

Project Design Phase-1

Proposed Solution

Team ID	PNT2022TMID11911
Project Title	IoT Based Smart Crop Protection System for Agriculture
Date	17 October 2022

Proposed Solution:

S.No.	Parameter	Description
1	Problem Statement (Problem to be solved)	Develop affordable app-based solution for Soil health and protect crops from animals and birds. (Technology Bucket: IoT, AI, ML)
2	Idea / Solution description	Create app-based solution to detect soil parameters like moisture content, temperature, relative humidity, nutrient, Ph, CEC, and NPK etc. and emits ultrasonic waves to repel animals and birds to protect the crops.
3	Uniqueness	Provide remedies & alerts on soil deficiencies like Watering for low Moisture level, Fertilizers for Nutrient deficiencies etc. Automatic animal detection is implemented to only repel particular animals or birds.
4	Social Impact / Customer Satisfaction	Farmers can take immediate actions resulting better crop produces and farmers have better income. High Yield and prescriptive guidance.
5	Business Model (Revenue Model)	GSM Model
6	Scalability of the Solution	soil Armor, minimizing soil disturbance, plant diversity, continual live plant/root, and livestock integration.