



# AI-SMART SURVEILLANCE



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The Vision of the future. Now.

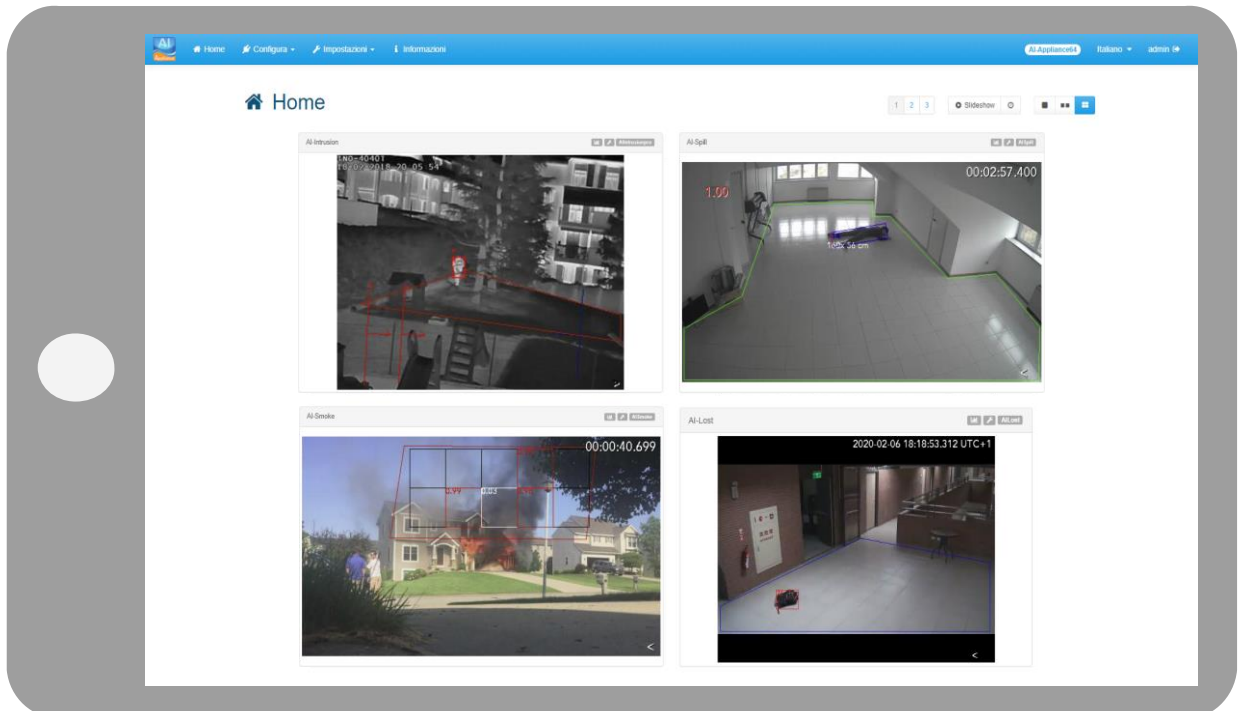


# AI-SMART SURVEILLANCE

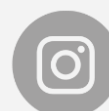


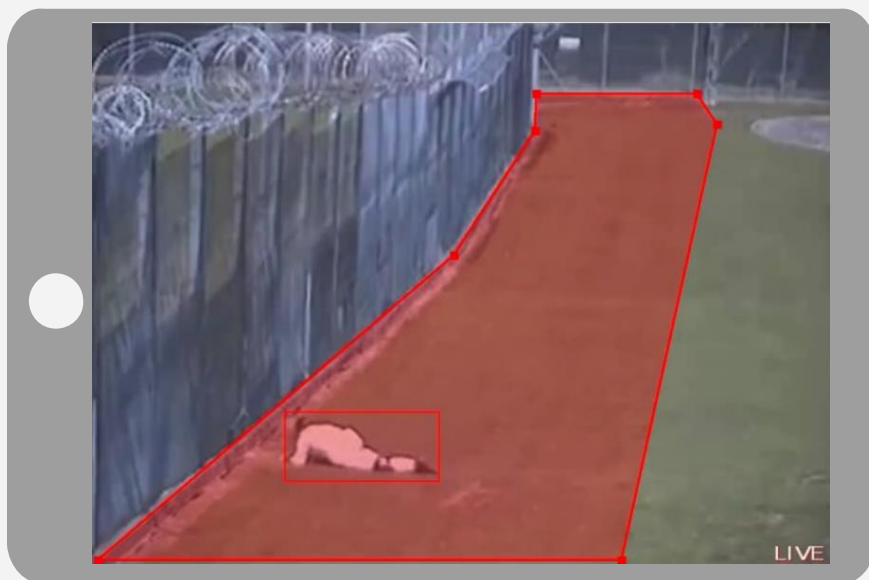
**AI-Smart Surveillance** includes all plugins required for indoor and outdoor surveillance and security; it includes selective intrusion detection, it may be activated and/or excluded for single