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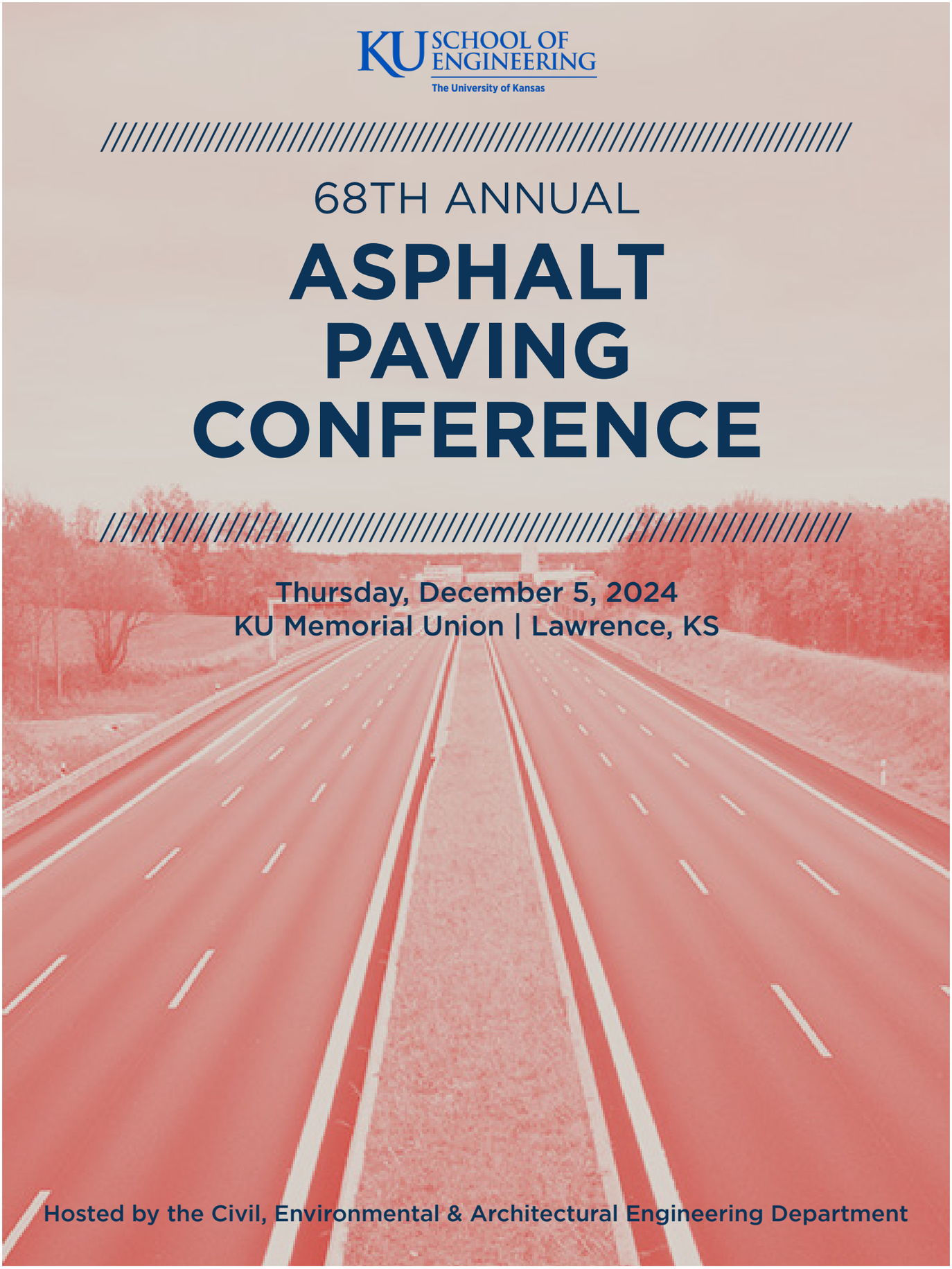
The University of Kansas

68TH ANNUAL

ASPHALT PAVING CONFERENCE



Thursday, December 5, 2024
KU Memorial Union | Lawrence, KS

Hosted by the Civil, Environmental & Architectural Engineering Department

Conference FAQs

PDHs

This conference offers a total of 6.5 professional development hours. The PDH certificate will be provided in an email after the event.

