April 1999

# **Projects:**

- 1. 69kV conventional outdoor type main receiving substation for Wyeth Lederle vaccines and Pediatrics in Marietta, Pennsylvania, U.S.A.
- 2. 1 X 125 MW oil fired EPC power plant for Babcock & Wilcox, Barberton, U.S.A.
- 3. 3 X 6.1 MW co-generation power plant for the modernization of Central Power Station, Yale University, New Haven, Connecticut, U.S.A.
- 4. Standard scope of work & technical specifications for Combined Cycle Power Pac (1 X 11.25 MW steam turbine & FT-8 gas turbine) for Turbo Power & Marine System Inc. (Pratt & Whitney).

# Duties and responsibilities:

The job included review of vendor drawings, final as-built electrical layouts diagrams, relay metering one line diagrams, cable routing drawings, HV/EHV schematic drawings, cable schedules and interconnection diagrams, coordination with client & vendors, installation supervision, testing and commissioning activities at site etc.

# • DEVELOPMENT CONSULTANTS LTD, CALCUTTA, INDIA

Period: August 1989 to September 1998

Position: Project Engineer (1996 - 1998) Sr. Design Engineer (1993 - 1996) Design Engineer (1989 - 1993)

## **Projects:**

- 1. 2 X 210 MW coal fired Sanjay Gandhi thermal power station (Unit 3 & 4) of MPEB, Madhya Pradesh, India.
- 2. 2 X 210 MW coal fired Suratgarh thermal power station (Unit 1 & 2) of RSEB, Rajasthan, India.
- 3. Detail Project Report (DPR) for 220/132/33kV transmission line and substations (GIS type for the new substations and conventional outdoor type for expansion of existing substations) for Ministry of Electricity and Water, Dubai, UAE.
- 4. Modernization of Bolani Iron ore mines as part of Durgapur Steel Plant Modernization, Orissa, India.
- 5. Uranium Mining and Processing project at Narwapahar, Bihar, India.

# Duties and responsibilities:

The job included preparation of detail tender specifications, bill of materials, single line diagrams, control schematics for the 220kV breakers and control & relay panels, relaying & metering single line diagrams,



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synchronizing schemes, equipment/ lighting/ grounding/ lightning protection layouts, tender evaluation, review of vendor drawings and documents, cable schedule and interconnection, design calculations including equipment rating selection, load flow and fault level calculations using computer software, inspection of type/routine testing at manufacturer's works, coordination with client and vendors.

# **PERSONAL DATA:**

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Passport number: Z3374855, valid upto 05.08.2025

Religion: Hindu