Gas Leakage monitoring & Alerting system for Industries

OBJECTIVE OF THE PROJECT:

To provide a solution by desiging an automatic system which can detect the leakage of Toxic gases and flammables harmful gases in the industry and controlling it by taking precautionary measures, reducing the causalties.

NEED FOR THE DEVELOPMENT:

Most of the fire-breakouts in industries are due to gas leaks.

These cause dreadful damage to the equipment, human life leading to injuries, deaths, and environment.

A gas detector can sound an alarm to operators in the area where the leak is occurring, giving them the opportunity to leave.

IoT based gas detection systems can be easily integrated into existing systems and equipment of a company, allowing easy detection of gas leakages that can result in severe catastrophe. Quick actions can hence be taken to not only prevent the spread of gas over a wide region but also identify the source of the leak and repair it.

DIFFICULTIES IN THE DEVELOPMENT:

Interfering gases can affect the accuracy of the measurement. Also the accuracy is influenced by the moisture.

Sensors having limited capability to detect very low gas concentrations. Some sensors require long time to detect the presence of the gas.

Sensors may need frequent calibrations

Some sensors can measure only single gas which increases the number of nodes to be installed.

EXPECTED RESULT:

To detect the presence of harmful gases and inform it through an user friendly UI, making the user to start the controlling procedure based on the situation while automatically controlling the spreading of gases.