


# MUNIBA KOKAB

## ELECTRICAL ENGINEER

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## PROFESSIONAL STATEMENT

Certified Electrical Engineer aspiring to work as Design and Estimation Engineer in a Consultancy Organization. Deep interest and consideration as Draughts person Electrical. Developed strong analytical and challenging Designs. Learned advanced courses and completed essential training to qualify for **LEVEL 1 Engineer**. **Attended CPD exercises** and had worked as **Trainee Engineer at FESCO 220/132kV Grid Station**, Attended and passed **General Electric 5months Extensive Program about Power System, Generation 11kV/500, Transmission (overhead) and Distribution (11kV/415V)**. Worked as **Electrical Design Engineer** at NEORON Solar Company and have been able to develop 100+ designs for industrial and commercial clients. Worked as **Trainee Design Engineer** in SG power Distribution UK. Recently, Attended and completed **Engineer UK without Boarder UK 2months Extensive Engineering program**. Currently working as Trainee Design Engineer in DACI Utilities Engineering Consultancy.



## EDUCATION

### **SSC | Matriculation (Workers Welfare School for Girls)**

2013 – 2015

Passed with A+ Grade that accounts for 88.81

### **HSSC | Punjab College**

2015 – 2017

Passed with A+ Grade that accounts for 88.81

### **BACHELOR'S IN ELECTRICAL ENGINEERING | UET-LAHORE**

2017 – 2021

Passed with 3.285/4.0 Cumulative Grade Point Average

## PROFESSIONAL EXPERTISE

### **Trainee Design Engineer | DACI Utilities Engineering Consultancy**

#### **London England United Kingdom**

JUNE 2022 – PRESENT

#### **Responsivities/Accomplishments**

- Responsible for Multi-utility Designing Electric, Gas and water for different ICP's, UIP and SLO following NJUG's Guidelines.
- Electric designing for Housing Schemes for different ICP's under NERS according to DNO's G81 Standards, BS7671, ENA EREC for all NERS providers.



- Calculating ADMD and performing Windebut calculations for Electric designs w.r.t DNO's and IDNO's Standards.

- Preparing Cable route plans, cutout, and fuses selection for different projects Load scheme.
- Calculating Nexa and performing Gaswork Calculations for Gas Designs for GT's and IGT's Standards.
- Documenting Engineering reports, Preparing Approval pack, filling 153a and 138a Forms and all legal information forms for Electric, Gas and water designs Approvals and submissions.
- Understanding of CDM regulations and ENA\_ERECS\_G99 and G98 and ENA-ERECS S34 documents.
- Preparing SLD's and EVCP Scheme, adding TBS & Pumping stations, dealing with Generation in Electric scheme as required by client and deeming calculation in ADMD for respective schemes.
- Preparing Designer risk assessment for any design if required indicating the risks, risk levels, mitigation of risks and residual risks.
- Preparing water design for WIRS provides SLO's for different water supply companies across uk.

## **Electrical Engineer | Engineers Without Borders UK**

### **London England United Kingdom**

MARCH 2022 – MAY 2022

#### **Responsivities/Accomplishments**

- Understanding United Kingdom Statement of Ethical Principles with global responsibility of Engineering
- Understanding morally responsible Engineering practices requirements globally in professional work for worldwide future goals achievement & betterment of sustainable environment.
- Learning of being responsible as Engineer and role of Engineer in action for UN Sustainable Development Goals 2015 which include access to energy and water, health and food security.
- Learning to embed engineering into Globally responsibility using Kate Raworth's Doughnut Economic model.
- Learning Participatory & inclusive approaches to Engineering and role of Engineer in practice.