or multiple categories [person, animal, vehicle], detection of anomalous behaviour [abandoned luggage, loitering, falling to the ground, onset of panic] and alarm situations for fire and/or smoke. The platform also includes a plugin for monitoring ATMs in order to prevent attacks preceded by anomalous behaviour of the attackers.

## APPLICATIONS



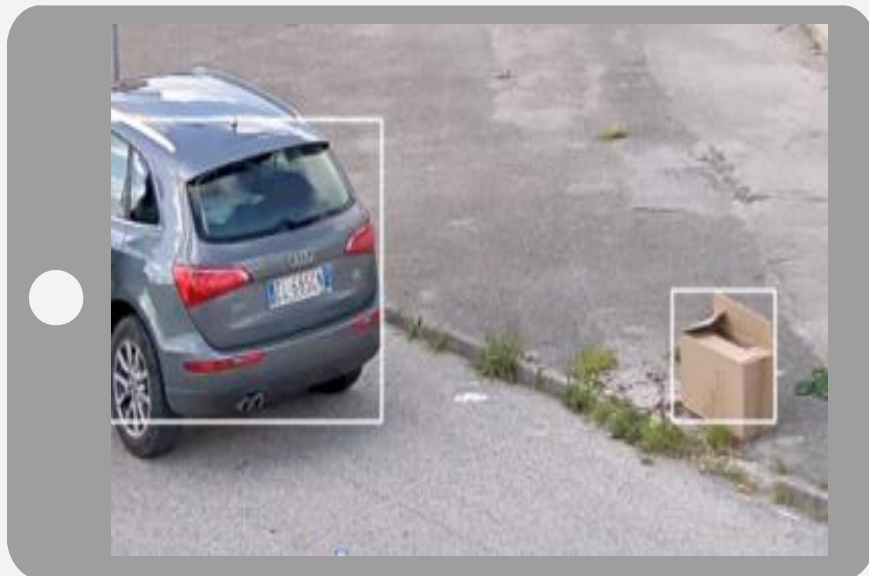
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**AI-INTRUSION**

