

LITERATURE SURVEY

➤ **IoT Based Crop Protection System against Birds and Wild Animal Attacks**

(P.Navaneetha, R.Ramiya Devi, S.Vennila, P.Manikandan, Dr.S.Saravanan, Muthayammal Engineering College, Namakkal, Tamilnadu – April 2020)

The objective of our project is to protect the crops from damage caused by animal as well as divert the animal without any harm. Crops in farms are many times ravaged by local animals like buffaloes, cows, goats, birds etc. This leads to huge losses for the farmers. It is not possible for farmers to barricade entire fields or stay on field 24 hours and guard it. So here we propose automatic crop protection system from animals. Animal detection system is designed to detect the presence of animal and offer a warning. In this project we used PIR and ultrasonic sensors to detect the movement of the animal and send signal to the controller. It diverts the animal by producing sound and signal further, this signal is transmitted to GSM and which gives an alert to farmers and forest department immediately.

➤ **Smart crop protection system from wild animals and birds using IoT**

(P.B.Sumana, R.Sanjana, M.Sharanya, N.J.Harish, Global Academy of Technology, Bengaluru, Karnataka – 2021)

In forest zone and agricultural field human animal conflict is a major problem. Due to those attacks people lose their crops, livestock, property, and sometimes their lives, so this zone is to be monitored continuously to prevent entry of wild animals. With regard to this problem, we have made an effort to develop the system which will monitor the field. The system will detect intrusion around the field using camera that will capture the image of the intruder and sends notification to farm owner and forest officials using Message. India is an agricultural country. Agriculture has always been India's most important economic sector. Wildlife tracking involves acquiring information about the behaviour of animals in their natural habitat. This information is used both for scientific and conservation purposes. The primary form of information that needs to be obtained is the location of the animal at certain points in time and this is generally referred to as tracking or radio-tracking.

➤ **IoT Based Crop Monitoring from Animals**

(K.B.PavanKumar, T.Bhavitha, S.Karishma, M.Pavithra, M.PrashanthKumar, Mother Theresa Institute of Engineering and Technology, Palamaner, AP – March 2019)

The proposed design is an automatic system that aids the user in irrigation process. It keeps notifying the farmer through an on-board LCD display and messages that is sent to the User PC. This proposed design is also helpful for the Users who are facing power failure issues to maintain a uniform water supply due to power failure or inadequate and non-uniform water supply. The automatic irrigation system also keeps the Users too updated with all the background activities through a Node MCU. This device can be a turning point for our society. The device is easily affordable by the Users of the country. This proposed design is helpful for reducing the human labour. This is a low budget system with an essential social application. The

main theme is to design an intelligent security system for farm protection by using embedded system, so that the economic losses incurred by our farmers are minimized and they have a good crop yield.

➤ **Smart Crop Protection System from Birds and Animals**

(V.Shashi Kiran, N.Manoj, M.HemanthKumar, M.N.Namith,
VVIET, Mysore – July 2022)

In every day farmers facing a different kind of problem. The birds are the major problem in agriculture birds are falling on crop and eating it. farmers cannot stay on the field for 24 hours and protect it to overcome this problem birds and animal detection system has been designed to detect the presence of birds and animals and it offers a warning and divert the animal without any harm the designed system will continuously check for any bird and animal to entire field. Birds and animals are having a specific range of hearing frequency. There irritating frequency is estimated by a specific logic at early morning and evening time birds falling on the crops and eating rice seeds, ragi crops corns and wheat...etc, so we can create irritating sound for birds and the flay outside of the field by using this idea we can reduce most affected problem in agriculture. This circuit uses the motion detector is an electrical device that utilizes a sensor to detect nearby motion. such a device is often integrated as a component of a system that automatically performs a task or alerts a user motion in an area.

➤ **Smart Crop Protection System from Animals**

(Mr.Jayesh Redij, Mr.Pranav Shitap, Mr.Shikhar Singh, Mr.Durvesh Zagade,
Dr.Sharada Chougule,

Finolex Academy of Management and Technology, Ratnagiri – April 2022)

Animals like wild boars, buffaloes, cows, elephant, monkeys, birds, etc. damages the crop a lot which results in loss of production and so of farmer. It is very difficult for a farmer to keep an eye on the field every time. This system is designed to surveillance the field 24x7 which is not possible for a human being and diverts the animals without harming them. The system uses Raspberry pi, PIR sensor to detect animal, camera module to look on animal, GSM module to send alert message to farmer, and a buzzer to divert the animals. This system ensures the safety of farm and decreases the loss of farmers.