# BEST 3 IDEASOF FIRE DETECTION

- ✓ New loudspeaker technologies. Additionally, all UL-listed fire- alarm loudspeakers are built with the understanding that a supervisory voltage will be monitoring circuit integrity of the loudspeaker circuit when the circuit is not in use. This is usually done with a blocking diode and marks a significant difference from commercial audio speakers, which is why they are usually not interchangeable

- ✓ More and more facility owners and managers are realizing the benefits of integrating all the building systems, such as mass notification and security systems.  A unified mass notification system (MNS) is defined as a platform to deliver a message to a small or large group of people.   Traditionally these systems offered one-way message delivery via email, text message, or reverse 911 calling mechanisms.  By integrating these systems together, users can improve the oversight and management of multiple systems from a single point of control. More and more facility owners and managers are realizing the benefits of the integration of the fire alarm system with other building systems, such as mass notification systems and security systems.  By integrating these systems together, users can improve the oversight and management of multiple systems from a single point of control.

- ✓ There is a major shift happening in the industry towards multiple criteria technology. Many companies are continuing to develop innovative products that have the ability to detect not only smoke but heat, infrared light from flames and carbon monoxide as well. These sensors not only save money and time but also reduce the time involved with installing multiple sensors, but it also helps in eliminate nuisance alarms, because more than one criterion needs to meet before the alarm is triggered.

## Brainstorming Ideas of Fire Detection

- ✓ The first few minutes of a fire are crucial in containing it. Automatic fire alarm systems such as smoke and heat detectors are mandatory elements in international building codes, and particularly useful in spotting fires during times when occupancy in the building is low.

- High-rise buildings, which are harder to access and evacuate, should consider installing automatic sprinkler systems. The National Fire Protection Association (NFPA), a US-based non-profit body, estimates that automatic suppression systems lower the cost of damage by 60%. Karguppikar endorses their use, admitting that "the fire in one of the rooms on the 18th floor of the Oberoi was extinguished by its sprinkler system and it was an eye-opener for all of us".

- Materials used in the interiors can save or endanger lives. The combination of wood, paper and textiles makes workstations highly combustible. Fabrics can be made flame-retardant, however, so that they self-extinguish when lit. An increasing number of companies, especially multinationals, request such fabrics despite their price premium, according to data from Indian office furniture manufacturer BP Ergo. Stringent fire regulations abroad make it necessary for US furniture makers such as Herman Miller to provide only fire-tested fabrics.

- Grilled windows are a widespread urban phenomenon, and Jairaj Phatak, commissioner, Brihanmumbai Municipal Corporation (BMC), wittily observes that "residents who have grills on their windows presume that only thieves are kept out, and not firefighters". Occupants of offices in residential buildings with few exits should be wary of locking themselves into confined spaces.

- There are a number of leading companies in the marketplace offering connected smoke detectors and carbon monoxide detectors for residential use. These connected detectors are able to communicate with the Thermostat and can shut off the furnace in the event of a fire or carbon monoxide. The detectors can be accessed anywhere using mobile apps. In the event of an alarm, the detectors sound a local alarm as well as send notifications on the mobile phone. Nest and Ring are some of the most popular smart detectors in the market today.

- Wireless technology continues to spread widely across the security industry, fire alarm also is not expected to remain on the sidelines. Wireless smoke detectors come in more compact and streamlined designs that can be more appealing aesthetic wise. However, the most significant about this trend is the absence of the need for wire installations in difficult spaces such as finished rooms and historical buildings. Once wireless fire alarm

systems become a more affordable and feasible option, this will lead to a surge in demand for wireless fire alarm systems.

✓ Systems that announce danger with pre-recorded message continues to gain traction and shows no sign of a slowdown in the near future. Voice alerts system allows for providing specific life safety instructions and safety measures to evacuate. This system is not only effective for fire events but also other emergencies as well such as a hazardous chemical spill, intruder and bad weather. In addition, these systems allow the building managers to speak through the voice alert system to provide basic instructions to evacuate the building, studies have shown people have an increased reaction to voice instructions as opposed to simple sirens and recorded voice.

✓ Modern fire alarm systems can be set up to offer alarms on-site as well as at a remote station. The fire alarm system, including the central remote monitoring station, must meet all the governing standards and regulations. Although the remote monitoring feature adds to the system cost as well as maintenance and operations expenses, the benefits of such features are huge. Facility managers can connect multiple facilities to one central monitoring station and ensure better monitoring of alarm systems, maintenance of records and reports, and scheduling of tests and maintenance activities.

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✓ Wireless fire alarm technology. We can implement wireless fire alarm system. It can reduce installation cost and time.

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✓ Fire safety is among the various areas that can realize the extraordinary benefits of the Internet of Things (IoT). The Internet of Things (IoT) has led to much of the world becoming smarter and more connected. With IoT, now safety alerts can be sent to hundreds of people fast and effectively. Several leading fire safety companies have already launched IoT-enabled fire detectors.

✓ In a central alarm system, all detectors are connected to a central controller and send the signal directly to this controller. The controller actively monitors multiple locations and when it receives alarm input from the detection devices, it activates notification devices such as horns, strobe lights, and speakers to alert the occupants. Now, more and more connected and smart features are also coming to central alarm and evacuation systems. Now, mass notification systems include a paging component to relay live audio instructions throughout the building in case of an emergency. Most mass notification now a day also includes support for various types of emergency messages such as inclement weather emergency, security alerts, amber alerts, etc. Advanced features in

mass notification systems include the capability to communicate alerts via SMS, text, email, popup, app message and push notification to targeted recipients, thus helping create quick and effective awareness.

✓ Technology is also available today to add connectivity to existing detectors. One of the leading manufacturers of fire safety products, Kidde offers a monitor to add connectivity to existing detectors. With a monitor, users don't have to change all detectors. The monitor listens for the specific frequency of smoke and CO detectors and sends an alert to its app when it hears them. One single monitor can cover multiple detectors on the floor. Another retrofit option for users is available through a company called Roost. The company offers a 9V battery that contains a Wi-Fi antenna and a microphone. Users can swap their regular batteries with Roost batteries in their old detectors to add Smart features. The battery can send a push alert whenever the detector sounds. Users can also check the remaining battery life at any time with its app. Various other smart detectors and connectivity products are available through large players such as First Alert and new startups such as Leo.