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PROJECT

AUTONOMOUS FIRE SUPPRESSION SYSTEMS

Fire outbreaks are the third biggest risk to business continuity and operations, in addition to loss of life, according to India Risk Survey (IRS) 2018. The ADSI report shows residential buildings are most prone to fire outbreaks.

One method of avoiding fire breakouts in residential places is through the installation of an automatic fire sprinkler system. A sprinkler head is an automatic tap connected to a pressurised water system. When the fire heats up the sprinkler head, it opens at a pre-set temperature, allowing the pressurised water to be sprayed onto the fire, while simultaneously activating the alarm. But this system is expensive and the installation is complex. This project's autonomous fire suppression system overcomes these problems.

Features

• Use of single sprinkler in each room. If the temperature rises above the set-threshold value and is persistent, an alarm gets activated

• The controller gets the location of the fire and directs the sprinkler head to move into that particular area

• The sprinkler head which is connected to a pressurised water system, opens and sprays onto the fire

• This system increases the accuracy of fire detection and prevents false alarm.

• Usage of similar mechanism based on the material placed in the room, extinguishers and the type of sprinkler head being used