RUTGERS

Center for Advanced
Infrastructure and
Transportation

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: 6/30/2022
    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/