

MD. NAYEM ISLAM

Solar PV- Engineer

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CAREER OBJECTIVE:

Aspiring PV Design Engineer with strong expertise in Solar PV System Design, PV Simulation (PVsyst), CAD, and Electrical Design. Skilled in preparing engineering drawings, utility-scale layouts, and system optimization with a focus on cost efficiency, sustainability, and compliance with IEC standards. Passionate about advancing renewable energy solutions through innovative 4IR technologies and lifelong professional growth.

SKILLS & SOFTWARE EXPERTISE

Design & Software Skills:

- AutoCAD (2D Solar Layout & Electrical Drawings)
- PVsyst (Solar Simulation, PV System Yield Estimation)
- Solar PV System Design & Utility-Scale Projects
- Engineering Drawings (SLD, BOM, Fabrication)
- Knowledge of IEC Standards & Electrical Safety Codes

Technical & Field Skills:

- Rooftop & Ground-Mounted PV System Design
- Solar PV Installation & Commissioning
- Single-Line Diagram (SLD) Development
- BOQ & Proposal Drawing Preparation
- Electrical Wiring with Earthing & LPS

PROFESSIONAL EXPERIENCES:

1. CAD Design Engineer at Solaric Ltd.

(Feb, 2025 to Present)

Responsibility:

- Completed solar PV system design and PV simulation using AutoCAD & PVsyst for rooftop and utility-scale projects.
- Prepared engineering drawings (SLD, layouts, BOM) ensuring compliance with IEC standards.
- Conducted AC/DC cable sizing, earthing calculations, and cost optimization for renewable energy projects.
- Supported solar project implementation from design to commissioning.

2. Sub-Assistant Engineer at Global Renewable Energy Ltd.

(May, 2024 to Jan, 2025)

Responsibility:

- Designed solar power systems using AutoCAD and performed detailed PVsyst simulations for optimal system performance.
- Prepared single line diagrams (SLD), quotations, Bill of Quantities (BOQ), and Bill of Materials (BOM) to support project planning and procurement.
- Led the implementation and commissioning of solar projects, ensuring quality and adherence to technical specifications.
- Conducted troubleshooting and maintenance of electrical systems to resolve operational issues efficiently.
- Supervised on-site project activities, coordinating with teams to ensure timely and successful project delivery.

3. Assistant Electrician at Pacific Spinning Mills Ltd.

(September 2022 – April 2023)

Responsibility:

- Performed diagnostics, routine inspections, and preventive maintenance of electrical systems, including switchgear, PFI panels, HT & LT panels, control panels, PLCs, HMIs, substations, and generators.
- Assisted in the erection, commissioning, cable laying, and termination of electrical systems in accordance with technical drawings and Single line diagrams (SLD).
- Supported fault detection, troubleshooting, and safe operation of industrial electrical equipment to ensure minimal downtime and operational efficiency.

KEY PROJECT & ACHIEVEMENTS

1. PV Design for Utility-Scale Projects – Solaric Ltd.

- Designed detailed CAD layouts for large-scale solar PV projects, including site plans, electrical drawings, mounting structures, and cable routing.
- Supported the engineering team with shading analysis, topographical adjustments, and cost-optimized system designs aligned with technical standards.

2. Residential Solar System Design Projects – Solaric Ltd.

- Successfully designed 30+ rooftop solar PV systems for residential buildings
- Collaborated with the engineering team to prepare layout plans, shading analysis, and structural mounting designs.
- Ensured all designs adhered to technical standards and site-specific requirements.

3. Commercial Building Electrical Layouts

- Developed electrical layout drawings for 10+ commercial buildings.
- Assisted in preparing Single Line Diagrams (SLDs) and panel schedules for project execution.

EDUCATION QUALIFICATION:

▪ Diploma in Electrical Engineering

Institute Name: Hosenabad Govt. TSC, Doulatpur, Kushtia.

Passing Year: 2020

Result: 3.51 out of 4

▪ Secondary School Certificate (SSC)

Institute Name: Durgapur Pilot High School, Rajshahi.

Passing Year: 2016

Result: 4.69 out of 5

TECHNICAL CERTIFICATIONS:

- **Electrician License (Class C)** – Electricity Licensing Board (ELB)
- **NTVQF Level-I** – Electrical Installation & Maintenance

INDUSTRIAL TRAINING & WORKSHOP

1. PV System Internship

Institute: Global Renewable Energy Ltd.

Location: Dhaka, Bangladesh

Year: 2024 | Duration: 3 Months

Focus: Practical exposure in solar PV system installation, Design, site assessment, technical documentation, and teamwork under engineering supervision.

2. Industrial Electrical Installation

Institute: Grameen Shikkha Vocational Training Center, Talbag, Savar, Dhaka

Year: 2024 | Duration: 3 Months

Focus: Industrial electrical wiring, control systems, safety protocols, and field-level electrical practices.

3. Refrigeration & Air Conditioning (RAC)

Institute: SOS Vocational Training Center, Mirpur, Dhaka-1216

Year: 2022 | Duration: 6 Months

Focus: Basic to advanced RAC systems, maintenance, and environmental safety.

4. Industrial Attachment Training Program

Institute: IMB Professional and Vocational Skill Institute, Asulia, Savar, Dhaka

Year: 2020 | Duration: 45 Days

Focus: Electrical drawing, residential/commercial wiring design, AutoCAD basics, and essential IT skills.

LANGUAGES:

Bangla – Native

English – Conversational