

Project Objectives

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Project Name: IOT Based Smart Crop Protection System for Agriculture

ABSTRACT:

The system will provide a complete technical solution to the destruction of crops by animals using internet of things to prevent crops from animals. Agriculture is the backbone of the economy but because of animal attacks, climate changes in agricultural lands there will be huge loss of crops. The feature of this paper includes the development of the system that can monitor Temperature, Humidity, Soil moisture and even the movement of animals which may destroy the crops in agricultural fields. The IoT based smart farming system being proposed via this report is integrated with Microcontroller mixed with different sensors and a WiFi module producing live data feed that can be obtained online. The moisture contents in the soil sensed by using the moisture

sensor and it will identify the amount of water supplied required to the crop and sends data to ARM cortex and enables sensor to supply water which automatically turn on the water source and turn off it when need is satisfied. PIR sensor used to detect whether a human has moved in or out of the sensors range. After processing the available information, if the human is not found the system raised the buzzer sound, to alert people about intrusion. The system to monitor agricultural land is developed by using WSN. Through IoT monitored data is sent to cloud so that farmers can get the data easily. IoT enabled agriculture system is greatly beneficial to the farmers as it reduces the man power and harmful chemical for increasing the amount of the crops. Using IoT technology it helps the farmers to control their fields anywhere is simple and now it is cost effective. If any problem arises, the announcement sends to mobile of farmers. The farmers can rectify the problem by through mobile. IoT based smart farming is used to monitor the field in proper time by any time and being anywhere.

By the end of this project we will:

- Gain knowledge of Watson IoT Platform.
- Connecting IoT devices to the Watson IoT platform and exchanging the sensor data.
- Gain knowledge on Cloudant DB
- Gain Knowledge on using the Clarifai service
- Gain knowledge of storing images in IBM Object Storage and retrieving images
- Creating a Web Application through which the user interacts with the device.