Project Report On

Smart Plant Care System for Farming & Gardening

by

Maitri Jadhav (B190082043)

Radhika Marda (B190082077)

Chaitanya Vyavhare (B190082147)

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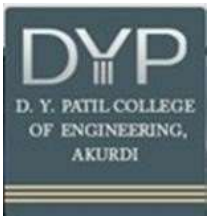
Under the guidance of

Prof. M. D. Karajgar



Department of Artificial Intelligence and Data Science

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SAVITRIBAI PHULE PUNE UNIVERSITY [2023-2024]

Project

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Is successfully completed by

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At

Department of Artificial Intelligence and Data Science

D. Y. Patil College of Engineering

Savitribai Phule Pune University

2023 -2024

Prof. M. D. Karajgar
Project Guide

Dr. Vinayak Kottawar
Head of Department

ACKNOWLEDGMENT

Our journey in developing the Appraisal System for Education has been marked by invaluable support and mentorship from esteemed individuals who have significantly contributed to the success of this project. We extend our deepest gratitude to the following individuals:

Dr. Vinayak Kottawar Head of the Department, AI & DS, DYPCOE

Dr. Kottawar's visionary leadership and relentless commitment to educational excellence have been a guiding light throughout this project. His unwavering encouragement and insightful feedback have enriched our understanding and approach, making this project a reality.

Prof. M. D. Karajgar, AI & DS, DYPCOE

We extend our heartfelt appreciation to Mrs. M. D. Karajgar for her exceptional guidance, expertise, and dedication. Her relentless pursuit of excellence and innovative thinking has been a source of inspiration for our team. Her mentorship has paved the way for creative problem- solving and the successful implementation of this **'Smart Plant Care System for Farming and Gardening'**.

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We also extend our thanks to our fellow team members, mentors, and the entire educational community, whose collective efforts and collaboration have been integral to the project's success.

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CERTIFICATE

This is to certify that Mr. Chaitanya Vyavhare, Ms. Radhika Marda, Ms. Maitri Jadhav, Ms. Samiksha Kamble of B.E (Artificial Intelligence & Data Science) has satisfactory completed Project work entitled " Smart Plant Care System for Farming and Gardening " towards the partial fulfillment of Bachelor of Engineering (Artificial Intelligence & Data Science Department) course as per the rules laid down by Pune University, for year 2023-2024. This report represents the Bonafide work carried out by the student.

Date:

Place:

		Prof. M. D. Karajgar
Prof. M. D. Karajgar	Dr. Vinayak Kottawar	Dr. Bhagyashree Tingare
Project Guide	**Head of Department**	**Project Co-ordinator**

External Examiner

ABSTRACT

The increasing presence of the Internet and the Internet of Things (IoT) has significantly impacted our world. While the internet fulfills basic needs, the IoT allows us to monitor and connect physical objects equipped with sensors and software. This project focuses on developing an automated irrigation system for farms in India, a nation where agriculture plays a vital role. The system utilizes sensors to measure environmental factors like temperature and humidity and adjust irrigation accordingly. Additionally, the project aims to suggest suitable crops based on soil conditions and analyze potential plant diseases. This automated approach offers several advantages over traditional manual methods. Manual irrigation is prone to human error, requires significant maintenance and staffing costs, and relies heavily on unpredictable rainfall. An automated system not only saves water by delivering the optimal amount but also frees up farmers' time and resources, ultimately contributing to efficient and sustainable agriculture.

Keywords: IOT, Sensors, Humidity, Temperature, Plant Disease, Irrigation