

## **NEW ENGLAND TRANSPORTATION CONSORTIUM QUARTERLY PROJECT PROGRESS REPORT**

**A. PROJECT NUMBER AND TITLE:**

NETC 20-2 Current Status of Transportation Data Analytics and A Pilot Case Study Using Artificial Intelligence (AI)

**B. PRINCIPAL INVESTIGATOR(s) & UNIVERSITY(s):**

Yuanchang Xie, PhD, PE, University of Massachusetts Lowell

**C. WEB SITE ADDRESS (*If one exists*):**

None

**D. START DATE (*Per NETC Agreement*):**

5/5/2021

**E. END DATE (*Per NETC Agreement*):**

3/31/2023

**F. ANTICIPATED COMPLETION DATE:**

3/31/2023

**G. PROJECT OBJECTIVES:**

- (1) Provide clear and comprehensive picture to the six New England state DOTs regarding their data assets, data needs and emerging data sources, modeling and workforce needs, and data collection, analysis, utilization, storage, and sharing practices related to traffic operations;
- (2) Provide strategic and practical recommendations to prepare New England DOTs for future data-driven transportation system analytics; and
- (3) Conduct a pilot case study of using AI techniques to analyze existing multi-source data for improving traffic operations and safety.

**H. REPORT PERIOD:**

Quarter 4, 2021 (October 1 – December 31)

**I. ACCOMPLISHMENTS THIS PERIOD:**

Meetings/Interviews

- Met Wejo on 10/06/2021
- Interviewed Dr. Stanley Young from the National Renewable Energy Laboratory (Advanced Transportation & Urban Scientist) and the Eastern Transportation Coalition (Chief Data Officer) on 10/27/2021
- Met Otonomo on 10/27/2021
- Interviewed Mr. David Gray (Winter Maintenance Program Specialist) from NHDOT on 10/19/2021 and 12/10/2021 about their winter maintenance practices
- Interviewed Mr. Gene Donaldson (TMC Operations Manager) from Delaware DOT about their AI-ITMS project on 12/20/2021

A draft Task 1 report was submitted on 11/12/2021. We received comments back from some panel members. After we collect all comments, they will be incorporated into the Task 1 report.

**J. PROBLEMS ENCOUNTERED (If any):**

None

**K. TECHNOLOGY TRANSFER ACTIVITIES:**

None

**L. STATUS BY TASK:**

Task	Description	% Complete
Task 1	Review of Current Data Collection and Utilization Practices	99%
Task 2	Assessment of Data Needs, Emerging Data Sources, and Data Processing and Analytics	60%
Task 3	Recommendations	30%
Task 4	Case Study	Not started
Task 5	Draft Final Report	Not started
Task 6	Final Report	Not started

**M. PERCENT COMPLETION OF TOTAL PROJECT:**

30%

**N. ACTIVITIES PLANNED FOR NEXT QUARTER:**

The team will present the findings for Tasks 1~3 and prepare a draft report for the Technical Committee (TC) to review.

**O. FINANCIAL STATUS:**

*As of: December 31, 2021*

**Total Project Budget:** \$200,000.00

**Total Expenditures:** \$0.00

**Note: This report should not require more than 2-3 pages & should be e-mailed to the NETC Coordinator so as to arrive no later than three (3) working days after the end of each calendar quarter.**