

Kinshuk Pandala

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Education

VIT Bhopal University

Pursuing Bachelor of Technology in Electronics and Communication, 8.02 CGPA
(Specialization in Artificial Intelligence and Cybernetics)

Madhya Pradesh, India
September 2023 – Present

Narayana PU College

CBSE Board, Class XII, 70.00%

Bengaluru, India
May 2023

Narayana Olympiad School

CBSE Board, Class X, 90.00%

Bengaluru, India
May 2021

Skills

Technical Skills: Embedded Systems, IoT, Wireless Communication

Technologies: Flask, MQTT, UART Communication, Web Development (HTML, CSS, JavaScript)

Hardware & IoT: Raspberry Pi, ESP32, Arduino, Sensor & Actuator Systems

Software Tools: Arduino IDE, VS Code, LTSpice, MATLAB (Intermediate)

Languages: Python, C, MATLAB (Intermediate), Verilog (Familiar with basics)

Projects

QUENCH: Smart Water Vending Machine, [Pi Setup Code](#)

January 2025 – April 2025

IoT-enabled smart hydration system featuring wireless payment and real-time monitoring.

- Designed and developed a real-time **IoT dashboard** using Flask and JavaScript for remote monitoring and system control
- Implemented **ESP32 firmware** to handle sensor data, servo actuation, and UART communication with the dashboard
- Integrated **MQTT and UART protocols** to enable reliable device-server communication across modules
- Contributed to flow control logic and QR-based dispensing simulation using ultrasonic and flow sensors
- Ensured system modularity to support future enhancements like OTA and cloud data logging

Wi-Fi Controlled RC Car using ESP8266, [Source Code Link](#)

September 2024 – December 2024

Developed an IoT-based RC car enabling real-time wireless control via Wi-Fi.

- Designed and developed an **RC car** using **ESP8266 (NodeMCU)** and **L298 Motor Driver**
- Programmed the **microcontroller firmware** for motor control and wireless communication
- Set up the **ESP8266 in AP mode** for easy connection to a control device (phone/laptop) via a local network
- Developed a **user-friendly web interface** to send HTTP requests for controlling car movement in real-time

Additional Info

Achievements:

- Top 5 Finalist**, University-Level Cybersecurity CTF Challenge (2024) – Among 150+ participants.
- Served as **Cultural Captain** in school, leading events and fostering a vibrant cultural atmosphere.
- Grade 2 Keyboard Certification**, Trinity College London.

Languages: English, Hindi, Telugu, Kannada