



## 2012 ODOT-OKTC TRANSPORTATION RESEARCH DAY

Thursday, October 4, 2012  
Tinker Business and Industrial Park  
2701 Liberty Parkway, Rooms 333 and 335  
Midwest City, Oklahoma 73110



**Research, Education & Outreach, and Diversity posters are displayed beginning at 10:30 a.m.**

Receive up to 8 Professional Development Hours (PDH) while attending this event. The program is subject to change.

### 8:00 a.m. Continental Breakfast

- 8:30 a.m. Welcome and Opening Remarks by David Streb, P.E., Director of Engineering ODOT
- 8:40 a.m. Program Introduction by John Bowman, P.E., Planning & Research Division Engineer, Moderator of Technical Session 1
- 8:50 a.m. Invited Lecture: "Standing on the Three-Legged Stool: Research, Education, and Service at a Comprehensive Transportation Center," Kevin D. Hall, Ph.D., Executive Director, Mack-Blackwell Rural Transportation Center, University of Arkansas.
- 9:20 a.m. Research Idea/Problem Statement Solicitation, Ron Curb, P.E., ODOT

### Technical Session 1

- 9:45 a.m. "Langston University Transportation, Diversity & Disability Grant Project," Phillip Lewis, Ph.D., Wilson Brewer, and Perry Sanders, Ph.D., Langston University
- 10:10 a.m. "Air-Void Systems in Modern Concrete Mixtures and a New Method to Measure Them," Robert Felice, John Michael Freeman, Braden Tabb, and Tyler Ley, Ph.D., School of Civil and Environmental Engineering, Oklahoma State University
- 10:35 a.m. **Break**
- 10:45 a.m. "Design, Construction and Performance of a Pavement Test Section with High Reclaimed Materials," Musharraf Zaman, Ph.D., Pranshoo Solanki, Ph.D., David Adje, Zahid Hossain, Ph.D., Dharamveer Singh, Ph.D., and Rouzbeh Ghabchi, School of Civil Engineering and Environmental Science, The University of Oklahoma, and Sharon Lewis, Ph.D., Department of Chemistry, Langston University
- 11:10 a.m. "Distress Modeling for DARWin-ME with ODOT Data," Kelvin Wang, Ph.D., Qiang Joshua Li, Ph.D., and Steve Cross, Ph.D., School of Civil and Environmental Engineering, Oklahoma State University
- 11:35 a.m. "Understanding Distress to Bridges Caused from Interaction with Adjacent Roadways through Instrumentation," K. K. "Muralee" Muraleetharan, Ph.D., School of Civil Engineering and Environmental Science, The University of Oklahoma

### Noon Lunch (Registration Required for Lunch)

- 1:30 p.m. Introduction of Afternoon Session by Tony Dark, P.E., Moderator of Technical Session 2

### Technical Session 2

- 1:35 p.m. "Stainless Steel Reinforcement as a Replacement for Epoxy-Coated Steel in Bridge Decks," David Darwin, Ph.D. and JoAnn Browning, Ph.D., Department of Civil, Environmental, and Architectural Engineering, The University of Kansas
- 2:00 p.m. "Detailed Investigation of Approach Slab Settlement for Selected Oklahoma Bridges," Gerald Miller, Ph.D., School of Civil Engineering and Environmental Science (CEES), The University of Oklahoma
- 2:25 p.m. "Portable WIM: System, Accuracy, and Practicality," Hazem Refai, Ph.D., School of Electrical and Computer Engineering, The University of Oklahoma
- 2:50 p.m. **Break**

### Technical Session 3

- 3:00 p.m. Technical Session 3 – Arnulf Hagen, Ph.D., Moderator
- 3:05 p.m. "Robot Technologies For Improved Safety of Transportation Systems," Weihua Sheng, Ph.D.<sup>1</sup>, Jianjun Ge, Ph.D.<sup>2</sup>, Tyler Ley, Ph.D.<sup>3</sup>, Robert Emerson, Ph.D.<sup>3</sup>, Qi Cheng<sup>1</sup>, Ph.D. and Damon Chandler, Ph.D.<sup>1</sup>,<sup>1</sup>School of Electrical and Computer Engineering, <sup>2</sup>Department of Geography, <sup>3</sup>School of Civil and Environmental Engineering, Oklahoma State University
- 3:30 p.m. Research Idea/Problem Statement Discussion, Ron Curb, P.E., ODOT
- 4:00 p.m. Poster Awards Ceremony