

Visdral

Virtual Investigation, Simulation and Documentation of Road Accidents via Laserscanning

Computer aided crash analysis is a central element for the identification of accident causes. It serves solving of legal issues as well as optimization of active and passive safety of vehicles. Furthermore, constructional measures at black spots for accidents can be taken to prevent accidents. 3D-scanners have become widely available for many applications. They allow capturing of location and vehicles but lead to massive amount of data in form of point clouds.

Visdral aims at developing advanced methods in computer aided crash analysis by progressing data acquisition as well as data processing. These methods include virtually reconstructing the scene by describing road surface, environment, vehicles and persons involved in the accident in standardized formats. This paves the road to new simulation techniques building structural simulation models from 3D-scanned data.



The figures show a virtual crash scene investigation combining 3D-scanned data with the results of a FEM simulation in a virtual interactive environment. Visdral is a cooperation of HLRS with Laserscanning Europe. It started in January 2017 and runs for two years. It is funded by the BMWi (Federal Ministry for Economic Affairs and Energy) within the ZIM program.

Further Information:

<http://www.hlrs.de/de/about-us/research/current-projects/visdral/>