

# MD. ASIBUR RAHMAN BAPPY



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👤 Asibur Rahman Bappy

## 👤 PROFILE

I am passionate about exploring opportunities and gaining knowledge to enhance my expertise. With a curious mindset and eagerness to learn, I am committed to continuous growth both personally and professionally.

## 🎓 EDUCATION

### Bachelor of Science

Ahsanullah University of Science and Technology, Dhaka, Bangladesh 🌐

2021 – present

B.Sc. In Electrical and Electronic Engineering(EEE)  
CGPA 3.2

### Higher Secondary Certificate (HSC)

Government Science college, Dhaka, Bangladesh 🌐  
GPA 5.00 (2020)

### Secondary School Certificate (SSC)

Government Laboratory High School, Dhaka, Bangladesh 🌐  
GPA 5.00 (2017)

## 🧠 SKILLS

Word, Excel and PowerPoint

C++, Python, MatLab, Verilog

PSpice Simulator

Code Blocks

AutoCAD

Cadence virtuoso

Proteus, Quartus

CST Studio

PowerWorld Simulator (Student version)

PLC basic program

Arduino UNO

## 🖋️ KEY COURSES

VLSI 1

Fabrication and Processing

BioMedical

Electronics 1 and 2

Computer Architecture

OptoElectronics

Digital Electronics, Microcontroller

Power System 1 and 2

Digital Signal Processing

## 👜 EXPERIENCE

### IC Mask Design Training — ULKASEMI (September - 2025)

Completed a 5-day training session in IC Mask Design at ULKASEMI. Gained hands-on experience with Cadence Virtuoso using 14nm technology to design and verify circuit layouts. Learned about advanced layers in short-channel technology, performed DRC and LVS checks, and secured 2nd position out of 13 participants in the final assessment.

## LANGUAGES

Bangla	● ● ● ● ●
English	● ● ● ● ●
German	● ● ● ● ●

## COMPETENCIES

Communication and teamwork skills

Problem Solving and Decision making

Knowledge Sharing

Time management

Adaptability

Multitasking

## RESEARCH INTERESTED FIELD

CMOS VLSI Design

SPR Sensor, Bio-Medical

Antenna, Microwave

Machine Learning

## PERSONAL RESEARCH

**1. Urinary Glucose Sensing Using SPR Technology: Design and Performance Study.**

**2. Label-Free Detection of Cancer Cells Using an Optimized SPR Biosensing Platform.**

## REFERENCES

**Khandakar Md. Ishtiak,**  
Assistant Professor,  
Department of EEE (AUST)

## PROJECT

### **Vibration Meter using IC LM3915**

This project shows vibration strength on a 10-LED bar graph, lighting more LEDs as vibration increases. It uses a sensor to convert vibrations into voltage signals.

### **App design project using MATLAB**

An app design project using MATLAB creates interactive GUIs with App Designer. It combines visual components and MATLAB code for user-friendly applications.

### **Wireless RC car control with GPS tracker**

It allows remote control via wireless signals and tracks location using GPS. It combines mobility with real-time location monitoring.

### **Design full adder using different combination of Transistor (MOSFET)**

A full adder using various MOSFET transistor configurations. It focuses on optimizing power, delay, and area with different transistor-level logic styles.

### **Solar Energy-Based Inverter Design**

It converts DC power from solar panels into AC electricity suitable for appliances or grid use. The system ensures efficient and eco-friendly energy conversion.

### **10T SRAM Cell Implementation in Cadence**

The project involves designing and simulating a 10-transistor SRAM cell using Cadence software based on a research paper. It focuses on improving memory stability and reducing power consumption in SRAM design.

### **Microcontroller Controlled adaptive DC Charger**

It uses a microcontroller to regulate DC output, adapting charging parameters for different battery types. This ensures efficient and safe battery charging.

## THESIS TITLE

### **Design and Performance Analysis of SPR Biosensor with Enhanced Sensitivity for Detecting Pollutants in Water. - (Journal submission pending)**

This research presents the design and performance analysis of an enhanced Surface Plasmon Resonance (SPR) biosensor tailored for detecting pollutants in water. By optimizing the sensor's structural and material parameters, the study achieves greater sensitivity and accuracy, making it a promising tool for real-time and reliable environmental monitoring applications.