

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:

2nd Quarter, 2022

I. ACCOMPLISHMENTS THIS PERIOD:

- Meeting with the project technical committee (TC) on April 20, 2022 to present the results of Tasks 2 and 3.
- Addressed comments from the TC and submitted the updated reports for Tasks 1~3 on June 28, 2022.
- Meetings with the TC on June 3 and June 10 to present potential research topics for Phase II.
- Finalized the topic for Phase II and is working on a more detailed statement of work.

J. PROBLEMS ENCOUNTERED (*If any*):

The project has been delayed by several months due to comments on Tasks 2 and 3. Now these comments have been addressed. We would like to request a ***no-cost extension*** to change the end date of this project from 3/31/2023 to 8/31/2023.

K. TECHNOLOGY TRANSFER ACTIVITIES:

None

L. STATUS BY TASK:

Task	Description	% Complete
Task 1	Review of Current Data Collection and Utilization Practices	100%
Task 2	Assessment of Data Needs, Emerging Data Sources, and Data Processing and Analytics	100%
Task 3	Recommendations	100%
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:

45%

N. ACTIVITIES PLANNED FOR NEXT QUARTER:

The team will start to work on Phase II of this project.

O. FINANCIAL STATUS:

As of: *July 12, 2022*

Total Project Budget: \$200,000.00

Total Expenditures: \$15,741.19

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.