



Kartikey Pathak

Roll No.: 231030029

B.Tech Electrical Engineering

Minor in Robotics

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EDUCATION

•Veermata Jijabai Technological Institute (VJTI)

2023 - 2027

B.Tech in Electrical Engineering

CGPA: 8.01

•Matoshree Prabodhini Jr. College

2023

HSC, Maharashtra State Board

MHTCET: 99.14%

EXPERIENCE

•Krishna Defence and Allied Industries

March 2025 - Present

Intern

IIT Gandhinagar

- Designed and developed a product from scratch, utilizing ROS2 and Ultra-Wideband (UWB) technology for autonomous warehouse navigation.

PERSONAL PROJECTS

•Voice Video Manipulator

June 2024 - July 2024

Controlled an Open Manipulator X in Gazebo using forward and inverse kinematics with ROS2 environment camera integration.

Tools: ROS2, Gazebo, RViz

- Successfully spawned the model and implemented pick-and-place functionality for objects.

•ForkliftSLAM Navigator

March 2025 - Present

Implemented SLAM using NAV2 and UWB technology for precise localization and navigation of a forklift in warehouse settings.

Tools: ROS2, NAV2, UWB, RasPi

- Successfully initiated SLAM implementation in ideation phase; project currently in progress.

•Kuruma

January 2025 - March 2025

Developed a quadruped robot for the Mass Robotics Competition, designing a gait mechanism for stable movement; advanced to later competition rounds.

Tools: C, Python

- Successfully navigated the quadruped in the SRA Lab, demonstrating effective mobility.

TECHNICAL SKILLS

- **Programming:** C, C++, Python
- **Software:** ROS2, Gazebo, RViz, KiCAD, ESP-IDF
- **Hardware:** ESP32, Raspberry Pi

POSITIONS OF RESPONSIBILITY

•Department Head,Pratibimb, Cultural Committee

August 2023 - March 2025

•Active Member,Society of Robotics and Automation (SRA)

August 2024 - March 2025

ACHIEVEMENTS

- Secured victory for the Electrical Engineering branch**, Won a trophy for my branch at Pratibimb, the first victory in the competition's 26-year history.

17th December 2024

- Consistently excelled in multiple hackathons**,Delivered strong performances with my team in every hackathon participated during first and second years at VJTI.

2023 - 2025