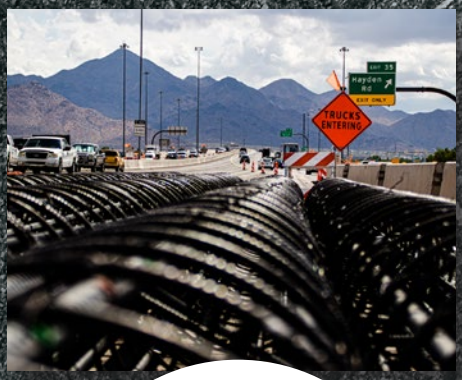

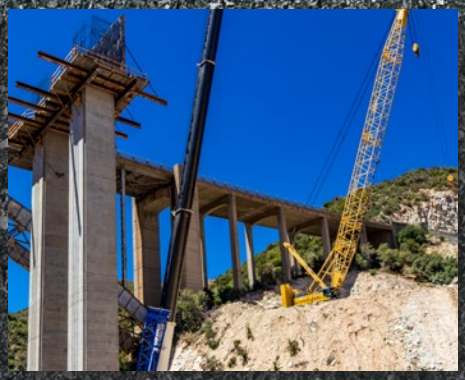

Welcome to the 18th

ARIZONA PAVEMENTS/ MATERIALS CONFERENCE

2021 Resiliency after the Pandemic

VIRTUAL CONFERENCE

Nov. 17 - Nov. 18, 2021

ASU Ira A. Fulton Schools of Engineering
Arizona State University

U.S. Department of Transportation
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2021 Program

DAY 1 Wednesday, November 17, 2021

9:00-10:00am	**OPENING SESSION:** https://asu.zoom.us/j/87683956931 Moderators: Kamil Kaloush, ASU & Jesús Sandoval-Gil, ADOT Presentation of 2020 Perpetual Pavement Award (PPA) to AZ DOT	
9:00-9:05am	**Introductions**	
9:05-10:00am	**Panel Discussion - Question and Answer Session**	**Federal Highway Administration** Amy Lucero, PE, Associate Administrator, FHWA **Arizona Department of Transportation** Matt Moul, PE, Deputy State Engineer, ADOT **Maricopa County Department of Transportation** Jesse Gutierrez, PE, Deputy Director
	TRACK 1	**TRACK 2**
10:00-11:30am	**SESSION 1: FHWA EDC 6 Innovation** https://asu.zoom.us/j/89591515922 Moderators: Tom Deitering, FHWA & Joe Phillips, Terracon	**SESSION 2: Sustainability** https://asu.zoom.us/j/84749650360 Moderators: Elham Fini, ASU & Mo Rahman, Ergon
10:00-10:20am	**EDC-6 Targeted Overlay Pavement Solutions (TOPS) – Asphalt Materials** Timothy Aschenbrener, PE Senior Asphalt Engineer, FHWA	**Advancement in Utilizing High RAP and Rejuvenators in Asphalt Pavements** Hassan Tabatabaee, PhD Cargill Bioindustrial
10:20-10:40am	**EDC-6 Targeted Overlay Pavement Solutions (TOPS) – Concrete Materials** Samuel S. Tyson, PE Concrete Pavement Engineer, FHWA	**Use of Plastics for In-Place Roadway Recycling** Donald M. Matthews, PE Pavement Recycling Systems, Inc.
10:40-11:00am	**Improved Asphalt Performance-FHWA** Leslie Myers McCarthy, PhD, PE Senior Asphalt Pavement Engineer, FHWA	**Innovations (PCC Mega slabs)** Robert A. Rodden, MS Director of Engineering Strategy at MEGASLAB
11:00-11:30am	**Q&A and Networking**	**Q&A and Networking**
	TRACK 1	**TRACK 2**
12:00-1:30pm	**SESSION 3: CONCRETE PAVEMENT PERFORMANCE** https://asu.zoom.us/j/83740419301 Moderator: Jeff Stempihar, NCE & Rob Duvall, City of Phoenix	**SESSION 4: ASPHALT PAVEMENT PERFORMANCE** https://asu.zoom.us/j/84094865285 Moderators: Pat Weaver, Solterra Materials & Hasan Ozer, ASU
12:00-12:20pm	**Concrete ASR / Fly Ash Class F** Lawrence Sutter, PhD, PE, FACI, Michigan Technological University	**National Center for Asphalt Technology (NCAT) Update** R. Buzz Powell, PhD, PE, National Center for Asphalt Technology at Auburn University
12:20-12:40pm	**Slabs with Optimized Geometry** Jeffery Roesler, PhD, PE University of Illinois at Urbana-Champaign	**TxDOT BMD Implementation Update** Amy Epps Martin, PhD, PE, FASCE Texas A&M University
12:40-1:00pm	**Concrete #3 Curing Procedure?** Dan Zollinger, PhD Texas A&M University	**Evolutions of Pavement Condition Survey from Analog to Digital, 3D, and AI** Kelvin C. P. Wang, PhD, PE, Dist.M.ASCE Oklahoma State University
1:00-1:30pm	**Q&A and Networking**	**Q&A and Networking**
2:00-4:00pm	**STUDENT POSTER PRESENTATION:** https://asu.zoom.us/j/81539503759 Moderators: Claudia Zapata, ASU & Ramadan Salim, ASU	

