

Member 5 Report: Futurist & Agri-Tech

AI-Driven IoT Agriculture System

Required Sensors:

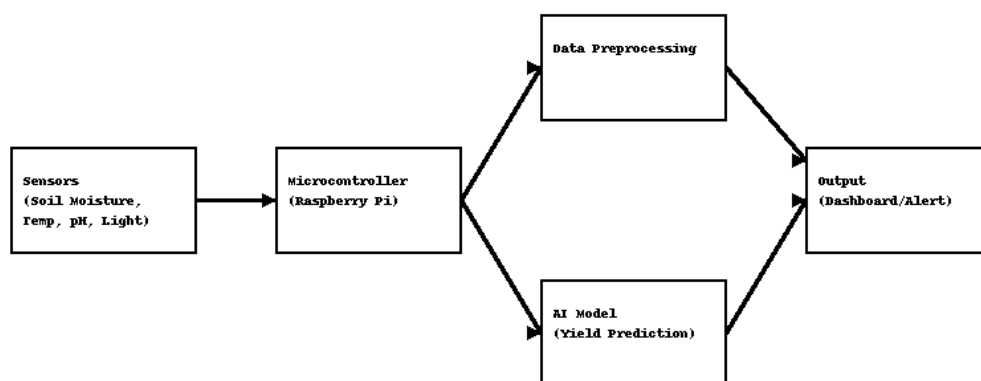
- Soil Moisture Sensor
- Temperature Sensor
- pH Sensor
- Humidity Sensor
- Light Sensor

Proposed AI Model:

We propose a Random Forest Regression model due to its efficiency and ability to handle nonlinear data. The model will use sensor data to predict crop yields per acre.

Data Flow:

Sensor data is collected by microcontrollers such as Raspberry Pi, preprocessed, and then passed to the AI model. The predictions are used to alert farmers via a dashboard.



AI for 2030: Neural Interface for Paralyzed Individuals

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Problem & Vision:

Many individuals with paralysis suffer from communication challenges. By 2030, AI-powered neural interfaces can decode brain signals into speech or text, offering them a voice.

AI Workflow:

- Inputs: EEG brainwave signals
- Model: Deep Learning (RNN/CNN with attention mechanisms)
- Output: Predicted phrases or commands for communication

Risks & Benefits:

Benefits include restored communication, improved quality of life, and independence. However, privacy of neural data, ethical use, and system misinterpretations pose risks. Secure and ethical deployment must be ensured.