

INDUSTRY SPECIFIC FIRE MANAGEMENT SYSTEM

A decorative graphic consisting of a horizontal line that extends from the left edge of the slide, then turns diagonally down and to the right, ending in a solid dark blue circle.

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PROBLEM STATEMENT

Industry specific intelligent fire management system aims to prevent fire accidents in industries and take appropriate measures to avoid any catastrophe.



EXISTING SOLUTION

- The existing works have employed flame sensor, temperature sensor and gas sensor for monitoring the environment and Blynk Application, Thinkspeak 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.

INFERENCE FROM EXISTING WORKS

- From the existing works, it is inferred that the models have not employed any measures to control spread of fire.
- The existing works have not incorporated algorithms that take action based on the exact prevailing scenario.
- Real time actuators like sprinklers and exhaust fans are also not in place in the existing works.

IDEA

- The smart fire management system includes a Gas sensor, Flame sensor and temperature sensors 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.