



TECHNICAL NOTE

Evitech provides cost-effective site protection while guaranteeing anonymity

Thermal imaging cameras are an ideal way to protect your premises against intruders at night. Not only is thermal imaging very effective in detecting all kinds of anomalies in all weather conditions, it is also a cost-effective solution. In a recent project where an important swimming pool in Orsay, France, needed to be protected against intruders, security installation specialist EVITECH proves that you can secure an area of more than 1,000 square meters with one single camera.

The public swimming pool in the municipality of Orsay, France, receives several hundreds of visitors every day. Schools, sport clubs and recreational swimmers all find their way to the Olympic (50 meter) swimming pool for all kinds of swimming, diving or water-polo activities. As crowded as it might be during the day, at night during closing hours, the pool is not staffed and you only need a ladder to climb the fence and access the pool. In order to monitor the pool deck at night for irresponsible behavior and to prevent possible deaths by drowning, the municipality of Orsay decided to invest in an efficient security solution. At the same time, it was important to limit heavy construction works and guarantee anonymity for all swimming pool guests.

EVITECH (short for Electronic Vision Technologies), based in Antony, France, catered for the installation of an intruder detection system with thermal imaging technology from FLIR Systems, in cooperation with security technology installer TIFALI Group.

EVITECH video surveillance specialist

Founded in 2005, EVITECH is a European leader in video analytics for security applications. EVITECH's solutions help to monitor and protect sensitive sites, public spaces and transports, and oil & gas installations. The company can boast some very prestigious references, including government premises, big defense security system providers, sensitive energy sites and big construction companies. EVITECH's The FLIR FC-690 camera is coupled with Jaguar video analytics software.



The camera has been installed on the roof of an adjacent building without the use of a mast.



The FLIR FC-690 camera can capture all people movements in its field of view, based on the temperature information the human body gives off.



most notable security solutions are Jaguar, a video analytics software package for intrusion detection, and Lynx, a software tool that helps to manage movements of crowds of people through intelligent videoanalytics.

Single-camera installation

For the monitoring and detection of the pool deck around the 25x50 meter swimming pool, EVITECH opted for the FLIR FC-690 camera, installed on the corner of the adjacent pool building, coupled with Jaguar video analytics software. As a very cost-effective intruder detection solution, the FLIR FC-690 camera can capture all people movements in its field of view, based on the temperature information the human body gives off.

The FLIR FC-690 is an affordable, networkready fixed mount camera with 640 x 480 pixel resolution. The camera uses a 7.5 mm lens, which offers a field of view of 90° wide. Thanks to this lens, only one camera is needed to ensure the surveillance of the whole site. The camera has been installed on the roof of an adjacent building without the use of a mast. This way, the entire pool including the surrounding walkways and deck chair area, can be monitored.

The Jaguar video analytics software is a perfect match for the FLIR thermal imaging

cameras. The software continuously detects all kinds of movements on the water, hereby efficiently filtering out the movements of the pool water. Only activated during closing hours, the detection and monitoring system generates alarms when intruders are detected and automatically reports them to the city police.

Thermal trumps other technologies

Before selecting thermal imaging with Jaguar analytics, the municipality investigated other technologies. A common solution for detecting intruders is the use of infrared barriers. These detectors however require a lot of cable pulling and therefore also a lot of costly installation works that require the ground to be opened up. Another frequently used solution is visual video technology (CCTV). However, the area around the Orsay swimming pool is not lit at night, which makes detection difficult. In case lighting would have been installed, then the light that plays on the moving or rippling water would definitely generate a lot of false alarms. That's why thermal imaging proved to be the most sensible solution. Thermal imaging cameras do not need any lights to operate at night. And with only one camera covering the entire Olympic swimming pool, the installation works would be minimal.

The FLIR FC-690 thermal imaging camera: twice as effective

The FLIR FC-690's cost-effectiveness can also be demonstrated in another case. A rectangular area with a rectangular building is a very typical site configuration, which can be monitored and protected with only two thermal imaging cameras, attached to a mast (see layout).

In this configuration, two cameras cover the entire building perimeter. This is a very economical approach, in comparison to a configuration where four cameras are placed at each corner of the site, each camera monitoring one walkway. Reducing the number of cameras from four to two also means a reduced total investment: there's less masts to install, less installation works, and less video analytics licenses.





The FLIR FC-690 can monitor the entire pool including the surrounding walkways and deck chair area.

Anonymity guaranteed

Although the detection and monitoring system is switched off during opening hours, then the swimming pool customers could still be under the impression of being watched. Specifically in France, this would mean invasion of privacy, which could lead to legal actions. With thermal imaging cameras, that is not really a problem anymore. Unlike visual based CCTV cameras, a thermal imaging camera does not actually identify the person in question when he or she is detected. This way, the municipality is able to protect the swimming pool site against intruders at night or while it is closed, and at the same time respect the anonymity of the bathers while the pool area is open.



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