

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

Date	12 October 2022
Team ID	PNT2022TMID28556
Project Name	Gas Leakage Monitoring And Alerting System for Industries
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	Monitoring	Level of gas is monitored using sensor and if there is any leakage, alert can be sent through messages and with a buzzer sound.
FR-2	User Reception	The data like the level of gas can be send through messages
FR-3	User Understanding	The user can monitor the level of gas with the help of the data. If there is an increase in gas level then the alert will be given by message or buzzer sound.
FR-4	User Performance	When the user gets notified, they could take precaution steps like turning the gas off, turn on the exhaust fan/sprinkler and avoid serious accidents.

**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 the data regularly as well as protects the workers.
NFR-2	<b>Security</b>	As a result of emergency alert, we can be able to protect both the humans and properties. Precaution steps could be taken.
NFR-3	<b>Reliability</b>	Can be able to provide accurate values. It might have a capacity to recognize the smoke accurately and does not give a false
NFR-4	<b>Performance</b>	Sprinklers and exhaust fans are used in case of emergency
NFR-5	<b>Availability</b>	24/7 service

NFR-6	<b>Scalability</b>	Sensors can be replaced every time it fails
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