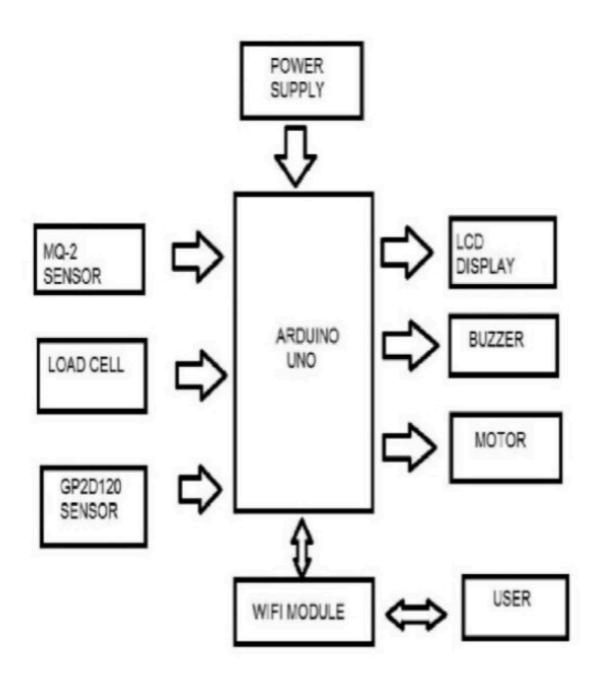
# Project Development Phase Project Development-Delivery of Sprint-4

| Team ID      | PNT2022TMID50840                           |
|--------------|--|
| Project Name | Gas leakage monitoring and alerting system |

#### Architecture:



## Application:

## Automotive industry

The automotive industry drives a dynamic working environment as technological advances demand new inspection and test procedures. Since the issue of worker safety is of critical importance to car manufacturers, in-situ gas detection systems are frequently upgraded, expanded or replaced. Gas detection use in engine test beds is a requirement for personnel protection from toxic gases such as CO2, CO and NOx along with combustible fuels.

#### **Bio Gas**

The growth of the biogas industry utilising animal bio waste to generate methane based bio fuels in purpose built bio plants necessitates the installation and use of fixed gas detection such as the GSPM and GSIM, Ex rated pellistor or infra red based gas detectors. Equally hydrogen sulphide gas which is a by product of the process can be present in the atmosphere of the biogas plant and the GSEM 627 Ex provides essential protection to the plant operator.

## Textile industry

There is extensive use of bleaching chemicals in the production of textiles from raw materials. Processes including scouring, bleaching, oxidative and or reductive bleaching. Toxic bleaching chemicals present a risk to personnel and the environment. Their storage and use frequently demands the use of fixed gas detection to mitigate this risk in the workplace.

#### Power plants

Power plants regardless of the fuel type, whether gas, brown coal or nuclear, frequently require a gas detection system to protect personnel, the plant itself and the environment. Inadvertent fuel release must be detected quickly, primarily to protect staff and to ensure the continued operability of essential power generation. Acute or chronic implications from toxic gases generated as a by-product of power generation also require the implementation of a gas monitoring strategy with both concepts integrated into the plant wide safety system. Kimessa are available to support you in this endeavour.

## Refrigerant monitoring

Refrigerant gas monitoring is currently becoming more important due to legal requirements applicable to the use of refrigerants. This monitoring challenge for industry is met with gas monitoring solutions by Kimessa, tailor made for this specific sector. Whether for monitoring leaks in the compressor room or cold rooms in the warehouse or supermarket KIMMESSA will offer the appropriate solution. Kimessa gas monitors seamlessly integrate into plant control systems of most major providers based on our extensive collaborating with refrigeration plants manufacturers.

#### Plant construction

Plant construction itself only rarely needs a gas detection system and then often only during production of plant parts or components. Nevertheless, plant construction is very important for gas detection technology and one of our best partners. Various providers must work 'hand in hand' here so that later everything works. The gas protection system is often integrated into a whole plant concept. We offer unique potential solutions such as built-in control centres, modular design for top hat rail assembly, converters and much more.

## Steel industry

Given the nature of steel production and the extensive use of high temperature furnaces, the primary hazard confronted by this industry is from gases such as carbon monoxide, ammonia, sulphur dioxide, hydrogen and oxygen deficiency. Processes such as coke production, sinter & iron production and the processes for the production of differing grades of steel can and do generate gas risks for employees. This harsh environment demands robust gas monitoring solutions as provided by Kimessa AG.

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