Rohit Singh

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EXPERIENCE

Research Publication | 46th (Inter) National System Conference

Under the Academic Projects section, you will find a reference to the paper on Plant Disease Detection with Bluetooth Controlled Rover Project. Notably, this paper received recognition as the best paper in the Agroecology-cum-Precision Farming Systems category.

Industry Automation Engineer Intern | Livwize IoT Solutions Smart Industrial Automation India (R&D), Noida

Developed a 6-Node device for power monitoring in homes and industries as part of a collaborative team effort. Successfully created a precise Ohm meter to meet client specifications.

Conceptualized, designed, and independently developed a prototype for a smart environmental monitoring device, showcasing innovation and initiative.

❖ Research Publication | 45th (Inter) National Systems Conference

The research was based on value-based education and several solutions was provided to deploy value-based education in higher studies.

❖ Internship with college | Dayalbagh Educational Institute (2020 – Present)

As an intern on a pollution control project utilizing water mist, my primary responsibility was to monitor air quality. I was enrolled in the Learn and Earn program.

EDUCATION

- ❖ ITI Automobile | Dayalbagh Educational Institute, Agra | CGPA: 85.60
- ❖ B.Voc (AI & Robotics) | Dayalbagh Educational Institute, Agra | CGPA: 8.0 | Passing 2024

ACADEMIC PROJECT

Plant Disease Detection with Bluetooth Controlled Rover

Spearheaded an initiative focused on enhancing agricultural productivity and sustainability. Developed a pioneering solution for farmers that enables disease identification in crops and delivers actionable solutions via WhatsApp.

I was the team leader in a collaborative group project, I assumed the primary responsibility of training and implementing the machine learning model in Raspberry Pi, while also overseeing and executing leadership duties.

Technologies Employed:

Leveraged Machine Learning

Integrated WhatsApp API for message forwarding

Employed Raspberry Pi and other hardware for rover development

Utilized Python for Machine Learning

Implemented Micro-Python for rover functionality

Indian sign language detection

I conceptualized this project aimed at addressing communication barriers between individuals with hearing impairments or speech difficulties and the general population. The core idea involved capturing real-time videos of individuals using sign language, and employing a machine learning model to instantaneously translate these signs into English.

❖ Four-Legged Surveillance Bot

A spider-shaped, four-legged robot equipped with a live feed camera and Bluetooth control. This was specifically engineered for military and surveillance applications in challenging disaster-stricken environments where human access is limited. The robot operates on an Android platform and is remotely controlled via a smartphone.

❖ Home Automation with voice command (Personal Project)

Successfully developed and implemented a voice command and mobile-operated door lock and room light system in my personal room and the main gate of my house. This project has been in use for the past 6 months, demonstrating its effectiveness.

Key Technologies:

- NLP (Natural Language Processing)
- ESP32 (Microcontroller Board)
- MQTT Server

ACHIVMENTS & PARTICIPATIONS

❖ Best Paper Award | 46th (Inter) National System Conference

Received the prestigious Best Paper Award in the Agroecology-cum-Precision Farming Systems category, outshining approximately 400 other papers in the same category.

❖ Poster Presentation | 45th (Inter) National System Conference

Accomplished the honor of Poster Presentation and publication in the highly competitive Value-Based Education category, surpassing approximately 2600 submitted papers.

❖ Smart India Hackathon 2023

Successfully completed an internal hackathon, earning the opportunity to participate in the final showdown.

SKILLS

***** Programming Language

- Python
- C++ (Arduino)
- Java (basic)
- HTML
- CSS
- MySQL

❖ Technologies | Frameworks

- OpenCV
- Scikit_Learn
- Django
- Matplotlib
- TensorFlow (Basic)
- MQTT

❖ Software's

- Adobe Photoshop
- Adobe Illustrator
- Label Image

❖ Microcontroller Boards

- Arduino
- Esp32, Esp8622
- Raspberry Pi