Engr. Anik Sarker

Electrical & Electronics Engineer | Embedded Systems | Industrial Automation| IoT

Member IEEE, IEB

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SUMMARY

Electrical & Electronic Engineer with comprehensive experience in full-cycle hardware prototyping, system implementation, and technical problem-solving. Adept at bridging theoretical engineering principles with practical design, testing, and deployment. Certified technical professional with a track record of executing multi-stage engineering projects and managing cross-functional technical teams. Seeking to apply strong analytical capabilities, leadership experience, and adaptability to drive engineering innovation in industry.

EXPERIENCE

Teaching Assistant

Daffodil International University-DIU

05/2025 - Present Daffodil Smart City, Birulia, Savar, Dhaka

- Guided 100+ students through lab experiments in Circuit design, Power Electronics and Digital Electronics.
- Assisted faculty with course delivery, assignment grading, and lab equipment management.

Student Associate

Daffodil International University-DIU

02/2025 - 05/2025 Daffodil Smart City, Birulia, Savar, Dhaka

- Handled official departmental documentation and maintained organized records to support administrative operations.
- Coordinated student groups, managing logistical details for academic activities, events, and department initiatives.
- Assisted faculty with routine administrative tasks, documentation preparation, and announcements.

EDUCATION

Bachelor of Science in Electrical and Electronic Engineering.

Daffodil International University

01/2023 – Present Daffodil Smart City, Birulia, Savar, Dhaka, Bangladesh

- CGPA: 3.88 out of 4.00

Higher Secondary Certificate.

BEPZA Public College

04/2021 DEPZ, Savar, Dhaka, Bangladesh

GPA: 5.00 out of 5.00
Group: Science

Secondary School certificate.

Kurni Jalal Uddin High School

4/2019 Kurni, Mirzapur, Tangail, Bangladesh

GPA: 4.33 out of 5.00
Group: Science

LANGUAGES

Bangla
Native

English
Advanced

CORE COMPETENCIES

Hardware & Circuit Design

- Circuit Development, Testing and Validation.
- PCB Design & Fabrication (KiCad, EasyEDA, Altium, Gerber Generation and Chemical Etching)
- Circuit Simulation (Proteus, OrCAD PSPICE, PSAF, TinkerCAD, LogiSIM, Every Curcuit, LTspice),
- Component Selection, Prototyping & Soldering

Embedded Systems & IoT

- Microcontroller Programming (Arduino, ESP32, STM32, C/C++)
- IoT Communication Protocols (LoRa, Wi-Fi, Bluetooth/BLE, MQTT, HTTP/REST)
- IoT Dashboard development for Data acquisition and Monitoring (Local Host, MDNS, Custom Web App and Database)
- Hardware Troubleshooting & Debugging

Industrial Automation & Control Systems

- PLC & HMI Interfacing & Programming (Siemens TIA Portal)
- Industrial Automation & Control Logic
- Hardware Troubleshooting & Debugging

VLSI Design & Microelectronics

- Schematic Capture, Custom Symbol Creation, Analog/Digital Layout Design, Circuit Simulation, ADE L Analysis (DC, AC, Transient Analysis), Physical Verification (DRC, LVS, PEX, RCX).
- EDA Tools & Environments: Cadence Virtuoso

Simulation & Analytics

- Power System and Power Electronics Simulation.
- Numerical Modeling & Simulation (MATLAB, Simulink),
- System Simulation using Python Programming, AI Prompt Engineering

3D CAD & Additive Manufacturing

- 3D CAD & Mechanical Design.
- Custom Enclosure Design, Parametric 3D Modeling (Autodesk Fusion 360)
- Assembly & Component Design

Web Development & Cloud

- Full-Stack Web Development, Frontend Deployment (Vercel)
- Realtime Databases & Authentication (Firebase)
- HTML Email, Bulk Email Campaigning

Software & Media Tools

- Graphics Design (Canva)
- Technical Doccumentation
- Microsoft Office (Word, Excel, PowerPoint, Forms, Onedrive)
- Google Workspace Management (Gmail, Drive, Forms, Sites, Docs, Sheets),
- Linux/Windows

Leadership & Technical Mentorship

- Technical Workshop Delivery
- Event Coordination & Management
- Public Speaking & Presentation
- Team Leadership
- Academic and Technical Mentorship

CERTIFICATIONS & TRAINING

- **Training Program on Mechatronics & PLC** – *Grade: A+*
  Tools and Technology Institute (TTI), BITAC, Ministry of Industries, Govt. of Bangladesh.
- **AI+ Prompt Engineer Level 1™** (2025)

AI Certs & Microsoft Learn.

- **Workshop on PLC and Industrial Automation** (2024)
  Ulterior Engineering.
- **National Skill Standard Basic Course Examination in MS Office Applications** – *Grade: A+* (2019)
  Bangladesh Technical Education Board (BTEB).

