

OBSERVER

*Smart Videosurveillance through
Pattern Detection and Recognition*

SOMEONE TO WATCH OVER YOU



SECURITY

Advantages

- Learning and recognition of any form, in real-time.
- Extraction and analysis of moving objects.
- “A la carte” association between surveillance areas and detectors.
- Smart filtering of intrusions in surveillance areas.
- Selective alarms on events.
- On-the-fly face detection.



SPIKENET
TECHNOLOGY

UNLOCK YOUR VISION

OBSERVER is a smart **videoprotection** software based on asynchronous spiking networks. It observes and analyzes **forms, motions** and **faces** on a given surveillance zone.

OBSERVER has been designed as an open architecture: it's up to the user to set up the best system, in each zone to be placed under surveillance, using a combination of detectors. The operator can thus define his own **observation strategy**, depending on his needs.

OBSERVER

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Use case

Client:

An international airport.

Problem :

Classical intrusion detection systems are not able to identify the nature of moving objects. They tend to raise alarms on every intrusion, hence generating a high false alarms rate (more than one hundred per day in some zones).

The goal of OBSERVER here is to detect and characterize people and vehicles intrusions in critical zones such as plane parkings and manoeuvre areas.

Constraints :

- A plane moving into a critical zone cannot be considered as an intrusion.
- Any element leaving a critical zone cannot be considered as an intrusion.
- Intrusion detection must be selective.
- It must use any camera network already in place.
- It must interface smoothly with any motion detection system already in place.

Spikenet Solution :

To implement a combination of advanced visual detectors, including pattern recognition and learning, and motion analysis.

Advantages :

Our technology based on form learning allows us to filter objects authorized to enter a critical zone from those that cannot.

The operator creates a specific library of objects and forms, which are allowed into critical zones.

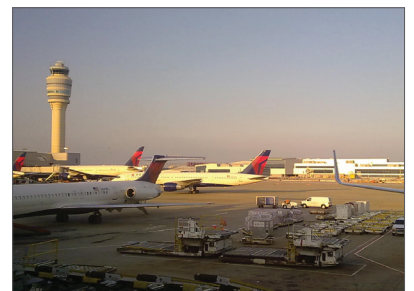
Reduces the false alarms rate by more than 70%.



SPECIFICATIONS

- Swift and simple creation of detection zones.
- Intuitive graphical interface.
- Detectors selection for each zone.
- Event log with image backup (nature, time and sequence).
- Possible integration in any existing videosurveillance system.
- External tasks launching through alarms (text-messages or emails).
- Day or night settings.

- Direct connection with IP, USB, Firewire and GigE cameras.
- On the shelf hardware.
- Recommended configuration: Intel i5 Core 2Go RAM.
- Recommended OS: Windows XP or more.
- Supports input/output relay.



Spikenet Technology develops a revolutionary real-time pattern recognition system based on asynchronous spiking networks.

Spikenet Technology products can be declined as softwares or as embedded systems.