DAY 2 Thursday, November 18, 2021

9:00-9:30am	**OPENING SESSION:** https://asu.zoom.us/j/89740176562 Moderators: Jesús Sandoval-Gil, ADOT & Joe Phillips, Terracon **MnROAD Construction Activities Update, National Road Research Alliance (NRRA)** Benjamin Worel, PE, Minnesota Department of Transportation	
	TRACK 1	**TRACK 2**
9:30 -11:00am	**SESSION 5: Resiliency** https://asu.zoom.us/j/81567816780 Moderators: Matt Manthey, City of Mesa & Rob Duvall, City of Phoenix	**SESSION 6: Environmental Product Declaration** https://asu.zoom.us/j/85276442991 Moderators: Pat Weaver, Solterra Materials & Mo Rahman, Ergon
9:30-9:50am	**What in the World is Happening-cities taking bold climate action around the globe** Mark Hartman, MBA, LEED AP, City of Phoenix	**FHWA Sustainable Pavements Program Update** Migdalia Carrión, MS, FHWA
9:50-10:10am	**Climate Change on Local Government Level** Mikhail Chester, PhD Associate Professor, ASU	**Environmental Product Declarations (EPDs) for Asphalt Mixtures: An Overview and Current State of Use** Joseph Shacat, MS, MBA National Asphalt Pavement Association
10:10-10:30am	**City of Phoenix Case Studies: Cool Seal Applications** Rubben K. Lolly, PE, MSC, CCPM, City of Phoenix Jennifer Vanos, PhD, School of Sustainability, ASU	**National Ready Mix Concrete Association** Brian M. Killingsworth, PE, Executive Vice President, National Ready Mixed Concrete Association
10:30-11:00am	**Q&A and Networking**	**Q&A and Networking**
	TRACK 1	**TRACK 2**
11:00am -12:30pm	**SESSION 7: Pavement Preservation** https://asu.zoom.us/j/83581725567 Moderators: Luis Figueroa, Western Emulsions & Mo Rahman, Ergon	**SESSION 8: Geotechnical Development** https://asu.zoom.us/j/81473799444 Moderators: Claudia Zapata, ASU & Armando de la Rocha, Western Technologies
11:00-11:20am	**Chip Seal Specs Revisions** Nye McCarty, PE, ADOT & Jeffrey R. Smith, Cactus Asphalt	**Performance Management of Pavement Foundation with Intelligent Compaction** Soheil Nazarian, PhD, PE, DGE The University of Texas at El Paso
11:20-11:40am	**Use of RAP in Slurry and Microsurfacing Applications** Rubben K. Lolly, PE, MSC, CCPM, City of Phoenix Keith Ritter, PE, ViaSun Corporation	**Ground Improvement** Anand J. Puppala, PhD, PE, DGE, FASCE, FICE Texas A&M University
11:40-12:00am	**Rapid Chip Seal Product** Stephen Van De Bogert, Area Sales Manager Ergon Asphalt & Emulsions	**Geotechnical Techniques for Improving Unexpected Soft Subgrade Conditions During Construction** Steven D. Nowaczyk, PE, Ninyo & Moore
12:00-12:30pm	**Q&A and Networking**	**Q&A and Networking**
12:30-1:30pm	**FINAL SESSION - Closing Ceremony/Awards:** https://asu.zoom.us/j/87509991084 (Community Service Award, Witczak Scholarship, Student Posters) Moderators: Tom Deitering, FHWA & Amanda McGennis, AZ-AGC **END OF CONFERENCE**	

