

SIDDARTH SARAVANAN

EDUCATION

B.Tech – Electronics and Communication Engineering

Amrita School of Engineering , Coimbatore

2022-2026

GPA 7.58/10

Senthil Public School , Salem

AISSCE(2022) – 90%

AISSE(2020) – 92%

OBJECTIVE

As an Electronics and Communications Engineer , I hope to use my skills to interpret, manipulate and analyse signals and circuits to arrive at sustainable solutions for real-world problems. I hope to work in a collaborative environment where we, as a team , can improve ourselves and promote innovation.

AREAS OF INTEREST

- Digital Communication and Digital Signal Processing
- Pattern Recognition , Probability and Random variables
- Communication Theory
- Analog and Digital Electronics

PROJECTS

- **IOT solutions for Senior Care**

The project leverages IoT technology using ESP32 to monitor senior citizens by integrating various sensors and modules. It comprises **health metrics monitoring** , **GPS** and **AI-based obstacle detection** . A mobile application ensures real-time data visualization for the patients wellbeing.

- **Audio Source Separation using python and ML**

Developed a signal processing model for isolating audio components from mixed audio sources. Applied **spectrum allocation** techniques to enhance separation of vocals, drums, and bass, optimizing performance with **CNN**-based architectures. Utilized **PyTorch** and **Librosa** for processing and analysis.

SKILLS & OTHER QUALIFICATIONS

- Certified in Data-analytics (using excel)
- Experienced in using ANSYS, Proteus, SPICE modeling, Vivado, and CAD for engineering simulation, analysis, and design.
- Multilingual proficiency (English , Tamil and Hindi)
- Critical thinking and Logical Reasoning
- Team management and coordinative participation
- Well-versed in Python , C programming languages
- foundational programming certification in MATLAB