

PROJECT OBJECTIVES

| | |
|---------------------|--|
| Team ID | PNT2022TMID33446 |
| Team Members | Suriyaprakash S, Rajesh G, Ragul R, Sujith M. |
| Project | Gas Leakage Monitoring and Alerting System for Industries. |

Objectives:

By the end of the project, you will:

- *Gain Knowledge of Watson IOT platform.*
- *Connecting IOT devices to the Watson IOT platform and exchanging the sensor data.*
- *Gain knowledge on IBM Watson Cloudant DB.*
- *Explore Python Client libraries of Watson IOT platform.*
- *Explore Python libraries for integrating OpenCV for accessing Live Camera input.*
- *Scan QR Code in live streaming and retrieve the QR code details.*
- *Gain Knowledge of web application development.*
- *Gain Knowledge of storing data in Cloudant DB.*
- *Generating QR codes with required data.*

Project flow:

- *The parameters like hazardous gas, temperature, humidity and fire levels are published to IBM Watson IOT platform.*
- *The device will subscribe to the commands from the application and take decisions accordingly to switch on the rainwater sprinkler in case of emergencies.*
- *Sensor data is visualized in web application.*

To accomplish this, we have to complete all task and activities below:

- *Create and configure IBM Cloud Services.*
 - 1)** *Create IBM Watson IOT platform and Device.*
 - 2)** *Create Node-Red Service.*
- *Develop python script.*
 - 1)** *Develop python script*

- *Develop a web application using Node-Red Service.*
 - 1)** *Develop web application using Node-Red.*
 - 2)** *Testing web UI by giving the required inputs.*