

### Project Initialization and Planning Phase

|               |                                   |
|---------------|-----------------------------------|
| Date          | 11-07-2024                        |
| Team ID       | 739955                            |
| Project Name  | SMOKE DETECTION USING IOT DATASET |
| Maximum Marks | 3 Marks                           |

#### Define Problem Statements (Customer Problem Statement Template):

Fire hazards pose significant risks to human life, property, and the environment. Traditional smoke detection systems often face limitations in terms of range, sensitivity, and response time. The advent of the Internet of Things (IoT) offers new possibilities for improving smoke detection systems by leveraging interconnected devices and real-time data analysis. By integrating IoT technology with advanced data analytics, it is possible to develop a more efficient and accurate smoke detection system that can promptly identify fire incidents and potentially mitigate damage. The primary objective of this project is to develop an advanced smoke detection system using IoT devices and a comprehensive dataset. The system aims to achieve higher accuracy in detecting smoke, faster response times, and the ability to provide real-time alerts and data to users. This will be accomplished by leveraging machine learning algorithms to analyze the data collected from various IoT sensors.

| Problem Statement (PS) | I am (Researcher)                    | I'm trying to   | But  | Because  | Which makes me feel  |
|------------------------|--------------------------------------|---|--|--|--|
| PS-1                   | I'm a researcher in IOT engineering. | Introduce a detector which detects the harmful smoke present in the atmosphere. | With limited access to smoke detection Datasets. | In this modern technology to use advanced tools to detect the smoke. | Confident in implementing this and can protect many lives. |