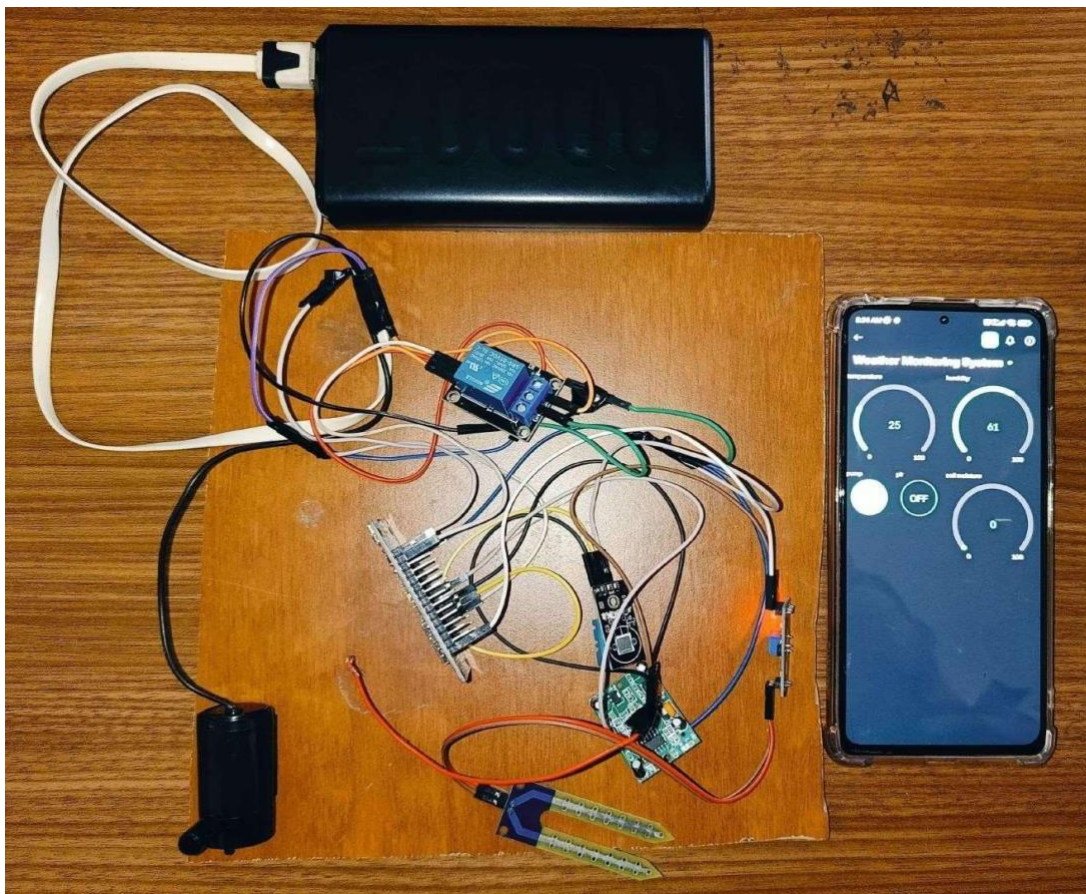


## RESULTS AND DISCUSSIONS

The results of the IOT based monitoring system project for agriculture demonstrate a significant enhancement in the ability to monitor and manage environmental conditions effectively. The system successfully integrates multiple sensors, including a DHT11 sensor for temperature and humidity measurements, a soil moisture sensor, and a PIR motion sensor.





This integration allows for comprehensive real-time data collection and analysis. The temperature and humidity data from the DHT11 sensor are consistently accurate, providing valuable insights into the climatic conditions affecting crop growth. The soil moisture sensor reliably measures soil water content, which is crucial for optimizing irrigation practices and ensuring efficient water usage.

The Blynk integration enables remote monitoring and control via mobile application. This feature enhances accessibility, allowing users to view and manage data from anywhere, thus facilitating timely decisions. The system also includes relay control and physical button integration, offering manual and remote management of connected devices. Overall, the project successfully meets its objectives by providing a reliable, user-friendly system that enhances agricultural management through precise environmental monitoring and actionable insights. Future improvements could focus on expanding sensor types, increasing system automation, and incorporating advanced data analytics to further enhance agricultural productivity and resource management.