**Project Design Phase-II**

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

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| Date | 15 October 2022 |
| Team ID | PNT2022TMID20272 |
| 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.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | Install the app. Signing up with Gmail or phone numbers. Creating a new profile. Understand the guidelines which we given. |
| FR-2 | User Confirmation | Email or phone number verification required via OTP. |
| FR-3 | Accessing datasets | The data like values of temperature, data sensor, humidity, soil moisture are received by alert SMS. |
| FR-4 | Interface sensor | Connect the sensor and the application When animals enter the field, the alarm is generated. |
| FR-5 | User action | The user needs to take action like detecting through crop rotation, fertilizer, strip cropping. |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | This project’s contributors to the farm protection through the smart protection system and use new technologies and also increase the quality of its crop. |
| NFR-2 | **Security** | It was created to protect the crops from animals. |
| NFR-3 | **Reliability** | Farmers are able to safeguard their lands by help of this technology. They get some good benefits from higher crop yields. |
| NFR-4 | **Performance** | When animals attempt to enter the crop field, IOT devices and sensors alert the farmer via message and maintain good yields. |
| NFR-5 | **Availability** | Agriculture fences are quite an effective wild animal protection system. |
| NFR-6 | **Scalability** | The develop system will not harmful and injurious to animals as well as human beings through the system. |