**IDEATION PHASE – BRAINSTROMING SESSION**

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| **Project Name:** Industry Specific Intelligent Fire Management System | | | **Team Members:**  Harshavarthana M (1904012) (Team Leader)  Amirthavarshini R (1904001)  Atchaya B (1904004)  Raghavi R (1904038)  Raksheka R (1904039) |
| **Date of Submission:** 16/09/2022 | | |
| **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 | |