



A publication of the Louisiana Transportation Research Center



## IN THIS ISSUE

- 2 LTC Overview and Highlights
  - Transportation Awards and Recipients
- 4 LTC Sponsors
- 5 By the Number
- 6 Staff Updates and Accomplishments
  - Recently Published

# UPCOMING EVENTS

ATSSA Training August 22-24, TTEC 100

Signal Design and Policy August 29-31, TTEC 100

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

# TECH TRANSFER

# 2023 Louisiana Transportation Conference Convenes in Person Again

Following last year's virtual LTC, the 2023 Louisiana Transportation Conference finally convened in person again at the Raising Cane's River Center, drawing in over 1,700 transportation professionals, academia, retirees, and students. With the theme *Partnerships for Delivering a Safe, Equitable, and Sustainable Transportation System*, attendees were able to choose from over 80 sessions, attend networking events, and visit a variety of exhibition booths and displays.

DOTD Secretary Eric Kalivoda, Ph.D., gave welcoming remarks as well as the State of the Department Address. Chief Engineer Christopher Knotts spoke on the impacts of construction inflation, while Deputy Assistant Secretary of Planning Connie Betts gave an update on the Louisiana Statewide Transportation Plan. Following the Transportation Awards Ceremony, Governor John Bel Edwards delivered the keynote as he presented his state address marking the beginning of the conference.



With three days of concurrent sessions, conference attendees had many topics of interest to choose from-the most popular being the "I-10 Baton Rouge Corridor" session. Presenters Bob Schmidt (Huval & Associates), Sherri LeBas (GEC), and GJ Schexnayder (Boh Bros. Construction Co., LLC) discussed the I-10 widening and reconstruction from six to eight lanes, including bridge replacement and rehabilitation, interchange and ramp modifications, shoulder widening, and auxiliary lanes from LA 415 to Essen Lane. I-10 and I-12 College Drive Exit improvements were also presented.

Session 2's "CMAR–Benefits and Lessons Learned on Two Multimodal Projects" also gained a lot of attention from attendees. Presenters discussed the benefits of and lessons learned using the Construction Management at Risk (CMAR) process on two dock projects: one at the Lake Charles Port, Harbor and Terminal District and another at the St. Bernard Port, Harbor and Terminal District.

The third most-attended session was "Drones and DOTD–The Possibilities" where presenters shared some of DOTD's Location and Survey Section's recently incorporated drone projects, including imagery, elevation data, and stockpile volume calculations. A short demo flight field demonstration was also given.

Additional sessions of interest to note included "Critical Projects," "Complete Streets at DOTD," and the Construction Roundtable.

LTRC would like to thank our sponsors, speakers, moderators, exhibitors, and attendees for making this in-person event a success-it would not be possible without such investments and contributions.

Mark your calendars for our next LTC March 16-19, 2025. And be sure and visit the LTC photo gallery at https://ltrc.smugmug.com/2023-Louisiana-Transportation-Conference.

# SPECIAL EVENT

# **Transportation Awards and Recipients**

# Louisiana Work Zone Excellence Awards Less than a one deficiency average on jobs (2021 and 2022)

District 02–Unit 202, Joseph Robert District 03–Unit 293, Sam Miller District 04–Unit 254, Michael A. Nelson District 07–Unit 207, Tyson Thevis District 08–Unit 208, Steve Buskie District 58–Unit 221, Bridget Ellerbe District 62–Unit 230, Christian Boutte

# Less than a one deficiency average on jobs (2021 and 2022)

District 03 and District 08

## Work zone excellence in an urban area

H.002622.6–LA 616 (Arkansas Rd) Widening and Roundabouts Chris Wing, Gilchrist Construction Company Work zone excellence in a rural area H.002798.6–Bayou Teche Bridge (Oaklawn) Nicholaus Ray, Shavers-Whittle Construction

**Best Traffic Control Supervisor** Jill Hilldebrand, Earnest Contracting

### DOTD Transportation Excellence Awards Bridge Design/Project Development LA 1: Leeville to Golden Meadow Phase 2

**Road Design/Project Development** I-10: Texas State Line to Coone Gully

Intermodal/Public Works Design/Project Development Port of Baton Rouge Container Yard Expansion

Bridge Construction I-20/I-220 Barksdale Air Force Base Interchange

# Quality of Life/Community Development

Bayou Barataria MB Replacement Phase I

### **Operations Excellence**

The ROADEO 3rd Place Finish

### SASHTO Scholarship Awards

Luke Bell, Louisiana Tech University; George Caulfield, Louisiana State University; Lemoyne Cobb, Jr., Southern University; Beau Coco, Louisiana Tech University; Connor Moyer, McNeese State University; Paul Kraus, McNeese State University; Tamera Lepore, University of New Orleans; Claire LeBlanc, University of Louisiana at Lafayette; Karlee Nunez, McNeese State University; and Ryan Phillpot, Louisiana Tech University

