## **Project Design Phase - II**

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

| Date          | 17 October 2022  |
|---------------|--|
| Phase         | II   |
| 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             | Registration through Gmail                  |
| FR-2   | User Confirmation             | Confirmation via Email Confirmation via OTP |
| FR-3   | Log in to system              | Check Credentials Check                     |
|        |                               | Roles of Access.                            |
| FR-4   | Manage Modules                | Manage System Admins                        |
|        |                               | Manage Roles of User                        |
|        |                               | Manage User permission                      |
| FR-5   | Check whether details         | Temperature details Humidity details        |
| FR-6   | Log out                       | Exit  |

## **Non-functional Requirements:**

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

| FR No. | Non-Functional Requirement | Description  |
|--------|----------------------------|--|
| NFR-1  | Usability                  | Usability includes easy learn ability, efficiency in use, remember ability, lack of errors in operation and subjective pleasure.                                       |
| NFR-2  | Security                   | Sensitive and private data must be protected from their production until the decision-making and storage stages.   |
| NFR-3  | Reliability                | The shared protection achieves a better trade-off between costs and reliability. The model uses dedicated and shared protection schemes to avoid farm service outages. |

| NFR-4 | Performance  | the idea of implementing integrated sensors with sensing soil and environmental or ambient parameters in farming will be more efficient for overall monitoring.  |
|-------|--------------|--|
| NFR-5 | Availability | Automatic adjustment of farming equipment made possible by linking information like crops/weather and equipment to auto-adjust temperature, humidity, etc.   |
| NFR-6 | Scalability  | Scalability is a major concern for IoT platforms. It has shown that different architectural choices of IoT platforms affect system scalability and thatautomatic real time decision-making is feasible in an environment composed of dozens of thousand. |