



TECHNOLOGY TODAY

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UPCOMING EVENTS

Dynamic Friction Tester Training
June 8

NHI Course No. 135027- Urban Drainage Design
June 16-18

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

SPECIAL EVENTS

2020 Louisiana Transportation Conference Highlights Innovation

Over 1,800 transportation professionals, industry partners, and academics from across the nation gathered for the 2020 Louisiana Transportation Conference. This year's theme was "Transportation Innovation: The Foundation of our Future" and took place March 1-4, 2020, at the Raising Cane's River Center.

The conference's general session included key speeches by Governor John Bel Edwards, AASHTO Executive Director Jim Tymon, DOTD Secretary Shawn Wilson, Ph.D., and LTRC Director Sam Cooper, Jr., Ph.D., P.E. This year's featured speaker was David Woessner, who serves as Executive Vice President of Corporate Development & Regulatory Affairs for LM Industries. Passionate about self-driving technology, Woessner focuses on global market approach, public policy and regulation of self-driving vehicles, and other innovative technologies significant to LM Industries.

This year also debuted a new format for the opening session by including the transportation awards ceremony at the start of the conference as part of the ongoing recognition of special achievement in engineering and construction projects by DOTD and their transportation partners. Special achievements and best projects were honored, demonstrating the dedication in providing the highest

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“ I learned lots of new innovative design methods and became caught up with the progress of several big design projects in the area.

“ Great variety of speakers and topics. Excellent networking opportunity.

Governor Edwards addresses the LTC opening session crowd;
Attendees explain positive conference experiences

quality in transportation infrastructure to their customers, the citizens of Louisiana, and the users of state highways, transit systems, airports, ports, and other public works. DOTD Innovations Showcase award winners were also recognized and received a budget transfer to their respective district's operating budget, with the top finisher having the option to replace a piece of equipment within their own work gang. Student scholarships and design awards were also recognized and presented a \$1,500 cash award.

Approximately 265 speakers presented on a variety of topics ranging from innovative design, nationwide bridge projects, e-construction, recent research results, and much more. A total of 80 sessions were offered as well as two ethics sessions and Standards of Practice for Boundary Surveys in Louisiana. In addition, tabletop displays, poster presentations, and a two-day industry exhibition featuring transportation technologies and products were also held concurrent to the four-day conference.

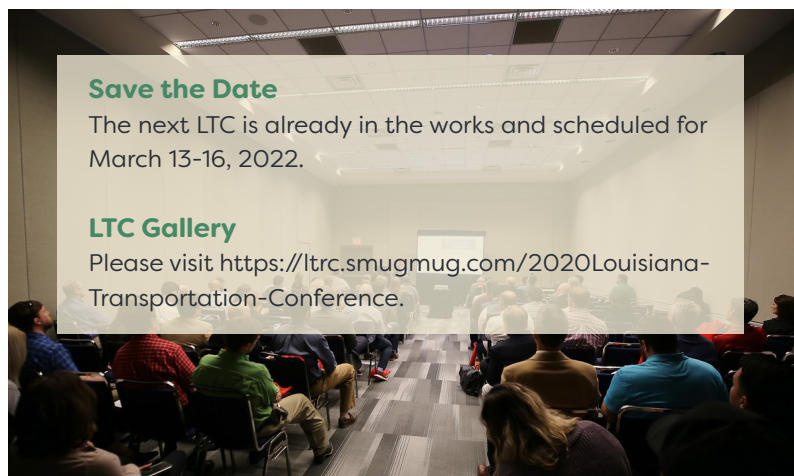
The highest-attended session was “1-10 Baton Rouge Corridor Improvements.” Presented by

DOTD Project Management Director Brian Kendrick and DOTD Environmental Impact Manager Carey Coxe, attendees were able to witness project improvements such as the I-10 Baton Rouge Corridor updates, including a current overview, feasibility study, funding, and early decisions made. Kendrick also gave an in-depth status update on the on-going environmental assessment. Coxe closed the session by discussing historic projects affected by the 1-10 project (such as structures within Old South Baton Rouge and Hundred Oaks Historic Districts), showing images of historic buildings under consideration of relocation. Coxe used an example from Galveston, TX to show how historic home relocations can be successful, while allowing historic buildings to continue being viable and a useful part of their community.

The next session that gained a lot of interest was “Partnering Between DOTD and the Consultant Community.” Presented by Deputy Chief Engineer Edward R. Wedge, III, P.E., and Geoffrey Rodriguez, director of Quality and Continuous Improvement Program (QCIP), this session discussed the structured process that DOTD has established for partnering with the consultant community and covered major changes to policies and processes related to consultant contracts that have come about since the inception of this process in August 2018. Following the presentations, a roundtable-style Q&A was conducted by a panel comprised of DOTD staff from the consultant outreach group and the president of ACEC-L.

