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AI Driven Crop Disease Prediction System

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Abstract: *Crop diseases plague farmers, resulting in significant losses in yield and revenue. The advent of the Internet of Things (IoT) and Artificial Intelligence (AI) offers a promising solution to address these challenges. In this research, we propose an AI-based system for crop disease detection and monitoring using Raspberry Pi as the central control unit and AI algorithms to classify disease symptoms. The system is designed to detect diseases in real time by processing sensor data and images captured by a camera module. By deploying a network of IoT sensors, the system continuously monitors environmental factors such as temperature, humidity, and soil moisture, while machine learning models analyse these data points alongside visual inputs to identify potential threats.*

Keywords: AI, IoT, Machine Learning, Smart Farming