IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE

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Anjana Published on" JSS Academy of Technical Education Bangalore, India 2020" Growing plants is a science and an art, and this is agriculture. Agriculture has always been the principal occupation and plays a significant role in the economic development of our nation. We use IOT-based smart agricultural approaches to increase yield efficiency and reduce the costs associated with rural practises. Farmers face a significant problem in protecting their crops during the rainy season. Through the application of greenhouse technology, a crop-friendly atmosphere will be developed together with various features including sensor-based total monitoring, security, crop protection from excessive rain, and automatic roof covering facility. The two operating modes for greenhouses are automated and manual. To communicate with the growers about various issues, it uses the Telegram app.

Prakriti Bhardwaj Published on"Amity University 2021" Crop protection is crucial for raising the standard of agricultural production. It is crucial to both humanity and the environment. It is important to defend crops against pests and plant diseases that can harm them. By utilising pesticides and other preventative measures, precise information about the plant/crop and soil during growth can make the crop healthy and also protect it from major harm that may occur in the future. Utilizing the best practises will increase yield and agricultural production. The expanding use of sensors and other IoT equipment in this field will benefit society and the environment as research and technology develop. This research article focuses on examining various Internet of Things-based methods

Priyanka Deotale Published on 2021" Department of Computer Science and Engineering, G H Raisoni College of Engineering, Nagpur, India " Low crop productivity is one of the reasons for the frequent destruction of crops on farms by domestic and wild animals. It is impossible to watch over the crops on a farm for a full day. Therefore, an automated perceptive crop defence system leveraging the Internet of Things is suggested to address this problem (IOT). To produce the desired output, the system uses an esp8266 (nodeMCU), a soil moisture sensor, a dihydrogen monoxide sensor, a GPRS and GSM module, a servo motor, a dihydrogen monoxide pump, etc. The technology will trigger an alarm and turn on the lights in every corner of the farm as soon as any kineticism is detected

Dr.S.Saravanan Published on 2022" Department of Electrical and Electronics Engineering, Muthayammal Engineering College, Namakkal, Tamilnadu, India " Our 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 neighbourhood 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, we suggest 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.

Ipseeta Nanda Published on 2020" Department of ECE, Koneru Lakshmaiah Education Foundation, Vaddeswaram Andhra Pradesh, India " This will be an integrated strategy in the IIOT space created for sensitive agriculture that is moving forward with its arrangements using open source software and low-power hardware [1]. The goal of this project is to produce a monitoring system for farm security against animal assaults and environmental circumstances related to climate change [4]. Smart farming usually makes use of Industrial Internet of Things (IIoT) advancements to highlight the grade of agriculture [12]. This project effort includes a positioner and several types of sensors, controllers, and WSN for the ARM Cortex- The main component of the categorization is a board that uses 700mA or 3W of electricity. The board is interfaced with a variety of sensors, including the DHT 11 Humidity & Temperature Sensor, PIR Sensor, LDR Sensor, HC-SR04 Ultrasonic Sensor, and cameras.

E.Anna Devi Published on 2022" Department of ECE, Sathyabama Institute of Science and Technology, Chennai, India " Water is increasingly becoming the most scarce resource needed to feed the expanding population. Its significance to human existence is highlighted in desert regions, where it is known for having little annual precipitation. Additionally, there are dry and wet periods as a result of the erratic temporal and spatial distribution. Water efficiency and crop yielding sustainability are both impacted by this type of environmental scenario. As a result, farming is difficult, which is due to poor water access. The effectiveness of agriculture's use of water is the main and most important agricultural component in dry environments. Reasonable irrigation management may be a fantastic strategy to increase water use efficiency in low and fluctuating rainfall conditions. Future technology known as the Internet of Things (IoT) connects various items over the internet

Ms.Netra V.Deshmukh Published on" Journal of Emerging Technologies and Innovative Research (JETIR) 2022" Wild animals have a tendency to damage crops. Monitoring the existence of animals in the area is therefore crucial. The activation of various measures to ward off dangerous animals should then come next. Depending on the types of produce and endangered species, traditional approaches have been frequently used. In this paper, we propose a method to protect farms from wild animals via ubiquitous wired network devices, which is applied to farm along with traditional methods to improve the protection performance.Operational amplifier circuits are utilized mainly for the detection of animal intrusion from the outside of farms. The proposed monitoring scheme is to provide an early warning about possible intrusion and damage by wild animals.

P.K.Binu Published on" 2019 Computer Science 2019 2nd International Conference on Intelligent Computing, Instrumentation and Control Technologies (ICICICT)" One of the primary issues facing farmers in our nation is low crop output. There are two basic causes for this. Crops destroyed by wild animals and because of bad weather condition. 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.