

# TECHNOLOGY TODAY

VOL 39 ISSUE 1 — A publication of the Louisiana Transportation Research Center



## SPECIAL EVENTS

### 2025 Louisiana Transportation Conference Welcomes Transportation Officials from Across the State and Beyond

More than 1,500 transportation leaders, researchers, and practitioners from across Louisiana and 29 other U.S. states gathered at Baton Rouge’s Raising Canes River Center on March 16-19 for the 2025 Louisiana Transportation Conference. This year’s theme was “Pathways to Progress: Shaping the Future of Transportation.” The gathering—the sixteenth of its kind since its founding by LTRC and DOTD in 1993—featured three days of engaging professional development and invaluable personal networking. Attendees had the opportunity to participate in the conference’s General Session, Engineering Ethics course, and 78 breakout sessions on a broad range of

*continued on pg.3*

## RESEARCH

### LTRC Research Paves the Way for Improved Reliability in Aggregate Friction Testing

Louisiana DOTD aims to build safe, high-performing, and long-lasting roads for the state’s road users, and LTRC’s research efforts provide valuable insights in pursuit of that goal. A recent project designed and implemented by Accelerated Pavement Research Program Manager Zhong Wu, Ph.D., P.E., sought to identify an optimal testing and rating protocol for the source aggregates used on Louisiana roadways.

The study, titled “Assessment of Laboratory Friction Testing Equipment and Validation of Pavement Friction Characteristics with Field and Accelerated Friction Testing,” favorably evaluated and recommended the increased use of the Three-Wheel Polishing Device (TWPD) and Dynamic Friction Tester (DFT) in aggregate friction testing as a potential replacement for the currently

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## UPCOMING EVENTS

*Conflict Management*  
**June 11, TTEC 100**

*National Highway Institute (NHI) Course No. 130053:  
Bridge Inspection Refresher Training*  
**June 16-18, TTEC 100**

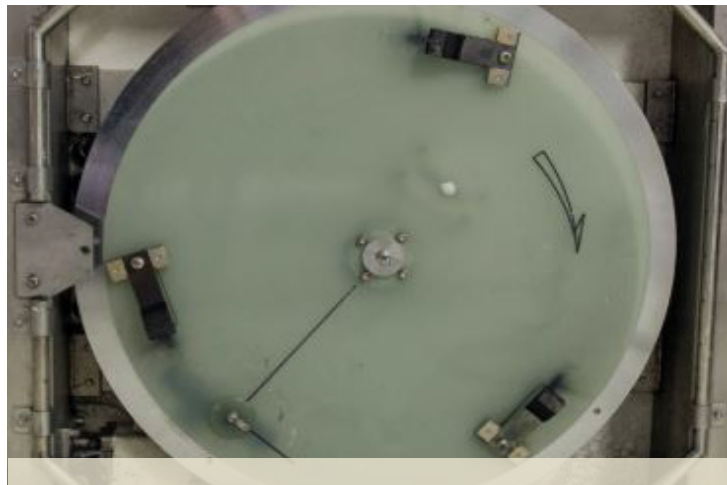
*To view more events, please visit*  
<http://www.ltrc.lsu.edu>

utilized British Polishing Wheel (BPW) and British Pendulum Tester (BPT). Through an extensive process featuring a wide battery of both field- and laboratory-based assessments, Dr. Wu and his research team found that the TWPD and DFT will aid department engineers in consistently designing and constructing durable, high-quality pavements by minimizing variability in the testing results and rating of source materials.

This project was largely motivated by limitations recognized in DOTD's current aggregate friction testing and rating system, which relies on the Polished Stone Value (PSV) of coarse aggregates. The specific issue is the variability in these values arising from the BPW- and BPT-based tests, even from samples produced in the same quarry and shipped in the same batch. Both industry suppliers and department engineers have a compelling interest in achieving accurate and reliable results to minimize wasted materials and maximize skid resistance on constructed roadways.

For the laboratory portion of the study, Dr. Wu and his team selected seven aggregate sources commonly used in wearing coarse mixtures for DOTD projects. These sources, which included three sandstone types, three limestone types, and one rhyolite type, were assessed using both the BPW/BPT and TWPD/DFT protocols under simulated traffic conditions. The results of these side-by-side tests were compared, with the TWPD/DFT values demonstrating greater consistency and reliability between the two.

In the field, researchers evaluated the surface friction characteristics of eight Louisiana asphalt pavements using a variety of in-situ friction and texture measuring devices, including the DFT, BPT, and Circular Texture Meter (CTM), among others. Once again, the results of these field tests aligned with those from the laboratory tests obtained using the TWPD/DFT method,



A suite of tests revealed that the Dynamic Friction Tester (pictured above) was highly effective in evaluating source aggregates.

highlighting this protocol as a consistent and repeatable approach to evaluating aggregate polishing resistance.

