About TTI

Since 1950, experts at the Texas A&M Transportation Institute (TTI) have developed solutions to the problems and challenges facing all modes of transportation.

A member of The Texas A&M University System, TTI has a breadth and depth of programs, facilities and capabilities unsurpassed by any other higher-education-affiliated transportation research organization in the United States. The Institute’s research and development program has resulted in significant breakthroughs across all facets of transportation.

TTI research is widely known as an excellent value with a proven impact of saving lives, time and resources. The Institute’s innovative strategies and products have saved the state of Texas and the United States billions of dollars and thousands of lives.

TTI staff come from more than 50 different countries and are known for their credibility and technical expertise. Many are recognized national and international leaders in their fields. The Institute also plays a key role in educating the next generation of transportation professionals. Over 40 TTI researchers hold joint academic appointments at Texas A&M University.

With expertise in areas such as engineering, planning, economics, policy, public engagement, landscape architecture, environmental sciences, computer science and the social sciences, TTI researchers serve as objective transportation experts. They provide a resource to local, state and national agencies and groups, helping them solve transportation challenges and make informed decisions.
**Mobility**
Mobility analysts at TTI examine problems associated with congestion and access to transportation, develop innovative solutions, and measure the effectiveness of the outcomes. TTI prepares the definitive national study documenting congestion costs and trends in almost 500 U.S. urban areas. The Institute also provides expertise in metropolitan, urban, and rural bus and passenger-rail transit planning and operations.

**Safety**
The Institute's safety innovations can be found throughout Texas and around the world. Major advancements have occurred in the design of roadside safety devices such as guardrails, crash cushions and sign supports. TTI is leading other significant advancements in traffic signals and signs, distracted-driving and crash analysis, and bicycle and pedestrian safety, just to name a few.

**Human Interaction**
Roadway users play a critical role in the safety of our nation’s roadways. TTI’s Human Factors Program examines human limitations and capabilities, and works to optimize the user-vehicle and user-roadway interfaces to improve safety. The Behavioral Research Program examines roadway user attitudes and actions to help identify methods to promote safer behavior.

**Infrastructure**
TTI is finding innovative and cost effective ways to improve and rehabilitate roadway infrastructure. Researchers have expertise in non-destructive pavement testing techniques, accelerated construction, asset management and the emerging area of connected infrastructure to accommodate connected and automated vehicles.

**Freight**
TTI is exploring innovative solutions that support increased freight efficiency in multiple transportation modes, facilitate freight transfer and operation, enhance freight mobility, improve air quality, and reduce border wait times. TTI advises sponsors on new freight technologies and operational strategies and how to anticipate the effects of such changes on public and private infrastructure, on vehicles and their operators, on policies and regulations, on carriers and shippers, and on economic development and transportation planning.

**Security**
The Institute has successfully developed standards, new technologies, and cost-effective devices to help keep our country and citizens safe from terrorists. TTI designs, analyzes, tests, and evaluates anti-ram safety barriers, gates, and bol- lards to provide physical security of both critical homeland infrastructure and overseas embassies. Clients include the U.S. Department of State, Bureau of Diplomatic Security, U.S. Army Corps of Engineers, and private-sector companies.
Environment
TTI is focusing on transportation-related air quality, sustainability, energy, extreme weather issues, and sediment and erosion control through its environmental research programs and facilities. The Center for Advancing Research in Transportation Emissions, Energy, and Health (CARTEEH) focuses on the interaction of transportation and human health.

Economics
TTI has extensive expertise in transportation economics and finance research, working closely with public agencies and private-sector companies to evaluate the economic impacts of the transportation network and explore options for financing our transportation system. TTI-developed tools allow decision makers to prioritize projects based on robust benefit-cost analyses.

Connected Transportation
TTI researchers are developing and testing innovative applications for advancing automated and connected transportation. TTI’s connected transportation initiative includes an automated and connected transportation system testing facility at TTI’s Proving Ground and a variety of urban test beds. In addition, Texas is one of 10 states designated by the U.S. Department of Transportation (USDOT) as a national Automated Vehicle Proving Ground.

Workforce Development
TTI employs more than 200 students in its research laboratories and offices. Over 40 Texas A&M University faculty regularly work on TTI research projects. TTI experts also provide training on transportation topics. Many of TTI’s researchers are recognized national and international leaders in their fields, including about 80 who lead or serve on Transportation Research Board committees.

Policy
TTI’s policy research addresses specific research studies of state and national interest, bringing together engineering, finance, economic, technology, policy and public engagement experts from within TTI, the broader Texas A&M System, other institutions of higher education and the private sector. Institute researchers are often asked to offer objective and credible information on a wide range of transportation topics and emerging issues.

Planning and Operations
Researchers at TTI continue to be at the forefront of using data collected from Bluetooth® devices, cell phones, GPS, web surveys and virtual open houses to engage the public and other stakeholders. The information collected includes trip purposes, origins and destinations; travel times and speeds; and needed improvements. This input helps determine a desirable combination of multimodal transportation projects.
TTI researchers have access to more than 300 full-scale laboratories and field-testing devices.

**Facility Highlights**

- Bridge Performance Test Bed
- Proving Ground
- Visibility Research Laboratory
- Asphalt Innovation Laboratory
- Driving Simulator
- Sediment and Erosion Control Laboratory
- Environmental and Emissions Research Facility
- Eye-Tracking Equipment
- Structural Materials Testing Lab
- Computer Modeling and Scanning Facility

**TTI’s Mission**

To identify and solve transportation problems through research, to transfer technology and knowledge, and to develop diverse human resources to meet the transportation challenges of tomorrow.

**Contact**

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**Locations**

- **Headquarters**
  - College Station
  - Bryan

- **Urban Offices**
  - Arlington
  - Austin
  - Dallas
  - El Paso
  - Galveston
  - Houston
  - San Antonio
  - Waco
  - Washington, D.C.

- **International**
  - Mexico City, Mexico
  - Doha, Qatar

**TTI has conducted research in all 50 states and more than 40 countries**