IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE

ABSTRACT:

Animals like wild boars, buffaloes, cows, elephant, monkeys, birds etc. damages the crop lot which results in loss of production and so of farmer. It is very difficult for farmer to keep an eye on the field every time. Therefore it is very important to monitor the nearby presence of animals. Our main aim to design a system that can help to farmer to protect his farm from, animals.in this project we used microcontroller camera to detect the movement of animals send signal to the controller .It diverts the animal by producing sound and signal further, transmitted to gsm which give an alert to the owner of the crop immediately.

SCOPE OF WORK:

- To design a security system for farm protection.
- Prohibit the entry of animal into the form.
- Use gsm module for alerting the owner of the crop.
- Design a system that sounds when animal tries to enter into farm.

TECHNOLOGIES USED:

In today's agriculture routinely used sophisticated technologies such as **robots, temperature** and **moisture sensors, aerial images** and **gaps technology.** These advanced devices and precision agriculture and robotic system allow business to be more profitable, efficient, safer, and more environmentally friendly.

LITERATURE SURVEY:

Mr.pranav shitap, Mr.Jayesh Redij, proposed system for preventing agricultural land from animal and automated irrigation system by using arduino, GSM module, IR sensor and soil moisture sensor ,senses the environmental and send to ardiuno.the system makes the use of IR sensor for detection of animal and soil moisture sensor to find the moisture of soil and automatically control the water pump for auto irrigation system.

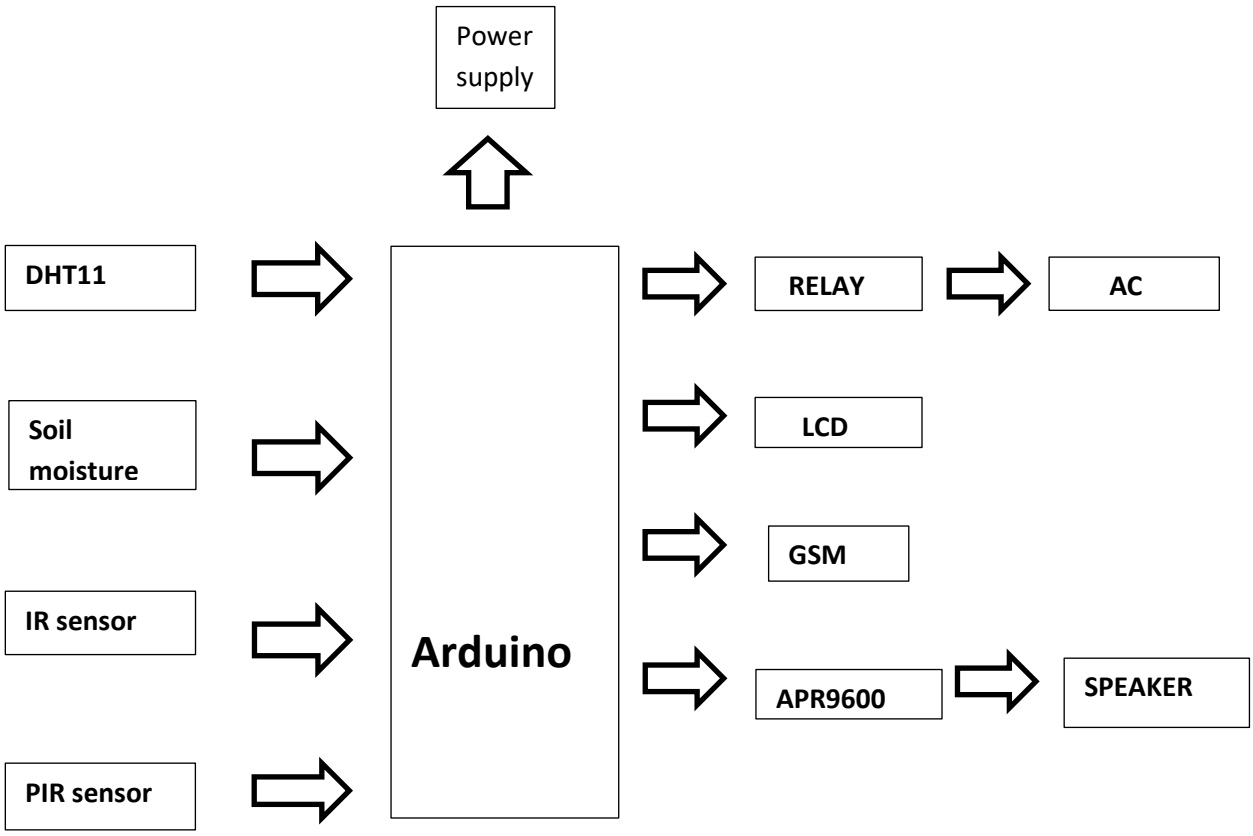
D.pavithra, P.Bhargavi, defines the concepts radio frequency identification (RFID)is used identify a device that transmits an object or person's wireless, radio waves. It's listed under the broad automatic recognition technologies category. electrical fences used in current system to shield crops from wild animals.since animals with high electricity are severely and it effects not just wild animals but also domestic animals and even human beings.

Krunal Mahajan, riya parate, explains method of protection farms from wild animals by ubiquitous wired network devices that are applied to farming along with conventional methods to increase the efficiency of protection .operational amplifier circuits are used mainly for detecting interference of animals from outside farms. the proposed monitoring scheme is to provide early warning of potential wild animals intrusion and harm.

One of the major economic issues faced by country is agriculture as this sector which is source of livelihood for about 54% of Indians till date. Still today this sector is not well developed and faces lot of problems resulting into low productivity of crops.

Mohit Korche,sarthak Tokse,proposed automated crop field surveillance using computer vision. In this system the long range are camera are placed at the corner of field or land with considering maximum field view of camera. The object detection is carried out by pre-trained model YOLO V3 and COCO dataset.

ARCHITECTURE DESIGN :



CONCLUSION :

The problem of crop destruction by wild animals has become a serious problem for become a serious problem for the farmer.in India many times farmer face of huge loss just because of animals. the main aim to prevent the loss of crops and to protect the area from intruders and wild animals which poses a major threat to the agriculture areas. the GSM module used to make a call to the farmer to alert him. therefore,the designed System is affordable and used to useful to the farmers.the designed system won't be harmful to animals

and persons and it protects the farm areas. the system is capable to protect the farm in day and night with iot monitoring.

REFERENCE :

[1] Mr.Pranav shitap, Mr.Jayesh redij, Mr.Shikhar Singh, Mr.Durvesh Zagade, Dr. Sharada Chougule. Department of ELECTRONICS AND TELECOMMUNICATION ENGINEERING, Finolex Academy of Management and technology, ratangiri , India.

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