Dr. Wu emphasizes the potential long-term benefits of this research for Louisiana road users: “Compared to the PSV test procedure, polishing resistance results measured using the TWPD and DFT showed lower standard deviation among duplicate samples and greater differentiation in polishing resistance among different aggregate types.” He continues, “Additionally, the TWPD test was more sensitive to variations in the chemical composition of aggregates. Implementing this test method for DOTD’s aggregate friction rating could support the selection of more durable, skid-resistant aggregates, ultimately contributing to longer-lasting and safer pavements across Louisiana.”



**Read Final Report or Tech Summary 707**  
online: [www.ltrc.lsu.edu/publications.html](http://www.ltrc.lsu.edu/publications.html)

# Survey Says...

“The most enjoyable part of the conference was the wide variety of sessions to choose from!”

“There are plenty of things to like about the conference, but this year, the winner for me was the Grupio app. It made finding my sessions and keeping up to time far easier than normal.”

“What a great opportunity to network!”

“I liked that even with the bowling tournament going on, the organizers made great use of the facilities. I actually preferred the smaller scale, and it gave me more opportunities to network.”



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## *LTC 25 Recap (ctd. from pg. 1)*

transportation topics, as well as a tradeshow featuring 71 exhibitors from many sectors of the transportation community.

This year’s General Session featured the presentation of colors by the Walker High School Marine Corp JROTC, a rousing rendition of “The Star-Spangled Banner” by District 61 administrator Joshua Stutes, the State of the Department address by DOTD Secretary “Joe” Donahue, remarks from a representative of the Office of the Governor, and the 2025 Transportation Awards (see page 4). Awards were presented for Work Zone Excellence, Transportation Excellence in a variety of categories, and innovations in tools, work processes, and software. Additionally, 12 students from four Louisiana universities were honored with the 2025 SASHTO Scholarship Award.



Among the conference’s 78 technical sessions, five attracted over 200 attendees. The top overall session was the popular District Administrators Panel Discussion, which featured an engaging and interactive conversation between four DOTD district leaders from across the state. Other top-attended sessions included several updates on major planned or in-progress construction projects, including the I-10 Calcasieu River Bridge Replacement Private-Public Partnership in Lake Charles, the I-20 Mississippi River Bridge Status Update at Vicksburg, and other Emergency Repair Projects throughout Louisiana. Rounding out the top five was an informative session featuring highlights from the recent MUTCD and Traffic Engineering Updates.



A new feature of the 2025 conference was the Secretary’s Roundtable, which included Secretary Donahue and other members of DOTD’s Executive Staff. Conference registrants were invited to submit questions for department leaders prior to the conference, many of which were addressed in this session. Over 700 people attended the Roundtable, and the response to it was very positive .

*Save the date now for the next Louisiana Transportation Conference, scheduled for **March 7-10, 2027**, at the Raising Cane’s River Center in Baton Rouge. We hope to see you there! You can also see more images from this year’s conference by visiting our Photo Gallery at [ltrc.smugmug.com/2025LTC](http://ltrc.smugmug.com/2025LTC).*



**SPECIAL EVENTS**

**2025 Transportation Award Recipients**

**Louisiana Work Zone Excellence Awards**

- District 02—Unit 252, Daniel Schenck
- District 02—Unit 212, Shane Troendle
- District 02—Unit 262, Mahmoud Hamide
- District 03—Unit 283, Michael Ronkartz
- District 03—Unit 293, Sam Miller
- District 03—Unit 253, Charles Descant
- District 03—Unit 223, Michael Moran
- District 05—Unit 205, Hamid Belfassi
- District 08—Unit 258, David Pugh
- District 08—Unit 218, Jared Taylor
- District 08—Unit 268, Jordan Kelly

*Work Zone District Excellence Award*  
District 03—Lafayette

*Urban Contractor Excellence Award*  
CEC

*Rural Excellence Award*  
Merrick Construction

*Traffic Control Supervisor Excellence Awards*  
Jay Carli, Merrick Construction  
Jill Hillebrand, Earnest Contracting

**DOTD Transportation Excellence Awards**

*Bridge Design / Project Development*  
I-10 Loyola Drive Interchange Improvements  
Design-Build

*Intermodal / Public Works Design / Project Development*  
Rehabilitation of Chalmette Slip

*Quality of Life / Community Development*  
Crescent City Connection Decorative Lighting

*Other Infrastructure Construction*  
LA 47 Intercoastal Waterway Gulf Outlet (IWGO) Bridge