Intrusion detection



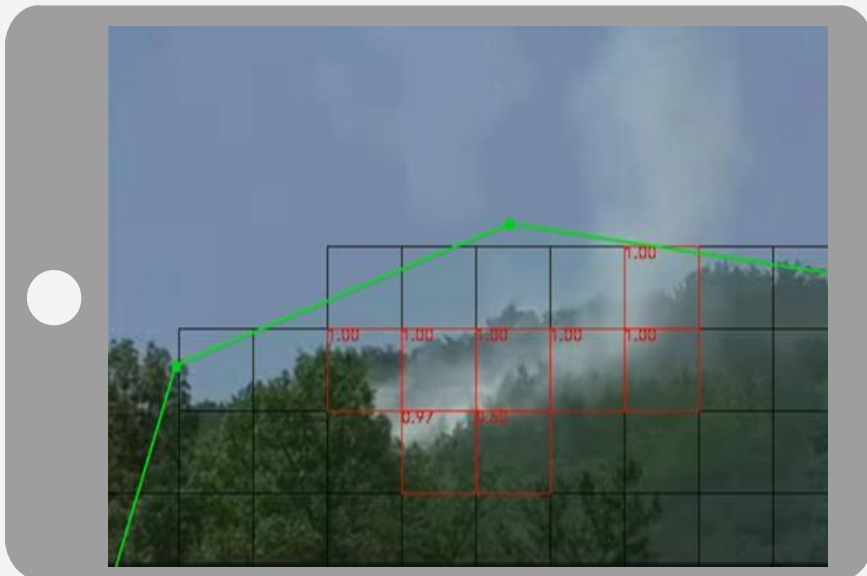
**AI-LOST**

Abandoned/removed object detection



AI-FIRE

Flame Detection



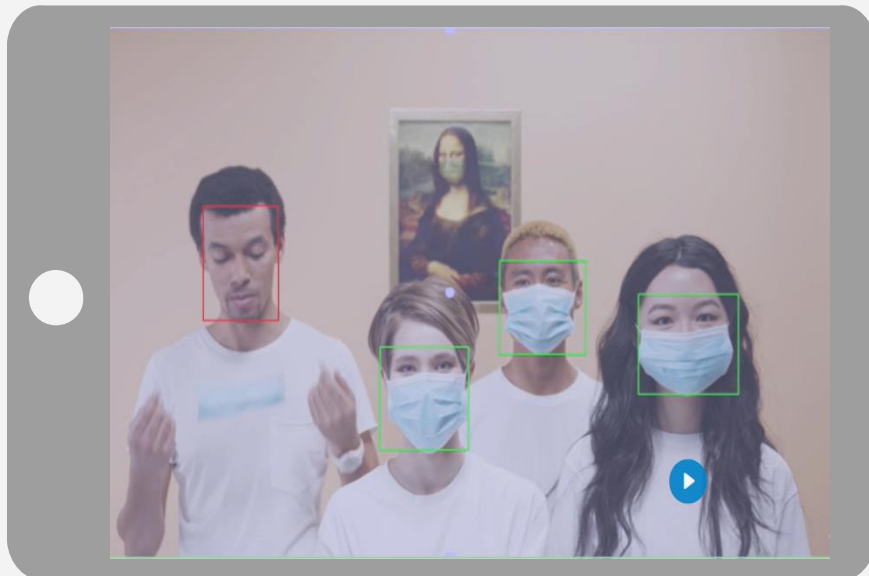
AI-SMOKE

Smoke Detection



AI-SPILL

Person fall detection



AI-FACEDETECT

Face detection with and without mask

# AI-SMART SURVEILLANCE



**AI-MASKING**

Live stream display in a masked way



**AI-INTRUSION** is a video analytics app based on the most advanced artificial intelligence and computer vision algorithms. It enables intrusion detection, in terms of access and/or persistence in a sterile area [sterile zone detection], virtual line crossing [crossing line or tripwire detection] and multiple virtual line crossing.

In addition to the real size of the object [obtained thanks to an advanced 3D reconstruction mechanism of the scene], **AI-INTRUSION** uses a deep neural network to filter objects according to their class [human, animal, vehicle].

**AI-INTRUSION** places no limits on the number of virtual sensors that can be defined within the scene and can be used both in indoor and outdoor environments and in combination with both traditional and thermal cameras.



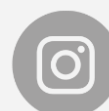
## USE CASE


### Where can we use AI-INTRUSION?

**AI-INTRUSION** is the ideal video analysis solution to meet security needs. It can be installed indoors, for example in museums, shops, shopping centres and factories, but also outdoors, for perimeter protection, for example in private homes, industries, factories and airports.



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**AI-LOST** is a video analytics app, based on the most advanced computer vision algorithms, that allows you to detect the presence of abandoned or removed objects in areas of interest.

The app places no limits on the number of virtual sensors that can be defined within the framed scene and can be used for indoor and outdoor environments and in combination with both traditional and thermal cameras.

## USE CASE

### Where can we use AI-LOST?



**AI-LOST** is the ideal video analysis solution to meet security needs. It can be installed to detect suspicious abandoned objects such as luggages in public places like train stations, universities, squares, shopping malls, museums or for the automatic detection of wastes in streets and parks.