CO-CURRICULAR ACTIVITIES

Executive and Leadership:

- **Vice-Chair (Technical)** – IEEE DIU Student Branch (Jan 2026 – Present)
- **Chairperson** – IEEE Power & Energy Society (PES) DIU Student Branch Chapter (Aug 2025 – Jul 2026)
- **General Co-Chair** – *International Congress on AI and Digital Health Innovations-2026*, Dept. of CSE, Daffodil International University (2026).
- **Vice-Chair (Technical)** – IEEE Industry Applications Society (IAS) DIU Student Branch Chapter (2025 – 2026)
- **Event Management Coordinator** – IEEE DIU Student Branch (2025 – 2026)
- **Webmaster** – IEEE IAS DIU Student Branch Chapter (2024 – 2025)
- **Head of Web Team –** HULT Prize at Daffodil International University (2025).
- **Assistant Training Secretary –** DIU Robotics Club (2024 – 2025).
- **Logistic Support Coordinator** – IEEE DIU Student Branch (2024 – 2025).

Global & Regional Event Ambassador:

- **Ambassador** – IEEE SPAVe 8.0 at American International University of Bangladesh
- **Brand Ambassador** – IEEE PES DAY (2024 & 2026)
- **Publicity Ambassador** – IEEE YESIST12 Grand Finale, UKM Malaysia (2025)
- **Conference Ambassador** – IEEE Bangladesh Section Conferences (2024 & 2025)
- **Event Ambassador** – 4th International Congress on Recent Trends in Computer Science (ICRCS) (2025)
- **Event Ambassador** – IEEE PES HAC Congress (2024)

ACHIEVEMENTS & AWARDS

- **Champion (1st Place) – Project Showcasing**: EEE FEST-2025 organized by Department of EEE, Daffodil International University (2025).
- **Best Ambassador Award** – Selected as top performer among 30+ ambassadors at IEEE SPAVe 8.0, IEEE AIUB Student Branch (2025).
- **Champion (1st Place) – vTools Management Quiz Competition**, IEEE Bangladesh Section Vitality Enhancement Summit (2025).
- **3rd Place Winner** – **Idea Generation Segment**, IEEE Student Professional Awareness Venture (SPAVe 8.0) at AIUB (2025).
- **IEEE Ethics Champion** – Recognized by IEEE Region 10 & EAAC for commitment to ethical engineering standards (2024).
- Awarded **Excellence in leadership** and dedicated service as Chapter Chair of IEEE PES DIU SBC.
- **Champion – Debate Competition** on "Safe Roads for Women", organized by BRAC & Kurni Jalal Uddin High School (2019).

PROJECTS

- **ProtectA – Smart IoT Electrical Protection Device (2025)**

  Designed and built an ESP32-S3 IoT protection system with an Automatic Circuit Recloser (ACR), multi-fault tripping (Voltage, Current, Earth Leakage), and a locally hosted real-time web dashboard.

- **DIU EEE Routine HUB (2026)**

  Developed a centralized web platform using Vercel and Firebase to track batch/faculty schedules, room availability, and class notices with an administrative portal.

- **5-Level Inverter with Reduced PWM Control Signals (2025)**

  Developed a hardware prototype of a 5-level single-phase inverter utilizing a single DC source and an optimized/reduced PWM control signal scheme.

- **Project KITI – Autonomous Food Delivery Robot (2024)**

  Engineered a GPS-guided autonomous delivery robot integrated with a custom web ordering interface and obstacle avoidance sensors.

- **Project ORCA – 4WD Soccer Rover (2023)**

  Built a radio-controlled 4WD rover robot featuring a high-impact chassis, high-torque motor drivers, and wireless control for the MINDSPARKS-23 competition.

PUBLICATIONS

- **Automatic 0 to 3150kVA Distribution Transformer Winding Machine using PLC, VFD, HMI**

  Published in: 4th IEEE International Conference on Robotics, Automation, Artificial Intelligence and IoT (RAAICON 2025).
- **Energy-Efficient Automated Irrigation: A Solar-Powered Solution for Modern Agriculture**

  Published in: 8th IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT-2025).
- **Revolutionizing Education: The CourseSphere AI Platform for Personalized Learning**

  Published in: 8th IEEE International Conference on Circuit, Power and Computing Technologies (ICCPCT-2025).
- **Unlocking Student Potential: How MentorSphere AI Redefines Mentorship**

  Published in: IEEE International Conference on Information, Implementation, and Innovation in Technology (I2ITCON 2025).

TRAINING & MENTORSHIP

- **Instructor & Key Facilitator – Hardware Prototyping Series: From Circuit Simulation to PCB Development (2026) | IEEE PES DIU Student Branch chapter.**

  Led an intensive 3-day technical workshop covering circuit simulation in Proteus, custom PCB layout design using **KiCad,** and physical PCB fabrication via chemical etching.
- **Featured Speaker – IEEE Operations Masterclass: Tools Every Volunteer Must Know (Nov 2025) | IEEE PES DIU Student Branch chapter**

  Delivered an interactive session empowering IEEE volunteers with essential operational workflows, administrative tools, and event management strategies.
- **Instructor & Workshop Facilitator – Workshop on IEEE vTools & Canva Design | IEEE DIU Student Branch**

  Conducted hands-on training sessions for student members on managing IEEE vTools platforms, event reporting, and visual branding using Canva.
- **Lead Trainer – Workshop on Circuit Prototyping & Soldering | DIU Robotics Club**

  Trained engineering students in practical electronic schematic assembly, component selection, and precision soldering techniques.

REFERENCES

Md. Dara Abdus Satter
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Daffodil International University.
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