Speakers

Timothy Aschenbrener, PE

Senior Asphalt Engineer
Pavement Materials | Office of Infrastructure
Federal Highway Administration
Timothy.aschenbrener@dot.gov

Tim is a Senior Asphalt Engineer on the Pavement Materials Team in FHWA's Headquarters Office of Infrastructure. His work and expertise focus on asphalt materials, recycled materials, and quality assurance. Tim joined FHWA in 2012 after working with the Colorado DOT for 22 years. He is Chair of TRB Committee on Quality Assurance Management (AKC30). He received the FHWA Administrator's 2019 Award for Superior Achievement.

Migdalia Carrión, MS

FHWA Sustainable Pavements Program Manager
Federal Highway Administration
Puerto Rico and
U.S. Virgin Islands Division
migdalia.carrion@dot.gov

Migdalia Carrión is currently the acting FHWA Sustainable Pavements Program Manager. Since 2018, Migdalia has served as an area engineer in the Puerto Rico (PR) and USVI Division Office. In this role, she provides oversight for the PRDOT's Construction Metro Region and leads activities for TPM, TAMP, and P&M Programs. Additionally, she has contributed to the Sustainable Pavements Program as a Sustainability Ambassador and coordinated the PR GTR Research Collaboration Team. Prior to joining FHWA, Migdalia worked for PRDOT as the special assistant to the Director of Programming and Special Studies and as a program manager for Bridge Program. She also has experience working in the private sector. Migdalia received her Bachelor's Degree in Civil Engineering from the University of Puerto Rico, Mayagüez and a Master's Degree in Transportation Engineering from the University of Texas, Austin.

Mikhail Chester, PhD

Associate Professor
Arizona State University
mchester@asu.edu

Dr. Chester is the Director of the Metis Center for Infrastructure and Sustainable Engineering at ASU where he runs a research program focused on preparing infrastructure and their institutions for the challenges of the coming century. His work spans climate adaptation, disruptive technologies, innovative financing, cybersecurity, and modernization of infrastructure management. He is broadly interested in how we need to change infrastructure governance, design, and education for the Anthropocene, an era marked by acceleration and uncertainty. He has recently led several large networks to advance infrastructure in the face of unpredictable and increasingly complex environments including the NSF Urban Resilience to Extremes Sustainability Research Network and the NSF Resilience Convergence project.

Jesse Gutierrez, PE

Deputy Director
Maricopa County Department of Transportation

Jesse Gutierrez, MCDOT's Deputy Director, brings 30 years in transportation construction and roadway maintenance experience to the MCDOT Team. Jesse joined MCDOT in July of 2020. Prior to MCDOT, he worked for the Arizona Department of Transportation where he served as the Globe District Engineer and most recently as Deputy State Engineer where he oversaw staff in engineering, maintenance, construction and materials throughout the state. Jesse has also worked with the City of Tucson where he was an integral part of the Tucson Modern Streetcar team, among other positions. Jesse holds degrees in civil engineering and business management and is registered as a Professional Engineer in Arizona.

Speakers

Mark Hartman, MBA, LEED AP

Chief Sustainability Officer
City of Phoenix
Mark.hartman@phoenix.gov

Mark is Phoenix's chief sustainability officer, charged to support Phoenix's continual efforts in becoming a global leader in sustainability. In April 2016, Phoenix City Council approved the long-term Environmental Goals that include becoming a carbon-neutral city, operating on 100% clean energy, zero waste, a 100-year supply of water, clean air, parks and transit in every neighborhood, and a vibrant local food system. Mark formerly worked at the City of Vancouver for eight years in sustainability, leading their carbon-neutral buildings strategy and their green building code as well as supporting Vancouver's ambition to become the greenest city in the world by 2020. Mark holds an MBA from Heriot-Watt University and is a LEED accredited professional.