Other highly attended sessions included “Dispatches from the Front Line of Alternative Delivery and the Future of Transportation Funding,” “Sunshine Bridge Emergency Repair,” and “Swamp Tank: Up to Our Ears in Alligators.”

LTRC would like to thank our sponsors, speakers, moderators, exhibitors, and attendees for making the 2020 Louisiana Transportation Conference the most successful event to date.



Save the Date

The next LTC is already in the works and scheduled for March 13-16, 2022.

LTC Gallery

Please visit <https://ltrc.smugmug.com/2020Louisiana-Transportation-Conference>.

SPECIAL EVENTS

Transportation Awards and Recipients

Louisiana Work Zone Excellence Awards Less than a 0.2 deficiency average on jobs in (2018-2019)

District 03, Michael Moran and Gang 243
District 03, Jeff Faust and Gang 203
District 02, Michael Duplantis and Gang 242
District 02, Benny Herrington and Gang 212
District 02, Kevin Rizzo and Gang 232
District 07, Tyson Thevis and Gang 207
District 08, Randall Duffey and Gang 248
District 58, Bridget Ellerbe and Gang 221

Less than a 1 deficiency average on jobs in (2018-2019)

District 05 | District 07 | District 08

Honorable mention for less than a 0.5 deficiency average on jobs in (2018-2019)

District 07, Beau Istre and Gang 247
District 07, Vicki Ponthieux and Gang 217
District 05, David Wing and Gang 205

The Work Zone Excellence Award is given to the project that had ZERO crashes at the Queue on a major interstate route

H.012823.6 C.E.C. and Tyson Thevis/Gang 207

DOTD Transportation Excellence Awards Roadway/Bridge Construction Project Under \$10 Million

I-110: Interchange Modification at Terrace
Mark Bucci, Mary Jean McAdams, and Anna Hanks, DOTD Bridge Design

Roadway/Bridge Construction Project Over \$10 Million

I-49 North Segment K
Elba Hamilton and Matt Wallace, AFJM

Other Infrastructure Construction Project Under \$10 Million

Runway 15-33 Rehabilitation
Kevin Melton and Andrea LaFleur, Chennault International Airport



Other Infrastructure Construction Project Over \$10 Million

US 90 (I-49 South) at LA 318 Interchange
Cindy Hall and J.J. Hickey, Stantec

Bridge Design Project Development

Sunshine Bridge Emergency Repair
Zolan Prucz and Jason Miles, Modjeski & Masters

Road Design Project Development

I-12 (US 190 to LA 59)
Jacob Fusilier and Dennis Hymel, T. Baker Smith, LLC

Intermodal/Public Works Project Development

Port Fouchon—Northern Expansion Phase II, Slip C, Phase III
Chett Chaisson, Greater LaFourche Port Commission

Context Sensitive Solution/Public Involvement

I-10: I-210 West to I-210 East
Noel Ardoin and Lynn Maloney-Mujica, DOTD Environmental

Use of Innovative Product or Technology

Sunshine Bridge Emergency Repair
Joey Coco and Brent Campbell, Forte & Tablada

Special Achievement in Customer Service

New Orleans Airport Connector Road
Doug Olson and David Lebreton, Barriere Construction

SASHTO Scholarship Awards

LSU: Nathan Baylot, Meredith Guidry, Lucas LeCoq, Matthew Loker, Nicolas Smith, Paige Bates, and Joshua Cook



TECH TRANSFER

Sit-down Spotlight: Mike Boudreaux, Technology Transfer

Mike Boudreaux, P.E., has been with LTRC since September 2001, and while many know him to provide assistance on various levels, his eye for detail and thorough technical knowledge make him a valuable asset to researchers and transportation professionals alike.

What is your position and what do you do on a daily basis?

Defining what technology transfer or what implementation is varies across all 50 states. There's no common definition. But at LTRC, once a research project is complete, an implementation plan is developed and approved by the research project review committee. My role varies for each project depending on its implementation plan. I also often serve on interview panels for engineering graduates seeking employment with DOTD as well as work with committees charged with planning and executing transportation conferences for DOTD. I spend a lot of my time reviewing research reports for technical inaccuracies. I also review training material for technical errors and spend the same amount of time and attention on those as the research reports.

Why do you think you have such an eye for catching technical errors?

I guess that's just the type of person I am. It's just an eye for detail—that's why I'm an engineer. I think it's just how I'm wired. Growing up, my dad was an office manager, and I would help him at work when I was little. They used to have big boxes of stacks of numbered receipts, and I would put them in order. I was excited to do it, and he would always be impressed at how quickly I managed to complete it.

