

IBM PROJECT

Industry-specific intelligent fire management system

PROBLEM STATEMENT:

A few fire warning and alarm systems have been presented based on a combination of a smoke sensor and an alarm device to design a life-safety system. However, such fire alarm systems are sometimes error-prone and can react to non-actual indicators of fire presence classified as false warnings. There is a need for high-quality and intelligent fire alarm systems that use multiple sensor values (such as a signal from a flame detector, humidity, heat, and smoke sensors, etc.) to detect true incidents of fire.

Safety is a crucial consideration in the design of residential and commercial buildings to safeguard against the loss of life and damage to property. The existing fire alarm system on market nowadays is too complex in terms of its design and structure. Since the system is too complex, it needs regular maintenance to be carried out to make sure the system operates well.

PROJECT DESCRIPTION:

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 fire is detected the sprinklers will be switched on automatically and turned off automatically
- Emergency alerts are notified to the authorities and Fire station