

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

Date	<b>3 October 2022</b>
Team ID	<b>PNT2022TMD26645</b>
Project Name	<b>Project – Gas Leakage Monitoring and Alerting Systems for Industries</b>
Maximum Marks	<b>4 Marks</b>

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Concerns	Worker's safety Protecting environment from pollution. Preventing fatal incidents that are caused as a result of gas leakage.
FR-2	Security	Security of the workers is important so timely action in case of emergency situation is important.
FR-3	Accuracy	Accuracy of gas leakage detection is important or else it might cause unnecessary chaos. Delay in gas leakage intimation may also cause trouble to take immediate actions.
FR-4	Notification	Control unit gets notification via message Alarms turned on. Immediate intimation to the workers through sms.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Can be used in industries and places where harmful gases are dealt with
NFR-2	<b>Security</b>	This provides security to the people working in industries and dealing with harmful gases. It also helps protect the environment from the harmful effects that might be caused due to gas leakage
NFR-3	<b>Reliability</b>	Workers can rely on this safety system as it will give timely intimation in case of any gas leakage.
NFR-4	<b>Performance</b>	Helps detect gas leakage.

		<p>Immediate information sent to control unit regarding the unit at which gas leakage is happening.</p> <p>Workers are also informed through alarms</p>
NFR-5	<b>Availability</b>	<p>Safety system available with all necessary features to detect the exact place of gas leakage and control unit is informed immediately to take necessary actions.</p>
NFR-6	<b>Scalability</b>	<p>This safety system can be used in industries to big organizations where detection and intimation of gas leakage is needed.</p>