What do you enjoy most about your job?

I enjoy working with many exceptional individuals at DOTD and LTRC. But I do get a sense of fulfillment helping PIs create a better report, whether it's going to be used in Louisiana or used by another state DOT. Nothing would detract from LTRC's credibility or reputation than publication of a report that contained technical discrepancies. There are so many PIs that will contact me to say how much they appreciate what I do. I don't feel like I spend a lot of time, but they are always so appreciative that I was able to catch so many things on a report that they have been working on for months. When you're the author of a report, you just stop seeing things, so I'm happy to be that outside technical eye before they submit it for publication.

What do you wish others knew about your position?

I hope people know that you can't look at the number of comments I make as any indication of the health of the report. In fact, just one comment or error found could scrap an entire report. I think it's

“Mike is very good at finding technical errors and conformance between graphical data and text. And I am always amazed that he can do this with reports/publications from widely varying fields that LTRC research is involved with. I always asked for his input and incorporated his suggestions before submitting NCHRP quarterly progress reports. In my opinion, his effort provides QC/QA to the publication process and ensures that the published reports are of a high quality.”

—Amar Raghavendra

important that we make sure our reports are technically correct before we try to implement them. So part of my review process, I reveal perceived discrepancies and then leave it to the PI to address those factual comments.

What is a challenging aspect of your job?

I would say that leading a group with diverse interests in an effort to produce a comprehensive program for a transportation conference is both challenging and rewarding.

If you weren't in your current position, what would you be doing instead?

I would be an accountant. Everything has to balance, and when your numbers don't come out right, you have to be able to catch it. I enjoy finding where the error is and making it all balance.

RESEARCH

Dr. Mohammad Receives High Honor as Member Emeritus

Irma Louise Rush Stewart Distinguished Professor Louay Mohammad, Ph.D., P.E. (WY), F. ASCE, was recently honored with the highest level of peer recognition upon his selection as a Member Emeritus of the Transportation Research Board (TRB) Committee on Surface Requirements of Asphalt Mixtures (AFK40). Dr. Mohammad was appointed thanks to his continued leadership and dedication to TRB standing committees as well as being an effective ambassador in the subject highway construction materials, pavement design and analysis, and infrastructure sustainability.

“TRB established the emeritus membership category to recognize the significant and long-term contributions of individuals who have provided outstanding service through participation in our standing committees,” said Executive Director at Transportation Research Board Neil Pedersen. Dr. Mohammad has been in TRB’s asphalt materials section for over 18 years, which includes being the chair of committee AFK40 from 2007 to 2013. The TRB emeritus honor is the first designation for an active faculty staff member at LTRC and second for LSU faculty.



Left to right: Dr. Silvia Caro (Chair, TRB Committee AFK40); Dr. Louay Mohammad; Dr. Nelson Gibson (Senior Program Officer, TRB Materials and Construction Division)



LATECH: Tanner Borskey, Sydney Bratton, Anna Opel, Benjamin Robins, and Mark Veasey

UL: Katelyn Keller, Blade Leger, Anna Paddock, Nicholas Scalfano, and Alexander Williams

UNO: Michael Ceraso and Jamaal Dejean

McNeese: Jessica Theresia

Senior Design Project Presentation Award Recipients

First Place—Louisiana Tech

Second Place—University of Louisiana at Lafayette

Third Place—Louisiana State University

DOTD Innovation Showcase Winners

2019 Tools and Work Processes Category

1st Place—Philip Macaluso, Section 45 for the “Contraflow Signs”

2nd Place—Philip Macaluso, Section 45 for the “Contraflow Gates”

3rd Place—David Tregre, Joseph Loupe, and Martin Narcisse, District 62 for the “Truck Mounted Magnet”

2019 Software and Technical Aids Category

1st Place—David Corley, Jeff Brunet, and Kalyn Partin, District 07 for the “Superelevated Curves Electronic Workbook Design”

2nd Place—Jesse Dubois, District 08 for the “Traffic Operations Database”

3rd Place—Jay Smallwood, District 04 for the “Electronic Fieldbook Generator”

The 2019 People’s Choice Award

Jonathan Merritt, District 61 for the “Asphalt Patch Leveler”

The Secretary’s Safety Award

Josh Lefranc, Kade Thevis, and Eric Marquart, District 07 for the “Mobile Emergency Traffic Signal”

STAFF NEWS

Staff Updates and Accomplishments

LTAP Program Manager **Chris Melson** was selected as the first place winner of Southern District ITE’s “Young Member Technical Paper Award” for his paper on the “Perception, Awareness, and Importance of Preparing for Connected and Automated Vehicle (CAV) Technologies: A Survey of Louisiana Organizations.”

