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AI-SMART PARKING

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AI-SMART PARKING

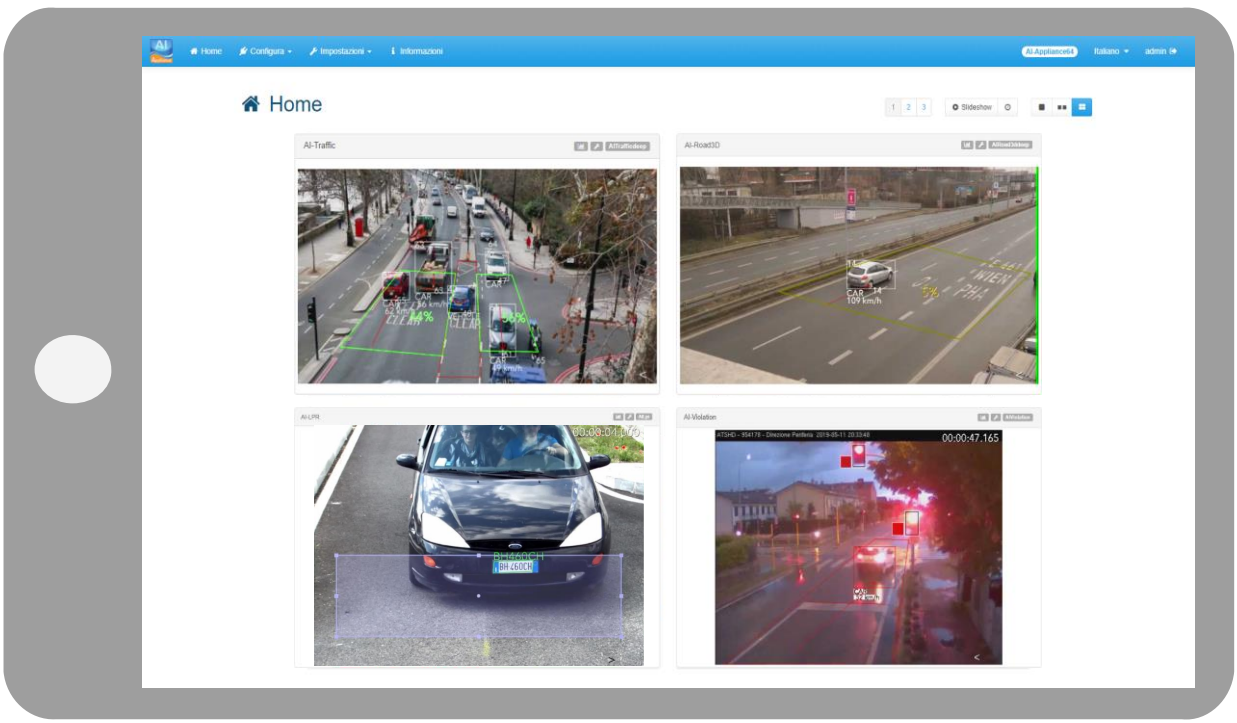
AI-SMART SURVEILLANCE includes all the plugins needed to manage parking areas, both bordered and not. It includes real-time identification of available and occupied parking lots, and for the latter it collects information on the parked vehicle, incorporating number plate recognition, vehicle classification and counting of people who have left and/or entered each vehicle. It allows the detection of anomalous behavior of pedestrians wandering in the car park with unclear intentions.

APPLICATIONS

AI Parking

AI LPR

AI Road3D



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AI-PARKING

Parking monitoring

AI-LPR

License Plate Detection and Recognition

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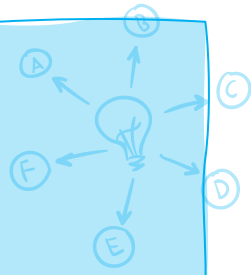

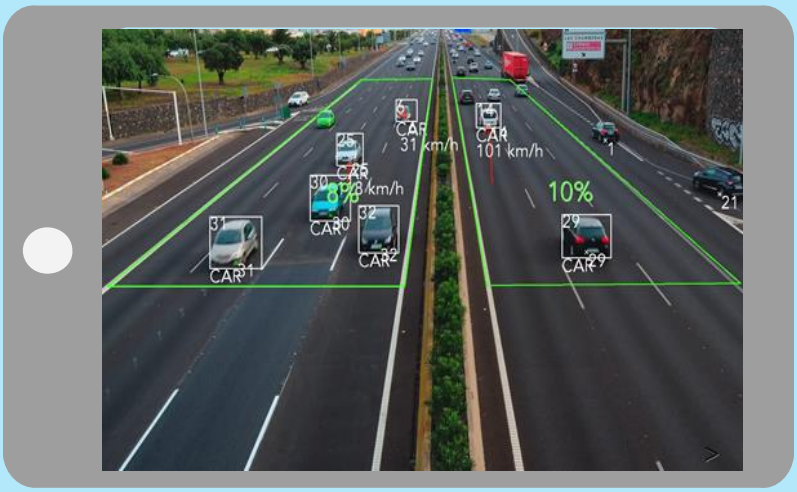

AI-ROAD3D

Counting and classification of vehicles, color and speed detection (average and above)

AI-PARKING

AI-PARKING is the video analytics app that can automatically detect the occupancy status of a parking spot, identifying whether it is free or occupied.

