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

Date	03 October 2022
Team ID	PNT2022TMIDxxxxxx
Project Name	Project - xxx
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	Arduino UNO	Open-source electronics platform Read inputs – light on a sensor
FR-2	GSM	The GSM alerts the user about the gas leakage via SMS
FR-3	Gas Sensor	It detects the toxic gases which are hazardous
FR-4	PIR	Detects the presence of motion
FR-5	Buzzer	Buzzer is provided for alerting the neighbours in case of the absence of the user about the leakage of gas
FR-6	Ultrasonic Distance Sensor	It uses acoustic sensors to identify fluctuations in noise that is imperceptible to human hearing within a process environment.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Detect the presence of harmful and toxic gases in an area
NFR-2	Security	Realtime visual detection & quantification of methane emission for oil & gas industry
NFR-3	Reliability	It detects the level of gas in air & check whether with exceeds the safety
NFR-4	Performance	Long life , High Sensitivity, Low drift, Stable and Reliable work
NFR-5	Availability	Environment high selectivity and fast response of high accuracy
NFR-6	Scalability	It measures the toxic and flammable gases