PROBLEM STATEMENT

- At present there are many different techniques are used in protecting the crops from animals and birds.
- Some of them are making fences around to prevent the entering of animals, making net on top to prevent entering of birds etc.
- One of the popularly used techniques in crop protection system is electric fencing.
- But the drawback in electrical fencing, it can cause harm to the animal life. To overcome this virtual fencing is used.
- Currently farmers are not aware of the soil moisture levels, temperature and humidity values.
- Another main problem is many crops are damaged due to fire.
- Our main aim is to help the farmers in protecting the crops from animals and birds by virtual fencing method inkling smoke sensor to detect fire and also monitor the soil moisture levels, temperature and humidity values.
- Also an alert message to the farmers is send if any animals or birds or any unknown persons are detected around.

OBJECTIVES

- The main objective is to protect the farm land from animals and fire is detected by using smoke sensors.
- Providing an alert system to notify farmers regarding the entry of animals or birds or any unknown persons.
- By using Smart IOT based crop protection techniques, farmers will get live data of temperature, soil moisture and other factors for efficient environment monitoring which will help them to do smart farming and increase their overall yield and quality of products.

PROPOSED SOLUTION

- Our solution for protecting the crop from animals or birds or from any unknown person is making virtual fencing around.
- Here ultrasonic sensors to detect the presence of animals or birds or any unknown persons around the farm land and smoke sensors to detect the presence of fire in the farm and an alert system is made if any unknown persons or animals or birds entering the field.
- Soil moisture sensors to detect the volumetric water content in the soil and the humidity and temperature can also be measured and can observe the status on smartphone or laptop using internet.
- The information is up to date even in absence of farmer.
- The motors and sprinklers in the field can be controlled using the mobile application.
- By using this IOT smart crop protection, the farmers can monitor the field conditions from anywhere.