

Guru Sakthi S

Embedded Systems and IoT Engineering Student

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Summary

Electronics and Communication Engineering student with strong interest in embedded systems and Internet of Things solutions. Hands-on experience in building automated embedded systems and machine learning applications, with a focus on optimization, reliability, and real-world problem solving.

Education

Bachelor of Engineering in Electronics and Communication Engineering

Kongu Engineering College

2023 – 2027

CGPA: 9.04 / 10

Higher Secondary Education

Bharathi Vidya Bhavan

2022 – 2023

Percentage: 85.33

Projects

Hand Sign Recognition System for Deaf Communication

- Implemented a machine learning model trained on over 1,000 labeled hand gesture images.
- Improved recognition accuracy through optimized image preprocessing and feature extraction.

Smart Air Purifier Using Dual Activated Carbon Filters

- Developed an automated air purification solution using gas sensors and embedded controllers.
- Integrated dual filter switching to ensure continuous operation.
- Decreased manual intervention by approximately 80% through automation.

IoT-Based Waste Segregation and Tracking System

- Built a sensor-driven waste segregation system using IoT-based architecture.
- Enabled real-time monitoring through mobile application integration.

Portable Electric Rover for Tapioca Harvesting (YUKTI 2025)

- Engineered a battery-powered electric rover to assist small-scale farmers.
- Lowered manual harvesting effort by approximately 60%.
- Project selected under the Institution Innovation Council, Ministry of Education.

Technical Skills

Programming Languages: C, C++, Java, Python

Web & Application Development: MERN Stack, Flutter, REST APIs

Embedded Systems & IoT: ESP32, PIC Microcontroller, Raspberry Pi, Sensors

Tools & Platforms: Linux, Git, GitHub

Professional Skills

Problem Solving, Teamwork, Communication Skills, Time Management, Adaptability, Attention to Detail

Awards and Achievements

- Secured first place in a state-level C Programming Competition among 1,500 participants.
- Won second place in a VLSI and Internet of Things paper presentation.
- Ranked among the top five participants in the EBox Top Coders Competition.
- Won second place in an Ideathon for an Indian Sign Language Translator concept.

Certifications

- Oracle Java Foundation Associate Certification
- Embedded Internet of Things and Open Source Programming using Raspberry Pi 4
- Industry Ready Engineering – Sunshiv Electronic Solution

Languages

Tamil (Native), English (Professional Proficiency), Hindi (Conversational)