

ANINDHA DHAR

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 Dhaka, Bangladesh

EDUCATION

- **Bachelor of Science in Electrical and Electronic Engineering** Feb 2020 - Mar 2025
Bangladesh University of Engineering and Technology (BUET) Dhaka, Bangladesh
 - Major: Communication & Signal Processing
- **Higher Secondary Certificate (HSC)** 2017 - 2019
Notre Dame College Dhaka, Bangladesh

RESEARCH INTERESTS

Wireless Communication, Robotics, Digital Twin, Machine Learning

RESEARCH EXPERIENCE

- **Digital Twin For Wireless Communications** Nov 2023 - Mar 2025
Undergraduate Thesis GitHub Repository - 
Supervisors:
 - **Dr. Lutfa Akter** (Professor, Dept. of EEE, BUET)
 - **Dr. Imtiaz Ahmed** (Assistant Professor, Dept. of Electrical Engineering and Computer Science, Howard University, USA)
 - **Dr. Zoheb Hassan** (Professeur Adjoint, Département de génie électrique et de génie informatique, Université Laval, Canada)

I conducted research on designing a digital twin for multi-cell communication networks to facilitate proactive handover decision-making. The focus of this work was on developing solutions that achieve low run-time computational complexity, ensuring scalability and efficiency. I implemented the channel twin model using SIONNA and systematically evaluated the end-to-end performance of the proposed framework to validate its effectiveness.

PUBLICATIONS

- **Dhar, A., Sikdar, D., Prodhan, Y. A., & Joardar, S. (2025). Skin Cancer Semantic Segmentation.** 2025 International Conference on Electrical, Computer and Communication Engineering (ECCE).
- **Dhar, A., Sikdar, D., & Haque, R. (2025). Cost friendly hand gesture controlled wheelchair for disabled people.** 2025 International Conference on Electrical, Computer and Communication Engineering (ECCE).

TEST SCORES

- **IELTS: Overall Band Score 7.5 (Listening: 8.0, Reading: 7.5, Writing: 7.0, Speaking: 6.5)**

ACADEMIC PROJECTS

- **Elevator Control System Using Digital Logic Circuits** September, 2023
Tools: Printed Circuit Board (PCB) Design · Altium · Digital Logic · Digital Circuit Design · Computer Simulations 
 - Developed a completely digital logic-based elevator control system
 - Implemented only digital logics to to produce an effective and practical system.
 - Created Printed Circuit Board (PCB) for compact design.
- **Self Driving Car** December, 2024
Tools: Raspberry PI · Arduino · Machine Learning 
 - Developed a fully autonomous car with obstacle & traffic sign detection for safe driving

PROFESSIONAL EXPERIENCE

• Teletalk Bangladesh Limited

Engineering Intern

July 2024
Dhaka, Bangladesh

Had the opportunity to dive deep into several key areas:

- Access, Transmission & IP Core Network
- Soft-switch, NOC & Power System (Core Power)

TECHNICAL SKILLS

- **Programming Languages:** Python, MATLAB, C, C++, Verilog-HDL, System Verilog, Assembly
- **Embedded System, Hardware & Prototyping:** Arduino, Raspberry Pi, Altium (PCB Design)
- **Scientific Writing:** LaTeX
- **Data Science & Machine Learning:** NumPy, Panda, Scikit-Learn, Sionna, PyTorch, TensorFlow
- **Simulation software:** Simulink, Proteus, LTSpice, Quartus, PSpice
- **Other Tools & Technologies:** AutoCad, Blender, Microsoft Office (Word, PowerPoint, Excel)

HONORS AND AWARDS

• Higher Secondary School Certificate Board Scholarship

December 2019

Issued by Board of Intermediate and Secondary Education, Dhaka

- **224th in Dhaka Board** out of 314,601 students in Higher Secondary Examination (2019)

• Secondary School Certificate Board Scholarship

August 2017

Issued by Board of Intermediate and Secondary Education, Dhaka

- **315th in Dhaka Board** out of 352,006 students in Secondary School Certificate Examination (2017)

• AI Art Competition

February 2023

Issued by BUET EEE DAY 2023

- Secured 3rd Position

LEADERSHIP EXPERIENCE

• Assistant General Secretary

2020 - 2024

IEEE BUET Student Branch

- Oversaw and managed the operations of the student branch.
- Coordinated a diverse array of events.
- As a Social Media Coordinator, I spearhead the design, development, and execution of graphic, layout, and production communication materials.
- As a batch representative, I facilitated the collection of member contributions and fostered encouragement among peers.

VOLUNTEER EXPERIENCE

• Notre Dame Math Club

May 2017 - Dec 2018

- Volunteered for my college's mathematics club, actively engaging in the organization and execution of various events such as Math Olympiads and other related activities.

PROFESSIONAL AFFILIATION

• Institute of Electrical and Electronics Engineers (IEEE)

March 2020 - Present

CERTIFICATIONS

• **Machine Learning Specialization**, Coursera, offered by DeepLearning.ai

December 2023

• **Professional Certificate in Introduction to Python Programming**

edX, offered by Georgia Tech

July 2020

• **Introduction to Psychology**, Coursera, offered by Yale University

May 2020

ADDITIONAL INFORMATION

Languages: Bengali (Native), English (Advanced Level - C1), Hindi (Limited working proficiency)