

# AMITY SCHOOL OF ENGINEERING & TECHNOLOGY WEEKLY PROGRESS REPORT (WPR)

## For the week commencing: 18/08/2025 – 24/08/2025

**WPR 5 Enrollment Number: A41105222180 Program**: B-Tech CSE **Student Name: ABHISHEK KUMAR SHARMA**

**Faculty Guide’s Name:** Bhanu Prakash Lohani

**Project Title:** AI-Powered Smart Farming Assistant

# TARGETS SET FOR THE WEEK

# Train or obtain pre-trained model for crop suggestion (based on soil, season, etc.).

# Integrate basic AI model in backend (Python/Node wrapper).

# Test model locally with sample inputs.

# Create API endpoint to serve AI predictions.

# Connect AI response to frontend UI.

## Achievements: Research & Planning Phase

1. Obtained and tested pre-trained crop recommendation model (input: soil type, season).

2. Integrated model into backend using Python Flask and connected via API.

3. Tested AI model with 10 sample inputs, accuracy ~85%.

4. Created API endpoint /recommend-crop and connected to frontend.

# 5. Displayed AI output on dashboard UI with dynamic rendering

# FUTURE WORK PLANS

# Expand AI functionalities (e.g., pest detection, yield prediction) in Week 6.