

Crashworthiness Compatibility Investigation of Autonomous Vehicles with Current Passenger Vehicles (05-098) Dataset

Dataset available at: <https://doi.org/10.15787/VTI1/DFXW2H>

(This dataset supports report **Crash Compatibility of Automated Vehicles with Passenger Vehicles**)

This U.S. Department of Transportation-funded dataset is preserved by the Virginia Tech Transportation Institute (VTTI) in their data repository (<https://dataverse.vtti.vt.edu/>), and is available at <https://doi.org/10.15787/VTI1/DFXW2H>

The related final report **Crash Compatibility of Automated Vehicles with Passenger Vehicles**, is available from the National Transportation Library's Digital Repository at <https://rosap.ntl.bts.gov/view/dot/61027>.

Metadata from the VTTI Repository record:

Dataset Persistent ID: doi:10.15787/VTI1/DFXW2H

Publication Date: 2021-10-06

Title: Crashworthiness Compatibility Investigation of Autonomous Vehicles with Current Passenger Vehicles (05-098)

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Description:

- **Project Description:** This research focuses on vehicle crash impact between different categories of vehicles with the help of Finite Element Modeling. The FEM models were taken from Centre for Collision Safety (CCSA) at George Mason University (GMU) which are openly accessible. The passenger vehicle models are validated against real world crash test data. The non-passenger ADS models have been tested through computer simulations but not with real world data as this field is still growing.
- **Data Scope:** The data set provided consists of video files, Energy balance data, occupant data obtained from accelerometer.
- **Data Specification:** The video files provided are in the MPEG/MP4 format, Energy balance data is provided in excel file format and accelerometer data is given in notepad format.

Subject: Engineering

Keyword: Crash Safety, Vehicle Impact Simulation, Side Impact Crash Testing, MASH, Non-Occupant ADS vehicles

Depositor: Atkins, Whitney

Deposit Date: 2021-08-24

Recommended citation:

Dobrovolny, Chiara Silvestri; Stoeltje, Gretchen; Zalani, Aniruddha, 2021, "Crashworthiness Compatibility Investigation of Autonomous Vehicles with Current Passenger Vehicles (05-098)", <https://doi.org/10.15787/VTT1/DFXW2H>, VTTI, V1

Dataset description:

This dataset contains 1 .pdf file and 3 .zip file collection below.

05-098_Data Dictionary.pdf

The .pdf file format is an Adobe Acrobat Portable Document Format (PDF) file and can be opened with the Adobe Acrobat software.

CG_accelerometer_data.zip:

- _CG_accelerometer_data_Error.txt
- _All_Errors.txt

GLSTAT_Energy_Graphs.zip:

- _GLSTAT_Energy_Graphs_Error.txt
- _All_Errors.txt

Video_files.zip:

- _Video_files_Error.txt
- _All_Errors.txt

The .txt file type is a common text file, which can be opened with a basic text editor. The most common software used to open .txt files are Microsoft Windows Notepad, Sublime Text, Atom, and TextEdit (for more information on .txt files and software, please visit <https://www.file-extensions.org/txt-file-extension>).

National Transportation Library (NTL) Curation Note:

As this dataset is preserved in a repository outside U.S. DOT control, as allowed by the U.S. DOT's Public Access Plan (<https://doi.org/10.21949/1503647>) Section 7.4.2 Data, the NTL staff has performed *NO* additional curation actions on this dataset. NTL staff last accessed this dataset at <https://doi.org/10.15787/VTT1/DFXW2H> on 2022-04-11. If, in the future, you have trouble accessing this dataset at the host repository, please email NTLDataCurator@dot.gov describing your problem. NTL staff will do its best to assist you at that time.