**PROJECT DESIGN PHASE-II**

**SOLUTION REQUIREMENTS (FUNCTIONAL & NON-FUNCTIONAL)**

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| **Date** | **28 October 2022** |
| **Team ID** | **PNT2022TMID26839** |
| **Project Name** | **Project – 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 | APK installation.  Signing up with social media account or mobile number  Understand the guidelines  Creating a profile. |
| FR-2 | User Confirmation | Email or phone number verification required via OTP. |
| FR-3 | Accessing datasets | Data’s are obtained by cloud DB. |
| FR-4 | Interface sensor | Connect the sensor and the application  When the land gets dry then the motor will automatically turns ON. |
| FR-5 | 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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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | This project’s contributes the farm protection through the smart protection system. |
| NFR-2 | **Security** | It was created to protect the farm from water damage and dryness. |
| NFR-3 | **Reliability** | Farmers are able to safeguard their lands by help of this technology. They will also benefits from higher crop yields, which will improve our economic situation. |
| NFR-4 | **Performance** | When the land gets dry and also when the land has high humidity then the help of sensors motor will turns ON/OFF automatically. |
| NFR-5 | **Availability** | We can stop the human work for the farming area. |
| NFR-6 | **Scalability** | This system’s integration of computer vision algorithms with IBM cloud services makes it more efficient to retrieve photos at scale, enhancing scalability. |