

IoT Based Smart Crop Protection System for Agriculture

ARVINTH SREERAM RS – 190801015
AKASH M – 190801007
GOKULNATH A – 190801050
KISHORE P – 190801091

OBJECTIVE :

The main objective of the project is to create an intelligent crop protection system that helps the farmers in protecting the crop from the animals and birds which destroy the crop. This system will also help farmers to monitor the soil moisture levels in the field and also the temperature and humidity values near the field. The motors and sprinklers in the field can be controlled using the mobile application. IoT solutions are focused on helping farmers close the supply demand gap, by ensuring high yields, profitability, and protection of the environment.

USE CASE :

IoT supports farmers to urge to connect his farm from anywhere and anytime in the world. Sensors connected to wireless networks are used for monitoring the farm conditions and microcontrollers are accustomed to control and automate the farm processes to look at remotely the conditions.

Integrating Internet of Things (IoT) techniques into different fields and processing data produced within it can effectively shape the future. In Precision Agriculture, the use of the IoT features helps to manage crops production by optimizing productivity and reducing environmental concerns based on prediction models. an IoT-based agricultural monitoring system is proposed, which integrates principal component analysis (PCA) feature selection methods and neural network classification techniques for crop productivity prediction. Furthermore, the model system allowed a sensing network to collect data of some crops (Tomatoes, Potatoes, Etc.).

Reference Paper :

<https://ieeexplore.ieee.org/document/8993406>

<https://ieeexplore.ieee.org/document/7508189>

https://www.researchgate.net/publication/349940582_Implementation_of_IIoT_based_smart_crop_protection_and_irrigation_system

https://ijirt.org/master/publishedpaper/IJIRT151020_PAPER.pdf