**AI-LOST** can also be a useful tool for detecting theft in museums, through the detection of removed objects such as paintings or statues.



**AI-FIRE-DEEP** is a video analytics app that uses deep neural networks to enable early flame detection. The app is particularly useful in all those environments where traditional fire detectors are ineffective or cannot be used, like large indoor and outdoor environments, such as factories, car parks, waste management areas, or even forests and woodlands; even at a great distance from the installation site of the cameras.

The app does not require the use of thermal cameras, and places no limits on the number of areas that can be configured within the framed scene.



## USE CASE

### Where can we use AI-FIRE?

**AI-FIRE** is the ideal video analysis solution to meet the needs of security environments. The app can be used in indoor environments [for instance houses, museums, shopping centers, factories, warehouses], but also in outdoor environments [such as parks, landfills or storage sites].




**AI-SMOKE** is a video analytics app that uses deep neural networks to enable early flame detection. The app is particularly useful in all those environments where traditional fire detectors are ineffective or cannot be used, like large indoor and outdoor environments, such as factories, car parks, waste management areas, or even forests and woodlands; even at a great distance from the installation site of the cameras.

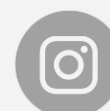
The app does not require the use of thermal cameras, and places no limits on the number of areas that can be configured within the framed scene.

## USE CASE

### Where can we use AI-SMOKE?



**AI-SMOKE** is the ideal video analysis solution to meet the needs of security environments. The app can be used in indoor environments [for instance houses, museums, shopping centers, factories, warehouses], but also in outdoor environments [such as parks, landfills or storage sites].





**AI-SPILL** is a video analytics app that enables the detection of a person falling within an area of interest. The app combines an advanced mathematical model to analyse pose variations, and therefore falling movement, with the most advanced deep neural networks for object classification, thus allowing people to be distinguished from other objects in the scene.

**AI-SPILL** places no limits on the number of configurable areas within the framed scene. The app can be reliably used in both indoor and outdoor environments.

## USE CASE

### Where can we use AI-SPILL?

**AI-SPILL** is the ideal video analytics solution to meet the security needs of hospitals, nursing or retirement homes for the elderly, or more generally in all those applications in which it is essential to detect patients' or guests' falls in real time, in order to guarantee a prompt response from the competent personnel.



**AI-SPILL** is at the same time the perfect gift for the private homes of the elderly, as it allows family members to be alerted in real time in the event of a fall. **AI-SPILL** can also be used in schools, in order to protect students by detecting falls in corridors and unattended areas.

Other areas of application are warehouses or cold rooms in warehouses, and more generally all those areas where staff rarely enter and therefore, in the event of a fall, the risk of not being able to be quickly rescued by colleagues is very high.



**AI-FACEDETECT** is a video analytics app that can detect faces within an area, generating an alarm if faces are [or are not] covered by a mask. The app utilizes the most advanced deep neural networks for both face detection and face analysis.

**AI-FACEDETECT** requires the use of a camera positioned with a frontal view at human height and can be reliably used in both indoor and outdoor environments.

## USE CASE

### Where can we use AI-FACEDETECT?



**AI-FACEDETECT** is the ideal video analytics solution to meet the security needs in all those areas where it is necessary to verify that people are wearing face masks. Examples include shops, banks, gyms, museums, offices, universities, sports halls, stations and airports.



**AI-MASKING** is a video analytics app that allows you to guarantee people's privacy, thanks to the ability to mask in real time specific areas of interest, statically identified, or in general any moving object within one or more areas of interest within the scene framed by the camera.

**AI-MASKING** can be used both indoors and outdoors and there is no limit to the number of areas to be defined, whether these are areas where masking should always be performed, areas where masking should never be performed or areas where only moving objects should be masked.

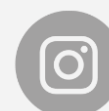
## USE CASE

### Where can we use AI-MASKING?

**AI-MASKING** is the ideal solution for all those contexts in which it is important, in order to ensure compliance with privacy regulations, to allow the visualisation of masked video streams on monitors visible to people passing by (i.e. not security personnel), while recording the video stream in unmasked mode on a VMS or NVR.

