

Ranit Pradhan

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ranit-pradhan

Education

- 2019-2023 **B.Tech in Electrical and Computer Engineering**, Amrita Vishwa Vidyapeetham, Kollam, Kerala, India
Ongoing CGPA: 8.12/10
- 2017-2019 **Higher Secondary**, Belda Gangadhar Academy, Paschim Medinipur, W.B., India
Percentage: 78.93%

Experience

- June 2022 to Present **Summer Intern at CeNSE, Indian Institute of Science**
• Pressure sensor and data acquisition using IoT.
• Data Visualization and monitoring.
Page link: <http://www.cense.iisc.ac.in>
- December 2020 to Present **Member at Team bi0s, Amrita School of Engineering**
• Participated in various CTFs like Mitre, CSAW, Defcon etc.
• Currently working on Embedded Security and Linux systems.
• Mentoring first and second year student members.
Page link: <https://bi0s.in/hardware.html>
- November 2019 to January 2021 **Member at IEEE, Kerala Section, Amrita School of Engineering**
• Participated in many Hackathons, Conferences, Webinars.
• Undergone a Machine Learning workshop sponsored by **Megara Robotics Pvt. Ltd.**
Certificate link: https://raw.githubusercontent.com/RanitPradhan/Certificates/main/Certificate_Me.jpg

Achievements

- October 2021 **IEEE RFID-TA 2021 Challenge, Second Place**, Vaccine Verification using RFID-based secure authentication
The aim of the project was to use RFID technology in the fight against Covid-19 by verifying one is fully vaccinated with a good health or not, besides it we also tried to include contactless temperature verification.
Certificate Link: https://raw.githubusercontent.com/RanitPradhan/Certificates/main/IEEE_RFID_2021.png

Skills

- Languages Python, C, C++, SQL
Core Embedded C, AVR, Networking, Robotics
WebD HTML, CSS, JS
VCS Git, Jupyter Notebook
Tools • **Software** STM CubeMx, MPLAB, Arduino IDE, VS Code, MATLAB, LT Spice, Proteus, ARM-Keil, Eagle CAD
• **Hardware** Arduino UNO, ESP(8266,32), Tiva C, RaspberryPi-4, Logic Analyzer, Sensors.
- Soft Skills Team management, Leadership, Mentorship

Projects

- July 2020 **An Ultra-Portable Vis-NIR Spectrometer for Chemometric Applications**
On-site material inspection and quality analysis of food and agricultural produce, which require portable sensing systems. A mini spectrometer is used for the measurements and the spectra data is analyzed using machine learning.
- September 2020 **COVID-19 Alert Distance**
This project is related to the recent pandemic situation of COVID-19. A replica model to alert human to keep safe distance from each other.
- May 2021 **Staircase LED using PIC**
Simple staircase LED controlling using **PIC16F877a** microcontroller. Simulation platforms - MPLAB and Proteus are used.
- November 2021 **Accident Alert in Mist**
STM32F103C4 microcontroller application for accident avoidance of vehicles in fog areas. Simulation platforms like Proteus, STMCubeMX, ARM-Keil are used.
- April 2022 **Audio Management System**
Lightweight desktop music player application using python frameworks(**postgresql, asyncpg, pysimplegui, psycopg2**).