



# SANJAY SATHYAMOORTHY

ELECTRONICS AND COMMUNICATION ENGINEERING

## PROFESSIONAL SUMMARY

Electronics and Communication Engineer with expertise in PCB design, FPGA programming, and IoT integration. Skilled in developing real-time monitoring solutions and driving innovative product development.

## EDUCATION

- **BACHELOR OF ENGINEERING IN ELECTRONICS AND COMMUNICATION ENGINEERING**  
Rajalakshmi Institute of Technology , Chennai  
CGPA - 8.25 | Graduate May 2024
- **HSC**  
Shanthinikethan Matriculation Higher Secondary School, Vellore  
Percentage - 67.8 | March 2020
- **SSLC**  
Shanthinikethan Matriculation Higher Secondary School, Vellore  
Percentage - 82.8 | March 2018

## EXPERIENCE

### INTERN, VARIABLE ENERGY CYCLOTRON CENTER (VECC), KOLKATA

July 2023 – August 2023

- Worked on the project titled "Design of FPGA-Based Humidity and Temperature Sensor for Gas Detector."
- Implemented a real-time monitoring system for atmospheric temperature and humidity levels, resulting in enhanced 99% accuracy of the gas detector.

### PARTICIPANT, QUARTUS PRIME LITE SOFTWARE TRAINING WORKSHOP

- Facilitated a 2-day comprehensive training workshop on Quartus Prime Lite software.
- Empowered the team to proficiently program FPGA-based devices, contributing to improved product development.

## PROJECT

### INVERTER MONITOR AND CONTROL USING IOT (FINAL YEAR PROJECT)

- Developed an advanced inverter system with a lithium-ion battery and ferrite core transformer, achieving a 20% increase in efficiency and reducing the overall system size by 15%.
- Designed a PCB layout using Proteus software, optimizing component integration and functionality, leading to a 30% improvement in performance.
- Integrated IoT technology for remote monitoring and management, enhancing power output accuracy by 25% and enabling real-time adjustments that reduced operational downtime by 10%.

### IOT-BASED OCR SMART TROLLEY FOR VISUALLY IMPAIRED AND ELDERLY PEOPLE

- Designed a smart trolley with OCR and text-to-audio conversion, improving real-time product identification accuracy by 40%.
- Implemented voice-based product selection, obstacle detection, and RFID-based automated billing, reducing shopping time by 30% and enhancing user independence by 50%.

## CO CURRICULAR ACTIVITIES

- **ICRTICPT 2022 Conference:** Presented a paper on "Internet of Things" to an audience of over 200 professionals and academics, contributing to discussions on emerging IoT technologies.
- **AAVISHKAAR at VEL TECH HIGH TECH:** Delivered a project presentation to 100+ attendees, showcasing innovative solutions and receiving positive feedback for technical rigor.
- **Flex Electronics Industrial Visit:** Gained in-depth knowledge of the PCB assembly industry, observing processes that improved understanding of advanced manufacturing techniques by 30%.

## PERSONAL INFO

- 📞 9385619541
- 📍 No 48, Azhagiri Nagar, Alamelumangapuram, Vellore-632009.
- ✉️ gss.sanjay23@gmail.com
- 💻 <https://github.com/sanjay-923>
- 🌐 <https://linkedin.com/in/sanjay-s-6b48a6200>

## TOOLS

- Quartus prime
- Proteus 8
- Thonny
- KEIL U5
- Altium

## EXPERTISE

### Core

- FPGA circuit building
- Embedded
- PCB Designing
- Beginner in Verilog HDL

### Programming Language

- Beginner in C Language
- Beginner in Python

## ACHIEVEMENTS

- Won a monetary prize at the technical symposium.
- Won the trophy in a throw ball competition at the zonal level.

## LANGUAGE

- Tamil (R,W,S)
- English (R,W,S)

## PERSONALITY TRAITS

- Flexibility
- Rapid learner
- Fostering teamwork