

# Alwal Rohan Ambadas

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## Education

<b>Walchand Institute Of Technology, Solapur</b>	2026
Bachelor of Engineering - Electronics and Telecommunication Eng	CGPA-9.56
Solapur, India	
<b>Government Polytechnic, Solapur</b>	2023
Diploma - Electronics and Telecommunication	Percentage-92.72
Solapur, India	

## Experience

**Vertex Technology** *2023, Solapur, India*

- Designed and implemented various embedded systems using Proteus simulation software.
- Gained hands-on experience in circuit design and real-time application development.
- Developed expertise in integrating and calibrating a wide range of sensors for embedded systems.

## Projects

**Robotic Arm using Arduino** *April 2023*

- Designed and developed a functional robotic arm controlled by Arduino, showcasing advanced embedded system capabilities.
- Developed a robotic arm prototype powered by Arduino, designed for applications such as automation, material handling, and precision tasks.

**AI-ML based Search and Rescue Drone** *December 2024*

- Designed and developed a drone leveraging AI and machine learning for efficient search and rescue operations in disaster-affected areas.
- Integrated real-time image recognition and object detection algorithms to identify survivors and critical landmarks.

**User Authentication System** *March 2025*

- Implemented a secure user authentication system using Node.js, JWT, and bcryptjs. Integrated password hashing with bcryptjs for secure credential storage and utilized JSON Web Tokens for stateless, token-based authentication. Enabled protected route access, token verification, and user session management with strong encryption standards.

## Technical Skills

**Core Subjects:** Data Structures and Algorithms, Microcontroller, IOT, Embedded System

**Languages:** C++, C, Java

**Databases:** MYSQL

**Full Stack:** MongoDB, Express JS, React JS, Node JS

**Other Qualities:** Problem Solving, Leadership, Team Work

## Achievements

Achieved finalist position in the prestigious Smart India Hackathon (SIH), demonstrating innovative problem-solving skills and technical expertise in developing impactful solutions.