

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

Date	17 October 2022
Team ID	PNT2022TMID14274
Project Name	Gas leakage monitoring and alerting 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 convenience	Through message notification we can easily get data of gas level and in case of gas leakage, it can directly send notification to nearby hospitals and police station
FR-2	User visibility	Gas level can be monitored by users if there is any leakage and they will be receiving alert notification.
FR-3	User reception	The notification for the gas level and leakage can be send through messages.
FR-4	User understanding	User can monitor the level of gas with help of the data. If there is an increase in gas level then the alerts will be given
FR-5	User performance	When the user gets notified, they could turn on the water sprinkler or exhaust fan.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	It updates data periodically and protects the workers in industries.
NFR-2	<b>Security</b>	In case of emergency alerts, industrial properties and human beings are protected from fire accidents.
NFR-3	<b>Reliability</b>	It will provide most accurate information and have Capacity to recognize the hazardous gas which is true or not.
NFR-4	<b>Performance</b>	During fire, water sprinklers and exhaust fans are used.
NFR-5	<b>Availability</b>	It can be accessed both day and night.
NFR-6	<b>Scalability</b>	Once the sensor got fails it can be easily replaced.