



## **Project Initialization and Planning Phase**

| Date          | 20 June 2024   |
|---------------|--|
| Team ID       | 739680   |
| Project Name  | Estimating Presence or Absence of<br>Smoking Through Bio Signals |
| Maximum Marks | 3 Marks  |

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

The problem statements outlined aim to address the challenge of accurately estimating smoking behavior using biosignals. From developing robust detection systems and real-time monitoring devices to validating biosignal patterns and integrating them into effective intervention strategies, these statements reflect the diverse facets of research and development needed to advance the field. Ultimately, by leveraging biosignals such as heart rate variability, skin conductance, and respiratory patterns, the goal is to enhance accuracy in identifying smoking behaviors, supporting personalized interventions, and improving smoking cessation outcomes.

| Problem<br>Statement<br>(PS) | I am<br>(Customer)                      | I'm trying to  | But  | Because   | Which makes<br>me feel  |
|------------------------------|---|--|--|---|---|
| PS-1                         | A researcher in biomedical engineering. | Develop a system for estimating smoking presence through biosignals. | Limited access<br>to diverse<br>biosignal<br>datasets. | To advance understanding and detection of smoking behaviors using objective measures. | Confident in contributing to public health and smoking cessation efforts. |