



27th RPUG Conference

Marriott City Center Hotel, Raleigh, NC

November 2 to 5, 2015

| MONDAY, NOVEMBER 2 | |
|------------------------------|---|
| 08:00 AM – 05:00 PM | TPF-5(063) Pooled Fund Meeting |
| 06:00 PM–8:00 PM | RPUG/FWDUG Joint Ice Breaker |
| TUESDAY, NOVEMBER 3 | |
| 07:00 AM – 08:00 AM | Breakfast/Vendor Exhibits |
| 08:00 AM – 10:00 AM | Session 1 – RPUG/FWDUG Joint Session |
| 10:00 AM - 10:30 AM | Break/Vendor Exhibits |
| 10:30 AM – 12:00 PM | Session 2 – RPUG/FWDUG Joint Session |
| 12:00 PM - 01:00 PM | Lunch/Vendor Exhibits |
| 01:00 PM – 02:10 PM | Session 3 – RPUG: Surface Distresses Surveys I |
| 02:10 PM – 02:20 PM | Break |
| 02:20 PM – 03:30 PM | Session 4 – RPUG: Surface Distresses Surveys II |
| 03:30 PM - 04:00 PM | Break/Vendor Exhibits |
| 04:00 PM - 05:00 PM | Session 5 – RPUG: Open Business Meeting |
| 06:00 PM – 08:30 PM | Dinner at the North Carolina Museum of Natural Sciences |
| WEDNESDAY, NOVEMBER 4 | |
| 07:00 AM – 08:00 AM | Breakfast/Vendor Exhibits |
| 08:00 AM – 09:30 AM | Session 6 – RPUG: Friction and Safety |
| 09:30 AM - 10:00 AM | Break/Vendor Exhibits |
| 10:00 AM - 11:40 AM | Session 7 – RPUG: Texture and Noise |
| 11:40 AM - 12:30 PM | Lunch/Vendor Exhibits |
| 12:30 PM – 01:45 PM | Session 8 – RPUG: Smoothness I |
| 01:45 PM - 03:00 PM | Session 9 – RPUG: Smoothness II |
| 03:00 PM - 03:30 PM | Break |
| 03:30 PM – 05:10 PM | Session 10 – RPUG: Smoothness III |
| THURSDAY, NOVEMBER 5 | |
| 08:00 AM – 12:00 PM | Basic ProVAL Workshop |
| 01:00 PM – 05:00 PM | Advanced ProVAL Workshop |
| 08:00 AM – 05:00 PM | TPF-5(299) Pooled Fund Meeting |



Monday, Nov. 2

08:00 AM – 05:00 PM
TPF 05-063 Pooled Fund Meeting

Moderator: Bob Orthmeyer, FHWA

TPF-5(063) Improving the Quality of Pavement Profiler
Measurement – Pooled Fund Meeting

For TPF-5(063) Pooled Fund members and invited
participants.

06:00 PM–8:00 PM
RPUG/FWDUG Joint Ice Breaker

All RPUG and FWDUG attendees are welcome!



Tuesday, Nov. 3

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| 08:00 AM – 10:00 AM Session 1 – RPUG/FWDUG Joint Session | | Moderators: Magdy Mikhail, RPUG President and David Hein, FWDUG President |
| Welcome | | Neil Mastin, Research Engineer, NCDOT Mike Holder, Chief Engineer, NCDOT |
| TPF-5(063) Improving the Quality of Pavement Profiler Measurement – Pooled Fund Update | | Bob Orthmeyer, FHWA |
| TPF-5(299) Improving the Quality of Pavement Surface Distress and Transverse Profile Data Collection and Analysis – Pooled Fund Update | | Andy Mergenmeier, FHWA |
| Vendors' Self Introduction | | All vendors' representatives |
| 10:30 AM – 12:00 PM Session 2 – RPUG/FWDUG Joint Session | | Moderators: Magdy Mikhail, RPUG President and David Hein, FWDUG President |
| Long-Term Pavement Performance Program (LTPP) Determination of In-Place Elastic Layer Modulus: Backcalculation | | Harold von Quintus, Applied Research Associates |
| FHWA Reference Profilors and Inertial Profilors Roundup | | Steve Karamihas, UMTRI |
| Network Level Pavement Structural Evaluation – An Update from Two Recent FHWA Efforts | | Nadarajah Sivaneswaran, FHWA |
| 01:00 PM – 02:10 PM Session 3 – RPUG: Surface Distresses Surveys I | | Moderator: James Watkins, MSDOT |
| 3-D Laser Data Collection and Analysis for Road Surface Texture | | Humaira Zahir, Kansas State University (presented by Rick Miller, KSDOT) |
| Automated Detection of Sealed Cracks Using 2d And 3d Road Surface Data | | John Laurent, Pavemetrics Systems (Presented by Dana Brown) |
| Recent developments in data collection in Australia | | Richard Wix, ARRB |
| 02:20 PM – 03:30 PM Session 4 – RPUG: Surface Distresses Surveys II | | Moderator: Dulce Rufino Feldman, Caltrans |
| Pavement Distress Survey and Evaluation with Fully Automated System | | Li Ningyuan, Ministry of Transportation of Ontario |
| Accuracy and Precision of High-Speed Field Measurements of Pavement Surface Rutting and Cracking | | Pedro A. Serigos, UT Austin |
| Autonomous Collection Vehicles: Testing the Equipment, Not the Driver | | Mike Richardson, Mandli Communications |
| 03:30 PM – 05:00 PM Session 5 – RPUG: Open Business Meeting | | Moderator: Magdy Mikhail, RPUG President |
| This meeting is open to all RPUG attendees. | | |



