

INDUSTRY SPECIFIC INTELLIGENT FIRE MANAGEMENT SYSTEM

ABSTRACT

Industry specific intelligent fire management system aims to prevent fire accidents in industries and take appropriate measures to avoid any catastrophe. The main objective of the industry specific intelligent fire management system is to prevent fire accidents caused due to flammable gas, smoke and rise in temperature. The system incorporates sensors that detects any changes in the environment. Based on the sensor readings, if any discrepancy is encountered, appropriate actions will be taken in order to prevent any misfortune. The model incorporates MQ2 gas sensor for detecting propane and methane gases, IR Flame sensor module to detect flame and LM35 Temperature sensor to measure the temperature of the environment. The sensor readings are monitored continuously via IBM Watson IoT Platform and stored in Cloudant DB. In case of any undesirable variations the authorities and fire station will be alerted via Fast2SMS web service. 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.

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