tap into BE, understa

Define CS, fit into CC

# 1. CUSTOMER SEGMENT(S)



### **6. CUSTOMER CONSTRAINTS**



### 5. AVAILABLE SOLUTIONS



- 1. Thermal Industries.
- 2. All types of Small-Scale Industries.
- Industries that are associated with flammable substances.

- 1. Requires analytical expertise for analyzing the sensor data.
- 2. Requires manpower with strong technical expertise for handling the associated software.
- 3. Industry level MIME sensors for accurate sensing is required.

- 1. Various sensors are employed for monitoring the environment.
- 2. Blynk Application and Thing Speak tool have been used for alerting purpose.
- Some works have employed GSM and GPS modules for notifying the concerned authorities, by using image processing for monitoring.

#### 2. JOBS-TO-BE-DONE / PROBLEMS



- 1. The fire accident if not controlled at the right time can lead to heavy financial and human loss.
- 2. Prompt appropriate actions for the particular situation needs to be taken at the right time.

#### 9. PROBLEM ROOT CAUSE



# 7. BEHAVIOUR



- In industries employing chemicals there are high chances of building up of harmful flammable gases.
- 2. There are chances of manual errors while operating the machineries.

- Gain knowledge on the existing solutions and try to learn more on the products available in this domain.
  - Visit the industries to gain knowledge about the working and operation of the machineries.

# 3. TRIGGERS



- 1. Real time water sprinklers for controlling the fire
- 2. Exhaust fans for providing ventilation if the concentration of the gases goes high

## 4. EMOTIONS: BEFORE / AFTER



**BEFORE AFTER** Tragic, Unprepared, Stress free, Fearless, Tranquil, Secure Helpless, Insecure

#### 10. YOUR SOLUTION



- 1. The smart fire management system includes a gas sensor, Flame sensor and Temperature sensor to detect any changes in the environment.
- 2. The exhaust fans are activated based on the temperature readings and the presence of any gases. If a flame is detected, the sprinklers will activate automatically.
- 3. Emergency alerts are notified to the authorities and Fire station.

#### **8. CHANNELS of BEHAVIOUR**

CH

Gather information from websites and journals about the existing models.

Visit industries to acquire adequate knowledge about the operation and working principle of the machineries

**Extract online & offline CH of BE**