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

Date	19 October 2022
Team ID	PNT2022TMID50111
Project Name	IOT based Smart Crop Protection System For Agriculture
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Strength	With the implementation of IOT in agriculture, Processes are managed more effectively in the field
FR-5	Specifications	This system uses a motion sensor to detect wild animals approaching near the field. be commonly found in smart phones, computer Class Room Light Controlling Using Arduino
FR-6	Benefits	IOT makes farm management smarter by enabling farmers to improve efficiency through wise resource consumption

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The PIR sensor is used to detect the presence of wild animal and birds objects and ultrasonic signals to interfere with the hearing.
NFR-2	**Security**	As a result, our proposed methodology assists farmers in removing animals and birds from agricultural lands.
NFR-3	**Reliability**	Smart notifications in case of abnormalities. The dependency on manual labor has reduced significantly. The use of smart IoT sensors can maintain these processes, increasing crop production.
NFR-4	**Performance**	The intrusion of animals can be controlled by securing the farmland using passive infrared (PIR) motion sensors and buzzers. A Raspberry Pi camera is used to monitor the health of the crop.
NFR-5	**Availability**	The farmers use the sensors to control the animal and birds affection in the agriculture land and also

		derive the human affection of the land
NFR-6	**Scalability**	Performance and speed do not slow down even if large number of users access the application at the same time