Vijaya (VJ) Gopu, Ph.D., P.E., Associate Director for External Programs, was an invited speaker at the 2020 Alabama Transportation Conference held in Montgomery, Alabama in February 2020.

Congratulations to LTRC researchers **Moinul Mahdi**, Ph.D., **Zhong Wu**, Ph.D., **Xiaoduan Sun**, Ph.D., P.E., and **Tyson Rupnow**, Ph.D., P.E., for winning a 2019 Best Poster Session Paper Award at this year’s TRB meeting. Their paper was titled “Performance Evaluation and In-Situ Bond Strength Characterization of BCOA Pavements Under Accelerated Loading.”



Irma Louise Rush Stewart Distinguished Professor **Louay Mohammad**, Ph.D., P.E. (WY), F. ASCE, delivered an invited presentation on “Relation Between Flexible Pavement Layers Bonding and Durability” at the 21st Annual Conference of the Association of Modified Asphalt Producer, February 10-13, 2020, in Rancho Mirage, California. Dr. Mohammad also delivered an invited presentation on “Designing and Constructing Flexible Pavement with Long Lasting Performance” at the 2020 ASCE Construction Institute Summit, February 19-22, 2020, in Los Angeles, California.

LTRC welcomes **Sonda Brown** to the LTRC Geotechnical Group as an Engineering Technician 4 and **Qiming Chen**, Ph.D., P.E., as the Senior Pavements Research Engineer.

PUBLICATIONS

Recently Published

Project Capsule 19-2B

Development of a Moisture Sensitivity Test for Asphalt Mixtures
Louay Mohammad, Ph.D., P.E. (WY), F. ASCE

Project Capsule 19-4B

Implementation of Semi-circular Bend (SCB) Test for QC/QA of Asphalt Mixtures
Louay Mohammad, Ph.D., P.E. (WY), F. ASCE

Project Capsule 19-4SA

Impact of Centerline Rumble Strips and Shoulder Rumble Strips on all Roadway Departure Crashes in Louisiana Two-Lane Highways
Xiaoduan Sun, Ph.D., P.E.

Project Capsule 20-1GT

Literature Search on Use of Plastic Pipes in Highway Engineering for DOTD's Needs
Navid Jafari, Ph.D.

Project Capsule 20-2GT

Instrumentation and Modeling of Geosynthetic Load Transfer Platform Performance
Murad Abu-Farsakh, Ph.D., P.E.

Technical Assistance Report 19-03TA-P

Structural Assessment of Inundated Roads in Livingston Parish, Louisiana with the Falling Weight Deflectometer
Kevin Gaspard, P.E., Zhongjie Zhang, Ph.D., P.E., and Mark Martinez, P.E.

Final Report and Technical Summary 609 (13-2ST)

Live Load Monitoring of the I-10 Twin Span Bridge
Steve C.S. Cai, Ph.D., P.E. (MD), and Yang Yu

Final Report and Technical Summary 611 (17-1SA)

Evaluating the Effectiveness of Regulatory and Warning Signs on Driver Behavior near Highway/Rail Crossings
Julius Codjoe, Ph.D., P.E., William Saunders, E.I., Joseph Cotton, Saleh Mousa, and Grace Ashley

Final Report and Technical Summary 613 (12-11P)

Field Validation of Equivalent Modulus for Stabilized Subgrade Layer
Mark Martinez, P.E.

Final Report and Technical Summary 615 (18-3P)

Best Practice for Assessing Roadway Damages Caused by Flooding
Mingjiang Tao and Rajib B. Mallick

Final Report and Technical Summary 618 (17-6SS)

Evaluation of HeadLight: An E-Construction Inspection Technology
Tyson Rupnow, Ph.D., P.E., Mary Leah Coco, Ph.D., George White, and Julian Yamaura, Ph.D.

Final Report and Technical Summary 619 (18-5ST)

Investigating Available State-of-the-art Technology for Determining Needed Information for Bridge Rating Strategies
Afshin Karshenas, Ph.D. FDH, and Babak Naghavi, Ph.D., P.E., PH

Final Report and Technical Summary 621 (12-2P)

Assessment of Environmental, Seasonal, and Regional Variations in Pavement Base and Subgrade Properties
Kevin Gaspard, P.E., Zhongjie Zhang, Ph.D., P.E., Gavin Gautreau, P.E., Murad Abufarsakh, Ph.D., P.E., and Mark Martinez, P.E.

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To download a complete list of LTRC publications, visit www.ltrc.lsu.edu.



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