

IOT Based Smart Crop Protection System For Agriculture

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Problem Statement:

A vast majority of the people are invariably affected by the production of crops. Farmers, for example, rely on them for their survival. The consumers, on the other hand, depend on the crops as it provides them with a multitude of utilities. It therefore becomes essential to protect and maintain these crops. The project aims at improving the farmers' situation by preventing them from incurring losses due to the damage of crops. Crop failure also deteriorates the quality of the yield thereby decreasing the quality of living.

ExistingSolution:

- Dr.M. Chandra ,Mohan Reddy, KeerthiRajuKamakshiKodi, BabithaAnapalliMounikaPulla, “SMART CROP PROTECTION SYSTEM FROM LIVING OBJECTS AND FIRE USING ARDUINO”, Science, Technology and Development, Volume IX Issue IX ,pg.no 261-265,Sept 2020.
- Anjana ,Sowmya , Charan Kumar , Monisha , Sahana, “ Review on IoT in Agricultural Crop Protection and Power Generation”, International Research Journal of Engineering and Technology (IRJET) , Volume 06, Issue 11 ,Nov 2019.
- G. NaveenBalaji, V. Nandhini, S. Mithra, N. Priya , R. Naveena, “IOT based smart crop monitoring in farm land ”,Imperial Journal of Interdisciplinary Research (IJIR), Volume 04, Issue 01 , Nov 2018.
- P.Rekha, T.Saranya, P.Preethi, L.Saraswathi, G.Shobana, “Smart AGRO Using ARDUINO and GSM”, International Journal of Emerging Technologies in Engineering Research (IJETER) Volume 5, Issue 3, March 2017.

- TanmayBaranwal”Development of IOT based Smart Security and Monitoring Devices for Agriculture”,Department of Computer Science Lovely Professional University Phagwara, Punjab, IEEE-2016.

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- It was learnt that the size of the animal is found out by using several PIR sensors. PIR sensors can be used to determine the height of the animals instead of using a camera for image processing. This reduces the processing time and power.
- It was also learnt that crop protection is majorly dependent on the moisture content of the soil, the temperature and humidity of the surrounding environment.
- Additionally, tracking of the damaged crop’s location is done and the camera is activated only at that instant in order to capture the image

Idea of Our Project:

- In this project, we propose a solution which integrates different technologies like IoT and sensor fusioning.
- The information collected from the above step is stored in an IoT cloud.
- We also aim to track the location where an intrusion has been detected using beacons. This is later notified to the user via an SMS/email.