# Krishna Rathwa

#### Education

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

### Technical Skills

Languages / Tools: C++, Embedded C, LTSpice, Keil, DSA, Project Management.

Coursework: Embedded Systems

### **Academic Projects**

Gas Level Monitoring System Embedded Systems & IoT

Aug 2023

- Constructed a gas level monitoring system to provide preventative alerts.
- Achieved 98% accuracy in detection for hazardous gas level and reducing response time by 70%.

Technologies: MQ-02 sensor, Raspberry Pi Pico, LED Display, Temperature sensor, Matlab.

Role: Firmware development, multi-sensor data synthesis, and system integration.

Designing Sensors through HEMET using Cadence

Oct 2023

- VLSI Design & IC Design
- Designed and simulated sensors using HEMET technology in Cadence, focusing on optimizing sensor performance.
- Reduced power consumption by 15% and improved detection accuracy by 20% through iterative design optimizations.

Technologies: Cadence software.

Role: Designing and simulation of sensors using HEMET in cadence.

Home Automation System **Embedded Systems** 

April 2025

- 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** Non-Profit Organization

Dr. Ambedkar Lab Foundation (NGO) Nov 2023 - Dec 2023

- Engineered and prototyped 3+ new Embedded systems.
- Mentored a cohort of 25+ students in robotics, coding, and STEM education.
- Optimized and troubleshot existing Embedded Systems, reducing system errors by 15%.

## Extra-Curricular Achievements

Managed National Symposium on Innovations in Intelligent Systems, VIT Bhopal.

Core Member, IEEE Chapter VIT Bhopal University.

Event Management Head, VITronix Club VIT Bhopal.

# <u>Additional Information</u>

Languages: English, Hindi

Hobbies: Watching Playing Cricket, Mobile Gaming