

P3

2009 PAVEMENT PERFORMANCE
PREDICTION SYMPOSIUM

*Validation of Predictive
Models Using Full-Scale &
Field Pavement Performance*

Sponsored by **Federal Highway Administration**
Organized by **Western Research Institute**

Washakie Center Rendezvous Room, University of Wyoming
July 15-17, 2009 • Laramie, Wyoming

Wednesday, July 15

- 1:30 pm **Welcome and Introduction**
Stephen L. Salmans *Western Research Institute* and
Tom Scarpas *TU Delft*
- 1:40–2:25 **The Challenges of Validating the Performance of
Materials in Pavements**
Chris Williams *Iowa State University*
- 2:25–3:10 **MnROAD Phase II and Validation of Predictive Models
for Nonconventional Asphalt Mixtures**
Mihai Marasteanu *University of Minnesota* and
Timothy Clyne *Minnesota DOT*
- 3:10–3:30 Break
- 3:30–4:15 **Quantifying the Benefits of Polymer Modified Asphalt**
David Johnson *Asphalt Institute*
- 4:15–4:45 Discussion of Research Needs—Tom Scarpas *TU Delft*

Thursday, July 16

- 8:00–8:45 am **Data Collection and Performance Monitoring of an
Instrumented Flexible Pavement Section on I-35**
Pranshoo Solanki, Musharraf Zaman (presenter) and
K.K. Muraleetharan *University of Oklahoma*
- 8:45–9:30 **Accounting for Age Hardening and Climate Variability
in Field Studies of Rutting of HMA Pavements**
Don Christensen *Advanced Asphalt Technologies*
- 9:30–10:15 **Asphalt Pavement Response and Fatigue Performance
Prediction with Viscoelastic Continuum Damage
Modeling Approach**
Shane Underwood *North Carolina State University*
- 10:15–10:30 Break
- 10:30–11:15 **An Integrated Database for Validating Pavement
Performance Models**
Jorge Prozzi *University of Texas*
- 11:15–12:00 **Development of a Damage-Based Phenomenological
Fatigue Model for Asphalt Pavement**
Haifang Wen *Washington State University*

Thursday, July 16 continued

- 12:00–1:15 pm Lunch
- 1:15–2:00 **MEPDG - Cost Effectiveness of Materials Testing & Local Calibration**
Harold Von Quintus *Applied Research Associates, Inc.*
- 2:00–2:45 **Calibration of Fracture Predictions to Observed Reflection Cracking in Asphalt Overlays**
Robert Lytton *Texas A&M University*
- 2:45–3:05 Break
- 3:05–3:55 **Making Connections between Laboratory Permanent Deformation and Full Scale Rutting**
Jack Youtcheff and Nelson Gibson *Federal Highway Administration*
- 3:55–4:30 Discussion of Research Needs—Tom Scarpas *TU Delft*

Friday, July 17

- 8:00–8:45 am **Validation of Mechanistic Pavement Design Principles Based on Studies at the NCAT Test Track**
Richard Willis *NCAT*
- 8:45–9:30 **Title**
Dallas Little *Texas A&M University*
- 9:30–9:50 Break
- 9:50–10:35 **Investigation of Thermal Cracking at a Test Site near Rochester, Minnesota**
Mike Farrar *Western Research Institute*
- 10:35–11:20 **Development and Field Validation of NCHRP 1-42A Top-Down Cracking Model**
Reynaldo Roque *University of Florida*
- 11:20–11:50 Discussion of Research Needs—Tom Scarpas *TU Delft*

**Symposium Presentations will be posted at
www.petersenasphaltconference.org**

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I N S T I T U T E

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