## **Trainee Design Engineer | SG Power Distribution (PVT). LTD**

### **London England United Kingdom**

MARCH 2021 – APRIL 2022

#### **Responsivities/Accomplishments**

- Completed diverse LV -11kV designs for different schemes in UKPN, SSEN, and NPG areas etc. in line with ICP's policies and procedures as well as companies design process.
- Designing and planning of DNO/IDNO Networks to engineering standards.
- LV Electrical designs for residential and commercial properties. This includes complete suite of drawings and reports including cable sizing, cable rating calculations, cable route plans, multi-utility route design, Calculation of Volt drop and cable loadings using WinDEBUT, crater study report and Material specifications.
- Earthing Design Assessment for new substations, calculation of step voltage, touch voltage, Transfer potential, additional rods & electrode, calculation to get required EPR for different types of substations using soil resistivity and topographical maps.
- Assisting ICPs under various special engineering difficulties on site during laying of cables and construction phase.
  - Delivering the project from initial design stage to construction stage.
  - Can Apply for POC for electric.
  - Carrying out managerial and non-managerial activities required for the company.
- Interpret technical documentation relating to the design of electrical substations.
- Possess good problem-solving skills and an ability to make decisions relating to the production of substation designs.
- Managing and priorities work to ensure project timescales are met.
- Preparing complete construction 3D Drawing package of new substation using specialized 3D REVIT software.

## **Electrical Design Engineer | NEORON ENERGY SOLUTIONS (PVT). LTD**

AUGUST 2021 – FEBRUARY 2022

#### **Responsivities/Accomplishments**

- Preparing On-Grid Net-metered, Off-grid and Hybrid design, calculations, 3D sketches, 2D diagrams, schematic drawings, working drawings, develops details and edits specifications.
- Design of Solar System Solutions ranging from **5kW to 4MW** standard or customize Solar projects for commercial and residential sites.
- Analyzing correct azimuth, angle of solar panels, height and size of solar panels standard L2, L3, L4 or customize 14-gauge frames to get maximum power generation while having minimum clipping, wiring, mismatch and shading losses for different company's projects.
- Design of electrical systems related to building services such as **power distribution, lighting, fire alarm, earthing and others deem relevant.**
- **Assisting Senior / Lead Electrical Design Engineers on one or several projects depending on size, type and complexity.**
- Applying sound engineering principles in the development of design solutions and the production of contract documentation i.e, Quotations and invoices whilst following instructions and guidance.
- Assuring the **correctness, accuracy, compatibility of inverters with panels and complete multi-disciplinary coordination of the design documentation prepared by the assigned team.**
- Understanding and implementing project management principles and able to work within project budgets and designing to budget.
- Lead installation and commissioning activities of **the 630A and 1250A MV panels, 8x2.5MW transformers.**
- **Lead MV cable laying and testing (Phase test, megger test, highpot test, sheath test) related to cable pulling and jointing activities.**
- **Responsible for execution of 6.3KV overhead transmission line from solar park to the grid station, electricity poles erection, conductor laying and testing, stringing of the conductor.**
- **Commissioning with the client existing MV panels, coupling with the tube busbar at 6.3KV ABB panels.**
- SCADA system installation for the plant.
- Preparation of FAT and SAT report, coordination with the client in as built drawings submission.
- 5MW: Solar Plant at FECTO Cement was part of the testing and commissioning team.
- 8.7MW: Solar Plant at Askari Cement Company Limited surveyed,
- designed, prepared project implementation plan and system layout, lead
- execution activities including mechanical, civil and electrical, carried out
- Testing and commissioning of the site.
- 1MW: Solar Power Plant at Frontier Paper Products Limited, designed and executed

