IDEATION PHASE – BRAINSTROMING SESSION

Project Name: Industry Specific Intelligent Fire Management System	**Team Members:** Varshini.G (714019106120) (Team Leader) Sneka.S(714019106108) Surya.K(714019106114) Saravana Kumar.P(714019106099)

Problem Statement:

Suggest an innovative approach for effective fire management in industries to prevent fire accidents and take appropriate measures to avoid any catastrophe

IDEA 1	**IDEA 2**	**IDEA 3**
• Employing gas sensor, flame sensor and temperature sensor to detect any changes in the environment. • Based on the temperature readings and if any Gases are present the exhaust fans are powered ON. • If any flame is detected the sprinklers will be switched on automatically. • Emergency alerts are notified to the authorities and Fire station via FAST2SMS.	• A microcontroller based model for industries safety, which can detect gas leakage hazardous fire as well as take action to extinguish the fire. • With the assistance of sensors, the system continuously senses leakage of gases and fire occurrence. • Upon detection of the same, the system disconnects the building's primary power source and shuts the main gas valve. • It also notifies the manager via GSM.	• By analyzing the transmitted images, an algorithm is able to recognize the source of fire and activate an alarm, thereby ensuring the safety of the enterprise. • The algorithm deploys various characteristics of flame images during data processing. • The mixed Gaussian model is used to distinguish the dynamic area from the static background and the color characteristics of pixels in the RGB model are analyzed to detect fire