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Upcoming Events

November 13-14
FHWA Pavement Group Meeting
TTEC

December 5-6
TRAC & RIDES Workshops
TTEC

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

LTRC Investigates Effects of Distracted and Drugged Driving in Louisiana

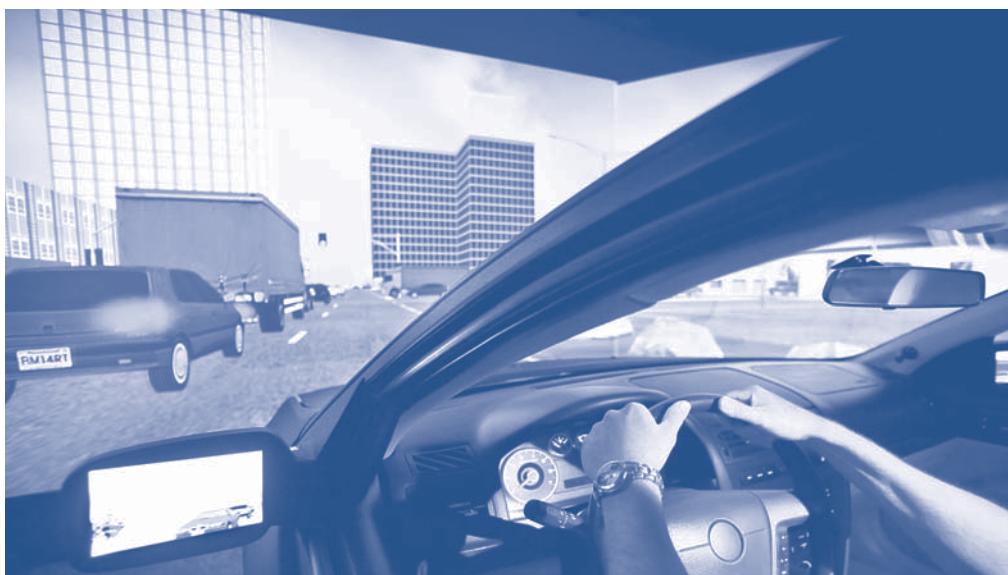


Photo credit: Eddy Perez, LSU University Relations.

The Louisiana Transportation Research Center (LTRC) in cooperation with the National Center for Intermodal Transportation for Economic Competitiveness (NCITEC) is currently sponsoring two ongoing projects related to human factors and highway safety—one focusing on distracted driving, while the other explores the effects of driving under the influence of specific drugs. Both studies are being conducted at the Louisiana State University and hope to shed new light on how to make our roads a safer place.

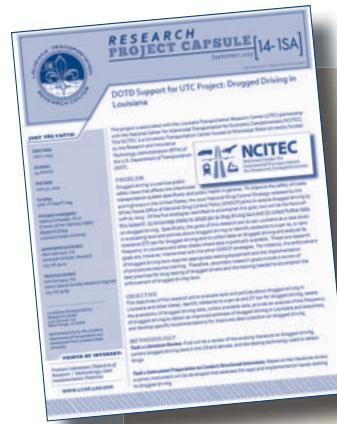
The first project led by LSU associate professor Sherif Ishak, Ph.D., P.E., titled **“Distracted Driving and Associated Crash Risks”** focuses on identifying a set of cognitive tasks (such as talking or texting) that have the most impact on driver distraction.

“Factors affecting the cognitive tasks associated with driving are increasingly becoming critical to the overall roadway safety performance,” explains Dr. Ishak. “Therefore, more research is needed in order to understand the complexity and the impact

of distraction on driving behavior.” One way Dr. Ishak intends to measure these risks is by utilizing the driving simulator that LSU recently acquired. By using this simulator, he was able to monitor the affects of a number of driver distractions such as hands-free talking, texting, eating, reading, etc. while an individual is behind the wheel.

Participants were placed in simulated environments while being exposed to differing distractions to determine the effect on the driving task. Dr. Ishak explains, “This will assist highway safety professionals in developing behavioral strategies to mitigate crashes due to distracted driving. It will also allow for the development of public awareness and education programs specifically targeting distracted driving. And it will provide information to elected officials and inform decision makers on matters related to distracted driving.”

Various policies such as the use of cell phones, alcohol, and other driver behavior related laws can be typically tested with the driving simulator, where such policies can be evaluated quickly and safely in this laboratory setting. The full-size driving simulator is now housed in the LSU driving simulator lab at the Department of Civil and Environmental Engineering. The lab is developed as a multi-use facility and a multi-disciplinary program for research, instruction, and training.