## **TRAINEE ENGINEER | FESCO-220/132KV GRID STATION**

MAY 2021– AUGUST 2021

### **RESPONSIVITIES/ACCOMPLISHMENTS**

- Calculation of Electrical Load, Analyzing and Inspecting Lighting lux, DB details, Cable Ampacity, type of cable and it's selection like XLPE, PVC/PVC, AWG; cable pulling and laying with needed equipment, Cable Ducting-Power and Telecom, Earthing and lighting Protection
- Learned the connectivity of Grid Stations, 1 Regional District Grid Connectivity with 500KVA, 3 Sub District Power Stations
- Analyzed and observed the Single Line Diagram of whole Sub Station Equipment
- **Learned about maintenance and operations of Air Insulated Switchgears that includes the protection equipment like Lightning Arrestors, Surge Arrestors, Isolators, CB's and Transmission Line**
- **Daily weekly maintenance reports preparing for Manager O&M.**
- Leading daily maintenance work activities at the 20MW solar power plant.
- Scheduled maintenance of 8x2500KVA Transformers and
- 8x630A 6.3KV ABB switch gears at solar plant grid station.
- Monitoring of relocation of overhead 11kv line, poles erection, conductor laying and stringing.
- Conducted short circuit study for the plant for new incomer WHR7.5MW line.
- Operation and maintenance of various protection devices such a lightning arrestor, isolators, capacitor banks, voltage transformers, current transformers, On load tap changers. Be in line with the national grid operator regarding schedule shutdowns.
- Keeping record of the daily energy usage per department like crusher, quarry, packing plant, production etc.
- Co-ordination with different departments during emergencies.

## **TRAINEE ENGINEER | GENERAL ELECTRIC-United States**

OCT 2021 – FEB 2022

### **RESPONSIVITIES/ACCOMPLISHMENTS**

- Calculation of **Electrical Load, Analyzing and Inspection of On Shore and Offshore Wind Turbines up to 400MW**
- **Learned and completed a case study for the potential of renewable energies (Hydel Power, Solar, Wind, Nuclear and Gas) for middle east and South Asia**
- Healthcare Sector Ventilator Production, Demand forecasting for Energy requirement in case of Future Pandemics and Ventilators Production
- Learned about Aviation, **ILS System** and coordination with particulars sensors, block diagram of functionality and SLD for operations
- Planning and effective preventive maintenance schedules of
- Various machineries and instruments to increase machine up time and equipment reliability.
- Troubleshooting of the fault using engineering logic and testing.
- Routine inspections and monitoring of working equipment's.
- Preparing R&D based data to check the performance of motors, generators and transformers.
- DB details, Cable Ampacity, type of cable and it's selection like XLPE, PVC/PVC, AWG; cable pulling and laying with needed equipment
- Operation and maintenance of various protection devices such a lightning arrestor, isolators, capacitor banks, voltage transformers, current transformers, on load tap changers.
- Learned about Making RFQ's and Supply Chain Management for the Project and Leading site surveys along with sub-contractors.

## **CHAIRPERSON | Society of Electrical and Electronics Engineers (SEEE)**

**2020-2021**

- Organized Continuing Professional Development (CPD) workshops
- Provided recommendations on board of directors on group's effectiveness, actions and future plans.
- Chaired student and faculty meetings, disseminating information and fielded questions.
- Facilitated decision making by building consensus and developing solutions.
- Developed innovative sales and marketing strategies to facilitate business expansion.
- Drove performance initiatives, facilitating **120%** revenue increase in sponsorship and investment
- Oversaw daily administrative operations, including documentation, liaison and procurement of material
- Signed Annual internship and sponsorship agreement between industries and SEEE vis-a-vis signed MOU's regarding fulfilling KPI and CPIs for different industries especially Faisalabad Chamber of Commerce (**FCCI**)

## **EVENT MANAGER | Society of Electrical and Electronics Engineers (SEEE)**

**2018-2019**

- Senior management coordination with industry and responsible for Procurement, Inventory and Management
- Planning Event including procurement, solicitation and maintaining records vis-à-vis budgeting
- Event managers plan and organize promotional, business and social events
- Management Information System

## **FOCAL PERSON | Society of Electrical and Electronics Engineers (SEEE)**

**2017-2018**

- Responsible for having deals with organizations, universities and Guest speakers
- Responsible for making negotiation with event sponsorship partners
- Representation of Organization on different platforms

## **UpWork/Fiver Consultant and Technical Service Provider | Society of Electrical and Electronics Engineers (SEEE)**

**2017-2021**

- Wrote and edited high-quality content and visually impactful programs under deadline pressure with exciting, captivating and authentic approach.

