

# Arya S Prakash

## Embedded Systems

+91 8547569155 — [aryaohmprakash@gmail.com](mailto:aryaohmprakash@gmail.com) — [www.linkedin.com/in/arya-s-prakash-60466a20b](https://www.linkedin.com/in/arya-s-prakash-60466a20b)

## Summary

---

M.Tech Embedded Systems engineer with a strong passion for innovation and problem-solving in embedded technology. Eager to contribute my skills, learn continuously, and create impactful solutions that drive efficiency and advancement in the industry.

## Area of Interest

---

- IoT
- Embedded System Programming
- Robotics

## Experience

---

### SMART ENVIRONMENT MONITORING

- Developing a Smart Environment Monitoring system using MQ-7, DHT11, and an accelerometer for IoT applications.
- Tracks air quality, temperature, humidity, and movement, providing real-time alerts and insights for a healthier and more efficient environment.

### AUTISM DETECTION USING EEG

- Developed an EEG-based autism detection system using a Butterworth bandpass filter for preprocessing and feature extraction with DWT, Lyapunov exponent, Shannon entropy, and sample entropy to differentiate autistic and non-autistic patterns.

### FLEET MANAGEMENT USING FREERTOS

- Developing a real-time fleet management system using FreeRTOS on ESP32 for efficient vehicle monitoring and navigation.
- Integrated an ultrasonic sensor for obstacle detection and a servo motor for automated control.

### DESIGN AND IMPLEMENTATION OF LLC RESONANT DC-DC CONVERTER

- Designed and implemented an LLC resonant DC-DC converter for high-efficiency power conversion.
- Leveraged soft switching to minimize losses, reduce EMI, and enhance reliability for applications in data centers, EVs, and renewable energy systems.

## Education

---

### M.Tech in Embedded Systems

Amrita Vishwa Vidyapeetham, Coimbatore

CGPA: 8.27

### B.Tech in Electrical and Electronics Engineering

CGPA: 8.21

## Skills & Abilities

---

- C programming, Python, MATLAB
- LPC2148, Raspberry Pi Pico
- SolidWorks, KiCAD
- Verilog basics

## Achievements & Awards

---

- Our Team Aqua Ignis secured Global rank 9 at ASME SDC 2022
- Our Team XLR8R secured Global rank 8 in ASME E-Fx 2023
- Our Team EYTHOR secured 1ST RUNNER UP for the project 'EX-CEPTION' in Girlathon 2023 (by GDSC) at KSUM
- Our Team ALLIES became Finalists for YESIST12 Grand Finale 2023 conducted at Egypt

## Languages

---

- Malayalam (Fluent)
- English (Fluent)