Brian M. Killingsworth, PE

Executive Vice President | Division Head, Local Paving
National Ready Mixed Concrete Association (NRMCA)
bkillingsworth@nrmca.org

Brian is Executive Vice President, Local Paving for NRMCA and provides technical support and education to member companies, affiliate associations, contractors, and local owners regarding concrete pavement. Prior to joining NRMCA, Brian was in pavement consulting for 20 years and conducted work with both concrete and asphalt pavements.

Rubben K. Lolly, PE, MSC, CCPM

Special Projects Administrator
City of Phoenix
Street Transportation Department
Programing and Project Delivery Division
Rubben.lolly@phoenix.gov

Rubben has over 20 years of experience in the civil construction and aviation industry with extensive knowledge in program delivery, project management, construction materials, pavement design, performance, and management. Rubben began his career with the City of Phoenix in construction inspection in 2004 and is currently a Special Projects Administrator facilitating the delivery of Capital Improvement Projects for the Planning and Project Delivery Division in the Street Transportation Department. He earned a bachelor's degree in Mining Engineering from Ghana and bachelor's and master's degrees in Civil Engineering from Arizona State University. He presently holds a Professional Engineering license in Arizona.

Amy C. Lucero, PE

Associate Administrator
Workforce Development & Technology Deployment
Federal Highway Administration
Amy.lucero@dot.gov

In 2021, Amy became Associate Administrator, Transportation Workforce Development and Technology Deployment, after serving as the Chief Technical Services Officer and Director of Technical Services since 2009. In this new role, Amy is responsible for the Resource Center, the National Highway Institute, Knowledge Management, Accelerating Innovation, Transportation Workforce Development, and Local and Tribal Support. This new office assures a coordinated approach across the FHWA for developing and enhancing the transportation workforce through technical training, technical assistance and technology deployment. Amy holds a Master's Degree in Public Administration from the University of Colorado, a Bachelor of Science Degree in Civil Engineering and a Bachelor of Arts Degree in Economics, both from the University of New Mexico, and is a registered Professional Engineer in the State of New Mexico.

Amy Epps Martin, PhD, PE, FASCE

Professor
Zachry Department of Civil & Environmental Engineering
Senior Research Engineer | Texas A&M Transportation Institute
Texas A&M University
a-eppsmartin@tamu.edu

Dr. Epps Martin has 24 years of experience teaching civil engineering materials courses and conducting research on safe, sustainable asphalt technologies at Texas A&M University and the Texas A&M Transportation Institute where she is a professor and a senior research engineer.

Donald M. Matthews, MS, PE

TSD Manager Chief Engineer
Pavement Recycling Systems, Inc.
dmatthews@pavementrecycling.com

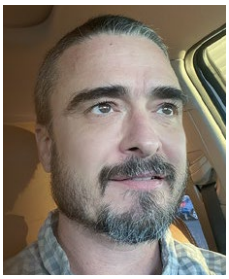
Don Matthews is Chief Engineer and Technical Manager for Pavement Recycling Systems, Inc., where he focuses on the development of recycled products in pavement preservation and rehabilitation, pavement management and intelligent construction technologies. He received his bachelor's degree in Civil Engineering from Cal Poly Pomona and his master's from Cal State Long Beach. He is a Registered Engineer in the States of California and Arizona.

Speakers

Nye F. McCarty, PE

Flagstaff Regional Materials Engineer
Arizona Department of Transportation
nmccarty@azdot.gov

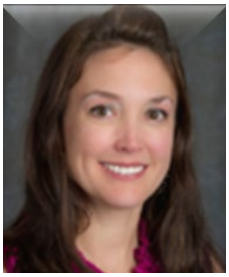
Nye received his Bachelor of Science Degree in Civil & Environmental Engineering from Arizona State University in 2007. In his current role as the Flagstaff Regional Materials Engineer with the Arizona Department of Transportation, he has been instrumental in developing and implementing efforts to increase the durability and improve the performance of roads and bridges within ADOT's transportation network. Nye's passion for materials is driven by sustainability where he is concentrating his efforts to develop materials-related components of sustainable pavement systems to guide future design and construction of transportation facilities.