- Presented new technology and drafted white papers and other technical documents to complete packages.
- Prepared a variety of different written communications, reports and documents to ensure smooth operations.
- Providing services for Machine Learning and Programming related skills
- Working as professional data scientist with expertise in deep learning projects



## ACTIVITIES

Given my particulars and Interest in the field of SOFTWARES and new technologies I managed to crack all below mentioned Courses and Earned badge.

Autodesk Certified Professional: AutoCAD for Design and Drafting Exam Prep

<https://drive.google.com/file/d/1zuEHmul5ZE3YLPKZKfjhmMPKnQdbmbDr/view?usp=sharing>

Industrial Internet of Things (IOT) on Google Cloud Platform(GCP)

[https://drive.google.com/file/d/17aBnnV6tMoQ4R\\_VvebvaMwmrb2LIASx2/view?usp=sharing](https://drive.google.com/file/d/17aBnnV6tMoQ4R_VvebvaMwmrb2LIASx2/view?usp=sharing)

Renewable Energy Systems Modelling and Simulation

[https://drive.google.com/file/d/1hirO9gkojdy5-5UihNPeO6Bs\\_ipbB8B6/view?usp=sharing](https://drive.google.com/file/d/1hirO9gkojdy5-5UihNPeO6Bs_ipbB8B6/view?usp=sharing)

Convolutional Neural Networks in TensorFlow

<https://coursera.org/share/e778bb756b934576dcc9b72d7e03c32b>

Creating Multi Task Models With Keras

<https://coursera.org/share/f6e402ec64c7f50c9558e94ac94d22db>

AWS Cloud Technical Essentials

<https://www.coursera.org/learn/aws-cloud-technical-essentials/home/welcome>

Build Image Quality Inspection using AWS Lookout for Vision

<https://coursera.org/share/ca1bc0d46cd911fbfadc46a5dd90e40a>

Create a Virtual Private Cloud (VPC) Using AWS

<https://coursera.org/share/59817188181cfa59700f7f78881310bd>

Build a Business Architecture using AWS Organization

<https://coursera.org/share/6f8a8aef559ffe3e41e0b49d245cecd8>

Getting Started with ProfitBooks

<https://coursera.org/share/43525b05a7a220e74c1580c175e63888>

Build your first Search Engine using AWS Kendra

<https://coursera.org/share/9c89688e7bcdcaa5d59706f7c5b3af05>

Set up AWS Billing Alerts using AWS Budgets

<https://coursera.org/share/77d690912b2b2d3d4ae99248f168e22e>

Access an EC2 instance shell from the AWS console

<https://coursera.org/share/97e898853a7420184e3d7a9e700905ca>

Getting Started with AWS Machine Learning

<https://coursera.org/share/6641b48751a7c5480e11680883f95557>

Launch an auto-scaling AWS EC2 virtual machine

<https://coursera.org/share/c1cd47035e1f0af9429f4a99d3fcc2a7>

Machine Vision for Industrial Application

[https://drive.google.com/file/d/1rfkE1-tuk9jmBPeW9e4FBJvTTktP5\\_iL/view?usp=sharing](https://drive.google.com/file/d/1rfkE1-tuk9jmBPeW9e4FBJvTTktP5_iL/view?usp=sharing)

Image Denoising Using Auto Encoders in Keras and Python

<https://coursera.org/share/2b5b0a77d70cf0546bb2a91885740fee>



## RESEARCH PAPER

**Design and implementation of autonomous waterless photovoltaic panel cleaning system using Embedded deep learning computer vision-based approach**



## CERTIFICATION

### Pakistan Engineering Council (PEC)

PAKISTAN'S MOST ESTEEM ORGANISATION FOR ENGINEERS RECOGNITION



## SOFTWARE EXPERTISE

- Sketchup
- PVSyst
- SIMULINK
- Etap
- REVIT
- Gaswork
- Power World Simulator
- AutoCAD
- MATLAB
- HELIOSCOPE
- WINDEBUT