

Project Design Phase-I
Proposed Solution

Date	18 October 2022
Team ID	PNT2022TMID04755
Project Name	Project - SmartFarmer- IOT Enabled smart farming Application
Maximum Marks	2 Marks

Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Utilizing an effective decision support system a network of wireless sensors that can manage various agriculture operations and provides vital information to temperature, humidity, and soil moisture content. Water level and weather conditions Farmers experience more distractions, which is not good favourable to agriculture.
2.	Idea / Solution description	As is the case of precision agriculture Smart farming technique enables farmers better to monitor the fields and maintain the humidity level accordingly. The Data collected by sensors, In terms of humidity, temperature, moisture, and dew detections help in determining the weather pattern in Farms. So cultivation is done for suitable crops.
3.	Novelty / Uniqueness	Water being a precious resource must be utilized efficiently. Agriculture is one of those areas which consumes lot of water. Irrigation to the farm is a time consuming process and must be done on timely basis. As aimed, through this work an auto irrigation system measuring the moisture content, and the water level. Later harvesting the excess water from the cultivation field and recycled back to the tank.

4.	Social Impact / Customer Satisfaction	Smart farming, the dependency on manual labour has reduced significantly. The processes like pest control, fertilizing, and irrigation are increasingly becoming automated, and farmers can control them remotely. The use of smart IOT sensors can maintain these processes, increasing crop production.
5.	Business Model (Revenue Model)	It is trying to execute this technique as we need to introduce an arduino gadget which was modified with an Arduino that takes received signals from sensors. Easy operatability and maintenance. Required low time for maintain. Cost is reasonable.
6.	Scalability of the Solution	Scalability is another requirement that should be considered in a smart farming platform. Scalability refers to the ability to increase available resources and system capability without the need to go through a major system redesign or implementation. We can increase the capacity for data processing by increasing the cloud resources in the second layer and computation resources in the third layer. The challenges related to scalability in smart farming fall into two categories. They are Capacity and Performance.