### **DOTD Innovation Awards**

### 2022 Southeast Regional Equipment Operator's Safety and Training Conference (ROADEO)

- Daniel Thibodeaux, District 03–1st place in the Single Axle Dump Truck event
- Joe Trahan, District 07–1st place in the Tandem Axle Dump Truck event
- Preston Brock, District O5–3rd place in the Tractor/ Mower event
- Louisiana won 3rd place in the overall team competition

#### **2022 Innovations Showcase Winners**

### Tools and Work Processes

1st Place | District 03 "Rut Buster Hot Mix Gate"
Dwayne Dugas, Layne Darby, and Ty Hargroder
2nd Place | District 03 "Swivel Beacon Lights"
Dwayne Dugas, Layne Darby, Ty Hargroder, and James Louviere
3rd Place | District 07 "Sign Pole Stabilizer"
Joseph Trahan and Patrick Cusey

#### Software or Technical

1st Place | District 07 "Geaux Preaux"Ben Boudreaux, Bryan Howard, Jonathin Carlin, and Andre Ange2nd Place | District 07 "Survey Data to Geodatabase"Jules Toups, Michael McKeivier, Brennan Marque, and Ty Orgeron3rd Place | District 07 "District Letting Schedule"Vicki Ponthieux

### 2022 Secretary's Safety Award

District 03 "Swivel Beacon Lights" Dwayne Dugas, Layne Darby, Ty Hargroder, and James Louviere

#### 2022 People's Choice Award

District 07 "Culvert Cleaner" Michael Broussard, Greg Lejeune, and Patrick Arrant









LTRC Foundation Chair Ken McManis, Ph.D., P.E., presents the 2023 Senior Design Project Presentation Award to Louisiana Tech University's Nazimuddin "Wasi" Wasiuddin, Ph.D., P.E., accepting on behalf of the LA Tech senior design team.

# SPECIAL EVENT Thank you to our Sponsors





# **RESEARCH + TRAINING**

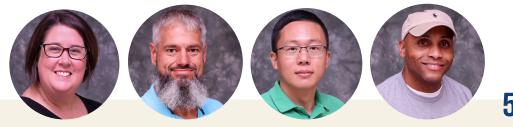
# By the Number

# **160** feet of Roman road

Nathalie Roy, teacher at Glasgow Middle School, recently reached out for assistance in a special project for her Roman Technology class—a Roman road. Using techniques the ancient Romans used, she called upon the expertise of Associate Director, Research Tyson Rupnow, Ph.D., P.E., and the LTRC concrete lab. Dr. Rupnow teamed up with Roy and her class, assisting with proper techniques, providing supplies, and teaching students how to work with various materials, so they could meet their goal



on time. "This project fits squarely within the public outreach mission of the center," Dr. Rupnow said. "This has been one of the most fun projects I have worked on in a number of years. These students give me hope because they worked extremely hard for this," he said. "They soaked up knowledge."



**5** new employees

LTRC has welcomed five new faces in only a few months: Education Outreach Program Manager Stacey Wilton, Maintenance Training Program Manager/District Training Liaison Keith Antee, Concrete Research Manager Zhen Liu, Engineering Technician 5 Ray Kimble, and LTAP and LRSP Crash Data Engineer Peter Allain *(not pictured)*.

# **2** TRB award winners

Assistant Professor, Research, Planning/Intermodal Research Manager Ruijie "Rebecca" Bian, Ph.D.; Asphalt Research Engineer Saman Salari, P.E.; and Materials Research Administrator Samuel B. Cooper, III, Ph.D., P.E. were recognized for winning TRB best papers. Dr. Bian received the TRB AMR20 Best Paper Award 2023 and Dr. Cooper and Salari received the TRB AKM20 Paper Award Honorable Mention.





# **70** headshots taken

Please visit our website at https://www.ltrc.lsu.edu/staff.html to view our recently updated Staff Listing page—now showcasing the entire LTRC staff. And thank you to Photographer/Videographer Chris Melton for all your hard work!

# **STAFF NEWS**

# Staff Updates and Accomplishments

Statewide Strategic Program Manager **Garrett Wheat**, Ph.D., spoke at the ATD TK Conference in New Orleans as well as the ATD Baton Rouge chapter's luncheon on the topic of "How to Blend Asynchronous and Synchronous Training With Digital Tools."

