

# Snapshot

LARSON  
TRANSPORTATION  
INSTITUTE



## Goals

**OFFER** significant interdisciplinary educational and research opportunities for undergraduate and graduate students

**APPLY** interdisciplinary research solutions to solve transportation problems and disseminate the results

**PROVIDE** transportation-related expertise to local communities, the Commonwealth, and the nation

**PROMOTE** continuing education for transportation professionals



**Eric Donnell**  
Director, The Thomas D. Larson  
Pennsylvania Transportation Institute

## Our Mission

The Thomas D. Larson Pennsylvania Transportation Institute is Penn State's transportation research center. Since its founding in 1968, the Larson Transportation Institute (LTI) has maintained a threefold mission of research, education, and service. The institute brings together top faculty, world-class facilities, and enterprising students from across the University in partnership with public and private stakeholders to address critical transportation-related problems.

LTI maintains a broad range of activities related to transportation safety, advanced vehicle technologies, and transportation infrastructure. LTI's research programs deliver cutting-edge, high-impact solutions to federal, state, municipal, and industry partners. The institute also offers career-forming educational experiences and outreach activities to train current and future leaders of government, industry, and academia.

## Research Partnerships

LTI's research partnerships with public and private agencies and organizations generate tangible results with worldwide applicability. The institute's multidisciplinary research personnel ensure an objective approach and effective application of expertise to address a broad range of transportation-related topics and problems. LTI's research partners also help enable the development of future leaders for the transportation industry.

### Current partners include:

- Commonwealth of Pennsylvania (COP) Department of Transportation
- COP: Department of Agriculture
- COP: Department of Conservation and Natural Resources
- Federal Transit Administration
- Federal Highway Administration
- First Energy
- Norfolk Southern Corporation
- Vanasse Hangen Brustlin, Inc.
- Volvo Technology North America

For a current and complete list of research partners, visit [bit.ly/Larsonpsu](http://bit.ly/Larsonpsu).

### To partner with LTI, contact:

Eric Donnell, Director  
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# Research Facilities and Outreach Programs:

## Bus Research and Testing Center

- Established in 1989 by the Pennsylvania Transportation Institute with funding provided by the Federal Transit Administration
- Tests buses for safety, structural integrity, durability, performance, maintainability, noise, and fuel economy
- Performs emissions testing using a state-of-the-art chassis dynamometer
- Houses four bus maintenance and test bays, fully equipped to perform heavy vehicle maintenance and repair

## Civil Infrastructure Testing and Evaluation Laboratory (CITEL)

- 56,000-square-foot, large-scale facility suitable for testing of steel, concrete, wood, masonry, and composite structures and subassemblies
- Testing capabilities include in-situ bridge and structural monitoring and evaluation, load testing, bridge instrumentation, and non-destructive evaluations
- Offers a twelve-ton steerable motorized gantry crane with the ability to straddle delivery trailers and lift large specimens from the truck bed

## Center for Dirt and Gravel Road Studies (CDGRS)

The Center for Dirt and Gravel Road Studies provides education, outreach, and technical assistance regarding the Environmentally Sensitive Maintenance (ESM) of low-volume roads in the Commonwealth of Pennsylvania. The goals of these ESM practices are to:

- Reduce sediment pollution
- Reduce long-term maintenance costs associated with rural roadways
- Create a more environmentally and economically sustainable rural road system

## Center for Integrated Asset Management for Multi-Modal Transportation Infrastructure Systems (CIAMTIS)

Housed in LTI at Penn State University Park, CIAMTIS is the USDOT Region 3



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(Mid-Atlantic) University Transportation Center. The center focuses on improving the durability and extending the life of transportation infrastructure. With seven partners, representing five states in the Mid-Atlantic United States, the consortium maximizes contributions to solve current and future transportation infrastructure issues.

### CIAMTIS partners include:

- |                           |                            |
|---------------------------|----------------------------|
| • Penn State              | • University of Delaware   |
| • George Mason University | • Virginia Tech            |
| • Lehigh University       | • West Virginia University |
| • Morgan State University |                            |

For more information about CIAMTIS, visit [r3utc.psu.edu](http://r3utc.psu.edu).

### Crash Safety Research Facility

- One of a few university-owned crash testing facilities in the United States
- Offers rail-guided system for full-scale crash testing
- Provides state-of-the-art vehicle impact simulation and data analysis tools
- Full-scale facility gives researchers the opportunity to investigate vehicle interaction with roadside barriers, lampposts, and signs

## Northeast Center of Excellence for Pavement Technology (NECEPT)

- One of five regional Superpave centers established by the Federal Highway Administration in 1995
- Houses a state-of-the-art binder and mixtures laboratory, equipped and staffed to perform all of the Strategic Highway Research Program Superpave tests as well as other specialized binder and mixture, subbase and subgrade, and pavement material characterization tests
- Supports training activities, pavements and materials-related research and development, and load response and performance measurements

### Test Track

- Features a one-mile oval, large-vehicle handling area and vehicle durability-testing course
- Past and current research activities include: visibility studies of traffic signs and pavement markings, crash testing barriers, and autonomous vehicle testing

More information and a complete list of LTI's facilities and outreach programs, including the [Battery Application Technology Testing & Energy Research Laboratory \(BATTERY\)](#) and [Hybrid and Hydrogen Vehicle Research Lab](#), may be found on the LTI website.

[larson.psu.edu](http://larson.psu.edu)

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