



“ARC Deliverables/Products Presentation and Workshop”

*TRB 2015, Thursday, January 15, 2015, 9:00am - 5:00pm,
Marriott Marquis, Washington DC.*

As the Asphalt Research Consortium {www.arc.unr.edu} program, coordinated by Western Research Institute with partners Texas A&M University, the University of Wisconsin-Madison, the University of Nevada Reno, Advanced Asphalt Technologies, and the National Center for Asphalt Technology, supported under Federal Highway Administration Cooperative Agreement No. DTFH61-07-H-00009 nears its completion, some 83 anticipated project deliverables, grouped into three areas, including Reports, Test Methods/Practices, and Models/Software are now under review. The basis for these project deliverables results from research that was originally grouped into seven areas of topical interest to the highway community, they are, Moisture Damage, Fatigue, Engineered Paving Materials, Vehicle-Pavement Interaction, Validation, Technology Development, and Technology Transfer.

Acknowledgments

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Agenda:

Thursday Morning, January 15, 2015

- 9:00 – 9:15: Introduction and Opening Remarks
[*Troy Pauli and Jean-Pascal Planche, Western Research Institute*]
- 9:15 – 9:40: Implementation of Pavement Analysis using Non-Linear Damage Approach (Standalone-PANDA). [*Robert Lytton, Texas A&M University*]
- 9:45 – 10:10: Distributed Continuum Fracture (DCF) Need for DCF Approach. [*Robert Lytton, Texas A&M University*]
- 10:10 – 10:25: ***Coffee Break***
- 10:25 – 11:00: Microstructure Cohesive Zone Modeling for Cracking and Moisture Damage
[*Yong-Rak Kim, University of Nebraska*]
- 11:05 – 11:30: Pavement Engineering Software: Pavement Response Model to Dynamic Loads (3D-Move). [*Elie Hajj, Peter Sebaaly, and Raj Siddharthan, University of Nevada, Reno*]
- 11:35 – 12:00: Rutting Performance of Asphalt Mixtures Under Critical Conditions [*Elie Hajj, Peter Sebaaly, Alvaro Ulloa, and Raj Siddharthan, University of Nevada, Reno*]
- 12:00 – 1:00: ***Lunch Break***

Thursday Afternoon, January 15, 2015

- 1:00 – 1:25: Mix Design for Cold in-Place Recycling (CIR). [*Peter Sebaaly, Elie Hajj, and Murugaiyah Piratheepan, University of Nevada, Reno*]
- 1:30 – 1:55: Pavement Engineering Software: Thermal Cracking Analysis Package (TCAP). [*Elie Y. Hajj, Zia Alavi, Nathan Morian, and Peter Sebaaly, University of Nevada, Reno*]
- 2:00 – 2:25: Asphalt Binder Yield Energy and Elastic Recovery Using the Dynamic Shear Rheometer. [*Hussain Bahia, University of Wisconsin-Madison*]
- 2:30 – 2:50: Characterization of Damage Resistance to Rutting Using IPAS2 Software. [*Pouya Teymourpour, University of Wisconsin-Madison*]
- 2:50 – 3:05: ***Coffee Break***
- 3:05 – 3:30: Low Temperature Cracking Characterization of Asphalt Binders Using Single Edge Notch Bending (SENB). [*Hussain Bahia, University of Wisconsin-Madison*]
- 3:35 – 4:00: ARC and LTPP - Development and Validation of New and Existing Asphalt Pavement Technologies [*Mike Farrar, Troy Pauli and Jean-Pascal Planche, Western Research Institute*]
- 4:05 – 4:30: Composition “Recipe” for Asphalt Molecular Simulation. [*Michael Greenfield, University of Rhode Island*]
- 4:35 – 5:00: Chemomechanical Approaches to Predict Asphalt Pavement Behavior and Performance. [*Troy Pauli, Western Research Institute, Linbing Wang and Wenjuan Sun, Virginia Polytechnic Institute*]