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"AICS" AUDI INTELLIGENT CAR SMELL

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"AICS" AUDI INTELLIGENT CAR SMELL

Initial situation:

It has been scientifically proven that, colloquially speaking, "close friends smell alike."

The scientific journal "Science Advances" describes a sympathy between two people that is related to their personal body odors. Under the keyword "The chemistry between the two of us was right from the start", mechanisms in the brain are described in the journal that are behind this phenomenon (study by Noam Sobel / Weizmann Institute Rehovot/Israel).

Each person perceives his own body odor as a kind of "blueprint" and compares it with other odors. It has been experimentally proven that people with "similar body odors" find each other sympathetic and that this results in very harmonious relationships. Put simply, there is a connection between one's own body odor and a stress-free friendship with another person with a similar body odor.

The idea behind the invention is based on the use of the phenomenon described above and aims to increase brand loyalty to a motor vehicle or vehicle brand and to increase safety in road traffic. Increased well-being with the smallest possible stress and "attachment to the motor vehicle" influences mindfulness and road safety.

Solution:

The invention idea "AICS / Audi intelligent car smell" describes the procedure and control for a physical identification between the motor vehicle and the operator of the motor vehicle via an "electronic nose" and a ventilation/heating/air conditioning module in the passenger compartment.

The idea draws on the knowledge described above and defines the other person as a "product/motor vehicle" equipped with a variably controllable odor/scent component and an "electronic nose". Considering the motor vehicle as a "friend" of the driver, this results in a marketing potential and a process that has a positive influence on driving comfort, well-being and traffic safety. Individual body odor-like scents/smells are thereby provided for individual drivers, representative determined "body odor-like" scents/smells of a group of persons in a motor vehicle.

Body odor characteristics and parts of a chemically identical vehicle interior scent are described with the AICS method as an intelligent, equally harmonious connection between man and machine. "The modern motor vehicle in the premium segment is increasingly developing into a living room with which one can also drive - a sense of well-being with very personal body odors and management for the provision by a motor vehicle as a "friend" that avoids or reduces stress in certain traffic situations."

In general, odors can change the behavior of people, especially people in a motor vehicle. For example, a "cool staying smell" that has a great match to one's own personal scent/body odor can have a positive influence on the driver in a panic situation. Put simply, sympathetic or odor-related odor/scent mixtures in the cabin air that are in relation to one's own body odor can have a positive effect in a driver's subconscious on participation in traffic events. Driving activity and stress reduction can be positively influenced depending on the traffic environment and/or road type and/or driver concentration.

In this context, the dominant scent in a motor vehicle may differ from the harmonious personal scent components. The influence of the AICS process can have both an active olfactory and a subliminal effect on a driver. Thus, the AICS process can beneficially influence the driver's behavior in a specific passenger compartment environment and/or in a specific traffic situation. (Cf. Fig. 1/ Fig. 2)

State of the art:

Selectable odor/scent in a motor vehicle without an "intelligent electronic vehicle nose". According to the state of the art, personalized odor control in the passive state of a motor vehicle, for example in a showroom, has not been proven.

Technical implementation:

With an "electronic nose" (10) in the motor vehicle, the personal body odor of a driver can be detected with a chemical measurement. Other characteristics, such as personality, value reference or even similarities in a person's genetic makeup, can be recorded optically with an interior camera (3) (skin type/hair color/pigmentation/impulsivity ...). The body's own odor in a normal situation, i.e. without "foreign influence/disturbance variable", is stored as a target variable (10') in the AICS control unit (30).

The AICS control unit processes this data. The provision of representative comparable/identical, thus personalized, familiar sympathetic and inspiring scents/odors is carried out by a ventilation/heating/air conditioning module (a/b/c) in the motor vehicle. The control (36) of the AICS process creates a pleasant, familiar, stress-free environment in the passenger compartment that supports driving with maximum well-being and active participation in road traffic. The fragrance concentration (34) is adjusted with the control of the active or passive driving situation in a specific traffic environment or parking mode. In simple terms, driver and vehicle "merge" on the emotional level with the same odor profile, in any traffic situation, which has a positive effect on handling with a motor vehicle.