The LTRC-sponsored project titled **“Drugged Driving in Louisiana”** is being spearheaded by Dr. Helmut Schneider, LSU director of the Highway Safety Research Group. In accordance with the White House Office of National Drug Control Policy

and through this LTRC study and its findings, Schneider hopes to encourage states to adopt zero tolerance (ZT) drug driving laws in order to decrease drugged driving. Although there are laws against the use of illicit drugs, and zero tolerance *Per Se* laws seem to be the only option when dealing with the drugged driving problem, only 15 states have passed ZT laws for all drivers and two states have passed ZT laws for drivers under the age of 21.

The first goal of this study is to use Louisiana as a case study in evaluating laws and policies about drugged driving and identify the obstacles to passing ZT drugged driving laws in states

such as Louisiana. To get a true grasp on these obstructions, Schneider plans to conduct interviews with legislators, judges, district attorneys, defense lawyers, public health professionals, and law enforcement personnel to identify issues related to ZT laws.

This proposed research also intends to collect data on drugged driving and analyze its frequency in Louisiana. Schneider explains, “Because of underreporting, there is very little known about the frequency of drugged driving and how it affects public safety. Thus, the second objective of this research is to assess the availability of data from drug tests from various sources such as the Louisiana State Police crime lab and the trauma centers and to develop a strategy for improving data collection of drugged drivers.”

There is evidence that drugged driving is an increasing public health problem. However, because of a lack of reporting facts, the pervasiveness of drugged driving and automobile

crashes is for the most part unknown, which makes it very difficult to convince legislators to pass new laws to deal with drugged driving. This research will contribute to a better understanding of the drugged driving issue by measuring the extent of the problem and providing evidence regarding the effectiveness

of ZT laws for making our roads and highways safer by reducing crashes and injuries.

For more information on either of these driving research studies, please contact Senior Special Studies Research Engineer Kirk Zeringue at (225) 767-9169 or kirk.zeringue@la.gov.

LTRC Hosts National Transportation Leaders for Annual Meeting

This year, Louisiana had the pleasure of hosting the 2013 AASHTO Research Advisory Committee (RAC) and TRB State Representatives Annual Meeting, which was held July 14-18 at the Hilton Baton Rouge Capitol Center. The joint meeting attracted national transportation leaders and university officials from across the country. This conference serves as a yearly working meeting for members and guests

to discuss issues of common interest, collaborate between various transportation agencies, discover new ways to disseminate research results, network with fellow attendees, and learn more about national research projects being conducted.

Local and national officiates opened the main session and provided updates on activities related to transportation research from their respective agencies. Among those notable speakers included the DOTD Secretary Sherri LeBas, AASHTO Program Director for Engineering Jim McDonnell, FHWA Associate Administrator and Director, TFHRC Michael Trentacoste, TRB Executive Director Robert E. Skinner, Jr., and LTRC Director Harold Paul.

During the main session, AASHTO's Ann Brach gave a status report on SHRP2 (or Strategic Highway Research Program 2), which is a program established by Congress to make highways safer, reduce congestion, and fix aging highway infrastructures. A collaborative roundtable followed and allowed attendees to ask the agencies leading SHRP2 implementation questions regarding coordination and collaboration.



Frederick G. "Bud" Wright,
Executive Director, AASHTO



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The High Value Research Sweet Sixteen was also highlighted during this meeting, where projects from across the U.S. are selected every year that represent transportation excellence through research. These projects cover a variety of research with topics ranging from pavements and bridge construction to wildlife and freight management systems. This year, Louisiana was among one of the award winners for the LTRC submittal entitled “Load Distribution and Fatigue Cost Estimates of Heavy Truck Loads on Louisiana State Bridges.” Principal investigators Aziz Saber, Ph.D., P.E., and Freddy L. Roberts, Ph.D., P.E., conducted a series of studies to evaluate damage from heavy truck loads, estimated the additional rehabilitation costs to roads and bridges damaged by heavy sugar cane trucks, and developed truck-axle configurations to produce less pavement damage by permitted overweight trucks. As a result of this project, *Louisiana Statute 387.7* was revised in August 2012 forbidding permits to sugarcane haulers with 100,000 lb. unless a third axle is added to their truck. Increasing permits to 120,000 lbs. has also been forbidden. The other 15 states receiving a Sweet Sixteen award included: Arkansas, California, Connecticut, District of Columbia, Florida, Georgia, Illinois, Indiana, Iowa, Maine, Michigan, Minnesota, New Jersey, South Dakota, and Utah.

The TRB Representatives Meeting also convened as attendees learned about transportation research funding in regard to where it comes from, how SHRP2 can be used as a funding source, and how to determine how to best utilize research funding sources. In addition, attendees were able to learn how to improve the partnership between state DOTs and TRB and maximize the probability of success within local research programs.

