

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

Date	13October 2022
Team ID	PNT2022TMID32605
Project Name	Smart Crop Protection System for Agriculture
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FRNo.	Functional Requirement (Epic)	Sub Requirement (Story/ Sub-Task)
FR-1	Motion Detection	Detection of animal movement in the farm land
FR-2	Temperature	Monitoring the ambient temperature and alerting
FR-3	Humidity	Monitoring the ambient humidity and alerting
FR-4	Controlling the Electrical Appliances	Switching the light ON and OFF Switching the Motor ON and OFF
FR-5	SMS	Alerting the user about the above instances

Non-functional Requirements:

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

FRNo.	Non-Functional Requirement	Description
NFR-1	Usability	The Project is easy to use and implement. It is more user friendly.
NFR-2	Security	It is Based on IBM cloud hence the security will be high by default
NFR-3	Reliability	As we use Computer vision the reliability is very high
NFR-4	Performance	It can withstand any kind of environment as it is based on crop protection

NFR-5	Availability	It is always available since the sensors will sense the data and transmit to cloud frequently for processing.
NFR-6	Scalability	It is scalable to a great extent since it uses IBM Cloud and Node Red.