

PROJECT OVERVIEW REPORT

- 1. UTC Identifying Number 69A3551847102
- 2. Center Identifying Number CAIT-UTC-REG86
- 3. Project Title Development of A Digital Testbed for Connected Transit Technologies
- Principal Investigator & Contact Information Xiang Liu, Ph.D.
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- 5. Rutgers/CAIT Project Manager Patrick Szary, Ph.D.
- Customer Principal Brendan Kaplan, Deputy CTO - Chief Innovation Officer New Jersey Transit Corporation 1 Penn Plaza East, Newark, NJ 07105

7. Project Description

The primary goal of this proposal is to develop an innovative digital testbed that seamlessly integrates the Internet of Things, cloud infrastructure, and advanced algorithms for evaluating and developing connected transit technologies.

8. Implementation of Research Outcomes (or why not implemented)

The digital testbed will serve as a vital repository for storing and analyzing essential data related to light rail operations. This data will enable the calculation of train stoppage durations at each station, real-time train positioning, and the detection of trespassers or obstacles on the rail tracks.

- 9. Impacts/Benefits of Implementation (actual, not anticipated) To Be Determined
- 10. Dates and Budget

Start date: 11/15/2023 End date: 11/14/2024 UTC (CAIT) Dollars: \$35,000 Cost Sharing: \$0 Total Dollars: \$35,000

CAIT-UTC-REG86



11. Keywords

Transit, connectivity, sensing, computing, digital transformation

12. Web Links (Reports and Project Website)

https://cait.rutgers.edu/research/development-of-a-digital-testbed-for-connectedtransit-technologies/