



Predictive AIoT Fire Detection System

GABES AlphaSense

Protecting What Matters Most:
Your Life, Your Family, and Your Home



Fire Safety Challenge in Hong Kong

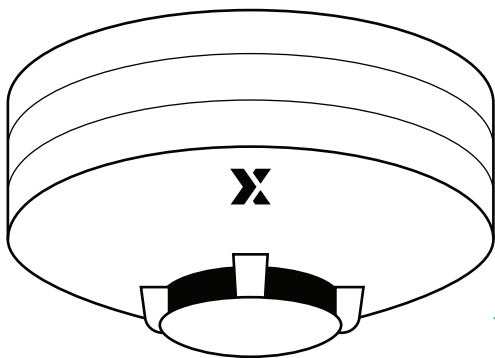
80% of fire service calls are false alarms (90 per day).
(HKFSD Review 2024)

No Fire Protection during constructions.

No Reporting during system failure.

Why AlphaSense?

AlphaSense is GABES' Predictive AIoT Fire Detection System designed to make fire detection smarter, faster, and safer.



World's 1st Artificial Intelligence (AI) Predictive Fire Detection System

Trained on real-world data, our AI-driven fire classification reduces false alarms by over 97%, ensuring unparalleled reliability.

Wireless Internet of Things (IoT) Technology

Wireless detectors enable quick, flexible installations, cutting labor and wiring costs by up to 50-70%. Includes web/app remote alerts for real-time monitoring.

Developed by PhD Researchers

Developed by The Hong Kong Polytechnic University (PolyU) and City University of Hong Kong (CityUHK) PhD researchers and supported by Cyberport, combining academic rigor with industry-backed innovation.

AlphaSense vs Traditional Fire Detection Systems

Feature	Traditional Wired Systems	GABES AlphaSense (AIoT Smart System)
Wireless Installation	✗ Complex wiring, slow and costly	○ No messy cabling, fast, flexible and cheap
AI-Powered Detection	✗ Fixed threshold, frequent false alarms	○ Learns fire patterns to cut false alarms by up to 97%
Multi-Detection Sensors	✗ Usually single-type sensor	○ Detects smoke, heat, and analyses with time patterns
Cloud & Remote Alerts	✗ Limited to local alarms only	○ Sends instant alerts to phones & facility systems
Regular Health Check	✗ Manual testing required	○ Automatic self-testing & health reporting
Construction Site Ready	✗ Offline during rewiring or upgrades	○ Operates even during renovations
Fully Addressable	✗ Addressable only by zones	○ Accurately identify the exact location of fire and danger
Customisable & Integrated	✗ Closed, non-flexible systems	○ Supports IoT, BMS, and Fire Panel integration

Why AlphaSense Matters?

1

Smarter Detection with AI

- Distinguish between real fires and harmless smoke (e.g., cooking steam).
- Reduce false alarms by up to 97%.

2

Always Online – Even During Construction

- Wireless and battery-powered.
- Ensure uninterrupted protection when traditional wired systems are offline.

3

Real-Time Monitoring & Remote Alerts

- Send instant alerts via mobile and web dashboard.
- Facility teams can monitor multiple sites remotely through the AlphaView platform.

4

Continuous System Health Check

- Perform automatic self-testing and status reporting
- Prevent undetected malfunctions.

5

Customisable & Integrated

- Works seamlessly with Building Management Systems (BMS) and Fire Panel.
- Suitable for every infrastructure.

6

Research & Government Supported

- Developed and tested with universities and government departments.
- Meet international testing standards.

Want AlphaSense protection where you live or work?



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GABES Limited

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If you want to be protected by this system, forward this page to your building manager, renovation contractor, or property developer.

Whether it's for renovations, construction, or everyday fire protection — your one forward could bring safety to your entire building.

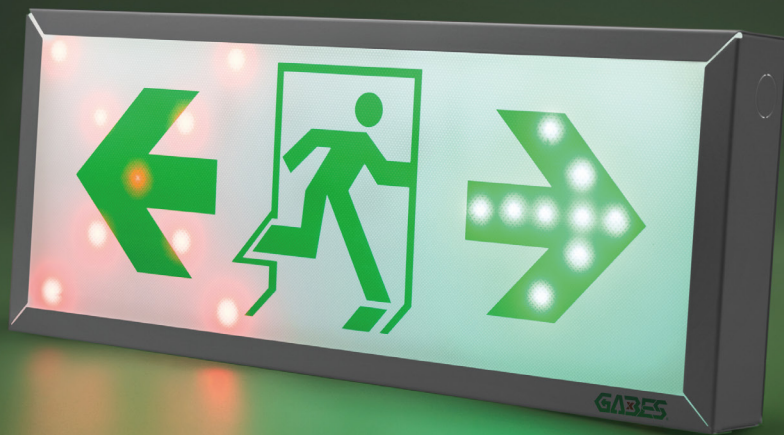
GABES
New Benchmarks of Fire Safety



Dynamic Evacuation System

GABES AlphaLights

Leading You to Safety:
Smarter, Faster, and Safer Escape When Every Second Counts



The Evacuation Challenge in Hong Kong

Don't know where the safe exit is

People lack real-time guidance to identify which exits are safe during a fire.

Take the wrong direction toward danger

Without dynamic information, evacuees may move toward smoke or fire zones.

Ignore exit signs and follow familiar routes

Many rely on habit, causing congestion and blocking safer escape paths.

Why AlphaLights? – 3 Key Features

World's 1st Proactive Fire Evacuation System

Backed by PhD research from CityUHK and PolyU, AlphaLights uses AI-driven dynamic signs to proactively guide occupants to the safest exits before danger escalates.



Dynamic Evacuation Technology

Connected with real-time detectors, AlphaLights automatically adjusts exit directions based on fire and smoke spread, at least, reducing evacuation time by 18%, congestion by 36%, and travel distance by 12%.

Certified and Validated Innovation

Complies with international standards (BS EN and IEC series), with research supported by the HKFSD and NFPA, validated through real-world trials, and recognised in the media, being featured by TVB.



WHY GABES?



China Trademarks and Patents
Trademark - Registered
Design - Granted
Utility Model Patent - Granted
Invention Patent - Filed



Hong Kong Trademarks and Patents
Trademark - Registered
Design - Registered
Utility Model Patent - Granted
Standard Patent - Filed



Taiwan Patents
Utility Model Patent - Granted



United States Patents
Non-provisional patent - Filed

Industry Support

In November 2023, our research initiative received an official Letter of Support from the Hong Kong Fire Services Department—recognizing our direction in advancing fire safety innovation.

Academic Research

According to research, dynamic exit signage significantly shortens evacuation time. Related findings were published in the November 2022 issue of the NFPA Journal (USA). We also have the support of PolyU Fire Research Lab, testing the system's reliability in real-world scenarios.

Patent Portfolio

We hold multiple design and technology patents from China, Hong Kong, Taiwan, and the United States, ensuring technical uniqueness, as well as product quality and reliability.

Media Featured



In November 2024, GABES and pilot partner Pui Ying Secondary School co-hosted the world's first fire drill using a dynamic evacuation system. A controlled real-fire trigger simulated an unannounced emergency scenario.

Over 300 students and staff successfully evacuated by following AlphaLights' real-time escape guidance—validating the reliability of the AlphaNexus system.

Watch the News >>



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GABES
New Benchmarks of Fire Safety