

# IoT Based Field Protection and Control System

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**Abstract:** *The IoT-based Agriculture Protection and Control System is an innovative solution designed to enhance the efficiency, productivity, and security of agricultural practices through the integration of Internet of Things (IoT) technology. This system employs a network of interconnected sensors, actuators, and communication devices to monitor and manage various environmental and crop conditions in real-time. By collecting data on soil moisture, temperature, humidity, light intensity, and other critical parameters, the system enables precise control of irrigation, fertilization, and pest management processes. Additionally, security sensors provide protection against unauthorized access and potential threats to the crops..*

**Keywords:** IoT, Node MCU, Infrared sensor, ESP32 cam, Motor, Buzzer, Relay

