HRUSHIKESH UPADHYA

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ABOUT ME

Electrical and Instrumentation Engineering student with a strong foundation in electrical systems and software development. Highly interested in embedded systems and VLSI chip designing, with a passion for building a solid base of fundamental knowledge. A research-oriented and curiosity-driven individual, known for strong analytical and problem-solving skills. Actively serving as Student Placement Coordinator, demonstrating leadership, communication, and organizational abilities. Skills include C, Python, MATLAB, and Verilog.

EDUCATION

JSS ACADEMY OF TECHNICAL EDUCATION, BENGALURU
Bachelors of Engineering in Electronics and Instrumentation
Dec 2022 - Present
CGPA 8.28

S CADAMBI INDEPENDENT PU COLLEGE, BENGALURU
Higher Secondary Education in Science (PCME)
Completed in 2022 | 93%

ST THOMAS CONVENT AND HIGH SCHOOL, BENGALURU
Secondary Education (Class 10)
Completed in 2020 | 94%

SKILL

- Hands-on experience with microcontroller programming
- MS Excel, MS Word and MS PowerPoint.
- Hands-on experience with basic PCB Design using DipTrace
- Basic proficiency in C, Python, MATLAB, and Verilog
- Hands-on experience with Arduino based embedded systems
- Familiar with VLSI design concepts and RTL-to-GDS workflows

SOFT SKILLS

- Analytical thinking & attention to detail
- Teamwork
- Effective communication Problem solving
- Time management

PROJECTS

VISIBILITY MEASUREMENT IN FOGGY AREAS **MAR 2025 - APR 2025**

Developed a MATLAB-based system to estimate visibility in foggy environments using digital image processing techniques. Applied image enhancement and analysis algorithms to extract meaningful data from foggy images for accurate visibility assessment.

GESTURE CONTROL ROBOT **Nov 2024 - Jan 2025**

A Gesture Control Robot is a wireless robot that moves based on hand gestures. It uses sensors like accelerometers or flex sensors to detect hand movements, which are processed by a microcontroller and transmitted to the robot via wireless modules (e.g., RF or Bluetooth). This project demonstrates human-machine interaction and is useful in areas where touchless control is needed, such as hazardous environments or assistive technology.

SMART BRIDGE **Nov 2024 - Jan 2025**

The Smart Bridge System is an automated solution designed to detect flood conditions using moisture sensors and adjust the bridge height accordingly to ensure safe passage. It enhances flood resilience and safety by dynamically responding to rising water levels.

PICK AND PLACE ROBOT **May 2024 - July 2024**

A Pick and Place Robot is an automated system designed to move objects from one location to another with speed and precision. It consists of a robotic arm, a gripper or suction device, and a control system powered by a microcontroller. Commonly used in industries for tasks like sorting and packaging, the robot uses sensors to detect object positions and perform accurate movements. This project showcases basic automation using mechanical, electrical, and programming integration.

CERTIFICATES

- VLSI RTL to GDS
- STRATEGY FORMULATION AND DATA VISUALIZATION
- PCB DESIGN WORKSHOP
- ARTIFICIAL INTELLIGENCE FOUNDATION: ML

OTHER INFO

- Completed Python Fundamentals (syntax, data types, problem-solving)
- Participated in workshop on PCB Designing (technical skills, hands-on projects) by Inovact.
- Participated in workshop on NanoSatellite Technology by Valles Marineris International Pvt Ltd and JSS S&TU.