Analysis, Modeling, and Simulation (AMS) Case Studies of Connected and Automated Vehicle (CAV) Implementations Specific to the South Central Region Dataset
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(This dataset supports report **Analysis, Modeling, and Simulation (AMS) Case Studies of Connected and Automated Vehicle (CAV) Implementations Specific to the South Central Region**)

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The related final report **Analysis, Modeling, and Simulation (AMS) Case Studies of Connected and Automated Vehicle (CAV) Implementations Specific to the South Central Region**, is available from the National Transportation Library's Digital Repository at https://rosap.ntl.bts.gov/view/dot/56604

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Abstract:

Connected and automated vehicles (CAVs) offer potentially transformative and far-reaching impacts to the transportation system. However, realized benefits will be directly tied to how well agencies prepare for these technologies. This report documents efforts that support CAV preparatory actions in Louisiana and includes: (1) conducting a stakeholder survey to inform engagement activities to develop strategic partnerships in CAV deployment and (2) conducting crash analyses for deployment scenarios of CAV-based queue warning systems (QWSs).

An electronic survey was developed and disseminated to 273 Louisiana organizations. The purpose of the survey was to engage these organizations under the context of CAV planning and gauge their awareness, perception, and viewed importance of planning for CAV technologies. Survey results were clustered in three main groups: Group A—those uninformed of CAV technologies and do not believe they will impact their organization, Group B—those more informed but also do not believe their organization will be impacted, and Group C—those aware, positively perceive, and believe it is important to prepare. Results indicate a strong correlation between the level of awareness and perception of CAV technologies. Low awareness and perception by economic development, freight, and transit groups indicate areas of concern. Survey results were further analyzed utilizing a CAV-specific capability maturity framework, and recommendations were developed to engage stakeholders in planning efforts.

A crash analysis was conducted at four proposed locations across Louisiana to determine QWS suitability. The analysis utilized five-year historical crash data and focused on crash rate, severity

level, manner of collision, and level of service of safety. Due to overrepresented rear-end crashes, QWSs may be suitable at the Jefferson Parish and West Baton Rouge Parish locations.

Each effort was prepared to be general and beneficial to transportation agencies involved in similar CAV activities.

<u>Comments:</u> Tran-SET Project: 19ITSLSU06

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Dataset description:
This dataset contains 1 file collection described below.

19ITSLSU06_Data.zip:
- Data_Notes.pdf
- Accessibility_Notes.pdf
- 2_State_dOT_CAV_Efforts Folder
  - Contains 37 Folders, each one referencing a different US state, i.e. Arizona_DOT. Within each folder there are a number of .pdf files and .url links, however not every folder contains both.
- 1_Stakeholder_Survey Folder
  - Stakeholder_Survey_Text.pdf
  - Stakeholder_Survey_Results.xlsx

The .xlsx and .xls file types are Microsoft Excel files, which can be opened with Excel, and other free available software, such as OpenRefine.

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

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://digitalcommons.lsu.edu/transet_data/90/ on 2021-07-22. 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.