Examples of such contexts are shops, shopping centres, museums, hospitals, airports, stations, factories, car parks or cities.

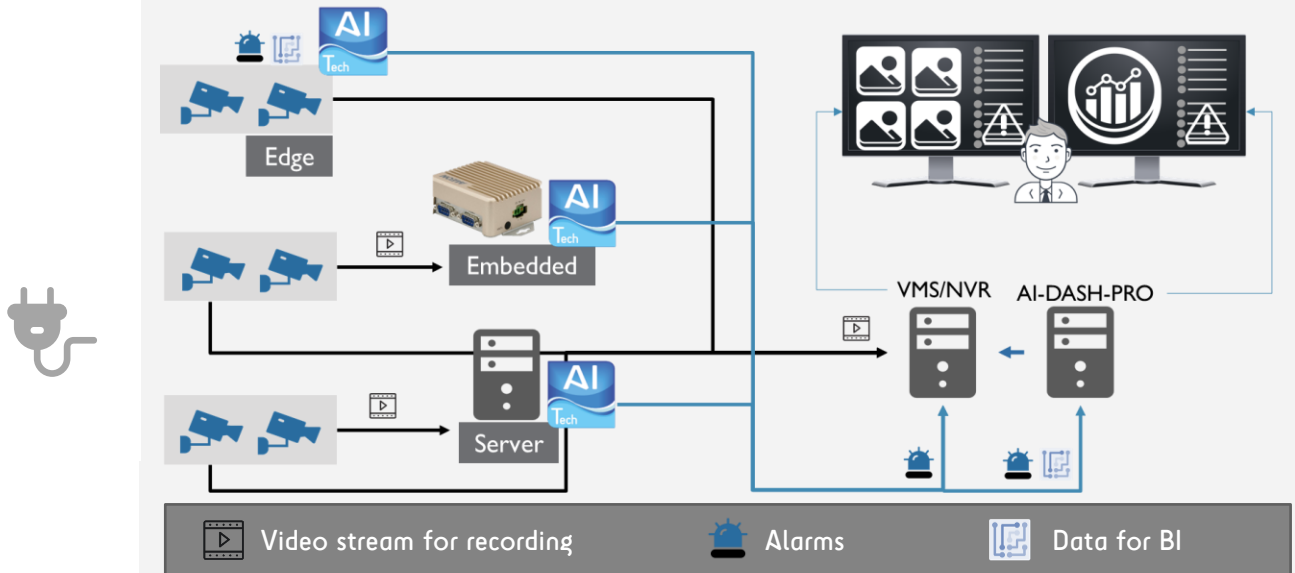
In a shop, for example, it is possible to display the video streams of all the cameras installed in the point of sale on the monitors installed near the cash desks. Furthermore, in a city, **AI-MASKING** allows the masking of the video stream acquired by the cameras located in the various areas, allowing citizens to view it publicly on the Internet without the need for special access credentials.



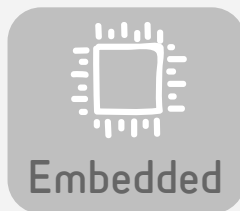


## ARCHITECTURE

Where can we install the apps?



Edge



Embedded



Server



The detailed list of specific compatible platforms can be reached via the link on the right.

## INTEGRATION

Where can we notify the events generated by the app?

Events can be sent to external servers using over 20 different mechanisms, which include third-party VMSs, standard protocols (such as HTTP, FTP, MODBUS and MQTT) and also A.I. Tech proprietary protocols, which allow the notification of events to the dashboards of A.I. Tech. More information via the link on the right.





**AI-SMART  
TRANSPORTATION**



**AI-SMART  
RETAIL**



**AI-SMART  
PARKING**



**AI-SMART  
TOTAL**

# AWARDS



**CIOApplications** europa TOP 25  
ARTIFICIAL INTELLIGENCE  
SOLUTION PROVIDERS - 2017

THE MOST **Innovative**  
**10** ARTIFICIAL  
INTELLIGENCE  
SOLUTION PROVIDERS  
2018



**A.I. Tech**

**2020 Award Winner**

Most Innovative in Video Analytics

