Keerthi Varma

+91 90000 00002 | keerthi.sample@example.com | Visakhapatnam, Andhra Pradesh | github.com/example | linkedin.com/in/example

SUMMARY

Final-year ECE student who designs IoT hardware and firmware. Built 4 working prototypes on ESP32 and STM32 and completed a VLSI design internship.

EDUCATION

Andhra University College of Engineering Aug 2023 - May 2027
B.Tech Electronics and Communication Engineering CGPA 8.9/10

- Relevant coursework: Digital Electronics, Microcontrollers, VLSI Design, Signals and Systems

Narayana Junior College, Visakhapatnam Jun 2021 - Apr 2023
Class XII (MPC) Percentage: 95.8%

EXPERIENCE

VLSI Design Intern May 2026 - Jul 2026
SiliconEdge Labs Bengaluru

- Wrote and verified Verilog RTL for a UART controller in Vivado
- Ran timing analysis and fixed 12 setup violations
- Documented the test bench used by the next intern batch

PROJECTS

Smart Energy Meter | *ESP32, MQTT, C, Node-RED*

- Measured load with ±2% error against a reference meter
- Sends alerts on WhatsApp when usage crosses a limit

Gesture Controlled Robot | *STM32, MPU6050, nRF24L01*

- Wireless control up to 40 m with under 50 ms latency
- Debugging with logic analyser cut packet loss from 12% to 2%
- Won 2nd place at the department project expo

4-bit ALU on FPGA | *Verilog, Vivado, FPGA*

- ALU with 8 operations implemented and tested on a Basys-3 board.

PUBLICATIONS

Low-Power FPGA Implementation of a Real-Time ECG Noise Filter Jul 2026
K. Varma, S. Rao, Dr. P. Lakshmi · IEEE ICCCNT 2026 Accepted

- FIR filter on Artix-7 using 38% fewer LUTs than the reference design at 250 Hz sampling

TECHNICAL SKILLS

Hardware: ESP32, STM32 (ARM Cortex-M), Arduino, PCB design (KiCad), Oscilloscope
Programming: Embedded C, FreeRTOS (RTOS), Verilog, Python, MATLAB
Protocols: UART, I2C, SPI, MQTT

CERTIFICATIONS

- Embedded Systems Essentials - NPTEL (Nov 2025)

ACHIEVEMENTS

- 2nd place, ECE Project Expo - Andhra University (Mar 2026)