*Safety*  
Louis Armstrong New Orleans International Taxiway

*Best Use of Technology and Innovation*  
Rue Des Etoiles Bridge



## SASHTO Scholarship Awards

Luke Hue, Louisiana State University  
Emma Skeath, Louisiana State University (*pictured top right*)  
Austin Nicholas, Louisiana State University  
Rachel Bancroft, Louisiana State University  
Andrew Nickel, Louisiana State University

Thomas Moreau, University of Louisiana at Lafayette  
Gabrielle LeBlanc, University of Louisiana at Lafayette  
Hallee Gardner, University of Louisiana at Lafayette  
Cole Broussard, University of Louisiana at Lafayette  
Braden Dauphine, University of Louisiana at Lafayette

Rijendra Adhikari, McNeese State University (*pictured bottom right*)  
Luke Spillers, Louisiana Tech University



## DOTD Innovation Awards

2023

### Tools and Work Processes

1st—District 07 (Culvert Cleaner)  
Clem Guidry, Greg Lejeune, and Rhett Guidry

2nd—District 03 (Hydraulic Guardrail Cleaner)  
Dwayne Dugas and Ty Hargroder

3rd—District 61 (I Brake for Potholes)  
Michelle Gray and Karey Detillier

### Software or Technical

1st—District 07 (GIS for DUMMIES)  
Jules Toups, Michael McKeivier, Ty Orgeron,  
and Brennan Marque

2nd—District 04 (Automated Electronic Field Book)  
John Paul Jones and Gary Ayres

3rd—Section 42 (EOCP Agile Seat-Time District Reports)  
Keith Beard

### Secretary's Safety Award

District 61 (I Brake for Potholes)  
Michelle Gray and Karey Detillier

### People's Choice Award

District 07 (Culvert Cleaner)

2024

### Tools and Work Processes

1st—Section 51 (Magnetic Rail Girder Moving System)  
Vince Varisco, Richard Jenkins, and William Stewart

2nd—District 05 (Lighted Flag Paddle)  
David Herrington and Dewayne Turner

3rd—District 58 (Distributor Skid Steer Attachment)  
Billie Massey, Billy Parker, and John Dupuy

### Software or Technical

1st—District 07 (Traffic Signal Timing Sheets)  
Joshua LeFranc, Andre Ange, and Mike McMellon

2nd—District 05 (PES Generator)  
Matt Jantz

3rd—District 04 (Waterbody Management Tracker)  
Joshua Monroe

### Secretary's Safety Award

District 61 (Whatcha Doing)  
Michelle Gray

### People's Choice Award

District 05 (Lighted Flag Paddle)  
David Herrington and Dewayne Turner

# Thank you to our LTC 2025 Sponsors!

## Platinum



## Gold



## Silver



## Bronze



## Updates and Accomplishments

**Louay Mohammad, Ph.D., F.ASCE**, was honored by Louisiana State University with the prestigious Rainmaker Award for innovation and excellence in research (*pictured at right*). The university honored Professor Mohammad as this year’s Senior Scholar in Science, Technology, Engineering, and Mathematics, recognizing his contributions in highway construction materials, pavement engineering, advanced materials characterization and modeling, and infrastructure resiliency and sustainability. The Rainmaker awards recognize sustained work with high impact, often in alignment with LSU’s Scholarship First agenda.



LTAP Director **Rudynah “Dynah” Capone** and Program Manager **Courtney Dupre** attended the National LTAP South Central Regional Meeting in Arlington, Texas, on March 6-7. They presented updates about Louisiana LTAP’s activities while learning from and networking with LTAP peers from Texas, Oklahoma, Arkansas, and New Mexico.

LTAP recently welcomed **Genevieve Amick, M.S.**, to their team as a Teaching Associate.

**Hannah Boggs** was promoted to a new role on LTRC’s Internal Training Team as Loss Prevention Program Manager.

## PUBLICATIONS

### Recently Published

#### Project Capsule 25-5PF

*Ahead of the Curve: Course Updates and Conversions*

Jason J. Bittner, MPA, PMP

#### Project Capsule 25-1P

*Development of a Database for Successfully Performing Pavement Sections in Louisiana*

Jun Liu, Ph.D., P.E.

#### Final Report & Technical Summary 707 (Project 20-4P)

*Assessment of Laboratory Friction Testing Equipment and Validation of Pavement Friction Characteristics with Field and Accelerated Friction Testing*

Zhong Wu, Ph.D., P.E.; Ricardo Hungria, Ph.D.; Sudhir Bharati

#### Final Report & Technical Summary 708 (Project 22-1C)

*Influence of Internal Curing on Concrete’s Permeability in Simulated Field Conditions*

Zhen Liu, Ph.D., P.E.; Jose Milla, Ph.D., P.E.; Tyson Rupnow, Ph.D., P.E.



[VIEW ONLINE](#)

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Technology Today is a quarterly publication of the Louisiana Transportation Research Center.

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