Matt Moul, PE

Deputy State Engineer - Operations
Arizona Department of Transportation
mmoul@azdot.gov

Matt Moul has been with ADOT for 25 years and currently serves as Deputy State Engineer for Operations. He oversees the construction, maintenance and operation of the state highway system in greater Arizona.



Leslie Myers McCarthy, PhD, PE

Senior Asphalt Pavement Engineer
Office of Preconstruction, Construction, and Pavements (HICP-40)
Federal Highway Administration
Headquarters
Leslie.mccarthy@dot.gov

Dr. Myers McCarthy joined the FHWA Office of Pavement Technology in HQ in 2002, as a Pavement Design Engineer where she managed the Mobile Asphalt Materials Testing Laboratory. She was also the Asphalt lead for the Pavement Design Guide Implementation (DGIT) Team. She served as the Operations Team Leader for the FHWA-FL Division from 2006 to 2009, where she led the team of Area Engineers, ER program, LPA program, and had collateral duties of Pavement and Materials Engineer. Dr. McCarthy was an Associate Professor in Civil Engineering at Villanova University from 2009 to 2019 and rejoined FHWA in the Office of Preconstruction, Construction, and Pavements in HQ as a Senior Asphalt Pavement Engineer in 2019.

Soheil Nazarian, PhD, PE, DGE

McIntosh Murchison Chair Professor of Civil Engineering
Department of Civil Engineering
The University of Texas at El Paso
nazarian@utep.edu

Dr. Nazarian has served as the Director of the Center for Transportation Infrastructure Systems and the Campus Director of the newly established Engineering Research Center entitled "Advancing Sustainability through Powered Infrastructure for Roadway Electrification (ASPIRE)" funded by the National Science Foundation. He has more than 40 years of experience in the areas of design, evaluation, and nondestructive testing of geotechnical and transportation infrastructure and lifeline. He currently chairs the Geotechnical Instrumentation and Modeling Committee of the Transportation Research Board and is on the Executive Board of the International Society of Intelligent Construction.

Speakers

Steven D. Nowaczyk, PE

Managing Principal Engineer
Ninyo & Moore
snowaczyk@ninyoandmoore.com

Steven is experienced with performing and coordinating geotechnical investigations, monitoring field construction testing activities, performing oversight services for geo-dynamic and geo-investigation projects, providing field quality control support for construction projects, conducting laboratory testing, and reviewing reports. Steven provides these services for a variety of project types including dams, highways, bridges, tunnels, treatment facilities, underground utilities, commercial and industrial developments, production plants, airports, sports complexes, hospitals, and educational facilities.

R. Buzz Powell, PhD, PE

Associate Director & Research Professor
National Center for Asphalt Technology at Auburn University
buzz@auburn.edu

Buzz earned a PhD in Civil Engineering at Auburn University with an emphasis in pavements and geomaterials. He worked for 12 years with the Alabama DOT and 2 years in the private sector before becoming NCAT's first Test Track Manager in 1999. He is now an NCAT Associate Director and an Auburn University Research Professor.

Anand J. Puppala, PhD, PE, DGE, FASCE, FICE

Professor | A.P. and Florence Wiley Chair
Zachry Department of Civil and Environmental Engineering
Associate Director-Center for Infrastructure Renewal, Rellis Campus
Director-NSF IUCRC Site-Center for the Integration of Composites into Infrastructure
Texas A&M University
anandp@tamu.edu

Dr. Puppala has been conducting research on stabilization of expansive soils, UAVs for infrastructure monitoring studies and asset management studies, dam safety and embankments slope studies, in situ intrusive methods for site characterization, infrastructure resilience and material characterization studies. He is a current member of ASCE-GI's Technical Coordination Council (TCC) and served as President of United States Universities Council on Geotechnical Education and Research (USUCGER) from 2007-2009. Dr. Puppala is the current director of NSF's Industry University Co-operative Research Center (IUCRC) site on Composites in Civil Infrastructure (CICI) at TAMU.

