

IDEATION PHASE

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TEAM DETAILS

Team ID: PNT2022TMID23804

Project Name: IOT Based Smart Crop Protection System for Agriculture

Idea 1:

Crops in the farms are many times devastated by the wild as well as domestic animals and low productivity of crops is one of the reasons for this. It is not possible to stay 24 hours in farm to sentinel the crops. So to surmount this issues an automated perspicacious crop aegis system is proposed utilizing Internet of Things(IOT). The sysytem consist of esp8266(nodeMCU), soil moisture sensor, dihydrogen monoxide sensor, GPRS and GSM module, servo motor, dihydrogen monoxide pump, etc. To obtain the required output. As soon as any Kineticism is detected the system will engender an alarm to be taken and the lights will glow up implemented at every corner of the farm. This will not harm any animal and the crops will stay forfended.

Idea 2:

The samrt protection system define that this project help to farmer for the protection of a farm. We have designed this project for the only secure from animals but this project have the provisions to secure from the human beings also. This can be achieved by the help of the IOT device. The SCPS work on the battery so that this project can be easily portable and also we are added solar panels and converter modules. This can help the battery to charge from solar energy. The IOT device is used to indicate the farmer by a message while someone enter into the farm and we are used SD card module that helps to store a specified sound to fear the animals.

Idea 3:

A centralizing method in the area of IIoT (Industrial Internet of Things) contrived for understanding agriculture which is preceding the arrangements low-power devices. This project

yields a monitoring procedure for farm safety against animal attacks and climate change conditions. IIoT advances are frequently used in smart farming to emphasize the standard of agriculture. It contains types of sensors, controllers. On behalf of WSN, the ARM Cortex-A board which consumes 3W is the foremost essence of the procedure . Different sensors like DHT 11 Humidity & Temperature Sensor, PIR Sensor, LDR sensor, HC-SR04 Ultrasonic Sensor, and camera are mounted on the ARM Cortex-A board. The PIR goes high on noticing the movement within the scope, the camera starts to record, and the data will be reserved onboard and in the IoT cloud, instantaneously information will be generated automatically towards the recorded quantity using a SIM900A unit to notify about the interference with the information of the weather conditions attained by DHT11. If a variance happens, the announcement of the threshold rate will be sent to the cell number or to the website. The result will be generated on a catalog of the mobile of the person to take the necessary action.