

AMRUT JADHAV

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SUMMARY

Results-driven Embedded Systems Design Engineer with a Bachelor's degree in Electronics and Telecommunications and a Post Graduate Diploma in Embedded System Design. Skilled in Embedded C, C++, IoT, Linux, RTOS, and microcontroller programming. Proven leadership as the president of the electronics department, successfully organizing technical events, and fostering teamwork. Currently preparing for campus placements, I am eager to apply my technical expertise and problem-solving skills in a dynamic engineering environment while continuously enhancing my communication abilities.

SKILLS

- C Programming
- C++
- Data Structures and Algorithms
- Python
- IoT
- Linux
- Operating System
- Real Time Operating System
- Embedded Linux Device Drivers
- Microcontroller Programming and Interfacing
- CAN, I2C, UART, SPI
- Electronics Circuits

PROJECTS

Health Monitoring System Using IoT

Developed a Health Monitoring System using IoT that integrates an STM32 microcontroller with an ESP8266 (NodeMCU) Wi-Fi module and sensors to monitor body temperature, heart rate, and blood oxygen levels. The system employs I2C communication for interfacing with the MAX30100 and DB18B20 sensors and UART for transmitting data between the STM32 and ESP8266. The ESP8266 sends the collected data to a cloud-based platform (ThingSpeak) via HTTP requests, allowing real-time monitoring and database storage. The project ensures reliable data acquisition and transmission, and optionally includes a web-based interface for data visualization.

Fault Tracing of Wiring Harnesses Combined with Automated Reality.

The Fault Tracing of Wire Harness Combined with Automated Reality project involves developing a system that uses Time Domain Reflectometry (TDR) to accurately locate faults in underground cables. By integrating an Arduino UNO with a TDR module, GSM module, and LCD display, the system detects faults by measuring the time it takes for a signal pulse to return after reflecting off a fault. The Arduino processes this data to calculate the precise location of the fault, displays it on the LCD for immediate feedback, and sends SMS alerts via the GSM module for remote monitoring. This approach enhances fault detection efficiency and provides accurate, real-time diagnostics for maintenance and repair operations.

EDUCATION AND TRAINING

Post Graduation Diploma (CDAC)

Embedded System Design, Sunbeam Infotech, Pune September 2024

Bachelor of Engineering

Electronics And Telecommunication Engineering, Bharati Vidyapeeth's College of Engineering, Pune June 2023

HSC

Science Education, DR. Chandrabhanu Sonawane Junior College, Latur April 2019

SSC

Shri Deshikendra Vidyalaya, Latur March 2017

ACCOMPLISHMENTS

- **President, Electronics Department**

Served as president of the electronics department, leading and organizing technical events and workshops to enhance student engagement and learning. Fostered teamwork and collaboration among peers, promoting knowledge sharing and innovation within the department.

CERTIFICATIONS

- **C and Python Programming**

Achieved certifications in C and Python, showcasing a strong foundation in programming concepts and software development. Proficient in utilizing these languages to solve complex problems and create efficient solutions.