Abstract:
This paper focuses on innovative interaction and visualization strategies for the automotive domain. To keep the increasing amount of information in vehicles easily accessible and also to minimize the mental workload for the driver, sophisticated presentation and interaction techniques are essential. In this contribution a new approach for interaction the so-called augmented interaction is presented. The new idea is an intelligent combination of innovative visualization and interaction technologies to reduce the driver's mental transfer effort that is necessary between displayed information, control movement and reality. Using contact-analog head-up displays relevant information can be presented exactly where it is needed. For control, an absolute natural and direct way of interaction is delivered by touch technologies. However, to leave the eyes on the road, the driver needs haptic feedback to handle a touchpad blindly. Therefore, the touchpad presented in this contribution, is equipped with a haptic adjustable surface. Combining both technologies delivers an absolutely innovative way for in-vehicle interaction. It enables the driver to interact in a very direct way by sensing the corresponding environment on the touchpad.
Verlag / Institution: Springer Berlin Heidelberg
Verlagsort: Berlin, Heidelberg
Jahr: 2009
Print-ISBN: 978-3-642-02579-2
Serientitel: Lecture Notes in Computer Science
DOI-Link: doi:10.1007/978-3-642-02580-8
Occurences: · Einrichtungen > Fakultäten > Fakultät für Maschinenwesen > Institut für Produktionstechnik > Lehrstuhl für Ergonomie (Prof. Bengler) > 2009
Entries: