MES COLLEGE OF ENGINEERING, KUTTIPPURAM
DEPARTMENT OF COMPUTER APPLICATIONS
20MCA246 – MAIN PROJECT

PRO FORMA FOR THE APPROVAL OF THE FOURTH SEMESTER MAIN PROJECT

(Note: All entries of the pro forma for approval should be filled up with appropriate and complete information. Incomplete Pro forma of approval in any respect will be rejected.)

Main Project Proposal No : _____ *(Filled by the Department)*	Academic Year : 2021- 22 Year of Admission : 2020

1. Title of the Project : Protecting Crops against Wild Animals
2. Name of the Guide :Syed Feroze Ahamed M
3. Student Details (in BLOCK LETTERS)

Name	Register Number	Signature
SABAHA MK	MES20MCA-2040	

Date: 16/04/22

Approval Status : Approved / Not Approved

Signature of Committee Members

Comments of the Guide Dated Signature

Initial Submission :

First Review :

Second Review :

Comments of the Project Coordinator Dated Signature

Initial Submission:

First Review

Second Review

Final Comments :

Protecting Crops against Wild Animals

SABAHA MK

INTRODUCTION & OBJECTIVE

In this paper, we present some insights on the issue of crop destruction by wild animals. This is a serious concern for the affected farmers throughout the world and leads to significant social and financial distress among them. In order to understand the background of this problem, a survey of Katli village, Rupnagar, (India) was conducted. The main aim of the current work is to develop a device to protect crops from damage by wild animals by diverting them from the farms, without harming them physically. In this context, an Acoustic Repellent System has been designed which uses a convolutional neural network (CNN) based machine learning model and an IR camera to identify target animals, such as wild boar, nilgai, and deer. A Raspberry Pi (Rpi) module has been integrated with a camera and a frequency generator to recognise different animals and produce corresponding frequencies that keep them away from the farms of interest. Moreover, the architectural aspects of the proposed solution have also been detailed. Lastly, the potential impact of the proposed solution has been discussed. Here farmers sell their products to public and users can add rating and feedbacks about the product. Public near by the locality will get the alert if there any animal attack

Existing system

The main aim of the current work is to develop a device to protect crops from damage by wild animals by diverting them from the farms, without harming them physically.

Proposed system

The proposed system will detect the kind of animal that happens to be in its region of detection. This system will use an Infrared camera to sense its surroundings and process images using Computer Vision. By employing various Machine Learning algorithms, it will analyze the data and identify the particular animal that is present. The microcontroller (Raspberry-Pi) is used for coordination. If the target animal is identified, it sends a positive signal and then a frequency generator will emit the frequency waves (corresponding to that animal) that will scare away the animal. It won't be able to tolerate the high-pitched sound and would leave the coverage area of the sensor.

MODULES

Technical

- Dataset preparation
- Build model
- Input image
- Extract features
- Pattern matching
- Identify anima
- Produce sound

Admin

- Login
- View complaint and manage
- View product information
- View sales report

Farmer

- Register
- Login
- Register product and manage
- Monitor animal entry
- View alert
- View order and manage
- View feedback

Public

- Register
- Login
- View nearby alert
- Search product
- Purchase product
- Add payment
- Add feedback and rating
- Post complaint and view reply

SYSTEM SPECIFICATIONS

HARDWARE SPECIFICATION

- Processor : i3 or above.
- System Bus : 32Bit or 64Bit
- RAM : 4 GB or Above
- HDD : 500 GB or Above
- Monitor : 14” LCD or Above
- Key Board : 108 Keys
- Mouse : Any Type of mouse
- Mobile : Android supported mobile phone

SOFTWARE SPECIFICATION

- Operating System : Windows 10 Any 32 bit or 64 bit platform
- Front End : Android, Python
- Back End : MySQL Sever
- IDE : Eclipse

  : Python 3.6 or above

  :PyCharm

  :Android studio or eclipse