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MONITORING THE VITALITY PARAMETERS OF A

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MONITORING THE VITALITY PARAMETERS OF A VEHICLE OCCUPANT

Technical task:

The task of the technical innovation is to increase safety by the driver's vitality can be checked by sensors and if necessary, appropriate recommendations can be issued.

Initial situation:

Various systems are known for monitoring the vitality parameters (e.g., heart rate, heart rate, etc.) of a vehicle occupant. Among other things built in the steering wheel sensors (heart rate monitor), which detect the pulse of the vehicle occupant. Such devices are also available in the safety belt. A fatigue monitoring by camera is already known.

Solution:

The object of the technical innovation is a system for monitoring various vitality parameters with a holding device integrated in the vehicle seat. This is from a non-use position (stowed in the seat / headrest) in a non-contact use position traversed. The system must be able to compensate for small movements of the vehicle occupants (shoulder view, slight foresight to operate functions of the I-board, etc.) that are usual during driving. At the end of the holding device receptacles for a sensor group (any number of sensors for monitoring various vitality parameters) are arranged. In the use position, the sensor group in the head area of the driver measures and monitors its vitality parameter.

Measures are taken if the limit is exceeded or not reached (limit values that are personalized and stored in the control unit). In particular, with this arrangement, for example, the heart rate, the heart rate, the blink, the sweat and the body temperature can be detected to judge the physical condition of the driver.

The system is located in the head region of the vehicle seat (for example in the area of the headrest) and consists of a telescopic Mehrgelenkarm, which is held at one end with a bearing and at its other end forms the receptacle for the sensor group (sensor group attached to recording). The support arm has joints in order to be able to move optimally. In the sensor area, a proximity sensor is additionally installed, which ensures an optimal distance between sensor group / holding device and forehead / head area of the driver during the transfer of the holding device from the non-use to the use position or movement of the driver and thus ensures full function. The sensor group measures via accordingly defined parameters of his condition and initiates appropriate measures (cooling, heating, fresh air, break recommendation, etc.).

Advantages:

- More precise recording of the vitality parameters in a module.
- Bundling functions.
- Cost reduction.

Possible application:

- All vehicles with level 3 automated driving.