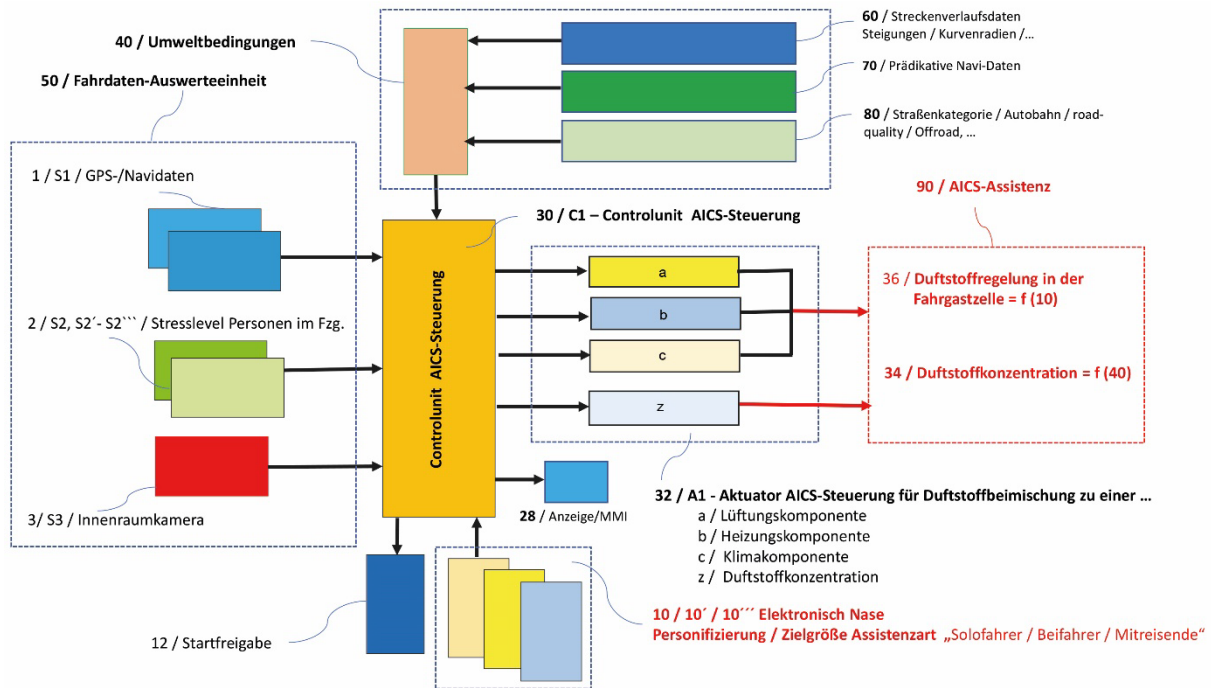


Fig. 1

Particular embodiments (cf. Fig. 1):

A particular embodiment describes influencing a scent/odor in a passenger compartment (36), which is determined by the "electronic nose" (10) as a representative body odor of all persons (10'/10'') in the motor vehicle. In particular, this embodiment can harmonize a "tension in the air of a passenger compartment" (S3/S2, interior camera) when persons literally "cannot smell each other" and the resulting stress has a negative effect on driving/piloting a motor vehicle.

Another particular embodiment describes influencing a personalized scent/odor in a passenger compartment and its "scent strength/perfume concentration" as a function of a particular traffic situation (40). For example, attention during fast highway travel or monotonous expressway travel can be increased by temporarily increasing a fragrance concentration (34) of a personalized odor.

A very particular embodiment "showroom setting" describes an active scent generator with above-mentioned features in display vehicles offered in a showroom of a sales center of an automobile manufacturer. Activation with stand detection via GPS signal (S2). The showroom setting can also be activated when the vehicle is stationary (S2') by the subsequent user of a motor vehicle for presenting his new vehicle to his circle of acquaintances/relatives.

A special embodiment describes a matching of a personalized stored target value with an extremely noticeably deviating body odor of the personalized person before the vehicle start. The AICS control thereby informs the driver of the motor vehicle before the journey with a display (28) about his personal stress level/mood state (S2), which according to the above-mentioned study, is detectable/measurable by the relationship "body odor as a function of stress factor". Thus, a possible danger in road traffic can be reduced and, in extreme cases, a starting permit (12) can be temporarily prevented.

The task is solved with

- at least one "electronic nose" / chemical body odor detector
- an interior camera
- a seat occupancy detector
- an AICS control unit
- a ventilation/heating/air conditioning module with
- a scent generator
- stress level/mood state display of an interface to the CAN / operating mode / traffic situation / starting permission / ...

