SMART CROP PROTECTION SYSTEM

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Project's primary goal is to prevent animal damage to crops while also diverting animals away from harm's way. Farm crops are frequently destroyed by local animals including buffalo, cows, goats, birds, etc. For the farmers, this results in enormous losses. Farmers cannot block entire fields or remain on the field all day to secure it. Therefore, this method suggested a mechanism for automatically protecting crops from animals. A system for detecting animals is intended to alert users of their presence. PIR and ultrasonic sensors were utilised in this project to provide signals to the controller and detect animal movement. Through the continued production of sound and signal, it diverts the animal. By creating sound and a signal that is further transferred to GSM, it diverts the animal. This alerts the forest department and farmers right away.

Ipseeta Nanda, Chadalavada Sahithiv, Medepalli Swath, Suman Maloji Vinod, Kumar Shukla

The goal of this project is to produce a monitoring system for farm safety against animal assaults and environmental conditions. Smart farming usually makes use of Industrial Internet of Things (IIoT) advancements to highlight the grade of agriculture. This project effort includes a positioner and several types of sensors, controllers, and WSN for the ARM Cortex Smart farming frequently makes use of IIOT characteristics to raise the level of agricultural. Agriculture is the foundation that holds up the overall commercial development of our nation. In contrast, our production is incredibly poor by global standards. People from rural areas migrate to cities in search of more lucrative occupations, however they are unable to focus on Agribusiness. The existing traditional agricultural practices have significant drawbacks, including more expensive and labor-intensive field monitoring. In particular, small-scale smart irrigation systems are used to address moisture-related problems while also providing a solution for a range of plants. It is challenging to manually check weather variables like temperature, humidity, and wetness frequently. This ensures complete safety of crops from animals also as from the weather conditions thus prevent the farmers loss.

Shishir Bagal, Krunal Mahaja, Riya Parate, Ekta Zade, Shubham Khante

The methodology employed in the smart crop protection system is defined in this study. The major goal of this initiative is to warn the farmer and establish fear in him or her about the animals' potential for damage as well as to safeguard or defend the farm against theft. 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. For future upgradation, the device will inherit a grid of sensor panels consisting PIR sensors and URD sensors. Location of device in area can also be change based upon the location of grains for more effective results.

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Many times, domestic animals like buffalo, cows, goats, birds, and fire destroy crops in farms. For the farmers, this results in enormous losses. Farmers cannot block entire fields or remain on the field all day to secure it. As a result, we suggest that crops be protected automatically against both fire and animals. This system is based on an Arduino Uno microcontroller. This device employs a motion sensor to find approaching wild animals close to the field and a smoke sensor to find a fire. The sensor instructs the microcontroller to operate in this situation. In order to get the animals out of the field, the microcontroller now sounds an alarm. It also calls the farmer and sends an SMS to let him know about the problem in case the animals don't leave after hearing the warning. The motor is turned on right away if there is smoke. This completely protects the crops from animals and fire, preventing loss for the farmer. In the future, there will be very large scope, this project can be made based on Image processing in which wild animal and fire can be detected by cameras and if it comes towards farm then system will be directly activated through wireless networks. Wild animals can also be detected by using wireless networks such as laser wireless sensors and by sensing this laser or sensor’s security system will be activated.

Priyanka Deotale, Prasad Lokulwar

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.