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Shazeb Hashim Khan

Application of Electrical Design Engineer

CONTACT INFORMATION

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**CAREER OBJECTIVE**

An astute Engineering professional experience around 4 years in the field of detailed design engineering in Electrical Power system. Seeking challenging assignments in Electrical Design Engineering with a frontline organization.

**KEY SKILLS**

* Electrical Design Engineering
* Industrial Numerical Relays
* Equipment Sizing and calculation
* Electrical Software – Etap, Autocad, Dialux
* Conversant with standards such as IEC, ANSI, IEEE, NEMA, NEC, API, IS, NFPA
* Reporting
* Excellent Communication

**PROFESSIONAL SNAPSHOT**

* A result oriented professional with 4 years experience in Electrical Designing Engineering and Man Management.
* Planning, scheduling, monitoring and completing the projects as targets with agreed time.
* Cost effective designing, preparation and validating the engineering documents and layouts.
* Experience in electrical equipment sizing and selection – Transformer, Generator, LV/HV Motor & Switching Devices LV/HV/EHV Cables, UPS Inverter, CT & PT, Busbar, Lightning Arrester, Isolator, Earthing Switch and preparation of single line diagram upto 132 kV.
* Experience in LV/ELV electrical system design for Residential/Commercials buildings upto 33/11/415 kV.
* Experience in electrical power system studies in ETAP 14.1 software upto 132 kV.

– Evaluation and Result Analyzer of Load Flow Study.

– Evaluation and Result Analyzer of Short Circuit Study.

– Evaluation and Result Analyzer of Arc flash Study IEEE 1584 & NFPA 70E for Personal Protective Equipment.

– Relay setting calculation Overcurrent Earth Fault Current IEC & ANSI std.

* Advance knowledge in industrial protection selectivity with numerical relays of L & T & Siemens.
* Knowledge of Relay Coordination in ETAP & Settings calculations for switchboards, transformers & motors as per IEEE 242.
* Gained exposure of power system analysis in

– Motor starting and reacceleration

– Harmonics studies and filter sizing

– Generator load flow and transient stability analysis

* Experience Lightening Protection and surge protection studies (Standards follow are IEEE 998, NFPA 780 & IS- IEC 62305).
* Experience in Designing of Earthing/Grounding grid per IEEE 80 and IS 3043.
* Gained exposure of outdoor and indoor lighting system design with CG Lux and partially Dialux
* Experience in Hazardous Area Classification and Electrical equipment selection in hazardous area as per IS 5571as per OISD and IS 5572
* Comprehensive knowledge of firefighting system designing
* Review of Engineering drawings and vendor drawing with tender specifications
* Preparing of detailed bill of material and quantity

**ACADEMIC QUALIFICATION**

1. B.Tech. in Electrical & Electronics Engineering from Uttar Pradesh Technical University, in 2013 with **67.50%**
2. Completed 12th examination from I.S.C. Board in 2008 with an aggregate of **69%.**

**PROFESSIONAL EXPEREINCE**

**Current Organization:** Sparrow Risk Management, New Delhi, India

**Company Profile:** Electrical Risk Management and system studies

**Designation:** Design Engineer Electrical

**Period:** 4th July 2016 – Present

**PROJECT UNDERTAKEN**

**Project :** Designing of Electrical Distribution System for New Facility

**Client :** [AVL India Ltd, Gurgaon (Haryana)]

**Job Responsibilities:**

For this purpose, designing 11 kV Electrical Distribution Scheme which includes estimation of load as per the process requirement, Preparation of Load schedules, cable schedules and BOM, Sizing calculations for transformer, PCC, MCC (type-2 Coordination) & PDB, cables, switchgears, etc. Preparation of Single Line Diagram for Electrical Distribution System. Cable routing as per site constraints, cable tray sizing and routing of bus-trunking. Short-circuit calculations and insulation co-ordination. Selection of CT and Relays for the protection of electrical equipments. Coordination with client and vendors. Preparation of technical specifications for electrical

 equipment. Simulation on ETAP. Review Compliance of Electrical System/Electrical installations & maintenance

 practices.

**National & International Code Follows:**  IEEE 242, IS 3842, IEC 60076, IEC 60034 etc.

**Other Projects of Electrical Distribution System** **for:** Designing of 22kV Substation Pune (Running Project)

**Project :** Electrical Power System Studies in ETAP 14.1

**Client :** [HZL – 6 Units, Udaipur (Rajasthan)]

**Job Responsibilities:**

* Electrical Power system studies like, Load flow studies, Short circuit studies and Arc flash studies
* Cable Sizing IEC 60038
* Prior to power system studies visiting the site for data collection which shall be required for executing power system studies
* Sizing Calculations of Switchgears (up to 6.6kV) as per IEEE 141, Transformers (up to 8 MVA) as per IEC 60076, Bus bars, DC system, Motors (up to 6.6 kV) as per IEC 60034 and UPS battery sizing IEEE 485 & IEC 60896
* Worked on 33 kV, 66 kV, 132 kV system. Also preparing detail report for the studies and submitting to clients.
* Also preparing vendor specification of the electrical equipments.

