**Gas Leakage Monitoring &**

**Alerting System**

**Literature survey**

**Team ID :PNT2022TMID44793**

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| **S.NO** | **TITLE** | **PROPOSED**  **WORK** | **TOOLS USED /ALGORITHM** | **TECHNOLOGY** | **ADVANTAGES/DISADVANTAGES** |
| **1.** | **Gas leakage detector** | **A wall mounted device fitted close to the floor level within an alarm setting 20% lower explosive limit .** | * **Gas leak detector** * **MQ6 Gas sensor** | **Arduino IDE** | **It helps to prevents accidents caused due to fire .** |
| **2.** | **Catalytic Bead (CB) Industrial Gas Detector** | **It is measure the temperature difference between beads – one inert one and one coated in a chemical catalyst.** | * **Pellistor gas sensor (or )catalytic bead gas sensor** | **Primary Technology (detecting flammable gases)** | **CB technology is oversaturation from high concentration of gas.** |
| **3.** | **Ultra sonic gas leak detectors(UGLD)** | **Ultrasonic can detect pinhole leaks with as low as 1 psi.** | * **Ultrasonic leak detection device** | **Acoustic sensors** | **These are much more directional than sonic sound** |
| **4.** | **Micro-Electromechanical(MEMS)-Based industrial gas monitoring** | **Mos sensors detect concentration of various types of gases by measuring the resistance change of the metal oxide due to adsorption gases** | * **Electronic stability control(ESE)** * **MEMS oscillator** | **Bulk micromachining**  **Surface micromachining**  **wafer micromachining** | **MEMS based industrial gas detectors work well most conditions .** |
| **5.** | **Infrared pointer sensor** | **It detect decreases in transmitted infrared light which is on proportion to gas concentration** | * **Infrared gas analyzer** * **Non dispersive infrared sensors** | **Non dispersive infrared technology** | **It use physical technique only for sensing , there are no unseen failure modes.** |
| **6.** | **Gas leakage alarm system** | **The sensor measure the concentration individual gases atmosphere** | * **LPG gas alarm** * **Gas leak detector** | **Wireless sensor network** | **Gas detector is a kind of special instrument for detecting gas concentration** |