

Smartspector traffic detectors improve traffic flow

Travel time based traffic management without Big Brother



Smartspector's next generation traffic detectors facilitate a precise consolidation of passage data across locations. Digital signatures associated with individual vehicles allow for a reliable determination of comprehensive realtime travel time information.

Pointing the way ahead, Smartspector introduces lanus™-technology as the markets sole high definition vision system that reliably anonymizes all personal data for each image and processing result. By avoiding implementation problems with regard to privacy protection issues, high performance traffic-management systems can be realized.

Meaningful real time traffic data renders a vital basis for any traffic management system. Today's traffic detectors collect local traffic information in realtime. Those sensors have the capability to distinguish between several vehicle classes and determine the approximate speed at the site of installation. However, such sensors cannot provide any data for travel time determination. On the other hand, today's ANPR-systems (Automatic Number Plate Recognition) are suitable technical means to implement travel time measurement across locations; unfortunately, such systems don't handle privacy protection issues properly.

Traffic detectors by Smartspector facilitate an alternative approach towards traffic detection and tracking; by developing **Smartspector Aurora™**, Smartspector has realized a novel smart-camera platform with all capabilities of a fully integrated ANPR-system. By means of a supplemental avoidance mechanism called **lanus™-technology**, **number plates are automatically localized and reliably removed** in any acquired picture. Before anonymizing the image, the **traffic detector can derive a signature from the structure of the number plate**. The signature itself doesn't allow the reproduction of the original plate number, i.e. no confidential data is recorded or output.

The **determination of travel time** is done by **matching signatures at neighbouring sites**. By means of short-term trend analysis of travel times, a powerful traffic management can be set up. At any installation site, anonymous realtime passage data is collected, allowing a refined determination of current travel times. Travel times for each section and route makes an **ad hoc route planning** possible and up-to-date, reliable **travel-time prognostication** comes true. As the novel approach does not require any user interaction, next generation **route guidance systems** and **variable road signs** can immediately and continuously handle anomalies.

As the proposed sensor is a fully-fledged ANPR-system, added value is available for specifically authorized organizations. A multitude of applications may thus improve comfort, safety and security at any location within a road network.



SMARTSPECTOR artificial perception engineering GmbH

Sonnenhofgasse 6/14, 1050 Vienna | Austria | FN 276499t | CEO: Dieter Schmidradler
Phone.: +43 (0) 664 8559 281 | Mail: office@smartspector.com | Web: www.smartspector.com
Erste Bank, IBAN: AT33 2011 1288 1891 2000, BIC: GIBAATWW | tax number: 244/8068 | VAT: ATU 62514755

Version 101220
© SMARTSPECTOR artificial perception engineering GmbH
All rights reserved.