

Project Design Phase-I Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID49700
Project Name	IOT Based Smart Crop Protection System for Agriculture
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none">• Crop damage caused by animal and birds attacks is one of the major threats in reducing crop yield.• Soil moisture conditions affect plant root water absorption and leaf transpiration.
2.	Idea / Solution description	<ul style="list-style-type: none">• Put an electric fence around the planting place.• A layer of organic matter like straw covers the bare ground between plants and helps to maintain soil moisture.
3.	Novelty /Uniqueness	<ul style="list-style-type: none">• IOT Based crop protection system against birds and wild animal attacks• Sprinkler irrigation is a method of applying irrigation water which is similar to natural rainfall.• Soil moisture (SMM) devices provide information about the water status of soil. knowing the soil water status can help you plan when to irrigate and how much water to apply.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none">• Sprinkler irrigation for irrigating crops where the plant population per unit area is very high, this system is suitable.• Soil moisture includes increasing crop yields, saving water.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none">• Soil moisture sensors aid good irrigation management. Good irrigation management gives better crops, uses

		fewer inputs, and increases profitability.
6.	Scalability of the Solution	<ul style="list-style-type: none"> • They are simple to use and easy to install. • In addition to agricultural use, they can also be used for pollution and global warming. • They are equipped with wireless chip so that they can be remotely controlled.