

# RASIKA UDATE

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## EDUCATION

### Maharashtra Institute of Technology- World Peace University

Sep 2023 - Present

*Bachelor of Technology in Electrical & Computer Engineering*

Relevant coursework: Power Electronics, Microcontrollers & Applications, Analog/Digital Electronics, Electrical Machines, DSA, DBMS

## WORK EXPERIENCES

### Data Analyst | Internship

Oct 2025 - Present

*Ethiqua Pvt Ltd.*

- Performed market research and data analysis, including open-ended data collection, to uncover trends to support smarter business decisions.
- Cleaned and validated datasets while contributing to key project insights as a critical team member.

### Research Assistant

Oct 2023 - Mar 2024

*Subsea Labs at MIT-WPU*

- Developed MATLAB models to analyze fluid dynamics in capsule-type tanks, calculating fill times and volume variations.
- Assisted in formula derivation, data visualization, and research progress meetings under Dr. Spruha Dhavale's supervision.

*Technologies / Skills Used : MATLAB*

## PROJECTS

### Ultrasonic-LiDAR Autonomous Vehicle

Jul 2025 - Dec 2025

- Built a low-cost autonomous vehicle that uses ultrasonic sensors to simulate LiDAR, enabling Level-3 ADAS functions like real-time obstacle detection, safe navigation, and automated decision-making.
- Created interactive MATLAB tools — radar-style LiDAR view, path simulator, and EV dashboard — to test and optimize control logic before moving to hardware.

*Technologies / Tools Used : MATLAB*

### IoT-Based Driver Alertness & Car Safety System

Jan 2023

*Team Lead*

- Developed a **real-time system** for **drowsiness detection**, heart rate monitoring, and obstacle detection using **Arduino** with LCD/buzzer alerts.
- Employed **ESP8266** for wireless transmission of cabin **temperature/humidity** (DHT22) and **air quality** data (MQ135).

*Technologies / Tools Used : Arduino, ESP8266, DHT22, MQ135*

## SKILLS

**Programming Languages :** C, Python, Java

**Tools & Platforms :** MATLAB, SimuLink, AutoCAD

**Databases :** MySQL

## CERTIFICATIONS

**NPTEL C-based VLSI Design**

Nov 2025

**NPTEL Embedded System Design with ARM**

Mar 2025