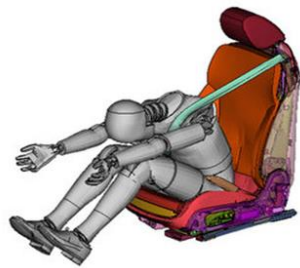


# Seatbelt Force-Sensor System

For the indicated measurement of a passengers car accident injury severity



## Status quo

Studies show that in 25% of vehicle accident notifications with casualties, the first-aider and the person injured understate the injury severity. In the Automotive industry there is a clear trend of car manufacturers developing and introducing advanced sensor- and assistance systems with the goal to achieve improved safety, comfort and driving dynamics. It is expected that those technologies will come standard with every car in the near future.

## Our technology: Seatbelt Force-Sensor

The technology constitutes a system for the generation, analysis and preparation of accident-related data for (A)ACN/Emergency-

call systems for cars. Current technologies do not measure the passenger-specific force which occurs on the injured passengers and therefore mostly rely on indirect data and simulations. As a consequence current technologies are highly prone to misinterpretation and are time-consuming to process, which results in a wrong assessment of accident severity and a delayed allocation of first-aid provisions.

## Benefits

- Direct passenger-specific quantitative force-measurement eliminates false estimation of the injury-severity
- Enables fast automated analysis of the accident-related data.
- Does not disturb the driver's vehicle control and passenger comfort.

## Current stage of development

First pilot crash-tests have been conducted. The test results verified the seatbelt force-sensor systems ability to identify bone fractures.

## Application possibilities

Car manufacturers, OEMs of the Automobile industry and manufacturers of passenger safety systems/restrain systems.

## Intellectual property situation

The presented technology is protected by intellectual property rights.

## Commercialization opportunities

We are looking for industry partners who are interested in using the technology. If there is any demand for further development of the technology regarding implementation in products, a close cooperation between the industry partner and Technische Universität Darmstadt is possible.

## Your contact partner

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