**PROJECT DESIGN PHASE-II**

**FUNTIONAL REQUIREMENTS**

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| **DATE** | 21 October,2022 |
| **TEAM ID** | PNT2022TMID24852 |
| **PROJECT** | IOT BASED CROP PROTECTION SYSTEM |
| **MARKS** | 4 MARKS |

**Following are the**

**Functional requirements of the proposed solution:**

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| --- | --- | --- |
| **FR NO** | **FUNCTIONAL REQUIREMENTS(EPIC)** | **SUB REQUIREMENT(STORY/ SUB TASK)** |
| FR-1 | **User Registration** | Install the app.  Register through Gmail or phone number  Creating a profile.  Understand the guidelines. |
| FR-2 | **User Confirmation** | Confirm through Gmail or phone number and verify the OTP |
| FR-3 | **Web Application** | web application must have availability of internet continuously |
| FR-4 | **Interface sensor** | Connect the sensor and the application When animals enter the field , the alarm is generated. |
| FR-5 | **Configure to device** | Send data from android device to google. |
| FR-6 | **Mobile application** | It is used to control motors and field sprinklers. |

**Non-functional Requirements:**

**Following are the non-functional requirements of the proposed solution:**

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| **NFR NO** | **Non-functional Requirement** | **DESCRIPTION** |
| NFR-1 | **Usability** | This project contributes to farm protection through the smart protection system. |
| NFR-2 | **Scalability** | This system’s integration of computer vision algorithms with IBM cloudant services makes it more efficient to retrieve photos at scale, enhancing scalability |
| NFR-3 | **Security** | It was created to protect the crops from animals |
| NFR-4 | **Reliability** | Farmers are able to safeguard their lands by using this technology. They will also benefit from higher crop yields, which will improve our economic situation. |
| NFR-5 | **Performance** | When animals attempt to enter the field, IOT devices and sensors alert the farmer via messages. |
| NFR-6 | **Availability** | We can defend the crops against wild animals by creating and implementing resilient hardware and software. |