USING RADAR CONCEPTS TO COMBAT TERRORISM

Human Security Radar from Apstec Systems is a high throughput system that can mitigate terrorist threats to crowded places

According to UK government guidance there has been increased terrorist activity both at home and abroad in recent years. Often the targets of such attacks are transport hubs, tourist attractions, stadiums, places of worship and major events, so called 'soft' targets for terrorists because they are easy to access and difficult to protect.

Securing these public spaces is a tremendous challenge for authorities, transport operators and venue owners, who must provide robust yet proportionate security measures that are not overly disruptive or oppressive. This challenge is compounded by the fact that the checkpoint style security methods largely in use today screen one person at a time and are not well suited to securing crowded places.

Recognising the seriousness of the risk to the public, organisations such as NATO and the US Department of Defense have invested time, effort and resources into developing technologies that help mitigate terrorist threats to crowded places. One of the solutions that emerged and benefitted from this investment is Human Security Radar (HSR) developed by Apstec Systems.

Increasing accuracy and efficiency

HSR is a high throughput, free flow system that credibly protects public places from terrorist attack by simultaneously screening multiple subjects in real-time for explosive devices and firearms hidden under clothes and in backpacks without the need for an operator to inspect suspect materials. Because it allows the free flow of very large numbers of people, it does not cause undue disruption or delays and thus improves security while at the same time improving the entire security experience.

Created by specialists in the fields of radio physics, electronics and software engineering, HSR uses multiple technologies combined with sophisticated algorithms and machine learning to discriminate potential threats from benign materials, with a high degree of accuracy. One of the primary technologies, which HSR relies on, uses approaches drawn from experience of radar technology yet focused on new applications. This involves active probing with low-power centimetre range radio waves to detect person-borne threats at distances of several metres, as well as threat objects in body worn bags and backpacks.

According to Stephen Cooper OBE, COO of Apstec: "The ability to deliver high footfall screening in real-time is a capability gap that has been endured for many years but now is able to be addressed with new approaches. HSR provides a practical and proportionate solution for mass screening that can transform the way we secure public places."

HSR has been widely tested and recognised by numerous police and intelligence services internationally and has been used in multiple customer deployments throughout Europe, the Middle East and Asia to improve security in crowded places such as entrances to airport terminals, transport hubs, stadiums, exhibition centres and other venues.

HSR's ability to ensure public safety during globally significant events was recently employed when Kansai International Airport (KIX) deployed HSR to enhance security during the G20 Summit in Osaka Japan.

Because of the many international leaders using Kansai International Airport during the G20, the airport management company wanted to enhance security in the general landside areas and terminal entrances. HSR was installed at the entrance to the main terminal building which handles both international and domestic flights as well as at another domestic terminal to screen people entering the terminal buildings.