**International Code Follows:**  IEEE 1584, NFPA 70E.

**Other Projects of Arc Flash Study for:** Wrigley Bangalore, GSK Horlicks Factory.

**Project :** Lightening and Surge Protection System studies

**Client :** Tata Chemicals Pvt Ltd, Gujrat, India.

**Job Responsibilities:**

Risk assessment together with the determination and application of measures to reduce the risk of damage to structure, services and life hazard premises as per IEC 62305-2, review of the existing lightning protection system, selection of LPS level and design of lightning protection system as IEC 62305-3, IEEE 998 & relevant OISD standards. Selection of SPD’s requirement for Electrical distribution Panels. Report preparation.

**National & International Code Follows:**  IS/IEC 62305 - Part 1, 2, 3, 4 & OISD GDN 180.

**Other Projects of Lightning Protection studies & designed for:**

Essar Refinery, GSK Horlicks Factory (Complete Installation), Century Rayon Pvt Ltd etc.

**Previous Organization: Proion MEP Consultant, New Delhi, India**

**Company Profile:** MEP consultant

**Designation:** Design Engineer Electrical

**Period:** 25th May 2015 – 30th June 2015

**Projects:** Supernova Supertech, ITC Narmada Hotel, Saha Megdhutam & other (Residential, Retails &

 Commercial)

**Job Responsibilities:**

* Review the existing lightening protection system against national and international standards and correction and addition in the system to comply with various applicable standards for Residential, Commercial & Retail Projects along with risk analysis. Study of maintenance aspects of lightening protection and suggest suitable corrective actions in existing system (IS-IEC 62305)
* Recommendation of selective SPD as per IS 62305-4 for the existing structure.
* Estimate lighting load and raw power load as per watt/sq.ft/sq.mt. & as per Energy Renewable Development
* Cable sizing, bus bar, earthing system, according to the load analysis and routing. Short circuit & voltage drop calculation.
* Estimated Amp rating meter board circuit, Distribution board circuit, Panel board distribution circuit, Main distribution board circuit, rising mains etc.
* Preparation of Tender drawing, separate BOQ of HT & LT (Panel, Meter), HT & LT (Transformer & DG) with specification & safety condition.
* Calculation of solar power requirement as per Energy Renewable Department, PAYBACK work sheet prepared, Grid tied solar system scheme design (All relevant supporting documents by MNRE, Local norms (state renewable energy department) and power banking with Net Metering.
* Detail study of the scope of tender, drawings, schedule equipment’s specifications quantity take off and preparation of bill quantities for electrical equipment in excel format for lump sum as per international codes
* Planning to design space for Electrical Equipment’s – Transformer, Generator, Main LT Panel, Capacitor Bank, Synchronizing panel HT Panel outdoor / indoor etc.
* Quotation for Electrical equipment – collecting from local services provider & submitted to client site.
* Reporting to the Director

**STANDARD FOLLOWS:**

IS-IEC 62305, CEBC, MNRE, NBC-4, CEA (Statuary Regulations).

**Previous Organization: Smart Brain Technology Engineers and Technologist Pvt Ltd**

**Company Profile:** Electrical design consultant

**Designation:** Trainee Engineer (Electrical)

**Period:** 2nd May 2014 – 16th June 2015

**Projects:** Electrical Projects

**Job Responsibilities:**

* Preparation of Single Line Diagrams, Metering and Protection sld
* Load List and cable schedule
* Transformer sizing, Cable sizing, CT PT sizing, capacitor sizing, lighting calculation
* Earthing and Lightning calculation, UPS AND Battery sizing
* System study calculation through ETAP e.g Load flow and short circuit
* Maintain cad drawing data base

**PROFESSIONAL QUALIFICATION**

2014 - Certification course in **Electrical System Design** from Smart Brains Institute of Engineering Design & Research, Noida, U.P. India.

Learning Highlights:

* Preparation of Single Line Diagrams, Load List
* Transformer Sizing Calculations
* Transformer protection(external protection via Relays)
* Generator Sizing Calculations
* Generator protection(external protection via Relays )
* Cable Sizing(HT & LT)
* Cable scheduling
* Exposure to System studies e.g. - Load Flow, Short Circuit, Motor Starting, Relay coordination on ETAP

**2013** – Completed **Diploma in Electrical CADD**.

**IT FORTE**

**Engineering Tools** **:** ETAP, Eco dial, AUTOCAD, CGLUX, DIALUX

**MS Office Tools** **:** Comfortable with the Microsoft suite of programs, e.g. MS Word, MS Excel,

MS Power point and MS Outlook

**STRENGTH**

**Communication** **:** Confident in my ability to present at all levels

**Teamwork** **:** Able To work independently or lead by example as part of a team

**Initiative** **:** Able To take & make appropriate action / decision when required

**SEMINAR ATTENDED**

* Attend the meeting of BIS for comments to approval of new releasing code for lightning protection IS-IEC-62305.
* Attend seminar for lightning protection products in ABB, OBO, switchgears in L&T.

**PERSONAL DETAILS**

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| Date of Birth | : | 18th – April - 1989 |
| Address | : | Flat No.F4, Lane No.4, Jamia Nagar, New Delhi, Delhi. |
| Languages Known | : | Hindi & English |
| Marital Status | : | Single |
| Nationality | : | Indian |
| Passport | : | Available |
| Willing to Relocate | : | Yes |

I hereby declare that all the statements made in this application are true and complete of the best of my knowledge and belief.

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| **Date:** 17-05-2018 | **(Shazeb Hashim Khan)** |
| **Place:** Delhi |