AI-TRAFFIC
Bundle of the two applications
AI-ROAD3D and AI-INCIDENT

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AI-TRAFFIC is a video analytics application based on the most advanced artificial intelligence algorithms, which includes all the functions of the **AI-ROAD3D** and **AI-INCIDENT** apps, thus meeting all the needs that may arise in the smart road field.

AI-ROAD3D counts and classifies vehicles crossing a virtual sensor in a given direction. Three classes of vehicles can be identified: motorbikes, cars and trucks. The app is also able to detect the color and average speed of each vehicle, and generates an alarm if this speed exceeds a certain threshold chosen by the operator. It also allows real-time assessment of traffic density.

AI-INCIDENT detects anomalous situations on the road, such as vehicles driving on the wrong side of the road, stationary vehicles, or pedestrians in restricted zones. It is also able to detect tailbacks in real time.

Image analysis is performed in **AI-TRAFFIC** by combining an advanced 3D calibration and reconstruction mechanism of the scene with the most advanced artificial vision and artificial intelligence algorithms.

Like the **AI-ROAD3D** and **AI-INCIDENT** apps, **AI-TRAFFIC** is available in two versions: **AI-TRAFFIC** uses advanced deep learning algorithms to classify moving objects (distinguishing vehicles and people); **AI-TRAFFIC-DEEP** uses deep neural networks for both object detection and classification, ensuring high accuracy even in extremely complex scenarios, such as in tunnels or crowded city streets, at night or in adverse weather conditions

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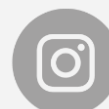
AI-TRAFFIC

USE CASE
### Where can we use AI-TRAFFIC?

AI-TRAFFIC includes the functionalities of different apps to meet the needs of any city that would like to be defined as "smart".

The app makes it possible to monitor and analyze the flow of vehicles on the various city streets, by counting the various categories of vehicles.

Analyzing the average speed of vehicles on the different routes also makes it possible to define the roads crossed with a higher average speed (possibly higher than a set threshold), thus suggesting an optimal position for positioning patrols or automatic systems that can be used for sanctioning purposes.

The app also identifies potentially dangerous situations on the road, such as a tailgating or a vehicle crossing the wrong way, or even the presence of a pedestrian on the road.
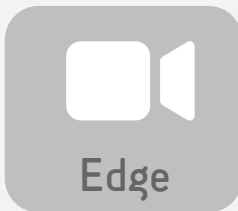
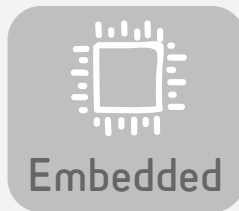**AI-TRAFFIC** can also be used to monitor tunnels or motorways.

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AI-TRAFFIC
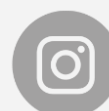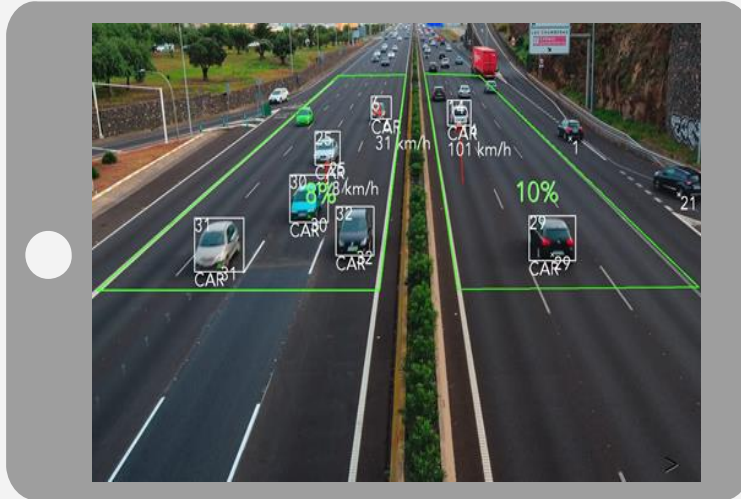
ARCHITECTURE
Where can we install the app?

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.