Abstract: Most car accidents occur due to longitudinal collisions or lane departure. We assume that the number of such accidents can be reduced, if the driver knows more precisely, where the car is heading and at which distance it can stop. To provide drivers with this kind of anticipation, we have developed two augmented reality based visualization schemes for longitudinal and lateral driver assistance in the head-up display (HUD) of cars. One presentation scheme indicates the braking distance by a virtual bar on the road. The second scheme adds the visualization of a drive-path between the car and the bar, zoning the entire region that the car will pass before coming to a complete halt. We have tested both schemes in a driving simulator in comparison to a baseline without visual assistance. Our results show, among other findings, that the bar is preferred, that it supports driving performance and that it does not increase mental workload.
Occurences:
- Einrichtungen > Fakultäten > Fakultät für Maschinenwesen > Institut für Produktionstechnik > Lehrstuhl für Ergonomie (Prof. Bengler) > 2007

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