



MD HASIBUL HASSAN MOBIN

Embedded Systems & Automation || IoT || PCB Designer || Robotics || CCNA
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SKILLS:

- Proficient in microcontroller programming and interfacing using Arduino and ESP32.
- Skilled in network fundamentals with CCNA-level knowledge.
- Experienced in programming languages including C, Python, JavaScript, and Micro Python.
- Knowledgeable in industrial automation using PLC systems.
- Intermediate proficiency in electronic circuit simulation tools: Multisim, Proteus, KiCad and EasyEDA.
- Proficient in circuit analysis and simulation using PSpice for analog and digital circuit design
- Specialized in Microsoft Office applications: Excel, Word, and PowerPoint.

PROJECTS:

Embedded Systems

- **Vending machine** dispenses beverage upon **real-time payment** verification via integrated payment system and database.
- A smart use of an Arduino Mega and an infrared sensor to address the problem of workers in the modern industry.
- Employing esp32 for **home automation**.
- Firefighter robot using Arduino Nano and Bluetooth module for automatic fire detection.
- Developed a real-time **safety monitoring system** using sensors, Wi-Fi, and alerts with optimized battery management for **manufacturing worker safety**.

CAD

- CAD design for laboratory apparatus.

Circuit Design

- DC-DC Converter using Optocoupler

WORK & EXPERIENCE:

Junior Embedded System Engineer at **Drishti**

Internship

23 February 2025 – *Continuing*

Responsibility:

- Designed, developed, and tested embedded systems using ESP32 microcontroller.
- Wrote and optimized firmware in C, worked on Telegram bot integration for remote control and user interaction in automation projects.
- Assisted in PCB design, conducted testing, calibration, and documentation for client-ready solutions.

Key Achievement: Developed practical understanding of system debugging, hardware-software integration, and troubleshooting.

Junior researcher at **Research Expert**

Internship

15 August 2024 – 15 September 2024

Responsibility:

- Contributing to research and development initiatives.

Key Achievement: Assisted in turning research ideas into practical developments.

World Robot Olympiad

Volunteer

05-06-2023 to *Continuing*

Responsibility:

- Contributed to multiple projects.
- Built trainer kits for student education.

Key Achievement: Engineered hands-on trainer kits and fueled student innovation in robotics through dynamic project support

EDUCATION:

B.Sc. in Electrical and Electronic Engineering (EEE)

2021- Ongoing

National Institute of Textile Engineering and Research (NITER), Dhaka

Affiliated Engineering College of **University of Dhaka**

Higher Secondary School Certificate

2018-2020

BIAM Model School & College, Bogura

PUBLICATIONS & ACHIEVEMENTS:

- **National Conference on Physics- 2023**
Saving Lives with IoT an Innovative Approach to Earthquake Rescue Operations
- **National Conference on Physics- 2023**
Revolutionizing Gas Supply in Bangladesh and A Smart Solution to Overcome the Natural Gas Crisis
- **National Conference on Physics- 2023**
Aquatic Automation: Revolutionizing Fish Farming
- Introduction to **Networks Switching, Routing, and Wireless Essentials** Certified by **CISCO**
- Programming Essentials in **Python** Certified by **CISCO**

REFERENCE:

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MD Tanvir Shakil

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