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# **IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE**

## **ABSTRACT**

The Smart protection system defines that this project help to farmer for the protection of a farm. We have designed this project for the only secure from animals but we this project have the provision to secure from the human beings also. This can achieve by the help of IOT device that we are discuss in this paper. The SCPS work on the battery so that this project can be easily portable and also we are add solar panels and converter modules this can help the battery to charge from solar energy. The IOT device is used to indicate the farmer by a message while someone enter into the farm and we are used SD card module that helps to store a specified sound to fear the animals. This project is smart crop protection system for protect the farm from animals as well as unknown person. This projects contents arduino UNO, Nodemcu, LCD display, PIR sensor, flame sensor ,sd card module ,solar panel, solar charges converter. This whole project is work on 12v dc supply from battery. We used solar panel to charge the battery.

## **PROBLEM STATEMENT**

Problem of getting damage of crops by animals remains a problem when a better smart crop protection device is not built. Preventing damage from animals is quiet difficult. The movement in the crop production is usually determined by the millions of Farmers who produce crops. Smart crop protection calls for an ability to protect the crops from animals.

## **Literature Survey:-**

### **Iot based smart agriculture monitoring system.**

Rajalakshmi.P and S. Devi Mahalakshmi, "IOT Based Crop Field Monitoring and Irrigation Automation", 10<sup>th</sup> International conference on Intelligent systems and control (ISCO), 2016.

An IOT Based Crop-field monitoring an irrigation automation system describes how to monitor a crop field. A system is developed by using sensors and according to the decision from a server based on sensed data, the irrigation system is automated. Through wireless transmission the sensed data is forwarded to web server database. If the irrigation is automated then the moisture and temperature fields are decreased below the potential range. The user can monitor and control the system remotely with the help of application which provides a web interface to user .

By smart Agriculture monitoring system and one of the oldest ways in agriculture is the manual method of checking the parameters. In this method farmers by themselves verify all the parameter and calculate the reading .The system focuses on developing devices and tool to manage, display and alert the users using the advantages of a wireless sensor network system. It aims at making agriculture smart using automation and IoT technologies . The cloud computing devices are used at the end of the system that can create a whole computing system from sensors to tools that observe data from agriculture field. It proposes a novel methodology for smart farming by including a smart sensing system and smart irrigator system through wireless communication technology . This system is cheap at cost for installation. Here one can access and also control the agriculture system in laptop, cell phone or a computer.

### **LIMITATIONS**

1. There could be a wrong analysis of weather conditions.
2. Devices are to be altered according to the farmers, it will involve equipment which will be expensive.
3. If there are faulty data processing equipment or sensors, then it will lead to a situation where the decisions are taken wrong