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INTELLIGENT EXTERIEUR VEHICLE MIRROR

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INTELLIGENT EXTERIEUR VEHICLE MIRROR

Technical task:

The procedure and the associated control system allows a temporary driving situation-dependent and steering angle-dependent adjustment of an exterior mirror and favoured exterior camera adjustment in an exterior mirror with regard to a better view of other road users crossing the road of the own vehicle. The displayed method also takes into account the direction of vision, i.e. the driver's shoulder view. The focus of the idea is the intelligent tracking of a camera image and its reproduction in the vehicle interior with regard to an increase of the own road safety and/or the road users crossing the driving trajectory.

Solution:

In simple terms, for example, a right/left outside mirror or a right/left camera in a outside mirror housing will automatically move temporarily to the right when turning right at right angles if at least two criteria are met

- the motor vehicle has its right/left turn signal on, and/or ...
- the steering of the motor vehicle shows a steering angle/angle of lock of the wheels to the right/left, and/or ... the driver's head is turned to the right/left over his shoulder in the x-position relative to the vehicle
- For example, the right outside mirror temporarily shifted to the outside right, or the right outside camera in the mirror housing temporarily shifted to the outside right, makes it easier to look into an intersecting bicycle lane or pedestrian path. The same applies to the left outside mirror/left camera, which is temporarily shifted to the outside left, which allows a better view of a roadway that is being entered from a right parking bay or a right hard shoulder.
- The automatic deactivation of the AIEVM procedure takes place continuously decreasing to the initial basic setting of the outside mirror/exterior camera when the steering angle is set to "zero" in the steering center position.

Advantages:

- Increasing road safety, especially in conurbations with a high proportion of cycle paths
- More driving comfort for people who are restricted in their movement and/or reduced in performance
- Creation of a cost-effective added value by coupling the central interfaces "Electric steering with electric exterior mirror/electric camera in the exterior mirror
- By means of an electrically adjustable exterior camera in an exterior mirror housing - favoured version an electrically adjustable exterior mirror of an interior camera for sensing the head movement / head rotation of the driver

Possible application:

Interfaces to

- the CAN bus of the vehicle
- an electric steering / steering system in general



Steuerung für eine lenkwinkel- und/oder fahrzustands- und/oder blickrichtungs-abhängige Außenkameraverstellung eines Kraftfahrzeuges