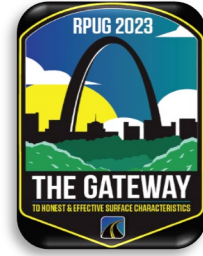




**34<sup>th</sup> RPUG Annual Conference**  
 Regency Conference Center, O'Fallon, IL, USA  
 May 1<sup>st</sup> to 4<sup>th</sup>, 2023



**At-A-Glance Agenda**

<b>MONDAY, May 1<sup>st</sup></b>	
08:00 AM – 12:00 PM	TPF-5(399) Distresses Pooled Fund Meeting
01:00 PM – 05:00 PM	TPF-5(399) and TPF-5(354) Joint Meeting
06:00 PM – 08:00 PM	Ice-Breaker Reception
<b>TUESDAY, May 2<sup>nd</sup></b>	
08:00 AM – 09:00 AM	Session 1 - Welcome, Keynote, and Vendors Introduction
09:00 AM – 09:30 AM	Break (visit exhibits)
09:30 AM – 12:00 PM	Session 2 - TPF-5(354) Update and Longitudinal Profiling
12:00 PM – 01:00 PM	Break (lunch & poster session)
01:00 PM – 02:40 PM	Session 3 - Texture and Friction
02:40 PM – 03:10 PM	Break (visit exhibits)
03:10 PM – 04:45 PM	Session 4 - Pavement Evaluation Open Discussion
04:45 PM – 05:45 PM	RPUG Open Business Meeting
06:00 PM – 10:00 PM	Evening Activities at the Arch
<b>WEDNESDAY, May 3<sup>rd</sup></b>	
08:00 AM – 09:55 AM	Session 5 - TPF-5(399) Update and PSC Evaluation
09:55 AM – 10:25 AM	Break (visit exhibits)
10:25 AM – 12:05 PM	Session 6 - PSC Evaluation
12:05 PM – 01:00 PM	Break (lunch & poster session)
01:00 PM – 02:00 PM	Session 7 - PSC Evaluation and Closing
02:00 PM – 05:00 PM	Session 8 - Technical Tour to ICAR Test Track
<b>THURSDAY, May 4<sup>th</sup></b>	
08:00 AM – 12:00 PM	TPF-5(354) Profile Pooled Fund Meeting
01:00 PM – 05:00 PM	TPF-5(345/463) Friction Pooled Fund Meeting
01:00 PM – 05:00 PM	ProVAL Workshop



**Monday, May 1<sup>st</sup>**

**08:00 AM – 05:00 PM**

**TPF-5(299) Pooled Fund Meeting  
Room: Tuscany East**

**Moderator: Andy Mergenmeier, FHWA**

Improving the Quality of Pavement Surface Distress and Transverse Profile Data Collection and Analysis – Pooled Fund Meeting

This meeting is for its members and all others interested in this subject.

**01:00 PM – 05:00 PM**

**TPF-5(399) and TPF-5(354) Joint Meeting  
Room: Tuscany East**

**Moderators: Andy Mergenmeier, FHWA  
and Dave Huft, SDDOT**

This is a TPF-5(399) and TPF-5(354) Joint Meeting to discuss the path forward for both pooled fund studies.

All TPF members and friends are welcome!

**06:00 PM – 8:00 PM**

**Ice Breaker Reception  
Room: Tuscany West (Exhibit Area)**

It is a great networking opportunity to be held at the exhibit hall.  
All RPUG attendees are welcome!



