

Louisiana Transportation Research Center



>> Who We Are

Created by the Louisiana legislature in 1986, LTRC's mission is to effectively merge the resources of the Department of Transportation and Development (DOTD)/LTRC and state universities to provide transportation related research, education, and training in a manner that addresses the problems and needs of DOTD and the transportation industry, supports local government, advances transportation technology, benefits Louisiana's universities, and provides optimal return on taxpayers' dollars.

LTRC's functions and duties are to develop and conduct a nationally recognized research program in transportation systems; offer educational and training programs; develop and implement a technology transfer program; establish cooperative relationships with universities, associations, and agencies; and report and publish research findings.

Located on the LSU campus in Baton Rouge, LTRC provides researchers and students access to excellent laboratories and state-of-the-art research equipment. The unique position of LTRC provides access to virtually all of DOTD's and LSU's resources to pursue its mission.



LTRC facility (top); TTEC facility (right)



>> How We are Funded

LTRC is a budget entity of the Louisiana Department of Transportation and Development. Funding is a combination of State, State Planning and Research (Part II, Federal), Innovative Bridge Research and Deployment (100 percent federal), Surface Transportation Program (STP-federal), and external contracts and grants, such as the National Cooperative Highway Research Program, the U.S. Army Corps of Engineers, the National Science Foundation, and industry partners.

The LTRC Foundation was chartered as a non-profit corporation instituted solely for the purpose of enhancing and supporting LTRC. A primary purpose of LTRC is to establish cooperation among the groups who work to improve Louisiana's transportation systems. The LTRC Foundation represents a unique opportunity for government, industry, and academia to partner in meeting that expectation.

>> What We Do

The **LTRC Research Program** emphasizes applied research and technology transfer to further knowledge in the field of transportation and to solve transportation problems encountered by DOTD and the general transportation community. Input for research programs is solicited from state and local government, universities, and private industry. This is accomplished through both an in-house and contract research program.

The research program is conducted through the following areas of study:

- Materials
- Pavements
- Geotechnical
- Structures
- Traffic and Intelligent Transportation Systems (ITS)
- Safety
- Operations
- Policy, Planning, and Intermodal

Approximately half of the research budget is used to fund contract research studies. Selected studies are competitively advertised on the DOTD Web site.

As research focuses on the future of transportation technology and what may be, the **LTRC Technology Transfer and Training Program** is firmly rooted in the present—in making practical application of research's technological innovations and transferring them to the transportation community through implementation, training, and educational activities.

LTRC's tech transfer and training functions are accomplished through these primary programs:

- Structured Training Programs
- External Educational Resources
- Technology Transfer and Development
- Local Technical Assistance Program (LTAP)
- Publications and Electronic Media Development Program

Through the technology transfer program, LTRC answers its broader responsibilities to the transportation community.



>> Expertise

In addition to its core asphalt, concrete, soils, and pavements laboratories, LTRC has developed expanded capabilities for concentration in several other areas: the **Engineering Materials Characterization and Research Facility (EMCRF)**, a laboratory facility specializing in fundamental materials characterization; the **Geotechnical Engineering Research Laboratory (GERL)**, a laboratory focusing on transportation earth-works, structural foundations, and geosynthetics; **Pavement on the Move (POM)**, a multi-use mobile laboratory for collecting data from field construction projects as well as research and training; the **Intelligent Transportation Systems (ITS) Laboratory**, to evaluate data from the state's traffic management centers; and the **Louisiana Center for Transportation Safety (LCTS)**, providing access to academic partners and training facilities and enables coordination of safety research, workforce development, and stakeholder outreach across the many entities involved in the Louisiana Strategic Highway Safety Plan (SHSP).

By means of publications, seminars, courses, and workshops, LTRC creates a communications network for dispersing information and sharing knowledge that spans from emerging research and technology to the grass-roots level of application.

>> Staff

LTRC houses more than 100 employees, including up to 30 students. The LTRC staff is comprised of DOTD civil service employees and professional staff hired through the university. The LTRC full-time staff size consists of professional engineers, professors, research associates (post docs), technicians, and other professional staff. LTRC is also complimented with undergraduate and graduate students to assist in research needs and center functions.

>> Facilities

LTRC is comprised of three main facilities. **The LTRC building** is a 25,300-square foot facility that includes six research laboratories, a conference room, and offices. The laboratories are used to conduct advanced research in asphalt, concrete, geotech, soils, pavements, and ITS.

The 14,000-square foot **Transportation Training and Education Center (TTEC)** houses a tiered lecture hall, a computer-based training classroom, and two general classrooms that are all equipped with advanced education and training equipment and distance learning/video-conferencing capabilities. A comprehensive transportation library and offices are also included. The addition of TTEC greatly enhances LTRC's mission by facilitating the delivery of training, professional development opportunities, and technology transfer to engineers, technicians, undergraduate and graduate students, and professionals from both the public and private domains.

Although remote from the center, the **Louisiana Pavement Research Facility** is an important facility that streamlines pavement loading research by compressing years of road wear into months of testing. The six-acre facility is located on the west side of the Mississippi River and incorporates an **Accelerated Loading Facility (ALF)** and an **ATLaS 30**—both devices maximize pavement testing by simulating the effects of dual truck tires at maximum loads over various distances on both asphalt and concrete pavements. With such wide-ranging testing devices at the research facility, opportunities for Louisiana's research program will continue to grow and positively impact future pavements throughout the state.



LTRC's Accelerated Loading Facility



ATLaS 30

>> Contact Us

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