

Adithya Ram S
ECE Undergraduate | CGPA: 8.29
Bachelor of Technology
Indian Institute of Information Technology Sri City

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EDUCATION

- **Bachelor of Technology in Electronics and Communication Engineering** 2023-27
Indian Institute of Information Technology Sri City CGPA: 8.29
- **Higher Secondary School (Class 12)** 2021-23
Narayana Junior College, Chennai Score: 93%
- **Senior Secondary School (Class 10)** 2019-21
Narayana Olympiad School, Chennai Score: 90%

EXPERIENCE

- **Software Intern - Hardware Platform Solutions** May - July 2025
Built test automation dashboard for hardware validation Celestica India Pvt. Ltd., Chennai
– Developed API-based rerun system with SSH integration for automated testing workflows
- Improved database interaction and resolved qTest UI synchronization issues
- Enhanced hardware validation efficiency through comprehensive dashboard implementation
- **Research Intern - Honours Project** July - August 2025
IoT-based Smart Mobility Solution Development IIIT Sri City
– Developed IoT-enabled e-cycle system with GPS tracking and IMU sensor integration
- Implemented real-time data visualization dashboard using Firebase and Leaflet.js
- Integrated multi-sensor data fusion for enhanced vehicle monitoring and safety applications

PERSONAL PROJECTS & RESEARCH

- **Design of CMOS Pulse Shaping Circuits for Qubit Control** Aug 2025 - Present
VLSI research on superconducting qubit controllers and DRAG pulse shaping
– Studying state-of-the-art CMOS controllers for superconducting qubits (IEEE QIS review, 2023)
- Exploring simplified Gaussian pulse generator block as foundation for DRAG pulse shaping
- Simulating pulse waveforms and spectral leakage reduction in MATLAB/Python
- **SAFE-RHD 2.0: Road Hazard Detection Framework** Aug 2025 - Present
Ongoing research to reproduce and enhance edge-based road safety systems
– Reproducing SAFE-RHD framework with real-world datasets for road anomaly detection
- Implementing multi-sensor fusion using Extended Kalman Filter (EKF) for enhanced accuracy
- Developing lightweight machine learning models for edge deployment on two-wheeler platforms
- **Smart Street Light using LoRa Communication** Oct - Dec 2024
AC dimmer controlled street lighting system with remote monitoring capabilities
– Developed LoRa communication protocol for server-to-streetlight data transmission
- Implemented AC dimmer circuit for intelligent brightness control based on ambient conditions
- Technology Used: LoRa modules, AC dimmer circuits, Arduino, C++ embedded programming
- **Wi-Fi Jammer & Repeater System** May - June 2024
Dual-purpose wireless network management system using ESP8266 microcontroller
– Successfully extended Wi-Fi coverage range through repeater functionality implementation
- Developed Wi-Fi network jamming capabilities for security testing purposes
- Technology Used: ESP8266, C++, Wireless protocols, Network security techniques

TECHNICAL SKILLS AND INTERESTS

- Programming Languages:** C, C++, Python, Embedded C, Verilog HDL, MATLAB
- Microcontrollers & Platforms:** ESP32, ESP8266, 8051, PIC16F877A, Arduino
- Development Tools:** Arduino IDE, Firebase, Leaflet.js, Git, GitHub, MATLAB, Python
- Communication Protocols:** LoRa, Wi-Fi, V2V Communication, IoT Protocols
- Hardware Skills:** Circuit Design, PCB Design, VLSI, Embedded Systems, AC Dimmer Circuits
- Relevant Coursework:** Digital Logic Design, Embedded Systems, Control Systems, Signals & Systems, Circuit Network Analysis, Data Structures & Algorithms
- Areas of Interest:** VLSI Design, Quantum Computing, IoT Systems, Embedded Programming, Smart Mobility, Pulse Shaping Circuits
- Soft Skills:** Team Leadership, Project Management, Problem Solving, Technical Documentation

POSITIONS OF RESPONSIBILITY

•Club Lead NexSync Smart Mobility Club - IIIT Sri City

Aug 2025 - Present

- Leading smart mobility research initiatives and vehicle-to-vehicle communication projects
- Managing club activities and coordinating technical projects in intelligent transportation systems
- Supervising team members in developing innovative solutions for smart transportation challenges

•Co-Lead - Marketing Team IIIT Sri City - Institute Level Events

Sep 2024 - Sep 2025

- Led marketing initiatives for all institute-level events and promotional activities
- Managed social media presence and digital marketing campaigns for increased engagement
- Coordinated team of marketing volunteers and supervised event promotion strategies

CERTIFICATIONS & ACHIEVEMENTS

Verilog HDL: VLSI Hardware Design Comprehensive Masterclass

April 2025

Udemy — Certificate No.: UC-be61c907-8e0f-484b-9eb8-6927c2eae458

IoT and Autonomous Systems Program

May 2025

IIIT Sri City — IEEE ITSS Certification (IoT & Wireless Communication, Intelligent & Autonomous Systems, Digital Twin Applications)

7 Days Internship on IoT with ESP32

March 2024

COGTIS Technologies Pvt. Ltd. — Certificate No.: 17499

Marketing Team Co-Lead Recognition

Academic Year 2024–25

IIIT Sri City — Certificate of Appreciation (Ref: IIITS/AY2425/Certificate/Marketing Team/2)