Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	29 October 2022
Team ID	PNT2022TMID32996
Project Name	Project – IoT based smart crop protection for agriculture
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement	Sub Requirement
1	User understanding	*To obtain information about the current state of farming land based on sensor data value
2	User Visibility	*Sends an SMS to the farmer via cloud service when it detects animals approaching the crop field and sounds an alert to entice them away
3	User Reception	*The values of the Data, the SMS messages are delivered from temperature, humidity and soil moisture sensors.
4	User Action	*Actions that user must take include agricultural residue destruction , deep ploughing , crop rotation, fertilisers, strip cropping, and scheduled planting activities
5	User Registration	*Directly can get from shop. *Order through online shopping application *Order through call
6	User confirmation	*Confirmation via email *Confirmation via call

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
1	**Usability**	*Can make a alarm sound by detecting the animals *The user will also get alert by the alarm sound
2	**Security**	*We can use sensors to detect the animals *This will not harm any animals and crops will be safe
3	**Reliability**	*We can use the cloud to store the monitoring data of the children *We can use the wifi modules to send the monitoring data
4	**Performance**	*Regardless of the amount of data that is saved and the background analytics, it must offer users acceptable response speeds .communications that

		are bidirectional and nearly real time must be supported.
5	**Availability**	*This system is sensor based system which detects the movement of animals. *It is available both in online and offline
6	**Scalability**	*It is clear by using IoT we can sense the animals and help the users to take necessary steps * production of agricultural products will be increased