Investigating the Effects of Smartphone-based P2V Warning Using Driving Simulator Experiments Dataset
Dataset available at: https://doi.org/10.7910/DVN/GVCADE

(This dataset supports report **Investigating the Effects of Smartphone-Based P2V Warning Using Driving Simulator Experiments**)

This U.S. Department of Transportation-funded dataset is preserved by the SAFER-SIM University Transportation Center in the SAFER-SIM Dataverse, which is a part of the Harvard Dataverse repository (https://dataverse.harvard.edu/), and is available at https://doi.org/10.7910/DVN/GVCADE

The related final report **Investigating the Effects of Smartphone-Based P2V Warning Using Driving Simulator Experiments**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/61150

Description: The pedestrian-to-vehicle (P2V) technology is expected to reduce pedestrian crashes and improve roadway safety. Utilizing the smartphone as a communication platform could make the P2V more applicable for old cars without having additional retrofits. In UCF's previous work, the effectiveness of a general P2V design has been demonstrated. However, the influence of different P2V designs remains uncertain. This research focuses on the influence of P2V designs in different scenario conditions and uncovers some insights about potential variations between drivers, for the sake of better informing drivers about potential pedestrian risk situations in the upcoming automation era. Two aspects of P2V design, i.e., the warning display mode and warning content, were tested in six pedestrian pre-crash scenarios. The warning display mode is categorized into a gradually changed warning and an emergency warning; and the warning content is referred to whether having specific distance information as a supplement or not. Thirty- six valid participants were tested in the simulator. The results demonstrate that the gradually changed warning and considering additional information would be better in terms of safety and driving performance. In addition, the effectiveness of the P2V design can be further improved when considering the scenario and drivers' features. (2021-04-01)
Subject: Engineering
Depositor: Heiden, Jacob

Recommended citation:
Wu, Yina; Abdel-Aty, Mohamed; Yue, Lishengsa, 2021, "Investigating the Effects of Smartphone-based P2V Warning Using Driving Simulator Experiments", https://doi.org/10.7910/DVN/GVCADE, Harvard Dataverse, V1

Dataset description:
This dataset contains 1 file described below.

UCF 3 Y3_Data.csv:
The .csv, Comma Separated Value, file is a simple format that is designed for a database table and supported by many applications. The .csv file is often used for moving tabular data between two different computer programs, due to its open format. The most common software used to open .csv files are Microsoft Excel and RecordEditor, (for more information on .csv files and software, please visit https://www.file-extensions.org/csv-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://ntl.bts.gov/public-access) 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/10.7910/DVN/GVCADE on 2022-04-07. 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.