Keith Ritter, PE

Technical Director
ViaSun Corporation
keith@viasuncorp.com

Keith began his career 30 years ago as a binder and mix design laboratory technician for Law/Crandall during the SHRP research for superpave in 1991. In that time, he has worked for various material testing firms in the Phoenix metro area in positions ranging from laboratory/field technician to laboratory/field manager. After attending Arizona State University – Civil Engineering program and becoming a licensed professional engineer in January 2018, Keith was a lead geotechnical engineer for ProTeX the PT Xperts performing soil investigations, percolation testing and layered pavement section designs for large master planned residential communities, multi-family communities and various commercial projects. Finally coming full circle back to asphalt pavements and pavement preservation in 2019, Keith is currently the Technical Director for Viasun Corporation.

Robert A. Rodden, MS

Director of Engineering Strategy at MEGASLAB
rrodden@gmail.com

Robert previously served as the Executive Director of the International Society for Concrete Pavements and in several roles during his 9 years at the American Concrete Pavement Association. He has designed and troubleshot concrete flatwork in over 80% of the US states and 50 countries. At MEGASLAB, Robert focuses on continuously and sustainably improving performance through engineering as the MEGASLAB system is adopted in more application types.

Jeffery Roesler

CEE Associate Head and Director of Graduate Studies and Research
University of Illinois at Urbana-champaign
jroesler@illinois.edu

Dr. Roesler teaches courses in transportation facilities, specifically pavement analysis and design, concrete materials, and geometric design of roadways as well as the freshman course titled project-based introduction to CEE. His research interests include concrete pavement design and analysis, passive communication between autonomous vehicles and pavement, cool pavements and the microscale urban heat island, contactless sensing for early age concrete properties, internal curing with lightweight fines, fiber-reinforced concrete, photocatalytic cements, and roller compacted concrete pavement. He is currently the Past President of the International Society of Concrete Pavement and a registered Professional Engineer in the state of California.

Speakers

Joseph Shacat, MS, MBA

Director of Sustainable Pavements
National Asphalt Pavement Association
jshacat@asphaltpavement.org

Joseph serves as the technical lead for Emerald Eco-Label, NAPA's Environmental Product Declaration (EPD) program for Asphalt Mixtures. His role at NAPA also includes directing research projects related to asphalt pavement sustainability and resilience, educating the asphalt industry about sustainability and how to incorporate it into their organizations, and working with external stakeholders such as government agencies and green rating systems.

Jeffrey R. Smith

Sales, Marketing & Technology
Cactus Asphalt
jsmith@cactusasphalt.com

Jeff is a veteran of the tire recycling, chip seal and paving aspects of the asphalt-rubber industry. Since 1976 he has worked with various companies involving numerous positions from laborer, laboratory technician, project superintendent, sales representative, marketing director, industry consultant, and technical director. In 2004 Jeff took a position with International Surfacing Systems and served as their senior pavement preservation specialist. Jeff is two-time past President of the Rubber Pavements Association and currently serves as chair of the Arizona AGC Pavement Preservation Committee and on the BOD of Arizona Association of County Engineers. In 2014 Jeff started working with Cactus Asphalt involved in sales, marketing and technology development.

Lawrence Sutter, PhD, PE, FACI

Associate Dean of Research and External Relations
Professor, Materials Science & Engineering
Director, Applied Chemical and Morphological Analysis Laboratory
Michigan Technological University
llsutter@mtu.edu

Dr. Sutter is a Professor of Materials Science & Engineering at Michigan Technological University, specializing in materials characterization, concrete durability, and the use of supplementary cementitious materials. He is a Fellow of the American Concrete Institute (ACI) and Chairman of Committee 321 Concrete Durability Code, Vice-Chairman of ACI Committee 232 Fly Ash and Secretary of ACI Committee 201 Concrete Durability. He is also a Fellow of ASTM and a member of Committees C01 and C09, serving as Chairman of subcommittees C01.14 Non-Hydraulic Cements, C09.24 on Supplementary Cementitious Materials and C09.65 on Petrography. He is a Registered Professional Engineer in Michigan.

