

Project Objective

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Team ID	PNT2022TMID47518
Project Name	Project - Gas Leakage monitoring & Alerting system for Industries

Gas leakage in industrial area causes many health issues. Thus, to prevent such disasters happen, the atmosphere of a workplace should be regularly monitored and controlled, in order to maintain the clean air environment. However, efforts in industrial air quality control have been impeded by the lack of science-based approaches to identify and assess atmosphere air quality and level of dangerous gas. Therefore, a monitoring system for gas leakage detection needs to be developed. For the development of this system, the combustible gas sensor (MQ9) was used in order to detect the present of methane (CH₄) and carbon monoxide gas (CO). This sensor will detect the concentration of the gas according to the voltage output of sensor and operated in the alarm system, autonomous control system and monitoring system by using Arduino uno as the microcontroller for the whole system. Whereas the Zigbee will send the data reading from the gas sensor to monitoring system that display on LabVIEW Graphical User Interface (GUI). Besides, user can take immediate action upon the leakage occurs, else the gas supply and the system will shut down automatically within 10 minutes to prevent the condition becoming worst.