

Krishna Rathwa

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Education

VIT Bhopal University		Bhopal, Madhya Pradesh
B.Tech in Electronics and Communication Engineering	8.54/10	Oct 2022 – Ongoing
The New Era Public H.S School		Indore, Madhya Pradesh
Class XII(CBSE)	76.8%	May 2022
Sandipani Vidhya Vihar H.S School		Indore, Madhya Pradesh
Class X(CBSE)	77.8%	July 2020

Technical Skills

- **Languages / Tools:** C++, Embedded C, LTSpice, Keil, DSA, Project Management
- **Coursework:** Embedded Systems

Academic Projects

Gas Level Monitoring System Aug 2023
Embedded Systems & IoT

- Developed a system to measure gas level monitoring system for providing preventative alerts.
- Achieved **98% accuracy** in detection accuracy for hazardous gas level and reducing response time by 70%.
- **Technologies:** MQ-02 sensor, Raspberry Pi Pico, LED Display, Temperature sensor, Matlab .
- **Role:** Embedded logic design, sensor fusion, and integration.

Designing Sensors through HEMET using Cadence OCT 2023
VLSI Design & IC Design

Designed and simulated sensors using HEMET technology in Cadence. Focused on optimizing sensor performance for precise detection efficiency, **Reduced** power consumption by **15%** and improved detection accuracy by **20%** through iterative design optimizations and simulations.

- **Technologies:** Cadence software.
- **Role:** Designing and simulation of sensors using HEMET in cadence.

Home Automation System April 2025
Embedded Systems

- Developed a modular smart home system with temperature, ultrasonic, and light sensors using ESP32. Achieved **80% accuracy** in automated environmental control based on real-time sensor data.
- **Technologies:** ESP32, Ultrasonic, LDR, Temperature sensor, Fan, C++ .
- **Role:** Embedded logic design, sensor fusion, and integration.

Experience

Electronics Engineer Intern **Dr. Ambedkar Lab Foundation (NGO)**
Non-Profit Organization NOV 2023-DEC 2023

- Developed and prototyped 3+ new Embedded Systems.
- **Mentored** a cohort of **25+** students in **robotics, coding, and STEM education**, guiding them through the entire product development lifecycle from ideation to final prototype.
- **Optimized** and **troubleshoot** existing **Embedded Systems**, successfully reducing system errors by **15%** through improved **hardware and software integration**. [Certificate].

Extra-Curricular & Achievements

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- Managed National Symposium on Innovations in Intelligent Systems Vit Bhopal.
 - Core Member, IEEE Chapter VIT Bhopal University.
 - Event Management Head, VITronix Club VIT Bhopal.

Additional Information

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- **Languages:** English, Hindi
 - **Hobbies:** Watching & Playing Cricket, Mobile Gaming