Thanks to the use of advanced algorithms based on deep neural networks, **AI-PARKING** can be used both in indoor and outdoor environments and only requires the vehicle to be partially visible inside the parking space.

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AI-PARKING USE CASE

AI-PARKING is the ultimate solution for monitoring car parks, whether they are bordered (i.e. with entry and exit gates, such as in private, supermarket or airport car parks) or on-street (e.g. in city centres).

In both cases the app, combined with the *AI-DASH-PRO* dashboard, also provides useful statistical information in parking management, such as the average occupancy time of a parking space, the occupancy status of a single space, an area (i.e. a cluster of parking spaces) or an entire car park.

AI-LPR

AI-LPR is a video analytics app that utilises an advanced artificial intelligence algorithm to perform license plate detection and recognition. Thanks to the use of an innovative engine based on semantic technologies, it also enables automatic correction of license plates based on the specific nationality of the plate (*).

The solution can detect vehicles up to a maximum speed of 230 km/h (depending on the chosen hardware platform) and can be used both indoors (e.g. for monitoring car parks) and outdoors (e.g. for monitoring city streets).

* Countries for which the semantic engine is currently available: Italy, France, Spain, Greece

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AI-LPR USE CASE

AI-LPR is a video analytics solution designed to meet the demands of licence plate reading. The application has various usage scenarios.
The first is in car park management, as it is a fundamental tool for managing black and white lists, or even simply for associating number plates with parking tickets.
AI-LPR can also be a valid support in logistics, detecting the number plates of the various vehicles entering a port, a factory or a landfill site. At the same time, the application is also very useful in city scenarios. In fact, thanks to its ability to detect number plates at speeds of up to 230 km/h, it can be used to detect access to restricted traffic areas or access to reserved lanes.

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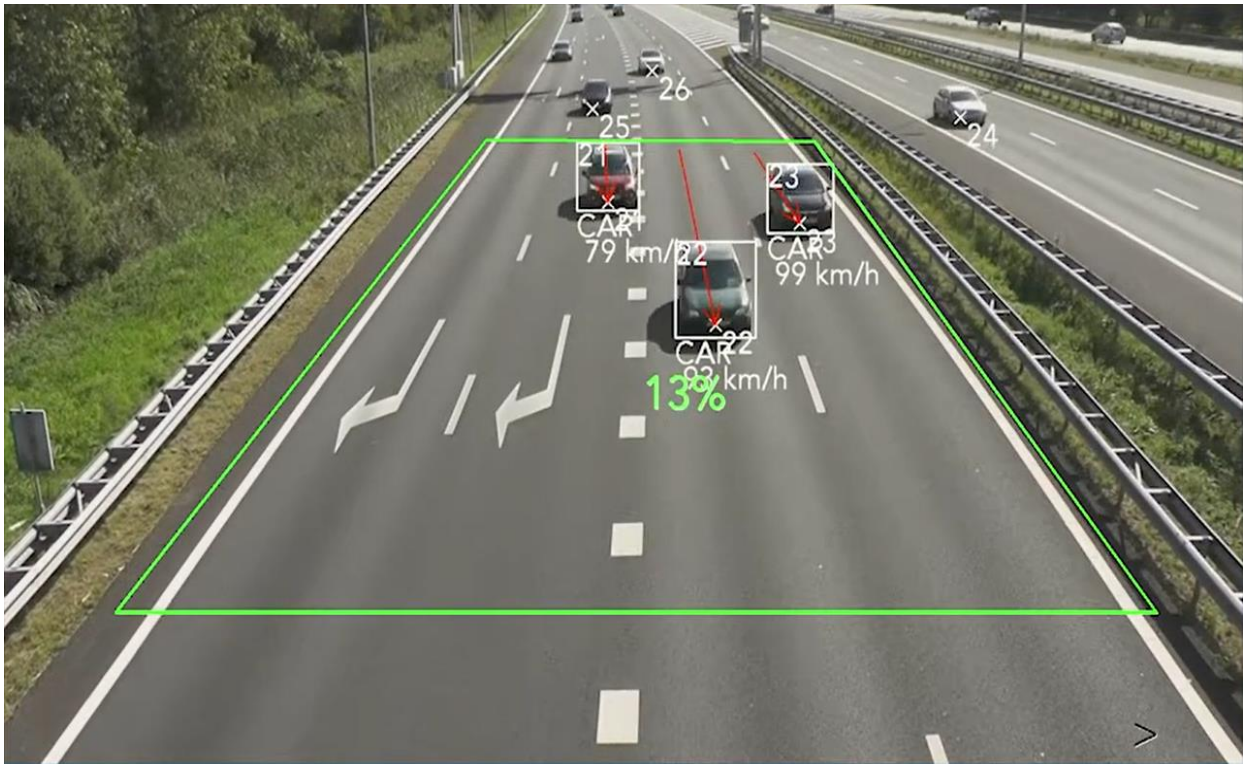
AI-ROAD3D

AI-ROAD3D is a video analytics app that allows the counting and classification of vehicles passing by a virtual sensor in a given direction. Three vehicle classes are considered: motorbikes, cars and trucks. The app also identifies the color and average speed of each vehicle and generates an alarm if this speed exceeds a certain threshold chosen by the operator. It is also able to assess traffic volume in real-time.

