HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY

(AUTONOMOUS)

Team ID	PNT2022TMID10014
Project Name	Project - IOT Gas Leakage Monitoring and Alerting System.

SPRINT DELIVERY PLAN:

SPRINT 1:

In this sprint we are going to develop a python code to generate random sensor data and publish that data to the IBM internet of things platform using a python package called ibmiotf. These data will be published to the respected device in that platform.

SPRINT 2:

In this sprint we will be creating IBM Watson internet of things platform cloud services and 2 devices, one for publishing sensor data another one for subscribing to alert system. Here the random sensor data will be successfully published in the json format from the python code that we would have developed during the previous sprint.

SPRINT 3:

In this sprint we are going to create and configure the node red services and develope a Web UI dashboard for the users to monitor the sensor data and to toggle the state of the alarm. The data from the IBM Watson IOT platform will be sent to this node red application and an email will be sent to the admins every 5 minutes with the node red UI dashboard link if the gas leakage is detected and the alarm will be automatically triggered. Using that link the admin can monitor the gas levels and can toggle the alarm switch from any device using the internet.

SPRINT 4:

In this sprint we will be developing an alarm system simulation using a led, buzzer and ESP32 microcontroller. The subscribe model device named Alert_System in IBM Watson IOT platform will be connected to this simulation using device credentials. Thus, the alarm gets toggles ON automatically when a gas leakage is detected. However, this alarm can be toggled ON and OFF manually from the Node Red Web Application dashboard by the admins.