

# Gas Leakage Monitoring and Alerting System

## Solution Architecture

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Maximum Mark	2 marks

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### Problem Statement:

It is necessary to implement a system to monitor gases in industries. This way we can detect if there is any gas leakage present and thus the monitoring of gas leakage can help in preventing loss of cost and equipment. This can also help reduce the insecurity and constant worrying of the manpower present in the industry and them constantly checking up on the equipment manually.

## 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 datas are continuously transferred to the local server. The accuracy of MQ sensors are not upto 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 plan

