

Project Design Phase-I

Solution Architecture

Team ID	PNT2022TMID44431
Project Name	Project –Gas leakage monitoring and alerting system
Maximum Marks	4 Marks

Solution Architecture:

- The system can be taken as a small attempt in connecting the existing primary gas detection methods to a mobile platform integrated with IoT platforms.
- The gases are sensed in an area of 1m radius of the rover and the sensor output data's are continuously transferred to the local server.
- The accuracy of MQ sensors are not up to the mark thus stray gases are also detected which creates an amount of error in the outputs of the sensors, especially in case of methane.
- Further the availability and storage of toxic gases like hydrogen sulphide also creates problems for testing the assembled hardware.
- As the system operates outside the pipeline, the complication of
- system maintenance and material selection of the system in case of corrosive gases is reduced.
- Thus the system at this stage can only be used as a primary indicator of leakage inside a plant.

Solution Architecture Diagram:



