TAPASH SUTRADHAR

Electrical Engineer | Project Controls & Data Analytics | Python | Power BI
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Kolkata, India (Ready to relocation)

Professional Summary

Results-oriented Electrical Engineer with 5+ years of experience specializing in Projects, Engineering Design, Project Controls, Technical Data Analysis and Business Intelligence. Skilled in optimizing electrical systems using AutoCAD, ETAP, Python, Power BI and Advanced Excel. Seeking to leverage strong technical design and analytical skills to deliver cost-effective engineering solutions.

Core Competencies & Technical Skills

Electrical Engineering & Design
- **Design & Drafting:** AutoCAD, ETAP, Dialux, SolidWorks, SLD (Single Line Diagrams), Cable Sizing
- **Systems:** Electrical System Design (LV/MV), EHV/Substation Commissioning, Protection Studies, Load Calculations, Testing & Commissioning, QA/QC & HSE Compliance (IEC, ISO, NEC, DEWA), Automation & Controls
- **Automation:** PLC/SCADA, Sensors, Actuators, VFDs, MATLAB.

Data Analytics & Programming
- **Analysis & Scripting:** Python (Pandas, NumPy, SciPy, Time-Series), SQL (MySQL, MongoDB, PostgreSQL), Advanced Excel (VLOOKUP, VBA, Macros, Power Pivot).
- **Visualization:** Power BI (DAX, Dashboards), Tableau (Story Points).
- **Tools:** Jupyter Notebooks, Data Cleaning & Automation, MS Office Suite (Word, Excel, PowerPoint), Data Analysis & Reporting

Project Management & Controls
- **Planning:** Primavera P6, MS Project, SAP/ERP Systems, SharePoint.
- **Commercial:** Cost Control & Variance Analysis, BOQ (Bill of Quantities)/Cost Estimation, Variance Analysis, Vendor Management, Project Documentation, Progress Reporting
- **Execution:** Site Coordination, Testing & Commissioning, MEP Coordination.

Work Experience

West Bengal State Electricity Transmission Company Ltd (WBSETCL) | Kolkata, India   *Jul 2024 – Present*
Electrical Engineer (Projects & Grid Analytics)
- **Grid Data Analytics:** Automated load-flow analysis and demand forecasting using **Python (Pandas, NumPy, SciPy)**, improving system reliability and reducing outage risks by **15%**.
- **Project Controls:** Engineered automated dashboards for DPR and material tracking using **Excel Macros and Python**, eliminating manual errors and increasing reporting efficiency by **40%**.
- **EHV Commissioning & Simulation:** Led end-to-end erection, testing, I/O validation, and commissioning of **220/132kV substations**. Conducted full Protection Coordination studies in **ETAP**, validating settings against historical data.
- **Reliability & Maintenance:** Achieved **100% uptime** for SCADA and control room operations through systematic preventive maintenance of critical DC systems.
- **Project Integration:** Processed, cleaned, and visualized high-volume substation datasets to derive actionable insights for preventive maintenance planning.
- **Coordination:** Coordinated with cross-functional teams using **analytics-based scheduling**, reducing site rework by **20%** and optimizing execution timelines.

Innobyte Solution | New Delhi, India (Remote)   *Aug 2025 – Sept 2025*
Data Analyst (Intern)
- **Data Cleaning & ETL:** Utilized **Python (Pandas/NumPy)** to clean, merge, and preprocess complex datasets, preparing them for engineering analysis and removing **95%** of data inconsistencies.
- **Visualization:** Designed interactive dashboards using **Power BI/Tableau** to visualize key performance metrics (KPIs), enabling stakeholders to interpret trends instantly.
- Assisted in querying structured data using **SQL** to extract relevant project information for reporting and business insights.

Synnat Pharma Pvt Ltd | Visakhapatnam, India   *Mar 2023 – May 2024*
Executive Electrical Engineer
- **Cost Control & Variance:** Developed automated material tracking systems (**Excel VBA/Macros**) and used **Power BI** analysis to reduce procurement overspend by **12%** and overall material wastage by **15%**.

- **Automation:** Implemented **PLC-based control logic** and configured HMI/SCADA for utility systems, generating real-time operational data to support efficiency analysis.
- **BOQ Automation:** Automated BOQ data extraction using **Python scripts**, reducing manual entry errors by **90%** and saving **10+ engineering hours weekly**.
- **Technical Design:** Performed detailed electrical engineering (cable sizing, voltage drop, layouts) using **AutoCAD and ETAP**.
- Coordinated QA/QC, FAT, and SAT activities, ensuring **100% compliance** with strict pharmaceutical safety and quality standards.

ABCI Infrastructures Pvt. Ltd. | Assam, India   *Feb 2020 – Jan 2023*
Junior Electrical Engineer
- Analyzed site productivity data to identify workflow bottlenecks, resulting in an optimization of labor allocation and improving execution efficiency by **15%**.
- Evaluated and managed vendor technical submittals and quotations, applying data comparison methods to ensure **cost-effective compliance** with budget.
- Supervised electrical installation, wiring, and testing of LV/MV Panels, maintaining a record of **zero safety incidents**.
- Improved facility audit scores by **20%** through rigorous documentation and adherence to site safety protocols.

Key Projects
Airport Operational Insights & Forecasting (Personal Capstone)
- Conducted end-to-end data analysis on hypothetical operational datasets to forecast resource allocation and passenger flow bottlenecks.
- Applied **Machine Learning (Time-Series)** and advanced statistical modeling (**Scikit-learn**) to predict resource strains **30 days** in advance.
- Designed **Tableau/Power BI** reports to visualize and communicate forecasting model outputs to stakeholders.
- **Tools Used:** Python (**Scikit-learn, Pandas, Time-Series Models**), SQL, **Tableau/Power BI**.

EHV Substation Grid Analytics & Commissioning
- Managed EHV commissioning and protection; deployed **Python & ML workflows** on historical load-flow data, achieving **15%** improvement in predictive grid reliability.
- Executed **Protection coordination studies (ETAP)**, relay testing, and system analysis, ensuring full compliance with **SQL** and **IEC standards**.

Pharma Plant Automation & Cost Control
- Led industrial expansion (₹25 Cr); implemented **PLC/SCADA control logic** and **Power BI dashboards** for real-time cost tracking, reducing procurement overspend by **12%** via variance analysis.
- Expertise in **Power BI**, **Advanced Excel (VBA)**, industrial design, and commissioning processes (FAT/SAT).

Commercial High-Rise Infrastructure
- Handled full LV system design, BOQ generation and site coordination. Used data to resolve workflow bottlenecks, achieving a **15% improvement** in labor allocation during the 3-year execution period.
- Proficient in **AutoCAD, Advanced Excel** for complex BOQ generation, scheduling and site coordination.

Education
- **B.Tech in Electrical Engineering** | BITM, Kolkata, India | **CGPA:** 9.17/10 | 2023
- **Diploma In Electrical Engineering** | Nibedita Polytechnic, India | **CGPA:** 8.50/10 | 2018

Courses
- AutoCAD, Revit & BIM Coordination – Udemy
- Project Management (Agile) – Microsoft/Google
- Business analyst fundamentals (IIBA – ECBA, CPBA)
- Google Data Analytics | IBM Data Science Professional certification

Personal Details
- **Nationality:** Indian
- **Visa Status:** Visit Visa
- Date of Birth: 11/05/1998
- Languages: English (Professional), Hindi, Bengali