Literature Survey

Smart Crop protection system using IOT

The term "Internet of Things" refers to the connection of objects, equipment, vehicles, and other electronic devices to a network for the purpose of data exchange (IoT). The Internet of Things (IoT) is increasingly being utilized to connect objects and collect data. As a result, the Internet of Things' use in agriculture is crucial. The India is an agricultural country. Nowadays, at regular intervals the lands are manually irrigated by the farmers. There is a chance that the water consumption will be higher or that the time it takes for the water to reach the destination will be longer, resulting in crop dryness. Real-time temperature and humidity monitoring is crucial in many agricultural disciplines.

 This project achieves irrigation automation as a crucial answer to this problem. This is accomplished with the aid of a Raspberry Pi, which controls the moisture and temperature sensors based on the input provided. Moisture sensors are used in the construction of an automated plant watering system for this purpose. The main aim of our project is to reduce the complexity of supervision and to avoid the continuous monitoring. We can accomplish smart agriculture using our system. The Internet of Things (IOT) is transforming the agriculture business and addressing the enormous difficulties and huge obstacles that farmers confront today in the field.

 In this we have used raspberry pi which is main heart of the system. This project is helpful for the farmers and because of this system farmers are not required to stay on field 24 hours and guard it. We have used PIR sensor for Motion detection. After processing if motion is detected, camera will be automatically turned on and command will be Sent to capture the image. Captured image will be processed with the help of OpenCV to check if the motion was due to animal interference or human interference. If it is due to animal interference, sound will be produced by buzzer to Scare away that animal, and an alert email containing that image will be sent to the farmer. Flashlight will be used during the night time to capture better image and to simulate the presence of human during the night time. If the motion Detection is due to human being then the system continues to sense the motion.