

PROJECT OVERVIEW REPORT

1. UTC Identifying Number
69A3551847102
2. Center Identifying Number
CAIT-UTC-REG31
3. Project Title
Evaluating the Safety and Mobility Impacts of American Dream Complex: Phase I
(Feasibility Study, and Data Acquisition)
4. Principal Investigator & Contact Information
Mohammad Jalayer, Ph.D.
Assistant Professor
Rowan University
201 Mullica Hill Road, 234 Rowan Hall
Glassboro, NJ /08028
5. Rutgers/CAIT Project Manager
Patrick Szary, Ph.D.
6. Customer Principal
Mr. Keith Hamas, Principal Planner, Safety Planning and Mobility Programs
North Jersey Transportation Planning Authority (NJTPA)
One Newark Center, 17th Floor
Newark, NJ 07102
7. Project Description
According to the American Transportation Research Institute (ATRI), New Jersey has the worst traffic bottleneck in the country. With the opening of the second largest retail and entertainment complex in the country, local officials and NJ Governor's office estimate that the American Dream complex will make congestion and safety even worse. The primary goals of this proposal are 1) to coordinate with the stakeholders to identify the traffic and safety issues associated with this complex and 2) to collect relevant data to develop an analytics framework using modern machine learning algorithms, such as convolutional neural networks, to identify conflicts between the different road user groups (e.g., drivers and pedestrians) in the vicinity of this complex.
8. Implementation of Research Outcomes (or why not implemented)
It is expected that the results obtained from this Phase I project will provide a solid framework for a larger data collection and analytics with the aim of developing effective and innovative solutions to alleviate traffic congestion and

motor vehicle crashes/near crashes around this complex. The developed AI will be readily deployed on the stakeholders' local machines. Integrating the AI solution into sensor hardware for real-time processing in edge devices would be the next step of this project

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

10. Dates and Budget

Start date: 12/1/2019

End date: 12/31/2020

UTC (CAIT) Dollars: \$80,000

Cost Sharing: \$80,000

Total Dollars: \$160,000

11. Keywords

American Dream, safety, mobility, conflicts

12. Web Links (Reports and Project Website)

<https://cait.rutgers.edu/research/evaluating-the-safety-and-mobility-impacts-of-american-dream-complex-phase-i-feasibility-study-and-data-acquisition/>