Proposed Solution

Date	07 November2022
Team ID	PNT2022TMID34723
Project Name	Project - SmartFarmer-IoT Enabled Smart Farming Application
Maximum Marks	2 Marks

S.No.	Parameter	Description
1.	Problem Statement	Develop affordable app-based solution for Soil health monitoring and suggest which crop to be sown based on it.
2.	Idea	Create app-based solution to detect soil parameters like moisture content, temperature, relative humidity, nutrient, Ph, CEC, NPK etc. and provide crop suggestions to be produced based on soil parameters & environment values.
3.	Novelty	One more type of IoT product in agriculture and another element of precision farming are crop management devices. Just like weather stations, they should be placed in the field to collect data specific to crop farming; from temperature and precipitation to leaf water potential and overall crop health. Thus, you can monitor your crop growth and any anomalies to effectively prevent any diseases or infestations that can harm your yield. Arable and Semios can serve as good representations of how this use case can be applied in real life. I
4.	Social Impact	Depleting ground water and huge losses due to diseases is increasingly making agriculture unprofitable and unsustainable. Affordable technology can help the farmer to grow more crop per drop and improve yield by predicting and controlling diseases in time. This system can help the farmer to deal with both of these problems.

5.	Business Model	Increased business efficiency through process automation. By using smart devices, you can automate multiple processes across your production cycle, e.g. irrigation, fertilizing, or pest control.

6.	Scalability of the Solution	The system can also help avoid over irrigation, thus protecting crops from diseases, saving water, electricity, predict early onset of diseases and offer advisories. In case of erratic electricity farmers can switch on the irrigation equipment (sprinklers, drip, pumps) with the convenience of mobile and preventing leaching of nutrients from soil.