

Enhancing traffic safety and connectivity: A data-driven multi-step-ahead vehicle headway prediction leveraging high-resolution vehicular trajectories

Data Collection

What data will you collect or create?

No new data will be collected or created. Rather, publicly available data from the USDOT's Next Generation Simulation (NGSIM) dataset will be utilized.

How will the data be collected or created?

No new data will be collected or created. Rather, publicly available data from the USDOT's Next Generation Simulation (NGSIM) dataset will be utilized.

Documentation and Metadata

What documentation and metadata will accompany the data?

The USDOT's Next Generation Simulation (NGSIM) open data will be utilized. The dataset and documentation are available at: [https://datahub.transportation.gov/stories/s/Next-Generation-Simulation-NGSIM-Open-Data/i5zb-xe34/#:~:text=The%20NGSIM%20dataset%20is%20used,trajectories%20by%20incorporating%20social%20psychology.%20\(](https://datahub.transportation.gov/stories/s/Next-Generation-Simulation-NGSIM-Open-Data/i5zb-xe34/#:~:text=The%20NGSIM%20dataset%20is%20used,trajectories%20by%20incorporating%20social%20psychology.%20()

Ethics and Legal Compliance

How will you manage any ethical issues?

No new data will be collected or created. Rather, the USDOT's NGSIM open data will be utilized.

How will you manage copyright and Intellectual Property Rights (IP/IPR) issues?

No new data will be collected or created. Rather, the USDOT's NGSIM open data will be utilized.

Storage and Backup

How will the data be stored and backed up during the research?

No new data will be collected or created. Rather, the USDOT's NGSIM open data will be utilized. The open data will be stored on the UTRGV servers that are securely maintained by the UTRGV IT department.

How will you manage access and security?

The open data will be stored on the UTRGV servers that are securely maintained by the UTRGV IT department.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

No new data will be collected or created. Rather, the USDOT's NGSIM open data will be utilized.

What is the long-term preservation plan for the dataset?

The dataset is public and available through the USDOT DataHub.

Data Sharing

How will you share the data?

The dataset is already publicly available through the USDOT DataHub.

Are any restrictions on data sharing required?

No

Responsibilities and Resources

Who will be responsible for data management?

The PI will be responsible for data management.

What resources will you require to deliver your plan?

To analyze data, computing resources are needed, which are available to the project team.
