PROJECT DESIGN PHASE-II
SOLUTION REQUIREMENTS (FUNCTIONAL & NON-FUNCTIONAL)

Date	15 October 2022
Team ID	PNT2022TMID29654
Project Name	IOT based smart crop protection system for agriculture
Maximum Marks	4 Marks

Functional Requirements:

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	➢ Registration through Gmail
FR-2	User Confirmation	➢ Confirmation via Email ➢ Confirmation via OTP
FR-3	Log in	➢ Checking necessary Credentials
FR-4	Checking Weather Details	➢ Temperature Details ➢ Humidity details, Soil Moisture
FR-5	Management of motors and Sprinklers	➢ Farmers can operate motors and sprinklers through mobile application
FR-6	Logout	➢ Exit

Non-functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	➢ Allows farmers to complete their day-to-day challenges
NFR-2	**Security**	➢ Is used to protect the farm from animals as well as unknown person
NFR-3	**Reliability**	➢ The use of smart IOT sensors can maintain these processes, increasing crop production
NFR-4	**Performance**	➢ Sensors helps to get instant warnings of soil salinity and moisture. Air and soil temperature system that allows farmers to schedule watering times and predict the chances of pests and also detect the motion of animals and birds.
NFR-5	**Availability**	➢ Equipment to auto adjust temperature, humidity etc and also to detect animals' and birds' motion
NFR-6	**Scalability**	➢ The biggest challenges faced by IOT in the agricultural sector are lack of information, high adoption costs and security concerns.