**Project Design Phase-II**

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

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| Date | 26 October 2022 |
| Team ID | PNT2022TMID15139 |
| Project Name | Smart Farmer- IoT Enabled Smart Farming Application |
| 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 | * Registration through MIT App or other user interface applications which are being prescribed. |
| FR-2 | User Control | * Control through device through MIT app or other user interface. |
| FR-3 | Physical parameters | * Soil Moisture, Humidity and physically varying environmental factors. |
| FR-4 | Internet Connectivity | * Allocating a separate spectrum of low band wifi modules to ensure sustainable connectivity. * Checking the internet connection periodically. * Speed of the internet. |
| FR-5 | Monitoring | * Displaying the values of soil moisture, temperature, humidity and other physical parameters. |
| FR-6 | Output | * Checking the output at the farmland conditions. |

**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** | It is used in agricultural activities to scale up the productivity with optimal usage of resources. |
| NFR-2 | **Security** | It will be able to monitor farmland conditions at any time in any geographical locations. |
| NFR-3 | **Reliability** | It is reliable in all the environmental conditions. |
| NFR-4 | **Performance** | It will perform accurately and give results according to the user handling of device. |
| NFR-5 | **Availability** | It is applicable to all geographical locations and user friendly to handle. |
| NFR-6 | **Scalability** | This model able to detect adaptively according to the environmental conditions by the use of sensors and change the output and is adaptive to every farmland characteristics. |