AI-CROWD-DEEP

Monitoring of flows and behaviors of people in indoor and outdoor environments

AI-CROWD-DEEP

AI-CROWD-DEEP is a video analytics software to analyze people and their behavior using the most advanced computer vision algorithms combined with deep neural networks.

The software can estimate the number of people within one or more areas of interest as well as counting people crossing virtual lines. It can also fire alarms in case overcrowd (e.g. the number of people present in the area of interest exceeds a customizable threshold).

AI-CROWD-DEEP can also analyze people's behavior detecting loitering or those who are are still for a given time or evaluate the distance among people and to verify the respect of social distances. the solution can be configured to fire alarms to other systems like Video Management Systems (VMS).

AI-CROWD-DEEP can, finally, provide the dwell time of each detected person to estimate the amount of time spend in the area, as well as identify the areas where people stay the most through an heatmap.

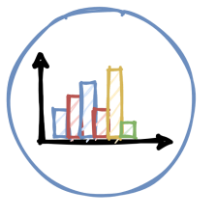**AI-CROWD-DEEP** can be used in both indoor and outdoor environments.

AI-CROWD-DEEP is the solution designed to meet the needs of buildings, museums, restaurants, shops, malls, airports, stations or cities, in order to make them smart environments.

AI-CROWD-DEEP is a valuable tool for marketing, in order to understand how visitors are moving around sales area as well as determining the most visited areas. In addition, the solution can help in managing checkouts by minimizing queue time and improving the customer experience. For example, it is possible, by estimating the number of people that are waiting, to alert staff to open a new checkout queue. Then, by counting people, calculating dwell time and producing the heatmap, AI-CROWD-DEEP provides information to understand the preferences of customers.

AI-CROWD-DEEP can also be used for people's safety purposes when used to avoid overcrowding in public spaces or environments.

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AI-CROWD-DEEP is the tool for public administrations that decide to exploit artificial intelligence to enhance the functionality of their systems, also using already installed video surveillance cameras.
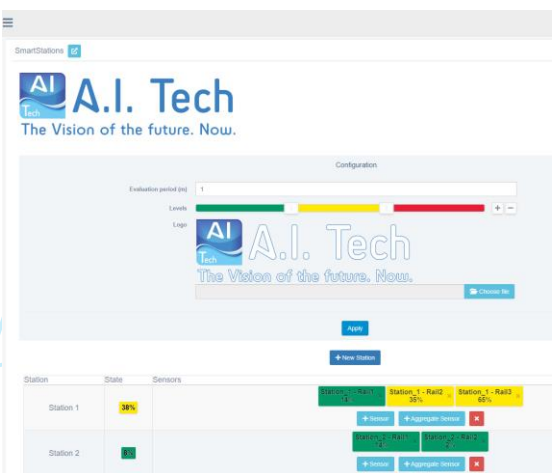
AI-CROWD-DEEP makes it possible to detect abnormal behaviors, such as people staying in an area for too long (loitering), or still people (e.g. for the detection of vandalism, such as graffiti). It can also be a valuable support to detect potential hazards such as gatherings or situations where social distances are not respected.

Finally, **AI-CROWD-DEEP** makes it allows to respond to green energy needs, thanks to the possibility of customizing and automatically adjusting the light intensity of streetlights. For example, at nighttime we can set low brightness in areas where there are are no people and maximum intensity where there are people passing by. A similar application can also be adopted within public offices, in order to provide for the switching on/off of lighting and ventilation systems.
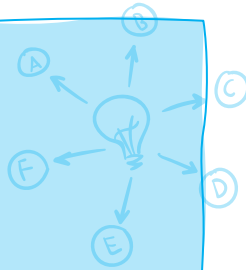
AI-CROWD-DEEP USE CASE: TRASPORTATION

AI-CROWD-DEEP can operate in outdoor environments, even in very crowded situations. In fact, it is the best tool for monitoring crowds on the platforms in a station or at the gates in an airport: it allows you to estimate the number of people entering, in order to determine peak times, as well as automatically identifying crowds, thus urging visitors to respect social distances where necessary.

AI-CROWD-DEEP

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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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