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IoT Based Smart Crop Protection System for Agriculture

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ABSTRACT:

This paper defines the methodology used in the smart crop protection system. The purpose of SCPS is to secure or protect the farm from the theft in the farm or main purpose of this project is to alert the farmer as well as fear the animals with getting harm to animals.Crops in the farms are many times devastated by the wild as well as domestic animals and low productivity of crops is one of the reasons for this. It is not possible to stay 24 hours in the farm to sentinel the crops. So to surmount this issue 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.

LITERATURE REVIEW:

IOT tendencies are often utilized in smart farming to boost the standard of agriculture. Farming the pillar of supports our country to thegeneral commercial development. But our productivity is extremely low as associated to world standards. People from rural areas drift to an urban area for other worthwhile trades and they can't concentrate on agriculture. There are many disadvantages of the current traditional agricultural methods namely costlier and manual monitoring of the agriculture field. Specifically, small- scale smart irrigation systems are utilized to provide the solution for dissimilar variety of plants in spite of getting the solution for moisture related issues Weather conditions like temperature, humidity and moisture are difficult to check manually frequently. Farmer suicide is turning into big problem due to low productiveness amongst farms. This low productiveness.

AUTHOR: Dr.M. Chandra and Mohan Reddy

DESCRIPTION: This paper motive to designing and executing the superior improvement in embedded device for Crops in farms are over and over ravaged with the aid of nearby animals like buffaloes, cows, goats, birds, and fireplace etc. This results in huge losses for the farmers. It is now not feasible for farmers to barricade complete fields or precede field 24 hours and protect it.
Therefore here we present computerized crop safety system from animals and fire. This is a Arduino Uno primarily based device the use of microcontroller. This technique makes use of a motion sensor to discover wild animals drawing near the sphere and smoke sensor to discover the hearth. In such a case the sensor alerts the microcontroller to require action. The microcontroller now sounds an alarm to woo the animals away from the sector further as sends SMS to the farmer and makes call, in order that farmer may fathom the difficulty and come to the spot just in case the animals don't recede by the alarm. If there's a smoke, it immediately turns ON the motor. This provide us entire safety of plants from animals and from fireplace for this reason protecting the farmer's loss.

AUTHOR: P.Rekha and T.Saranya

DESCRIPTION: Agriculture area being the backbone of the Indian economy deserves security. Security no longer in phrases of sources solely however additionally agricultural products wishes protection and safety at very preliminary stage, like protection from attacks of rodents or insects, in fields or grain stores. Such challenges should even be taken into consideration. Security systems which are getting used now a days don't seem to be smart enough to produce real time notification after sensing the matter. the mixture of typical methodology with present day technologies as Internet of Things and Wireless Sensor Networks can cause agricultural modernization. Keeping this scenario in our mind we've got designed.

Tested and analyzed an 'Internet of Things' based device which is capable of analyzing the sensed information then transmitting it to the user. This gadget will be controlled and monitored from far off region and it is carried out in agricultural fields, grain shops and bloodless stores for protection purpose. This paper is oriented to intensify the methods to unravel such problems like identification of rodents, threats to crops and turning in actual time notification supported records evaluation and processing besides human intervention.During this device, referred to sensors and digital units are built-in using Python scripts. Supported attempted take a look at cases, we had been capable to obtain success in84.8% check cases.

AUTHOR: ANJANA and RAVICHANDRAN

DESCRIPTION: Agriculture is that the science and artwork of cultivating plants. Agriculture performs most important position inside the economic development of our us of a and this can be the first occupation from a few years. so as to extend the productivity of the crops and to attenuate the expenses of agricultural practices we adopt smart agriculture techniques using IOT. The sensors are placed at different locations within the farm, by which the parameters is controlled using remote or through internet services and by interfacing the sensors operations are performed with microcontrollers. India is that the second most populated country. Power generation and supply is typically an unlimited problem. This paper mainly addresses power generation and rainwater harvesting as an influence generation method using energy protection.