INTERNET

Select “KU Guest” and accept terms. No password is required.

PRESENTATIONS

For presentations that can be shared, a PDF copy will be available after the conference website.

Conference Planning

Planning Committee

Chair: Robert Parsons, University of Kansas
Ryan Barrett, Kansas Department of Transportation
David Behzadpour, Kansas Department of Transportation
Mark Blow, Asphalt Institute
Keith Browning, Kansas Association of Counties
Masoud Konartakhteh Darabi, University of Kansas
Jie Han, University of Kansas
Blair Heptig, Kansas Department of Transporation
Tony Menke, Kansas Deptartment of Transportation
Catherine Patrick, Federal Highway Administration
Dan Scherschligt, Kansas Asphalt Paving Association
Greg Schieber, Kansas Department of Transportation
Laura Wagner, HNTB
Ross Weber, APAC-Kansas, Inc.
Josh Weige, City of Overland Park, KS
Dave Wilson, Superior Bowen

Cooperating Organizations

Kansas Asphalt Paving Association (KAPA)
Kansas Contractors Association (KCA)

Save the Date

The 69th Annual Asphalt Paving Conference will be held on **Thursday, November 5, 2025.**

Agenda

7:30 - 8:30 a.m.	**Registration and Continental Breakfast**
8:30 - 8:40 a.m.	**Welcome and Opening Remarks** *Bob Parsons, Professor*

EARLY MORNING SESSIONS | Woodruff Auditorium, 5th floor

8:40 - 9:10 a.m.	**KDOT Update** *Greg Schieber, Deputy Secretary of Transportation & State Transportation Engineer, KDOT*
9:10 - 9:30 a.m.	**FHWA Update** *Richard Backlund, Division Administrator, FWHA*
9:30 - 10 a.m.	**KTA Update** *David Jacobson, P.E., Director of Engineering, KTA*
10 - 10:30 a.m.	**Break**

LATE MORNING SESSIONS | Woodruff Auditorium, 5th floor

10:30 - 11:10 a.m.	**Asphalt Plant Fuels for Today & Tomorrow** *Ross Weber, Branch Manager, APAC Shears*
11:10 - 11:50 a.m.	**Grant & Funding Support through the Kansas Infrastructure Hub** *Richard Backlund, Division Administrator, FWHA*
11:50 a.m. - 12:50 p.m.	**Lunch Break in the Ballroom**
12:50 - 1:15 p.m.	**Awards**

AFTERNOON GENERAL SESSION | Woodruff Auditorium, 5th floor

1:15 - 1:45 p.m.	**General Refinery & Asphalt Terminal Operations** *Kent Ernst, Asphalt Technical Rep, Phillips 66*
1:45 - 1:55 p.m.	**Break**

Agenda Contd.

EARLY AFTERNOON SESSION | Alderson Auditorium, 4th floor
Maintenance Track

1:55 - 2:25 p.m.	**Best Practices for Crack Sealing** *Austin Stading, Territory Manager, Crafco*
2:25 - 2:55 p.m.	**Advantage of Thin Lift HMA Overlays** *Mel Monk, Executive Director, Alabama Asphalt Paving Association*

EARLY AFTERNOON SESSION | Woodruff Auditorium, 5th floor
Asphalt Track

1:55 - 2:25 p.m.	**Mitigating Moisture-Related Road Problems with Wicking Fabric** *Jie Han, Roy A. Roberts Distinguished Professor*
2:25 - 2:55 p.m.	**Artificial Intelligence & Asphalt** *Sean Devine, CEO, XBE*
2:55 - 3:25 p.m.	**Break**

LATE AFTERNOON SESSION | Woodruff Auditorium, 5th floor

3:25 - 3:55 p.m.	**KHP Perspective on Work Zone Safety** *Mark Christesen, Lieutenant, KHP Troop G*
3:55 - 4:25 p.m.	**Design of Rural Collector Roads Using PaveXpress** *Jie Han, Roy A. Roberts Distinguished Professor* *Syed Shadman Sakib, Ph.D. Candidate*
4:25 p.m.	**Closing Remarks and Adjorn**

KDOT Update

Woodruff Auditorium

8:40 - 9:10 a.m.