The Research Advisory Committee (RAC) responsibilities include working with the AASHTO Member Departments to facilitate the development of research problem statements for consideration by the Standing Committee on Research (SCOR) and incorporation into the National Cooperative Highway Research Program (NCHRP); participating in rating NCHRP problem statements each year and providing the results to SCOR for its annual selection procedure; undertaking an organized program to identify ongoing and planned state-controlled research being sponsored by Member Departments; providing advice and recommendations on transportation research matters to SCOR; serving as a resource to Member Department research managers regarding the conduct of research and technology transfer activities; and being an advocate for transportation research by promoting the value of research, the implementation of research results, the transfer of new technologies, and the benefits of peer exchanges.



AASHTO RAC Regional Map

The program included concurrent sessions, which focused on project management and database systems and national research development and deployment initiatives.

Sponsors of the meeting included Cambridge Systematics, the Louisiana Asphalt Pavement Association, the Concrete & Aggregates Association of Louisiana, and the Louisiana Transportation Research Center Foundation.

The next RAC and TRB State Representatives Annual Meeting will be in Madison, Wisconsin, on July 21-24, 2014.



SASHTO Monkey Finds Its Way Back Home

Every year at the closeout breakfast, once the SASHTO conference has officially wrapped up, the current host state, the next state host, and one following year host state gather to discuss current conference details and future plans for the next hosting state. However, one tradition that began at the Louisiana SASHTO conference 13 years ago has finally made its way back home. This year during the breakfast, LTRC Director Skip Paul received the SASHTO stuffed monkey from North Carolina DOT Secretary Anthony Tata to signal that the responsibility of the next SASHTO conference now lies with the Bayou State.

The tradition began in 2000 when Toni Daigle, LTRC executive services assistant, bought the SASHTO monkey for her boss, LTRC Director Joe Baker, to signify that each state has an official “monkey on their back” with all the responsibilities that planning the conference brings. Since then, the SASHTO monkey has been handed down to each hosting state in a “passing of the baton” manner at the closeout breakfast. In 2006, when the stuffed monkey went

to Huntsville, Alabama—home to the NASA facility where much of America’s space program has been planned—he was named Albert in honor of the first monkey sent into space.



With each state Albert visits, a new pin is added to his collection.

SASHTO Committee Gears Up Planning Process

Members of DOTD's SASHTO Planning Committee recently returned from their trip to SASHTO 2014 held in Asheville, North Carolina. Louisiana was well represented with two booth spaces during the exhibition and a team of committee members, who were able to shadow their Asheville counterparts during the conference to learn more about the responsibilities that putting on this conference entails.

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In addition to the many technical sessions and over 70 exhibitors that the committee is planning for next year, SASHTO 2014 attendees can look forward to the great southern hospitality and Creole spirit that New Orleans will bring.



Staff Updates and Accomplishments

Jeremy Icenogle was promoted to engineering technology IV from engineering technician II on April 29, 2013.

LTRC Teaching Associate **Gisele Landry** graduated with her Master of Science in Human Resource Education and Workforce Development in August of 2013.

The ASTM Journal of Testing and Evaluation recently accepted a paper authored by Senior Concrete Research Engineer **Tyson Rupnow**, Ph.D., P.E., and Concrete Research Engineer **Patrick Icenogle**, E.I., entitled "Investigation of Factors Affecting PCC Surface Resistivity through Ruggedness Testing."

Recently Published

Project Capsule 13-2C

Laboratory Evaluation of 100% Fly Ash Cementitious Systems Containing Ekkomaxx
Tyson D. Rupnow, Ph.D., P.E.

Project Capsule 13-4ST

I-10 Girder Repair Using Post-Tensioned Steel Rods and Carbon Fiber Composite Cables (CFCC)
Ching Tsai, Ph.D.

Project Capsule 13-4SS

Highway for Life Demonstration Project: LA 511 (70th Street)
Aziz Saber, P.E., Ph.D.

Project Capsule 14-1C

Evaluation of Dowel Bar Alignment and Effect on Long-term Performance of Jointed Concrete Pavement
Tyson D. Rupnow, Ph.D., P.E.

Project Capsule 14-1SA

DOTD Support for UTC Project: Drugged Driving in Louisiana
Helmut Schneider, Ph.D.

Project Capsule 14-3C

Laboratory Fatigue Evaluation of Continuously Fiber-Reinforced Concrete Pavement
Tyson D. Rupnow, Ph.D., P.E.

Final Report and Technical Summary 432

Evaluation of Superpave Mixtures Containing Hydrated Lime
Louay N. Mohammad, Ph.D.; Md. Sharear Kabir, E.I.; Samuel Cooper, Jr., P.E.; and Amar Raghavendra, P.E.



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