

ACCIDENT RESEARCH

RECONSTRUCTION,
SIMULATION AND
PSYCHOLOGY



**YOUR GLOBAL MOBILITY
ENGINEERING EXPERTS**

Since the beginning of vehicle development, road accidents have been causing material damage and personal injury. This is why the idea of road safety has become increasingly important over the last 50 years. And yet, in Germany alone, some 3,000 people still die every year as a result of road accidents. For all of us, this is motivation to keep developing more intelligent and efficient safety functions for the mobility of tomorrow.

In the **Accident Research** team, we analyse the current incidence of accidents and provide data from real situations to help with the development of safety functions. Our team covers three important pillars of accident research.

Accident reconstruction forms the foundation of our work, and provides precise insights into the course of individual accidents. In **psychological investigations**, we look for the reasons for the accident, as these are often due to human error. **Simulation**, the third pillar, provides a bridge to (active) vehicle safety. Here, we can simulate the accident to see what would have happened if a modern driver assistance system (ADAS) had been installed in the vehicle. The relevant accident scenarios are derived from an accident database using statistical methods.

Our services at a glance

Accident reconstruction

- Reconstruction of the circumstances of the accident
- Identification of possibilities of technical intervention
- Classification in road accidents occurring throughout Germany

Simulation

- Simulation of ADAS in accident situations
- Evaluation of the efficiency of the ADAS
- Database analysis to select relevant accident scenarios
- Development of simulation software

Psychology

- Modelling of human decision processes in traffic situations
- Analysis of human error in accident situations

What sets us apart from our competitors?

For several years, we have been active in the field of accident research, working in an interdisciplinary team of engineers, physicists and psychologists. From the accidents happening today, we learn how to make the mobility of tomorrow safer.

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