AI-ROAD3D combines an advanced 3D calibration and reconstruction mechanism of the scene with the most advanced artificial vision and artificial intelligence algorithms.

The application uses the latest deep learning algorithms for both object detection and classification guaranteeing high accuracy even in extremely complex scenarios, such as in tunnels or crowded city streets, at night or in severe weather conditions.



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AI-ROAD3D USE CASE

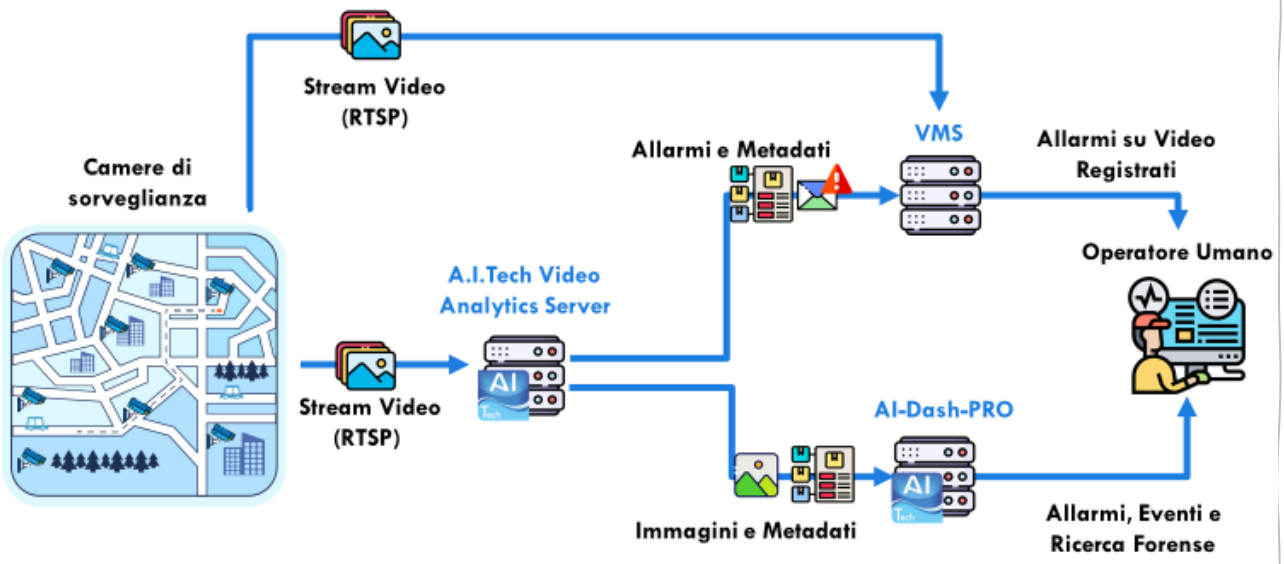
AI-ROAD3D makes it possible to meet the needs of any city that would like to be defined as 'smart'. It provides the possibility of understanding and analyzing vehicle flows in the various city arteries by counting the various categories of vehicles. Analyzing the average speed of vehicles on the various routes allows the identification of roads crossed with a higher average speed (possibly higher than a set threshold), thus suggesting an optimal position for positioning surveillance patrols or automatic systems that can be used for sanctioning purposes.

AI-ROAD3D can also be used to monitor tunnels or motorways.

Finally, in combination with the *AI-DASH-PRO* dashboard, the app can be used to monitor car parks by counting vehicles at the gates.

AI-SMART PARKING

ARCHITECTURE
Where can we install the app?



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

Edge

Embedded

Server

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.

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AWARDS

CIO Applications europe TOP 25 ARTIFICIAL INTELLIGENCE SOLUTION PROVIDERS - 2017

THE 10 MOST Innovative ARTIFICIAL INTELLIGENCE SOLUTION PROVIDERS 2018

CorporateLiveWire INNOVATION & EXCELLENCE AWARDS 2020

A.I. Tech

2020 Award Winner

Most Innovative in Video Analytics

IoMOBILITY AWARDS 2020

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FINALIST

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VIRTUAL

Supported by IFSEC & FIREX WEDNESDAY 25 NOVEMBER 2020

CorporateLiveWire INNOVATION & EXCELLENCE AWARDS 2023

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2022-23 Multi Award Winner

Most Innovative in AI Technology | Italy

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