# PROJECT DESIGN

**PHASE-II**

# Functional Requirements

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| TEAM-ID | PNT2022TMID04029 |
| PROJECT NAME | GAS LEAKAGE MONITORING AND ALERTING SYSTEM |

# Functional Requirements:

Following are the functional requirements of the proposed solution.

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| **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 | 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-4 | User Reception | The data like the level of gas can be send through messages |
| FR-5 | 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-6 | 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.

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| **FR No.** | **Non-Functional** | **Requirement Description** |
| FR-1 | Usability | It updates the data regularly as well as protects the workers. |
| FR-2 | Security | As a result of emergency alert, we can be able to protect both the humans and properties. Precaution steps could be taken. |
| FR-3 | Reliability | Can be able to provide accurate values. It might have a capacity to recognize the smoke accurately and does not give a false |
| FR-4 | Performance | Sprinklers and exhaust fans are used in case of emergency |
| FR-5 | Availability | It can be used for everyday; it includes day and nights. |
| FR-6 | Scalability | Sensors can be replaced every time it fails |