

Title (en)

METHOD AND DEVICE FOR DETECTING AND CLASSIFYING MOVING VEHICLES

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ERFASSEN UND KLASSIFIZIEREN VON FAHRZEUGEN IN BEWEGUNG

Title (fr)

PROCEDE ET DISPOSITIF POUR DETECTER ET CLASSIFIER DES VEHICULES EN DEPLACEMENT

Publication

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Application

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Abstract (en)

[origin: WO03036319A3] The invention relates to a method for detecting moving vehicles, especially lorries on motorways, using at least one camera and/or other devices for detecting the contour or spatial structure of a vehicle, and optionally the speed thereof. The invention also relates to a device for detecting moving vehicles, especially lorries on motorways, by means of at least one camera for recording a video image of the vehicle and/or other devices for detecting the contour or spatial structure of the vehicle, and optionally the speed thereof. The aim of the invention is to provide a method and a device for detecting moving vehicles, enabling an automatic differentiation between toll bound and non-toll bound vehicles, in order to avoid the unnecessary acquisition of large quantities of data. To this end, in terms of the method, before the contour and/or spatial structure is detected, a LIDAR system detects and follows the vehicle, and the path and speed of the vehicle are estimated on the basis of the LIDAR data and are associated with the then determined contour and structural data. According to the invention, the inventive device comprises a LIDAR system which is oriented in such a way that it detects a vehicle at a certain distance upstream from the recording position of the camera and/or the other devices, in addition to a calculation unit which is connected to the LIDAR, forecasts the path and the speed of the vehicle on the basis of the LIDAR data, optionally corrects said data, and, on the basis of said data, carries out an association with the data of the other devices and/or with the detected video image.

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