## Tuesday, May 2<sup>nd</sup>

<b>08:00 AM – 09:00 AM</b> <b>Session 1 – Welcome, Keynote, &amp; Vendors Intro</b> <b>Room: Tuscany East</b>		<b>Moderator: Steve Hale, NVDOT (RPUG President)</b>
Welcome from RPUG		Steve Hale, NVDOT (RPUG President)
Welcome and Keynotes		Jon-Paul Kohler, Planning & Program Development Manager FHWA – Illinois Division Justan Mann, Deputy Director, ILDOT
Vendors' Introduction		All vendors' representatives
09:00 AM – 09:30 AM Break (visit exhibits)		
<b>09:30 AM – 12:00 PM</b> <b>Session 2 - TPF-5(354) Update and Longitudinal Profiling</b> <b>Room: Tuscany East</b>		<b>Moderator: Dave Huft, SDDOT</b>
TPF-5(354) Pooled Fund Updates		Dave Huft, SDDOT
Real-Time Smoothness (RTS) Updates		David K. Merritt
Revisions to AASHTO Standards to Address Road Profile Measurement on Urban and Low-Speed Roadways		John Senger, ILDDOT, Steve Karamihas, UMTRI
Relationship Between IRI and Vehicle Dynamic Response to Road Roughness		Steve Karamihas, UMTRI
Advancement of Airport Pavement Roughness Evaluation using RRI		Richard Ji, FAA
Airport Runway Roughness Assessment using a Road Surface Profiler		Arturo Espinoza and Gen Long, APT
Detecting Bridge Deck Roughness at Highway Speeds		Ray Mandli, Mandli
Questions and Answers		All speakers
12:00 PM – 01:00 PM Break (lunch)		
<b>12:30 PM – 01:00 PM</b> <b>Poster Session</b> <b>Room: Foyer</b>		
3D LiDAR for road network pavement quality management		Jacopo Alaimo, XenomatiX
LiDAR certification for Roughness Profiling		Jacopo Alaimo, XenomatiX
The use of Texture Measurement for Chip Seal Quality Assurance		Ahmad Alhasan, ARA
Relationship of Asphalt Mix Gradation to Macrottexture and Safety – Preliminary Results		Gerardo Flintsch, VTTI



**Tuesday, May 2<sup>nd</sup>**

<b>01:00 PM – 02:40 PM</b> <b>Session 3 - Texture and Friction</b> <b>Room: Tuscany East</b>		<b>Moderator: Gerardo Flintsch, VTTI</b>
Quantifying the Impact of Friction and Macrotecture on Roadway Crashes		Gerardo Flintsch, VTTI
Towards Non-Contact Tire-Pavement Friction		Ahmad Alhasan, ARA
Texture Performance Models for North Carolina's Primary Road Network		Boris Goenaga, NC State U
Identifying the In-Service Lifecycle of Pavement Friction		Isaac Briskin, WDM
Vehicle Control and Skid Resistance		John Andrews, Powele
Questions and Answers		All speakers
02:40 PM – 03:10 PM Break (visit exhibits)		
<b>03:10 PM – 04:45 PM</b> <b>Session 4 - Pavement Evaluation Open Discussion</b> <b>Room: Tuscany East</b>		<b>Moderator: Steve Karamihas, UMTRI</b>
1. Friction, Texture, and Safety		Steve Karamihas, UMTRI
2. Crowd-Sourced Data		Edgar D. de León Izeppi, VTTI
3. Network Testing Equipment		Eric Prieve, CODOTDDOT
4. Others		Stephanie Weigel, NDDOT George Chang, Transtec Group
<b>04:45 PM – 05:45 PM</b> <b>RPUG Open Business Meeting</b> <b>Room: Tuscany East</b>		<b>Moderator: Steve Hale, NVDOT (RPUG President)</b>
RPUG Open Business Meeting All RPUG attendees are welcome!		
<b>06:00 PM – 10:00 PM</b> <b>Evening Activities at the Arch</b>		
6:00 PM: Board Busses from the hotel to Arch		
6:45 PM: Security at Arch		
7:00 PM: Evening Activity at Arch		
10:00 PM: Return from Arch to hotel		



