

## PROJECT OVERVIEW REPORT

1. UTC Identifying Number  
69A3551847102
2. Center Identifying Number  
CAIT-UTC-REG46
3. Project Title  
Driving behavioral learning leveraging sensing information from Innovation Hub
4. Principal Investigator & Contact Information  
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7. Project Description  
The primary goal of this proposal is to develop machine-learning algorithms for driving behavior mining, using real-time vehicle, pedestrian, and infrastructure data. The proposed algorithms will improve our understanding of how people drive on both highways and urban roads, which will help monitor and maintain roadside infrastructure and support the transportation systems to accommodate not only the existing human-driven vehicle but also the upcoming connected and automated mobility systems.
8. Implementation of Research Outcomes (or why not implemented)  
The intended outcome of the project is an algorithm suite to learn human behavior patterns from LiDAR and camera datasets. To facilitate its adoption by public agencies, the software will be open-sourced with friendly interface design. The proposed smart mobility testbed concept could be deployed at local intersections and arterial corridors in the City of New Brunswick, NJ and utilized by the Robert Wood Johnson hospital's patient shuttle services and parking services.

9. Impacts/Benefits of Implementation (actual, not anticipated)  
To Be Determined

10. Dates and Budget

Start date: 1/1/2021

End date: 12/31/2021

UTC (CAIT) Dollars: \$70,000

Cost Sharing: \$70,157

Total Dollars: \$140,157

11. Keywords

Connected and Autonomous Vehicles, Driving Behavior Learning, Infrastructure  
Lidar/Camera Data

12. Web Links (Reports and Project Website)

<https://cait.rutgers.edu/research/driving-behavioral-learning-leveraging-sensing-information-from-innovation-hub/>