

Project Design

Phase-I

Proposed Solution

Date	8 November 2022
Team ID	PNT2022TMID15088
Project Name	IOT Based Smart Crop Protection System For Agriculture
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none"> ➤ Farm crops are frequently destroyed by neighbourhood animals including buffalo, cows, goats, birds, etc. ➤ The farmer suffers enormous losses as a result.
2.	Idea / Solution description	<ul style="list-style-type: none"> ➤ Here, we suggest a mechanism for automatically protecting crops from animals. ➤ This microcontroller-based system uses a microcontroller from the PIC family. ➤ These systems employ a motion sensor to identify approaching wild animals close to the field.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> ➤ Certain cultural techniques can stop or lessen crop damage caused by insects. ➤ These include where crop residues are placed, deep ploughing, crop rotation, fertilizer use, strip-cropping, irrigation, and planned planting activities.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> ➤ The number of smartphone applications that can help farmers make better crop protection decisions is steadily rising. ➤ Despite the fact that recent studies have concentrated on smart phone adoption generally and farmers' willingness to pay for crop protection apps, none have concentrated on the initial adoption choice. ➤ Traditional farming practices relied heavily on the farmer being present in the field to continuously assess the state of the soil and the health of the crop.

5.	Scalability of the Solution	<ul style="list-style-type: none"> ➤ Utilizing crop leftovers for increased animal protection and manures for increased crop protection might be considered integration. ➤ Integration is a strategy for increasing outputs (family food, agricultural products for sale, etc.) while reducing input (purchase, labor).