**Problem Statement :**

IoT-Based Smart Crop Protection System for Agriculture

**Domain :**

Internet of Things

By,

J. M. Kanakadurga - 913119106046

R. Keerthana - 913119106049

S. S. Sai Swaroopa - 913119106088

S. Yazhini - 913119106121

**Literature Survey**

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| S. No. | Title | Author | Abstract |
| 1 | Protection of Crops from Wild Animals Using Intelligent Surveillance System | Vikas Bavane  Arti Raut  Swapnil Sonune | Surveillance plays a major role in many fields be it at home, hospitals, schools, public places, Farmlands, etc. In the  case of farmlands or agricultural lands, surveillance is very important to prevent unauthorized people from  gaining access to the area as well as to protect the area from animals. Various methods aim only at surveillance which is mainly for human intruders, but we tend to forget that the main enemies of such farmers are the  animals that destroy the crops. This leads to a poor yield of crops and significant financial loss to the owners of the farmland. This problem is so pronounced that sometimes the farmers decide to leave the areas barren due to such frequent animal attacks. This system helps us to keep away such wild animals from the farmlands as well as provides surveillance functionality. |
| 2 | Smart Crop Protection System From Animals | Jayesh Redij  Pranav Shitap  Shikhar Singh  Durvesh Zagade  Sharada Chougule | In this, we have used raspberry pi which is the main heart of the system. This project is helpful for the farmers and because of this system farmers are not required to stay on the field 24 hours and guard it. We have used a PIR sensor for motion detection. After processing if motion is detected, the camera will be automatically turned on and a command will be sent to capture the image. The captured image will be processed with the help of OpenCV to check if the motion was due to animal interference or human interference. If it is due to animal interference, a sound will be produced by a buzzer to scare away that animal, and an alert email containing that image will be sent to the farmer. Flashlights will be used during the night-time to capture better images and to simulate the presence of humans during the night-time. If the motion detection is due to a human being, then the system continues to sense the motion. |
| 3 | Smart Crop Protection System from Animals and Fire using Arduino | Srikanth N  Aishwarya  Kavita H M  Rashmi Reddy K  Soumya D B | In the world, the economy of many countries is dependent upon agriculture. In spite of economic development, agriculture is the backbone of the economy. It contributes to the gross domestic product. Agriculture meets the food requirements of the people and produces several raw materials for industries. But because of animal interference and fire in agricultural lands, there will be a huge loss of crops. The crop will be totally getting destroyed. There will be a large amount of loss of farmers. To avoid these financial losses, it is very important to protect agricultural fields or farms from animals and fire. To overcome this problem, in our proposed work we shall design a system to prevent the entry of animals into the farm. Our main purpose of project is to develop intruder alert to the farm, to avoid losses due to animals and fire. These intruder alert protect the crop from damaging that indirectly increase yield of the crop. The develop system will not harmful and injurious to animal as well as human beings. Theme of the project is to design an intelligent security system for farm protection by using an Embedded system. |
| 4 | Smart Crop Protection System from Wild Animals Using IoT | Priyanka Deotale  Prasad Lokulwar | Crops on the farms are many times devastated by the wild as well as domestic animals and the low productivity of crops is one of the reasons for this. It is not possible to stay 24 hours on the farm to sentinel the crops. So to surmount this issue an automated perspicacious crop aegis system is proposed utilizing 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. |