AYANDEEP DUTTA

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EDUCATION

Kalinga Institute of Industrial Technology, Bhubaneshwar — October 2021 – September 2025
Btech final year in Electronics and Computer Science - CGPA 7.14

Vivekananda Academy, West Bengal — 2021
12th pass CBSE - 86.4%

Don Bosco Bandel, West Bengal — 2019
10th pass ICSE - 91.2%

ACHIEVEMENTS

- **Qualified** ISRO UROC Space Robotics Challenge 2024
- **Finalist** Flipkart Grid 5.0 Robotics Challenge 2024 at IIT Madras
- **Qualified and Attended** Oppo Inspiration Challenge 2023 at Bangkok
- **Second Position** in IEEE Vegathon 2023 by CDAC at IIT Guwahati
- **First Position** India Innovates 2023 at IIT Kharagpur

PROJECTS

Voice Integrated Home Automation
-An esp8266 wifi enabled IoT Node. -Analog Voice amplification using amplifier. -Voice recording using interrupt functionality. -Voice Recognition using Google assistant api. -Python based Backend hosted on AWS EC2. -Relay control and Notification playback. -User Interface Frontend hosted on 000webhost.com.

Gesture Recognition Glove
-A glove like device to recognize hand gestures using AI. -Play preassigned voice feedback to known gestures. -Based on stm32f103 and esp32c3pico. -Uses ADC and IMU for movements of fingers and hands. -BLE connectivity with android app. -FreeRtos scheduling is used to manage tasks. -Battery powered device.

Robotics Arm with 6 DOF
-A Robotic Arm having 6 DOF with pneumatic suction gripper. -Uses a Mega2560 dev board for Arm control. -Uses a Arduino Nano board for gripper control. -Uses Raspberry Pi4 running ROS and Object Detection and Tracking. -Has integrated video streams from 2 cameras. -ROS Integration between Arm controller through Rviz, Gripper and AI.

Plant Growth with Environment Monitoring and Control System
A system to contain and enhance growth rate of plants in a close environment by subjecting to specific wavelength light and maintaining optimal climate and soil conditions.

SKILLS

- Embedded System design
- Embedded C/C++
- Arduino
- Stm32 Bare Metal
- ESP32 Free Rtos
- Linux
- ROS
- Python
- MySQL

POSITIONS OF RESPONSIBILITY

- **ASST. COORDINATOR** KIIT Robotics Society
- **RND LEAD** KIIT Robotics Society