AUGUST 2019

Project Title: Autonomous Maintenance Technology Pooled Fund TPF-5(380)

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Autonomous Maintenance Technology Pooled Fund TPF-5(380)

Support and promote collaborative research efforts in the field of autonomous technologies in work zone applications.

WHAT IS THE NEED?

Reducing hazard to roadway workers and achieving a safer working environment for both employees and the traveling public remains priority for California Department of Transportation (Caltrans). The advent of new technologies in the form of autonomous and connected vehicles presents a path for using technical advances to potentially reduce or eliminate threats to employees and maintain public safety.

This research aims to address the challenges of using these new technologies by forming a coalition of transportation-related groups. They are interested in autonomous maintenance technology research, and created a pooled fund to provide a single source of funding for unified research efforts that will benefit all contributing parties.

This will allow for larger and more significant research projects to be undertaken and will lead to an overall cost savings by consolidating many different transportation agencies research efforts in the same field.

WHAT ARE WE DOING?

The participation of many transportation-related agencies in this study furthers the cooperation in this industry, leading to improved future development of beneficial technologies and improved sharing of information and lessons learned.

To achieve the program goals, the initial proposed research will focus on the following scope of work:
WHAT IS OUR GOAL?

The mission of this study is to support and promote collaborative research efforts in the field of autonomous technologies in work zone applications, with the goal of improving the safety, efficiency, and quality of work efforts, along with providing better solutions and valuable lessons learned for the integration of new technologies to further these goals.

WHAT IS THE BENEFIT?

Caltrans will benefit from this research by being a national leader in the use of autonomous and connected vehicle technology that can potentially reduce or eliminate threats to employees while maintaining public safety.

WHAT IS THE PROGRESS TO DATE?

As of June 2019, two research projects have been approved under this pooled fund:

1. Work Zone Data Framework and Data Exchange
2. Use of Autonomous Maintenance Technology in Generating Operational Datasets.