# Krishi Raksha - A Disease and Pest Control App

## A Capstone Project Report

*Submitted by,*

| | |
|---|---|
| Ronit Pathak | 20211CAI0010 |
| Sohith N R | 20211CAI0006 |
| Shambhavi K M | 20211CAI0036 |
| Chakradhar Reddy | 20211CAI0156 |

Under the guidance of,

**Mr. Likhith S R**
Assistant Professor, School of CSE

*in partial fulfillment for the award of the degree of*

## BACHELOR OF TECHNOLOGY

## IN

## COMPUTER SCIENCE AND ENGINEERING

## At



GAIN MORE KNOWLEDGE
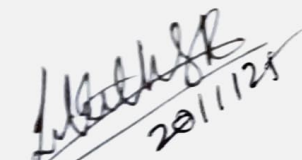REACH GREATER HEIGHTS

## PRESIDENCY UNIVERSITY

## BENGALURU

## JANUARY 2025

# PRESIDENCY UNIVERSITY

## SCHOOL OF COMPUTER SCIENCE ENGINEERING

## CERTIFICATE

This is to certified that the Capstone Project report **"Krishi Raksha - A Disease and Pest Control App"** being submitted **"Ronit Pathak, Sohith N R, Shambhavi K M, Chakradhar Reddy"** bearing roll number **"20211CAI0010, 20211CAI0006, 20211CAI0036, 20211CAI0156"** in partial fulfillment of requirement for the award of degree of **Bachelor of Technology in Computer Science and Engineering** is a bonafide work carried out under my supervision.

**Mr. Likhith S R**
Assistant Professor
School of CSE
Presidency University

**Dr. Zafar Ali Khan**
Professor & HOD
School of CSE
Presidency University

**Dr. L. SHAKKEERA**
Associate Dean
School of CSE
Presidency University

**Dr. MYDHILI NAIR**
Associate Dean
School of CSE
Presidency University

**Dr. SAMEERUDDIN KHAN**
Pro-VC School of Engineering
Dean -School of CSE&IS
Presidency University

# PRESIDENCY UNIVERSITY

# SCHOOL OF COMPUTER SCIENCE ENGINEERING

## DECLARATION

We hereby declare that the work, which is being presented in the project report entitled **Krishi Raksha - A Disease and Pest Control App** in partial fulfillment for the award of Degree of **Bachelor of Technology** in **Computer Science and Engineering**, is a record of our own investigations carried under the guidance of Mr. **Likhith S R,** School of Computer Science Engineering & Information Science, Presidency University, Bengaluru.

We have not submitted the matter presented in this report anywhere for the award of any other Degree.

| | | |
|---|---|---|
| **Ronit Pathak** | 20211CAI0010 | |
| **Sohith N R** | 20211CAI0006 | |
| **Shambhavi K M** | 20211CAI0036 | |
| **Chakradhar Reddy** | 20211CAI0156 | |

# ABSTRACT

Powered by the state-of-the-art Gemini AI, Krishi Raksha offers a groundbreaking platform designed to provide real-time diagnosis of plant diseases and pests through advanced image analysis. The application not only identifies potential threats but also delivers actionable insights and tailored recommendations to farmers, enabling them to take immediate and effective measures to mitigate crop losses.

Krishi Raksha distinguishes itself with its focus on user-centric design and accessibility, ensuring that even farmers with minimal technological expertise can benefit from its features. By simplifying complex AI processes into an intuitive interface, the application bridges the gap between cutting-edge technology and practical, everyday use.

Krishi Raksha is more than just a diagnostic tool—it represents a vision for the future of agriculture, where technology and innovation work hand-in-hand to ensure food security and economic prosperity. Through continuous development and integration of advanced AI capabilities, Krishi Raksha aims to become a cornerstone of smart farming practices, creating a more resilient and sustainable agricultural sector for generations to come. By addressing critical gaps in current solutions and expanding its scope to include features like multilingual support, IoT integration, and predictive analytics, Krishi Raksha is poised to redefine the way farmers protect their crops and manage their resources.


**Key Words: Pests, Artificial Intelligence (AI), Gemini AI, Real-Time Diagnosis, Image Analysis, Sustainable Farming, Crop Loss Mitigation, Actionable Insights.**