Project Design Phase-II Solution Requirements (Functional & Non-functional)

| Date | 15 October 2022 |
|---------------|-----------------------------------------|
| Team ID | PNT2022TMID33523 |
| Project Name | SMART FARMER- IOT ENABLED SMART FARMING |
| | APPLICATION SYSTEM. |
| Maximum Marks | 4 Marks |

Functional Requirements:

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task) |
|--------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| FR-1 | User Registration | User has to register through Gmail. |
| FR-2 | User Confirmation | User receives a confirmation via Gmail and also receives confirmation via OTP. |
| FR-3 | Log in | After receiving confirmation mail, login to the system and check the credentials. |
| FR-4 | Credentials Check | Once the credentials are checked, go to manage modules. |
| FR-5 | Manage modules | Manage module describes the following functions 1. Manage system admins 2. Manage roles of user 3. Manage user permission |
| FR-6 | Logout | Temperature, humidity and moisture is being checked. After checking these parameters logout or exit the application. |

Non-functional Requirements:

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

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---------------------------------------------------------|
| NFR-1 | Usability | Indicates how effectively and easily the users can |
| | | learn and use the system. |
| NFR-2 | Security | Assuring all data inside the system or its part will be |
| | | protected against malware attacks or unauthorized |
| | | access. |
| NFR-3 | Reliability | Specifies how likely the system or its element would |
| | | run without a failure for a given period of time |
| | | under predefined conditions. Traditionally, this |
| | | probability of the agricultural parameters are |
| | | expressed in percentages. |
| NFR-4 | Performance | Deals with the measure of the system's response |
| | | time under different weather conditions. |
| NFR-5 | Availability | Describes how likely the application is accessible for |
| | | a user at a given point of time. |

| NFR-6 | Scalability | Assesses the highest workloads under which the |
|-------|-------------|-----------------------------------------------------|
| | | system will still meet the performance requirements |
| | | of measurements of temperature, humidity and |
| | | moisture. |