

The Hong Kong Institution of Engineers Fire Division fully supports the “Pilot Scheme of Internet of Things (IoT) Fire Detection System”



The "2025 Policy Address" announced that the Fire Services Department will introduce an IoT Fire Detection System" to spare specific old buildings from installing equipment such as fire hose reels and water tanks, thereby expediting enhancements of the overall fire safety standards of old buildings. The Hong Kong Institution of Engineers (“HKIE”) Fire Division would like to express our full support for the initiative.

中華人民共和國香港特別行政區

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With the rapid advancement of technology, fire engineering has continuously evolved to enhance the efficiency and reliability of fire detection. The “Pilot Scheme of IoT Fire Detection System” aims to leverage innovative technology to improve fire detection capabilities in old buildings, protecting the lives and property of residents living in these premises.



Traditional fire detection systems use direct telephone lines to transmit fire alarm signals to the Fire Services Department through licensed service operators. Since this system requires physical telephone lines to connect the entire system within a building, the installation process is time-consuming. In contrast, the IoT Fire Detection System uses wireless signals to connect the entire system, making the installation process simpler and significantly shorter. Moreover, unlike traditional fire detection systems, the IoT system includes a monitoring function that monitors the system’s operational status. If an individual detector becomes faulty, the system will immediately send a notification to the Fire Services Department and the service provider for follow-up action.

From the perspective of fire engineering, although traditional fire hose reel systems play an essential role in suppressing fire at an initial stage, these systems require manual operation, which may not be feasible for elderly residents with limited mobility or for occupants trapped in dangerous situations. Furthermore, hose reel systems are designed to assist in extinguishing fires after they have occurred and cannot provide early warning capabilities. In contrast, the IoT Fire Detection System excels with its proactive early warning capabilities. By offering real-time monitoring and rapid transmission of fire alarm signals, the system alerts occupants during the early stages of a fire, enabling them to evacuate promptly and ensuring their safety.

The IoT Fire Detection System combines cutting-edge IoT technology with advancements in fire engineering to deliver a highly efficient and reliable fire detection solution. By reducing false alarms and improving accuracy, the system ensures a high level of reliability. At the same time, the centralized monitoring platform collects and analyzes fire alarm signals, utilizing data analysis and fire pattern recognition to further enhance early warning capabilities.



The “Pilot Scheme of IoT Fire Detection System” is not only a successful example of applying technology to fire engineering, but also a significant initiative to enhance community safety. Through real-time monitoring, rapid signal transmission, and precise detection capabilities, the system effectively reduces fire risks and protects the lives and property of residents in old buildings.

The HKIE Fire Division invites all sectors of the society to support this initiative and join us in advancing fire technology in Hong Kong to new heights.

