

## Project Design Phase-II

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

Team ID	PNT2022TMID14780
Project Name	IoT based smart crop protection system for agriculture

#### Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Visibility	Detects the animals nearing the agriculture field and produce alarm to warn them and also sends SMS to farmer using cloud service.
FR-2	User Reception	The Data like values of Temperature, Humidity, Soil moisture sensors are received via SMS
FR-3	User Understanding	Based on the sensor values, farmer needs to take necessary steps for crop protection
FR-4	User Action	Farmer needs to protect crop from animals, fertilizers, planting operations

#### Non-functional Requirements:

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

FR No	Non-Functional Requirement	Description
NFR-1	Usability	User must be able to operate with the device like mobile phones whenever the SMS received
NFR-2	Security	User must handle data in secured device and authorized users of the system

NFR-3	Realibility	It detect the wild animals inthe field and doesn't give a fake caution signal.
NFR-4	Performance	<p>Must provide quick response times to users regardless of the volume of data that is stored near real-time communications must be supported.</p> <p>This requirement is related to the requirement to support industrial and device protocols at the edge.</p>
NFR-5	Availability	IoT solutions and domains demand highly available systems for 24x7 operations.
NFR-6	Scalability	It must handle large amount of data stored.