

# Aditya Das Gupta



## Professional Profile

Electrical and Electronic Engineering graduate with strong technical expertise in embedded systems, IoT development, and software engineering. Proven ability to design, implement, and manage engineering projects with excellent problem-solving and analytical skills.

## Contact

Phone: +8801880301030  
Email: aditya.duengg@bec.edu.bd  
LinkedIn: aditya-das-gupta  
Portfolio: adityadipu.github.io  
Address: Patiya-4370, Chattogram, Bangladesh

## Technical Skills

- **Programming:** Python, C++
- **Embedded Systems:** Arduino, ESP8266, Microcontrollers
- **Circuit Design:** Proteus, LTSpice, Tanner EDA
- **Simulation Tools:** MATLAB, Microwind, DSCH
- **Web Development:** HTML, CSS, WordPress, MQTT
- **Mobile Development:** Android, Kotlin

## Engineering Skills

- IoT System Design
- PCB Design & Layout
- Sensor Integration
- Signal Processing
- Control Systems
- Data Analysis

## Professional Skills

- Project Management
- Technical Documentation
- Team Leadership
- Problem Solving
- Research & Development
- Quality Assurance

## Certifications

- Industrial Technology Training (TICI)
- IEEE Conference Presenter

## Languages

Bangla: Native

English: Fluent

## Education

|  |                            |
|--|----------------------------|
| <b>B.Sc. in Electrical &amp; Electronic Engineering</b>  | <b>Feb 2020 – Aug 2025</b> |
| Barisal Engineering College, University of Dhaka Technology Unit   |                            |
| <b>GPA: 3.23/4.00 (Up to 7th Semester)</b>   |                            |
| <b>Relevant Coursework:</b> Digital Signal Processing, Control Systems, Microprocessors, Communication Systems, Power Electronics, VLSI Design |                            |
| <b>Higher Secondary Certificate</b>  | <b>2019</b>                |
| Chattogram Cantonment Public College   |                            |
| <b>GPA: 4.92/5.00</b>  |                            |
| <b>Secondary School Certificate</b>  | <b>2017</b>                |
| Begum Gul Chemonara Academy School & College   |                            |
| <b>GPA: 5.00/5.00</b>  |                            |

## Engineering Projects

|   |             |
|---|-------------|
| <b>Smart Water Tank Monitoring System</b>   | <b>2024</b> |
| ◦ Designed IoT-based water level monitoring using ESP8266 with Android app interface  |             |
| ◦ Implemented MQTT protocol for real-time data transmission and sensor fusion         |             |
| ◦ Features 24/7 background alerts and remote monitoring capabilities                  |             |
| <b>IoT Productivity Management System</b>   | <b>2024</b> |
| ◦ Developed ESP8266 device with Android application for productivity tracking         |             |
| ◦ Created local data storage system without cloud dependency                          |             |
| <b>SMS-Controlled Smart Thermostat</b>  | <b>2023</b> |
| ◦ Engineered non-WiFi temperature control system for remote agricultural applications |             |
| ◦ Integrated GSM module for SMS-based control and status updates                      |             |
| <b>Automated Plant Monitoring System</b>  | <b>2023</b> |
| ◦ Designed IoT-based cactus health monitor with automated watering                    |             |
| ◦ Integrated Blynk platform and Google Sheets for data logging                        |             |

## Research Experience

|  |                            |
|--|----------------------------|
| <b>Undergraduate Thesis Researcher</b>   | <b>Sep 2024 – Aug 2025</b> |
| Barisal Engineering College  |                            |
| ◦ Developed Explainable AI Framework for Non-Invasive Blood Glucose Prediction             |                            |
| ◦ Applied machine learning techniques and statistical analysis for healthcare applications |                            |
| ◦ Supervised by Md. Israel Hossain, Lecturer, Dept. of EEE                                 |                            |

## Professional Experience

|   |                           |
|---|---------------------------|
| <b>Industrial Training Participant</b>  | <b>May 2025 (2 Weeks)</b> |
| Training Institute for Chemical Industries, Narsingdi                               |                           |
| ◦ Gained hands-on experience with industrial electrical systems and instrumentation |                           |
| ◦ Learned control processes and industrial automation systems                       |                           |

## Publications

|   |             |
|---|-------------|
| <b>Feature-Optimized Blood Glucose Level Prediction with Explainable AI</b>                       | <b>2025</b> |
| 4th IEEE International Conference on Signal Processing, Information, Communication and Systems    |             |
| <b>Feature-Optimized Approach for Blood Glucose Forecasting Using XAI</b>                         | <b>2025</b> |
| International Conference on Multidisciplinary Computer Science, Electrical, Business & Literature |             |

## Leadership & Activities

|  |                            |
|--|----------------------------|
| <b>General Secretary</b>   | <b>Jul 2024 – Aug 2025</b> |
| BEC Film & Photography Society   |                            |
| <b>Editor</b>  | <b>May 2024 – Present</b>  |
| Rotaract Club of Chittagong, Karnaphuli  |                            |
| <b>Executive Member</b>  | <b>2024 – 2025</b>         |
| BEC Electronics Club, Research and Innovation Club, Sports Club, Cultural Club |                            |

## Awards & Honors

|  |                    |
|--|--------------------|
| <b>Compensatory Scholarship</b>                          | <b>2020 – 2025</b> |
| Barisal Engineering College for Academic Performance     |                    |
| <b>Honorary Award</b>                                    | <b>2017</b>        |
| Cambridge School and College for Outstanding SSC Results |                    |