## Wednesday, May 3<sup>rd</sup>

<b>08:00 AM – 09:55 AM</b> <b>Session 5 - TPF-5(399) Update and PSC Evaluation</b> <b>Room: Tuscany East</b>		<b>Moderator: Andy Mergenmeier, FHWA</b>
TPF-5(399) Pooled Fund Updates		Andy Mergenmeier, FHWA
Pavement Management Roadmap		Max Grogg, APT
Accuracy versus quantity – can they co-exist?		Richard Wix, ARRB, Australia
A Case Study in the Application of Guidelines for Cracking Assessment for the Vendor Selection Process		Douglas Frith, QES
'A Case Study of Pavement Management Products Using Human Evaluation Versus Automated Techniques for Local Governments		Jacob Walter
Questions and Answers		All speakers
09:55 AM – 10:25 AM Break (visit exhibits)		
<b>10:25 AM – 12:05 PM</b> <b>Session 6 – PSC Evaluation</b> <b>Room: Tuscany East</b>		<b>Moderator: Steve Hale, NVDOT</b>
Performance Monitoring of Mechanistically Designed Pavements in Illinois		John Senger, ILDOT Arturo Espinoza, Prashant Ram, and David Peshkin
3-D Pavement Surface Measurement Technology/Certification and Automated Pavement Distress Identification and Reporting		John Yeaman, PMS, Australia
An Update to the Little Book of Profiling		Steve Karamihas, UMTRI
Transverse Pavement Profile Certification and Validation: A Vendor's Perspective		Stefan Brylski, Mandli
Successful Practices for Data Quality Management		Amanda Gilliland and George Chang, Transtec Group
Questions and Answers		All speakers
12:05 PM – 01:00 PM Break (lunch)		



## Wednesday, May 3<sup>rd</sup>

12:05 PM – 01:00 PM Break (lunch)	
<b>12:30 PM – 01:00 PM Poster Session Room: Foyer</b>	
Methods for assessing accuracy of deep learning crack detection models with imperfect ground truth	Anmol Sharan Nagi and Harshpal Singh, Fugro
Deep Learning-based pavement distress identification with 3D pavement surface images: challenges and opportunities	Haitao Gong, TX State U
Interpretation of 3-D Pavement Surface Data with Dual-tree Complex Wavelet Analysis	Kazuya Tomiyama, Yuki Yamaguchi, and Kazushi Moriishi, KIT, Japan
Bridge and Structure Profile Measurement and Analysis	Tom Wilson, ARA
<b>01:00 PM – 02:00 PM Session 7 – PSC Evaluation and Closing Room: Tuscany East</b>	
Evaluating the relationships between different testing systems used on roadways to measure friction and macrotexture on state highway agencies to assess similar friction characteristics (macrotexture and microtexture)	Edgar D. de León Izeppi, VTTI
ICAR for Pavement Evaluation Tests	John Senger, ILDOT
Closing and Introduction to Next RPUG	Steve Hale, NVDOT
<b>02:00 PM – 05:00 PM Session 8 – Tech Tour to ICAR Test Track</b>	
2:00 PM: Buses leave from hotel to ICAR test track	
5:00 PM: Buses back from ICAR test track to hotel	



**Thursday, May 4<sup>th</sup>**

<b>08:00 AM – 12:00 PM</b>	
<b>TPF-5(354) Profile Pooled Fund Meeting</b>	<b>Moderator: Dave Huft, SDDOT</b>
<b>Room: Tuscany West</b>	
Improving the Quality of Highway Profile Measurement – Pooled Fund Meeting	
This meeting is for its members and all others interested in this subject.	
12:00 PM – 1:00 PM Break (lunch on your own)	
<b>01:00 PM – 05:00 PM</b>	
<b>TPF-5(345/463) Friction Pooled Fund Meeting</b>	<b>Moderator: Edgar D. de León Izeppi, VTTI</b>
<b>Room: Tuscany West</b>	
Pavement Surface Properties Consortium: Phase III - Managing the Pavement Properties for Improved Safety – Pooled Fund Meeting	
This meeting is for its members and all others interested in this subject.	
<b>01:00 PM – 05:00 PM</b>	
<b>ProVAL Workshop</b>	<b>Speakers: Steve Karamihas, UMTRI</b>
<b>Room: Florence/Genoa/Salerno</b>	<b>George Chang and Amanda Gilliland, Transtec Group</b>
This workshop is hands-on-centric with ProVAL software excises.	
<ul style="list-style-type: none"><li>• Fundamental ProVAL viewing/analysis</li><li>• In-depth topics: Profile Editor/Filtering, Power Spectral Density (PSD) module, Smoothness Assurance Module (SAM)/grinding simulation, profile comparison/Profiler Certification Module (PCM).</li></ul>	
All participants need to bring their laptop computer preinstalled with ProVAL 3.61.	