

# HINDHUJA S

## ELECTRICAL ENGINEER

Tiruvannamalai, Tamilnadu

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## OBJECTIVE

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To begin my career as an Embedded Systems Engineer where I can apply my knowledge of microcontrollers, C programming, and circuit design to develop efficient and innovative embedded solutions.

## EDUCATION

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**Thanthai Periyar Government Institute Of Technology, Vellore**

Oct 2021 - May 2025

Bachelor's in Electrical and Electronics Engineering with a CGPA of 8.

**Sri Vidya Mandir. Mat. Hr. Sec. School, Uthangarai**

June 2020 - Mar 2021

High school graduate with excellent academic performance of 87%.

**A.V.M. Mat. School, Mallikapuram**

June 2018 - Mar 2019

Completed the 10th grade with a cumulative percentage of 82%.

## TECHNICAL SKILLS AND AREA OF INTEREST

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Embedded C  
STM32, Arduino  
SPI, UART, I2C

STM32cubeIDE  
MPLAB, Keil  
Proteus

Problem solving  
Adaptability  
Teamwork

## PROJECTS

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### Smart Trash-Can using Esp-32

A Smart Trash Can is an automated dustbin that opens its lid automatically when someone comes near it. It uses an ultrasonic sensor to detect motion and a servo motor to open and close the lid. The system is controlled by an Arduino microcontroller.

### Child Safety Proximity Alarm and Borewell Child Rescue System using Robotic arm

The first part is a Child Safety Proximity Alarm, which uses an ultrasonic sensor to detect nearby movement and automatically trigger an alarm and close the borewell with a mechanical lid. The second part is a Borewell Child Rescue System using a robotic arm controlled by Arduino and ESP32. Equipped with a camera, gas sensor, heart rate sensor, and voice recognition module, the robotic arm provides visual feedback, monitors the child's condition, communicates with them, and safely rescues them using an automated gripping mechanism.

## INTERNSHIP

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Internship on Embedded in Embuzz.

## ADDITIONAL INFORMATION

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**Certifications:** Completed a certified course in Embedded Systems.