Wednesday, Nov 4

| 08:00 AM – 09:30 AM Session 6 – RPUG: Friction and Safety | | Moderator: Brian Schleppe, Ohio DOT |
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| Non-Lock Friction Test – an Update | | John Andrews, MD SHA |
| Sensitivity Analysis of Tire-Road Friction Coefficient to Pavement Texture Parameters Using a Physics-Based Contact Model | | Mehran Motamedi, Virginia Tech (presented by Ron Kennedy) |
| Using continuous pavement friction measurements to develop Safety Performance Functions, improve the accuracy of crash count predictions, and evaluate possible treatments for the roads in Virginia | | Edgar D. de León Izeppi, Virginia Tech |
| 10:00 AM - 11:40 AM Session 7 – RPUG: Texture and Noise | | Moderator: Larry Scofield, IGGA/ACPA |
| Evaluating Relative Transverse Macrotecture of Pavement Wheel Paths to Other Surface Areas | | Abolfazi Ravanshad, Fugro Roadware (presented by DJ Swan) |
| Enhancing Pavement Surface Macrotecture Characterization by Using the Effective Area for Water Evacuation | | Samer Katicha, Virginia Tech |
| Virginia “Quieter” Pavement Demonstration Program | | Kevin McGhee, VCTIR |
| Laboratory Design of Quieter Asphalt Surfaces | | Natalia Zuniga-Garcia, UT Austin |
| 12:30 PM – 01:45 PM Session 8 – RPUG: Smoothness I | | Moderator: John Ferris, Virginia Tech |
| CS8800 Walking Profiler: Refinements and Performance at 2015 FHWA Benchmark/Reference Profiler Collections. | | Dennis Scott, SSI |
| Roadbot Dual Line Laser Benchmark Road Profiler | | Paul Toom, ICC, Cherry Systems |
| Accessing Pavement Roughness In Urban Environments | | Raj Bridgelall, Fugro Roadware (presented by Jerry Daleiden) |
| 01:45 PM - 03:00 PM Session 9 – RPUG: Smoothness II | | Moderator: John Andrews, MD SHA |
| Boeing Bump Index Computations for Airport Pavement Roughness | | Injun Song, SRA |
| Methodology to Predict Roughness Characteristics of Flexible Pavement Systems in Texas | | Narain Hariharan, Fugro Roadware |
| Investigation of Curling and Warping on US 34 near Greeley, Colorado | | David Merritt, Transtec Group (presented by George Chang) |



Wednesday, Nov 4

| 03:30 PM – 05:10 PM Session 10 – RPUG: Smoothness III | Moderator: LaDonna Rodwen, ILDOT |
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| Case Study: IRI Specification In Rigid Pavements, First Experience In Costa Rica | Ana Elena Hidalgo Arroyo, University of Costa Rica |
| Long-term Performance of Whitetopping as a Rehabilitation Technique of an Asphalt Pavement – A Florida Case Study | Abdenour Nazef, Florida DOT |
| Development of Network Level Targets and Validation of Construction Goals in North Carolina | Don Chen, University of North Carolina at Charlotte |
| Road Roughness versus Ride Comfort which Considers Road Users; Our Customers | Eric Perrone, AgileAssets |

Thursday, Nov. 5

| 08:00 AM – 12:00 PM Basic ProVAL Workshop | Trainers: George Chang and Jennifer Rutledge, Transtec Group |
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| Session 1 – Introduction to profiling | |
| Session 2 - Profile Measurement and Basic Analysis | |
| Session 3 - Smoothness Assurance Module (SAM) | (laptop computers and ProVAL software are required during this workshop) |
| Session 4 - Case Studies Conclusion and Workshop Evaluations | |
| 01:00 PM – 05:00 PM Advanced ProVAL Workshop | Trainers: Steve Karamihas, UMTRI and George Chang, Transtec Group |
| Session 1 - Profile Filtering and Comparison | |
| Session 2 - Power Spectral Density (PSD) | |
| Session 3 - Automated Fault Measurement (AFM) and Optimal WIM Locator (OWL) | (laptop computers and ProVAL software are required during this workshop) |
| Conclusion and Workshop Evaluation | |
| 08:00 AM – 05:00 PM TPF-5(299) Pooled Fund Meeting | Moderator: Andy Mergenmeier, FWHA |
| Improving the Quality of Pavement Surface Distress and Transverse Profile Data Collection and Analysis – Pooled Fund Meeting For TPF-5(299) Pooled Fund members and invited participants. | |