



VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY

Permanently Affiliated to JNTU Kakinada, Approved by AICTE
Accredited by NAAC with 'A' Grade, ISO 9001:2008 Certified
Nambur, Pedakakani (M), Guntur (Dt) - 522508

Department of CSE - Artificial Intelligence & Machine Learning

TL: N Purandheswari(21BQ1A42D3)
TM1: T Varshitha (21BQ1A42H3)
TM2: N Anirudh(21BQ1A42D4)
TM3: N Kartikeya(21BQ1A42D2)

Batch : CSM-C:: 17
SIH ID : 1555

Guide Name:
Dr. K. Suresh Babu

Project Title : AYUSH Virtual Herbal Garden: An Interactive Guide to Medicinal Plants and Ayurvedic Remedies with AI-Powered Plant Identification

Abstract

The Virtual Herbal Garden is an AI-powered interactive platform that bridges traditional AYUSH systems—Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy—with modern technology to educate and empower users in the field of natural medicine. At its core, the platform offers an immersive 3D virtual herbal tour built with A-Frame, allowing users to explore a lifelike garden and interact with plants to learn about their uses. The Plant Information Module provides detailed data on plant properties and applications, while the Medicine Recommendation System suggests Ayurvedic formulations for health concerns using a Flask-MySQL backend. Complementing this, the Yoga Posture Suggestions module recommends yoga practices tailored to ailments, promoting holistic healing. Users can also upload plant images for identification through a machine learning-based recognition system trained on around 2,000 leaf images using TensorFlow and Keras. To enhance accessibility, the platform includes a voice-based search, text-to-speech support, and multi-language translation in English, Telugu, and Hindi. Additional features include a user feedback system, search and filter functionality, and QR code generation for sharing plant profiles. The platform also features a Herbal Teas Module that educates users on the preparation and benefits of herbal beverages made from ingredients like tulsi, ginger, and mint. By seamlessly combining education, AI, and traditional healing wisdom, the Virtual Herbal Garden stands as an innovative, inclusive, and accessible digital solution for promoting natural health and wellness.

Signature of
Guide

Signature of
Project Co-ordinator