

**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 3, 2021 (July 1 – September 30)

I. ACCOMPLISHMENTS THIS PERIOD:

Held meetings with NHDOT (07/02/2021) and CTDOT (07/28/2021). So far, the team has interviewed staff from all DOTs in the New England region. In addition, we also surveyed DOT staff from Oregon, Texas, Virginia, and Delaware.

Held the 2021 3rd quarter meeting with the project Technical Committee on 10/01/2021.

A draft Task 1 report is under preparation. The report will be shared with the project Technical Committee by the end of October 2021.

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	50%
Task 2	Assessment of Data Needs, Emerging Data Sources, and Data Processing and Analytics	Not started
Task 3	Recommendations	Not started
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:

10%

N. ACTIVITIES PLANNED FOR NEXT QUARTER:

The team will summarize the findings for Task 1 and prepare a draft report for the Technical Committee (TC) to review.

O. FINANCIAL STATUS:

As of: September 30, 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.