

You are editing your previous response.

Be careful when sharing the URL of this page, because it will allow others to also edit your response.

[Fill out a new response.](#)

Traffic21/T-SET Progress Reports 10/1/15 - 9/30/2016

Please see requirements at:

http://www.rita.dot.gov/utc/about/html/grant_deliverables_june_2014.html

This form is due October 15th, 2016. It is recommended to complete offline first, then enter your responses.

Please use "Nothing to Report" if there is nothing significant to report.

* Required

Project Name *

University Association *

 

Project PI's - REQUIRED *

Co-PI *

Number of Students Funded - REQUIRED *

Please enter the number of students funded for this project by this source

- 2
- 3
- 4
- 5 or more

Funded Students Names - REQUIRED *

Input multiple if necessary

Marcus Pan

Funded Student email - REQUIRED *

Input multiple if needed.

mpanj@seas.upenn.edu

Funded Student Program of Student and Exp Grad Date - REQUIRED *

M.S.: June 2016

Deployment Partners/Participating Organizations - REQUIRED *

Provide the following information for each partnership: Organization Name: Location of Organization: (if foreign location list country) Partner's contribution to the project (identify one or more) Financial support; In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff); Facilities (e.g., project staff use the partner's facilities for project activities); Collaborative research (e.g., partner's staff work with project staff on the project); and Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site).

Protran Technology, New Jersey: Advised project on safety needs and potential bus deployment
Mutual visits coordinated with President Peter Bartek

Other Collaborators *

If there is nothing significant to report during this reporting period, state "Nothing to Report." Some significant collaborators or contacts within the lead or partner universities may not be covered by "What people have worked on the project?" Likewise, some significant collaborators or contacts outside the UTC may not be covered under "What other organizations have been involved as partners?" For example, describe any significant: Collaborations with others within the lead or partner universities; especially interdepartmental or interdisciplinary collaborations; Collaborations

or contact with others outside the UTC; and Collaborations or contacts with others outside the United States or with an international organization. Country(ies) of collaborations or contacts.

Prof. Kee-Eung Kim: Visiting Professor from KAIST who collaborated on modeling driver behavior using Inverse Reinforcement Learning

Journal Publications *

List peer-reviewed articles or papers appearing in scientific, technical, or professional journals. Include any peer-reviewed publication in the periodically published proceedings of a scientific society, a conference, or the like. A publication in the proceedings of a one-time conference, not part of a series, should be reported under "Books or other non-periodical, one-time publications." Identify for each publication: Author(s); title; journal; volume: year; page numbers; status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).

An Inverse Reinforcement Learning Approach to Car Following Behaviors,
Y. Hayeri, K. E. Kim, D. D. Lee
Transportation Review Board 16-5602

Books or other non-periodical, one-time publications *

Report any book, monograph, dissertation, abstract, or the like published as or in a separate publication, rather than a periodical or series. Include any significant publication in the proceedings of a one-time conference or in the report of a one-time study, commission, or the like. Identify for each one-time publication: Author(s); title; editor; title of collection, if applicable; bibliographic information; year; type of publication (book, thesis or dissertation, other); status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).

n/a

Other publications, conference papers and presentations *

Identify any other publications, conference papers and/or presentations not reported above. Specify the status of the publication as noted above.

Frederick Ketterer Award for "outstanding creativity in engineering design".

Other Dissemination Activities *

Demonstration at TRB/UTC meeting in Washington DC.

Website *

n/a

Technologies / Techniques - REQUIRED *

Identify technologies or techniques that have resulted from the research activities. Describe the technologies or techniques and how they are being shared.

Prototype of early warning system based upon ultrasonic demodulation has been constructed and demonstrated.

Invention / Patent applications / Licenses *

Identify inventions, patent applications with date, and/or licenses that have resulted from the research. Submission of this information as part of an interim research performance progress report is not a substitute for any other invention reporting required under the terms and conditions of an award; as of the date of this document, UTC Program inventions may not be submitted to the Federal government's Interagency Edison (iEdison) invention-reporting system, but OST-R is working to make that available and will notify UTCs. For additional requirements pertaining to Patents and Copyrights, refer to General Provisions of Grants for University Transportation Centers, Section III, 14.

Patent application filed:
PHASED ARRAY DIRECTED SPEAKER - UPENN Ref. 16-7832

Other Products associated *

Identify any other significant products that were developed under this program. Describe the product and how it is being shared. Examples of other products are: Databases; Physical collections; Audio or video products; Software or NetWare Models; Educational aids or curricula; Instruments or equipment; Data & Research Material; Other

n/a

Please explain *

n/a

Impact - REQUIRED *

What is the impact of the program? How has it contributed to transportation education, research and technology transfer? Over the years, this base of knowledge, techniques, people, and infrastructure is drawn upon again and again for application to commercial technology and the economy, to health and safety, to cost-efficient environmental protection, to the solution of social problems, to numerous other aspects of the public welfare, and to other fields of endeavor. The taxpaying public and its representatives deserve a periodic assessment to show them how the investments they make benefit the nation. Through this reporting format, and especially this section, UTCs provide that assessment and make the case for Federal funding of research and education. DOT uses this information to assess how the research and education programs: increase the body of knowledge and techniques; enlarge the pool of people trained to develop that knowledge and techniques or put it to use; and, improve the physical, institutional, and information resources that enable those people to get their training and perform their functions.

Impact of this project will be to provide for better pedestrian safety due to directed audio warnings.

Impact in other disciplines *

Describe how the findings, results, or techniques developed or improved, or other products from the program made an impact or are likely to make an impact on other disciplines.

Potential cross-over usage of this technology to other transportation applications.

Impact on Technology Transfer *

Transfer of results to entities in government or industry; Instances where the research has led to the initiation of a start-up company; or Adoption of new practices.

Currently investigating licensing to industrial companies.

Task List REQUIRED if planning to continue *

Main task will be to better predict driver and pedestrian behaviors from collected data.

Goals & Timelines REQUIRED if planning to continue *

Driver behavior models are planning to be built from SHRP2 dataset by May 2017.

ANNUAL INDICATORS for period 10/1/2015 - 9/30/16

Number of GRADUATE transportation-related courses offered during the reporting period that were taught by faculty and/or teaching assistants who are associated with the project *

- 1
- 2
- 3
- 4
- NONE
- Other:

Number of UNDERGRADUATE transportation-related courses offered during the reporting period that were taught by faculty and/or teaching assistants who are associated with the project *

- 1
- 2
- 3
- 4
- NONE

Number of GRADUATE students participating in transportation research projects during the reporting period funded by this grant *

- 1
- 2
- 3
- 4
- 5 or more
- NONE

Number of UNDERGRADUATE students participating in transportation research projects during the reporting period funded by this grant *

- 1
- 2
- 3
- 4
- 5 or more
- NONE

Number of DOCTORAL students supported by this grant who received degrees during the reporting period *

- 1
- 2
- 3
- 4 or more
- NONE

Number of GRADUATE students supported by this grant who received degrees during the reporting period *

- 1
- 2
- 3
- 4 or more
- NONE

Number of UNDERGRADUATE students supported by this grant who received degrees during the reporting period *

- 1
- 2
- 3
- 4 or more
- NONE

Submit

Never submit passwords through Google Forms.