Vikhyath Pattipaty

6309853939 | vikhyath.pattipaty@students.iiit.ac.in

github.com/flashstep11

Objective

Innovative and hands-on Computer Science student with strong interests in IoT, embedded systems, and automation. Proven experience in designing and building real-world tech projects including an RC Car and a Smart Parking System. Eager to contribute and grow in the fields of embedded development and smart systems.

Education

International Institute of Information Technology, Hyderabad (IIIT-H)

Bachelor of Technology in Computer Science and Engineering

Expected Graduation: July 2028

Projects

Smart Parking System

- Designed a smart parking solution using ESP32, Arduino UNO, and MIT App Inventor.
- Integrated Firebase Realtime Database for real-time sync between hardware and mobile app.
- Implemented:
  * Servo-controlled gate access based on spot availability.
  * IR sensors (13x) to detect car presence.
  * Ultrasonic sensor for barricade control.
  * LCD display (20x4) for driver guidance.
  * RFID-based access control and real-time updates.
  * 'About to Leave' system for efficient space reallocation.
- App displayed real-time vacant spots and allowed spot booking.

RC Car Controlled via Smartphone

- Built an RC car using ESP32 and TB6612FNG motor controller.
- Developed MIT App Inventor interface for mobile control.
- Enabled smooth directional movement and PWM-based speed control.
- Real-time communication via Bluetooth/WiFi.

Technical Skills

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- Programming: C/C++, Python (Basic), Arduino IDE, MIT App Inventor
- IoT Platforms: Firebase Realtime Database, ESP32, Arduino UNO
- Tools: LCD, Ultrasonic Sensors, IR Sensors, Servo Motors, RFID Modules
- Version Control: Git (Basic)

Strengths

- Strong problem-solving and debugging skills
- Quick learner, passionate about electronics
- Real-world embedded systems experience
- Effective communicator and team collaborator

Achievements

- Built and deployed a functional RC car with smartphone control
- Designed a feature-rich Smart Parking System integrating real-time app and hardware sync
- Successfully implemented a servo-controlled gate using RFID and Firebase

Languages

English (Fluent), Telugu, Hindi, Japanese, French