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

Date	16 October 2022
Team ID	PNT2022TMID50802
Project Name	Project –Emerging methods for early detection of forest fires
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 Form Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Login credentials	Login using a number and password given during the hardware installation also user can change the password by clicking on new password and also it have an option of forget password.
FR-4	User interface	The system will provide a graphical user interface (GUI).The user can able to view data of various activities including humidity, temperature, gas level etc at their page
FR-5	Communication Interface	The system shall interface with the sensor to get the various input of the region

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Our product is very user friendly and the installation of hardware & software interface is also very easy
NFR-2	Security	The sensor nodes are specially designed with a spherical shape & coated with epoxy encapsulation and O-rings for sealing to withstand damage caused by environmental conditions as well as animals .Also All the sensors are fixed facing downwards to protect them from harmful effects of environmental conditions such as rain, strong winds, and objects such as leaves.
NFR-3	Reliability	The system ensure that the sensor would also in the active state monitoring the environmental condition.User can easily manage the system.if any issue arised it would take minimum time to overcome it
NFR-4	Performance	The hardware sensor monitors the enivornmental condition and it keep on updating the information for every 10 seconds with the available network
NFR-5	Availability	The user need not to be available all the time for monitoring.Whenever the sensor sense any abnormal activities or the fire it immediately alert the user even without internet
NFR-6	Scalability	Our system is scalable enough to sense many throughput at the same time and software can support many no of visit at same time while maintaining optimal performance