**Completed Project Review and Update:**

**Project Number and Title:**

**Research Area:**

**PI:**

**Co-PI(s):** (N/A)

**Reporting Period:**

**Submission Date:**

**Technology Transfer:**

Describe any activities involving the dissemination of research results (be sure to include outputs, outcomes, and the ways in which the outcomes/outputs have had an impact during the reporting period.) Please use the tables below for any publications, presentations, conferences, workshops, etc. in addition to the description of any other technology transfer efforts that took place during the reporting period. List **all other outputs, outcomes, and impacts after the tables** (i.e. patent applications, technologies, techniques, licenses issued, and/or website addresses used to disseminate research findings).

|  |
| --- |
| **Table 3: Presentations at Conferences, Workshops, Seminars, and Other Events** |
| **Title** | **Event** | **Type** | **Location** | **Date(s)** | **Approx. # of Attendees** |
|  |  | Seminar, Conference, Webinar, etc. | Remote or City/State |  |  |

|  |
| --- |
| **Table 4: Publications and Submitted Papers and Reports** |
| **Type** | **Title** | **Citation** | **Date** | **Status** |
| Report, Peer-reviewed Journal Article, Conference Paper, etc. |  |  |  | Under review, Accepted, Published, etc. |
|  |  |  |  |  |

**OUTPUTS:**

List any new outputs that have come from your research.

Definition: Any new or improved process, practice, technology, software, training aid, or other tangible product resulting from research and development activities. They are used to improve the efficiency, effectiveness, and safety or transportation systems.

**OUTCOMES:**

List any new outcomes that have come from your research.

Definition: The application of outputs; any changes made to the transportation system, or its regulatory, legislative, or policy framework, resulting from research and development activities.

**IMPACTS:**

List any impacts your project has had on the transportation industry.

Definition: The effects of the outcomes on the transportation system such as reduced fatalities, decreased capital or operating costs, community impacts, or environmental benefits. The reported impacts from UTCs are used for the assessment of each UTC and to make a case for Federal funding of research and education by demonstrating the impacts that UTC funding has had on technology and education. NOTE: The U.S. DOT uses this information to assess how the research and education programs (a) improve the operation and safety of the transportation system; (b) increase the body of knowledge and technologies; (c) enlarge the pool of people trained to develop knowledge and utilize technologies; and (d) improves the physical, institutional, and information resources that enable people to have access to training and new technologies.

**Workforce Development**

Describe how the findings of this research project have made an impact on transportation workforce development. For example, how has the project:

* Provided opportunities for research and teaching in transportation and related disciplines;
* Improve the performance, skills, or aptitudes of members of underrepresented groups that will improve their access to or retention in transportation research, teaching, or other related professions;
* Developed and disseminated new educational materials or provided scholarships; or provided exposure to transportation, science and technology for practitioners, teachers, young people, or other members of the public?