Hassan Tabatabaee, PhD

Global Technical Manager
Asphalt Systems - Cargill Bioindustrial
Hassan_Tabatabaee@cargill.com

Dr. Tabatabaee is the Global Technical Manager for Asphalt Solutions at Cargill, a producer of specialty chemicals for asphalt applications worldwide. He has a PhD degree in Pavement Materials from the University of Wisconsin Madison, and MS and BS degrees in Civil Engineering. His publications and patents have focused on bitumen chemistry, modification, characterization, and modeling. Over the past 15 years he has led or contributed to state and federal research projects on development of asphalt specifications and characterization methods, including the FHWA Asphalt Research Consortium and the National Pooled Fund study on Thermal Cracking. He is currently serving as PI and co-PI on National Road Research Alliance (NRRA) Innovation projects focused on Cold-in-Place Recycling, and on Practical specifications for bitumen compatibility.

Samuel S. Tyson, PE

Concrete Pavement Engineer
Office of Preconstruction, Construction, and Pavements
Federal Highway Administration
Sam.tyson@dot.gov

Sam is a concrete pavement engineer with the FHWA in the Office of Preconstruction, Construction, and Pavements in Washington, DC. He is a registered professional engineer in the District of Columbia, and a graduate of the University of Virginia where he earned both Bachelor of Engineering and Master of Science degrees in civil engineering. Sam manages FHWA's program to advance best practices for construction, rapid repair, and rehabilitation of concrete pavements. He works with state highway agencies to implement innovative technologies. Sam is leading FHWA's effort to increase the use of concrete overlays to extend the performance of both existing asphalt and existing concrete pavements. This effort is one of seven technologies included in FHWA's Every Day Counts (EDC-6) program.

Speakers

Stephen Van De Bogert

Area Sales Manager
Ergon Asphalt & Emulsions, Inc.
stephen.vandebogert@ergon.com

A 1982 graduate of the University of Wisconsin, Steve's career has spanned 38 years in marketing and providing technical assistance for paving asphalts, emulsions and specialty maintenance techniques in the Midwest, Western and Northwest United States. Currently Steve is an area sales manager for Ergon Asphalt in the Spokane, Washington area and provides instruction on proper sealing and maintenance procedures to organizations and construction crews in the Northwest US states. He works with agencies to correctly understand and apply maintenance products and has assisted small agencies and state DOT's in developing specifications to improve road maintenance effectiveness.

Jennifer Vanos, PhD

Assistant Professor
School of Sustainability
Arizona State University
Jenni.Vanos@asu.edu

Dr. Vanos holds an interdisciplinary appointment studying climate and human health in the School of Sustainability at Arizona State University. As a human biometeorologist, she works to strengthen the understanding and practice surrounding how we protect people from extreme heat and air pollution. Her work on extreme heat addresses risks and challenges within varying vulnerable populations, including children, athletes, and outdoor workers. She approaches her work using various measurement and modeling tools and frameworks across spatial and temporal scales. Dr. Vanos has published over 70 peer-reviewed articles in scientific journals. She is a member of ASU's Urban Climate Research Center and is the Chair of the American Meteorological Society's Board on Environment & Health.

Kelvin C.P. Wang, PhD, PE, Dist.M.ASCE

Regents Professor and Dawson Chair of Civil Engineering
Oklahoma State University
Kelvin.wang@okstate.edu

Dr. Wang started his professional career in 1989 at Arizona DOT. In 1993, he joined the university faculty and for nearly 30 years has led his team to tackle the problem of automating survey of pavement distresses. His work profoundly changed the landscape of pavement survey and is closely followed by industry and researchers on worldwide basis. His technological contributions in recent years include sub-mm 3D laser imaging of pavements at full-lane coverage and highway speed for data collection, and automated data processing for distresses and safety evaluations based on unique and novel Deep-Learning techniques. His technologies are used in the US, Brazil, South Africa, China, India, and Japan.

Benjamin Worel, PE

MnROAD Operations Engineer
Minnesota Department of Transportation
ben.worel@state.mn.us

Ben Worel is the MnROAD Operations Engineer for the Minnesota Department of Transportation for the last 25 years. His efforts focus on the day-to-day operations of MnROAD, development of research projects and oversight along with supporting partnerships including working with a number of different states, universities, and companies highlighted with major studies with NCAT and the National Road Research Alliance (NRRA) which includes 11 government agencies and over 70 associate members. He is currently on the chair of TRB AKG30 - Geo-Environmental and Climatic Impacts on Geomaterials and serving on a LTPP expert task group. Ben attended the University of Minnesota and is a Professional Engineer in the State of Minnesota.