**Ruijie "Rebecca" Bian**, Ph.D., proposed (and moderated) one conference session at the 2023 National Hurricane Conference held in New Orleans. The session looked into making good use of human mobility data, building Louisiana's EV infrastructure with resilience in mind, and improving structural safety for offshore wind farms. The speakers met with emergency managers from all over the country and talked about the connections between transportation and energy infrastructure to build up our infrastructure resilience in future storms.

Association of Asphalt Paving Technologist (AAPT) Honorary Membership Award was conferred on Professor and SRPC Director **Louay N. Mohammad**, Ph.D., P.E., at the association annual meeting held in San Antonio, TX. Honorary members in AAPT are those people recognized by vote of membership as having outstanding eminence and of long life experience in the practice of asphalt science and paving technology. The Association of Asphalt Paving Technologists (AAPT) is a global community of researchers and practitioners that serves as a central forum for communication, networking, and exchange of ideas to advance the body of knowledge and state of the



practice in asphalt science. With over 800 members from every continent in the world, AAPT is renowned for advancements in asphalt science and paving technology. Dr. Mohammad is the first recipient of this award from LSU and the State of Louisiana.

Congratulations to Chris Mertz on his promotion to Engineering Technician–DCL.

LTAP Director **Steve Strength** along with Program Manager **Courtney Dupre** and Local Road Safety Program Manage**r Leo Marretta** were among the Louisiana delegates who participated in the six-state, FHWA-led peer exchange on "Focusing on Reducing Rural Roadway Departures" (FoRRRwD) Peer Exchange held at the New Orleans Regional Transportation Management Center (RTMC) on April 5-6.

Congratulations to **Dimetrie Chopin** on being selected as Section 33's newest PCC/Structural Training Program Manager Tech DCL.

Associate Director **Vijaya (V.J.) Gopu**, Ph.D., P.E., was a keynote speaker at the 2023 International Conference on Reinforced Plastics held in Mumbai, India. Dr. Gopu also served as a member of the advisory board for Southern Plains Transportation Center (SPTC) housed at the University of Oklahoma. SPTC is a Regional University Transpiration Center.

Congratulations to Senior Geotechnical Research Engineer **Gavin Gautreau**, P.E., on being elected to the position of Second Vice President of the State Board of the Louisiana Engineering Society (LES).

# **Recently Published**

### **Final Report and Technical Summary 664 (18-4GT)** Geotechnical Asset Management for Louisiana

Gavin P. Gautreau, P.E.; Adele Lee, GISP; and Nick Ferguson, P.E.

# Final Report and Technical Summary 671 (19-1P)

Application of Mechanistic-Empirical Pavement Design Approach into RCC Pavement Thickness Design

Zhong Wu, Ph.D., P.E., and Moinul Mahdi, Ph.D.

# Final Report and Technical Summary 672 (20-1SS)

The Future of the Louisiana Waterways Transport System: A System Analysis and Plan to Move Commerce by Water Ricardo Cruz, Jonathan Hird, P.E., and Stephen R. Barnes, Ph.D.

## Final Report and Technical Summary 675 (19-1GT)

Maintenance of Roadway Edge Drop-Off Utilizing Readily Available Materials Gavin P. Gautreau, P.E., and Nicholas Ferguson, P.E.

## Final Report and Technical Summary 677 (20-3SA)

Minimum Intersection Illumination Hany Hassan, Ph.D., and Hisham Abdu Kunnah

## Project Capsule 22-1B

Mostafa Elseifi, Ph.D., P.E.

Evaluation of Saturates/Aromatics/Resins/Asphaltenes (SARA) Fractionation of Asphalt Binders in Louisiana Saman Salari, P.E.

# **Project Capsule 23-1B** Effect of Fillers on the Moisture Resistance and Performance of HMA

# Project Capsule 23-2B

Evaluation of Non-Destructive Test Pilot Projects Moses Akentuna, P.E.

# Project Capsule 23-3B

Effect of Longitudinal Joint Construction and Density on Asphalt Pavement Performance— Phase I – State of the Practice Moses Akentuna, P.E.

# Project Capsule 23-1GT

LiDAR for Geotechnical Applications Gavin P. Gautreau, P.E.

# Project Capsule 23-4SS

Statewide Non-Motorized Traffic Monitoring Study Ruijie "Rebecca" Bian, Ph.D., P.E.

# Project Capsule 23-5SS

Improved Incident Response through Coordinated, Interoperable Communications Milhan Moomen, Ph.D.



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