**PROJECT DESIGN PHASE – 2**

**FUNCTIONAL ARCHITECTURE**

**DATE:** 15-10-2022

**TEAM ID:** PNT2022TMID21131

**PROJECT:** IOT BASED SMART CROP PROTECTION SYSTEM

**Functional Requirements:**

The functional requirement of the project is given as follows:

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

**Non - Functional Requirements:**

The Non - functional requirement of the project is given as follows:

|  |  |  |
| --- | --- | --- |
| **S.NO** | **NON - FUNCTIONAL REQUIREMENT** | **DESCRIPTION** |
| 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. |
| 2. | Security | It was created to protect the crops from animals |
| 3. | Reliability | Farmers can safeguard their lands by help of this technology. They get some good benefits from higher crop yields. |
| 4. | Performance | When animals attempt to enter the crop field, IOT devices and sensors alert the farmer via message and maintain good yields. |
| 5. | Availability | Agriculture fences are quite an effective wild animal protection system. |
| 6. | Scalability | The develop system will not harmful and injurious to animals as well as human beings through the system |