Speakers

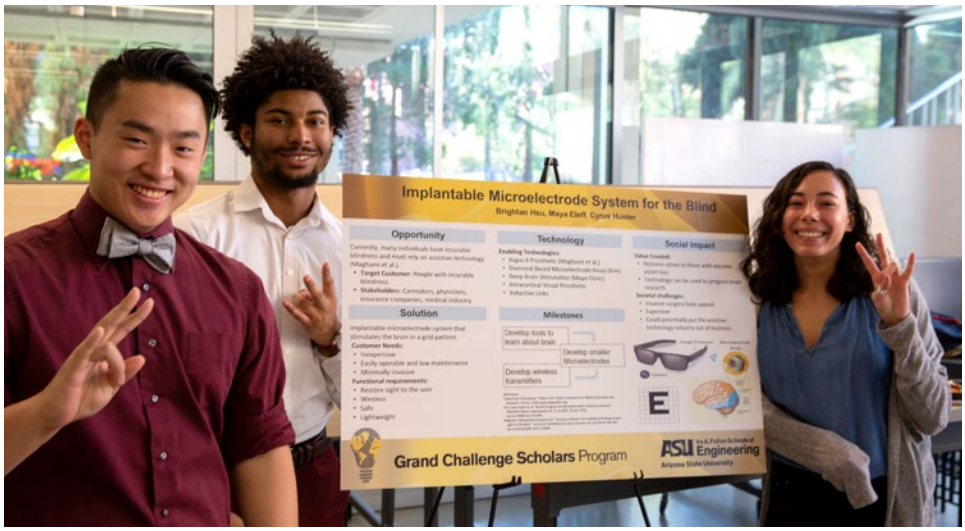
Dan Zollinger, PhD
Research Engineer, Texas A&M Transportation Institute (TTI)
Texas A&M University
d-zollinger@tamu.edu

Dr. Zollinger is the manager for the rigid pavements program at TTI and a former President of the International Society for Concrete Pavements (ISCP – 2006-10). His major areas of research include concrete pavement performance, rehabilitation, behavior, and design. He is actively engaged in pavement evaluation, pavement design, and pavement performance. He has worked for several years on the development of performance models for mechanistic pavement design procedures; this effort has involved the collection of performance data from a variety of concrete pavement sections to validate an array of distress mechanisms for concrete pavement ranging from pavement blow-ups to faulting. He has also researched the monitoring of curing quality under field conditions and the evaluation of slab behavior related to that in terms of erosion resistance and joint sealant performance.

Student Poster Presentations

November 17, 2021

Organizers: Claudia Zapata and Ramadan Salim, ASU



2:00-4:00pm (MST): https://asu.zoom.us/j/81539503759

Participants will have a 5-minute live presentation (3 minutes to present and 2 minutes for questions). Winners will be announced on Thursday, November 18th at 12:30pm.

Dr. Matthew W. Witczak Endowment

Dr. Matthew W. Witczak is a pioneer and leader in the civil engineering community and an internationally known expert in the area of transportation pavement systems. Dr. Witczak dedicated his career to the advancement of pavement engineering and research as well as student education, mentoring, and professional development of engineers and leaders in the field. **Will you join us in recognizing his accomplishments and passion for engineering education?**

The **Dr. Matthew W. Witczak Endowment** was created by the **Arizona Pavements/Materials Conference Committee** to honor the impact Dr. Witczak has made in the industry and inspire students entering the profession. The endowment provides a permanent source of philanthropic funds to support students interested in a career in pavement materials.

His impact on the number of students working in industry is huge. We want to continue this excellent program in pavement engineering and support the next generation of pavement students.

- Jeff Stempihar, NCE

The **Dr. Matthew W. Witczak Endowment** provides a variety of funding to enhance the experience for students interested in pavement materials such as undergraduate scholarships, graduate fellowships, and resources to enhance academic experiences.

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