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IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE

ABSTRACT

According to the Smart Protection System, this project aids farmers in protecting their farms. This project was created with the intention of keeping animals safe, but it also includes provisions for keeping humans safe. This can be accomplished with the aid of the IOT device that is discussed in this paper. The SCPS operates with a battery to make the project portable and we have added solar panels and converter modules to enable solar energy to be used to charge the battery. When someone enters the farm, the IOT device sends the farmer a message, and we utilise an SD card module to store a specific sound that makes the animals frightened. The farm will be protected by this project's intelligent crop protection system from both animals and unauthorised individuals. The Arduino UNO, Nodemcu, LCD display, PIR sensor, flame sensor, SD card module, solar panel, and solar charges converter are all included in this project. The battery provides the 12v dc power needed for the entire project. To charge the battery, we used a solar panel.

LITERATURE SURVEY:

Iot based smart agriculture monitoring system.

Rajalakshmi.P and S. Devi Mahalakshmi, "IOT Based Crop Field Monitoring and Irrigation Automation", 10th 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 theirrigation is automated then the moisture and temperature fields are decreased below the potential range. The user canmonitor 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. The weather conditions may have been incorrectly predicted.
2. Devices will need to be modified in accordance with the farmers; this will require expensive equipment.
3. If there are issues with the sensors or data processing equipment, it could result in erroneous choices being made.