TECHNOLOGY : Internet of Things(IOT)

PROJECT : IOT Based Smart Crop Protection System for Agriculture

LITERATURE SURVEY

[1]Mahammad Firose Shaik,Ravipati Mounika,A. Durga Prasad,Inakoti Ramesh Raja,B.Prajakatha Sekhar and D. Sampath, "**Intelligent Secure Smart Crop protection From Wild Animals"**2022 8th International Conference on Advanced Computing and Communication Systems (ICACCS)and Added to IEEE *Xplore* on 07 June 2022.

Proposed Work : This paper provides a solution to unexpected rainfalls and Animal threats. The technology offered is designed in three steps. The first stage is intended to sense/detect the animal using a PIR sensor and generate a digital output. The second stage is aimed to determine whether it is an animal or not by utilizing a Pi camera to capture the region and record animal video. The third stage is intended to offer farmers information on animal entry by providing video. As a result, our proposed methodology assists farmers in removing animals from agricultural lands. When farmers are aware that a specific animal is entering a field at a specific time, they may easily employ their regulated methods to remove animals from agricultural grounds.

[2]Priyanka Deotale and Prasad Lokulwar **"Smart Crop Protection System from Wild Animals Using IoT",** 2021 International Conference on Computational Intelligence and Computing Applications (ICCICA) issue 27 November 2021.

Proposed Work : In this paper, an Automated perspicacious crop aegis system is proposed utilizing Internet of Things (IOT). The system consists of esp8266 (nodeMCU), soil moisture sensor, dihydrogen monoxide sensor, GPRS and GSM module, servo motor, dihydrogen monoxide pump, etc. to obtain the required output. As soon as any kineticism is detected the system will engender an alarm to be taken and the lights will glow up implemented at every corner of the farm. This will not harm any animal and the crops will stay forfended.

[3]S. Karthika,Kalyana Rangan V,Aditya K,Anand Anil Kumar and D. Selvakumar, "**IOT BASED CROP PROTECTION SYSTEM",**2021 6th International Conference on Communication and Electronics Systems (ICCES) and Added to IEEE *Xplore* on 02 August 2021.

Proposed Work : In this paper they proposed, the agriculture pest monitoring device is a moving bot or a line following bot which monitors the amount of pest in farmland. The image that is captured using camera module is processed using convolution neural network involving processes like image acquisition, preprocessing, gray scale conversion blurring, max pooling and using ReLU for faster training of dataset. It calculates and sends the amount of pest present in a particular crop and suggest the amount of pesticide to be sprayed.

[4]N S Gogul Dev,K S Sreenesh and P K BinuP K Binu **"IoT Based Automated Crop Protection System"**Published in 2019 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT) and Conference dated, 06 July 2019.

Proposed Work : This paper provides a solution to the destruction of crops by animals. This system will provide a complete technical solution using the Internet of things (IOT) to the farmers to prevent their crops from wild animals and provide information to the farmers to maximize their production. Animals are detected using PIR sensors and cameras where animals are identified using TensorFlow image processing Techniques. Raspberry PI is used as the processing unit of the system and sound buzzers are used to emit the ultrasound frequencies.

[5]R. M. Joany,E. Logashanmugam,E. Anna Devi,S. Yogalakshmi,L. Magthelin Therase and G. Jegan**, "IoT based Crop Protection System during Rainy Season"**2022 Second International Conference on Artificial Intelligence and Smart Energy (ICAIS),25 February 2022.

Proposed Work : This paper is an approach for irrigating and persecutor watching and dominant for the crops. IoT based mostly sensible irrigation system is projected, which calculates the exact water supply of the crop that aids in its life cycle and climate. When this calculated crop water demand is mistreated, there is a pump motor that operates instinctively each time the dampness of the soil goes low beyond

the enduring welting purpose. The motor is closedown once the desired water is wired resolute crops. This ensures acceptable level of water is used for watering the crops that might aid in higher quality crop production. During this work, numerous parameters like wetness, wetness and temperature area unit being monitored endlessly mistreatment acceptable sensors. The information nonheritable by these sensors area unit collected mistreatment Arduino microcontroller. The pump motors and therefore the RF / GSM transceivers area unit operated mistreatment AT Mega controllers.

[6]Damini Kalra,Praveen Kumar, K Singh and Apurva Soni **"Sensor based Crop Protection System with IOT monitored Automatic Irrigation"**2020 2nd International Conference on Advances in Computing, Communication Control and Networking (ICACCCN) and Date of Conference is 19 December 2020.

Proposed Work : The paper presents an effective water system framework that advances the accessible water in the water supply and in this manner giving an effective and powerful mechanism for the irrigation purposes. Irrigation framework would automatically begin/stop water siphons, on the agricultural site depending upon the dampness content obtained by the moisture sensor as soon as it senses the level of water in the reservoir. The deliberate sensor estimates are sent to the Arduino Uno microcontroller for arranging the controlled calculation. The protection is done through the voice detection and movement detection methods to enable high frequency sound, hence protecting the crops from insects, pests and small animals.

[7]Stefano Giordano,Ilias Seitanidis; Mike Ojo,Davide Adami andFabio Vignoli **"IoT solutions for crop protection against wild animal attacks"**Published in 2018 IEEE International Conference on Environmental Engineering (EE) 14 March 2018 and Added to IEEE *Xplore* on 14 June 2018.

Proposed Work : Technology plays a central role in our everyday life. There has been a surge in the demand of Internet of Things (IoT) in many sectors, which has drawn significant research attention from both the academia and the industry. In the agriculture sector alone, the deployment of IoT has led to smart farming, precision agriculture, just to mention a few. This paper presents the development of Internet of Things application for crop protection to prevent animal intrusions in the crop

field. A repelling and a monitoring system is provided to prevent potential damages in Agriculture, both from wild animal attacks and weather conditions.