

## **Project Design Phase-II**

### **Solution Requirements (Functional & Non-functional)**

Date	03 October 2022
Team ID	PNT2022TMID44876
Project Name	Project - - IoT Based Smart Crop Protection System for Agriculture
Maximum Marks	4 Marks

#### **Functional Requirements:**

Following are the functional requirements of the proposed solution.

<b>FR NO.</b>	<b>Functional Requirement (Epic)</b>	<b>Sub Requirement(Story / Sub-Task)</b>
FR-1	User classification	The user has to classify crops such as food crops like rice, wheat and industrial crops like cotton, tobacco.
FR-2	User adoption	The user has to adopt new technology for boosting production.
FR-3	User detection	The user has to detect the ratio of defected crops on land.

#### **Non-functional Requirements:**

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

<b>FR NO.</b>	<b>Non-Functional Requirement</b>	<b>Description</b>
NFR-1	<b>Usability</b>	The sensors used in agriculture provides data that helps farmers to monitor and

		optimize crops with environmental conditions and challenges.
NFR-2	<b>Security</b>	The system is to promote more permanent and viable farming operations over the long term by strengthening the farming community's sense of security in land use and the right to farm.
NFR-3	<b>Reliability</b>	The system is highly reliable. They are easy to operate and increasing demand for food with minimum resources such as water and seeds.
NFR-4	<b>Performance</b>	Sensors empower farmers to react quickly and dynamically maximize crop performance. It is cost effective and efficient.
NFR-5	<b>Availability</b>	The system is simple and easy understand by farmers to improve crop production. so it is used by all countries with different equipments.
NFR-6	<b>Scalability</b>	The usage of temperature sensor predicts accurate weather conditions. It also predicts water level and moisture content in field.