Greg Schieber

Deputy Secretary of Transportation & State Transportation Engineer, KDOT

Schieber has worked at KDOT for 23 years after graduating from the University of Kansas. He has spent the majority of his career on the Operations side of KDOT within the Bureaus of Construction, Materials and Research. In his current position as the Deputy Secretary and State Transportation Engineer he serves as the chief engineering officer for the Kansas Department of Transportation. He is responsible for directing and coordinating all KDOT engineering activities as KDOT delivers their current ten year IKE Transportation Program

Abstract

A Kansas DOT update including progress on delivering the Eisenhower Legacy Transportation (IKE) program, funding and work force.

Learning Objectives

1. KDOT's progress on delivering the IKE program.
2. How the IKE program is funded.
3. What local opportunities are available through the IKE program.

9:10 - 9:30 a.m.

FHWA Update

Woodruff Auditorium

Richard Backlund

Division Administrator Kansas, Federal Highway Administration

Backlund is the division administrator for the FHWA Kansas Division where he leads all aspects of FHWA's approximately $575 million annual transportation program here. Backlund has worked for the FHWA for the past 37 years in seven division offices (Indiana, Rhode Island, Massachusetts, New York, California, South Carolina & Kansas) as well as at FHWA Headquarters in the Offices of Planning, Policy, and Operations. Before working for FHWA - Backlund worked for the Texas DOT for three years in Pavement Design/Construction, Work Zone Traffic Control and advancing the State's ITS program. He is a Civil Engineering graduate from the University of Texas at Austin and is a member of the American Institute of Certified Planners (AICP).

Abstract

The FHWA includes key agency priorities/changes as they advance implementation of the Bipartisan Infrastructure Law with a focus on key updates associated with the asphalt pavement program.

Learning Objectives

1. FHWA key agency highlights update - leadership & key overall emphasis areas.
2. Update attendees on FHWA National Asphalt Program current activities.
3. Update on Kansas Asphalt Program focus areas.

KTA Update

Woodruff Auditorium

9:30 - 10 a.m.

David Jacobson, P.E.

Director of Engineering, KTA

Jacobson has been the Kansas Turnpike Authority's Director of Engineering since 2005 and has worked for the KTA since 1994. He is a 1986 Graduate of Kansas State University with a Bachelor of Science Degree in Civil Engineering. He is a licensed Professional Engineer and is a member of the Kansas Society of Professional Engineers – Topeka Chapter. He serves on the Board of Directors for the Engineers' Foundation of Kansas, the K-TRAN Program Council and is a member of the Kansas Drive to Zero Coalition. He served on the KSU Civil Engineering Advisory Council 2019-2024. David and his wife Connie have two children, daughter Emily, and son Joseph.

Abstract

The Kansas Turnpike Authority update will include a summary of projects and customer service driven improvements from the KTA 2016-2025 Long Term Needs Study, an overview of the recent KTA Roadway Safety Assessment and a look at future projects. Interesting KTA history will also be presented.

Learning Objectives

1. Better understanding of the KTA's customer service driven business operation.
2. How KTA's Cashless Tolling System works, and the benefits of Cashless Tolling.
3. How KTA projects and initiatives are in line with our Mission and Vision.

10:30 - 11:10 a.m.

Asphalt Plant Fuels for Today & Tomorrow

Woodruff Auditorium

Ross Weber

Branch Manager, APAC Shears

Weber has worked for APAC Shears for nearly 40 years. During that time, Weber has held nearly every position within the Hot Mix Asphalt operation. Weber currently manages four asphalt plants and the related construction crews building highways throughout the state of Kansas.

Abstract

I will discuss current fuels used to dry and heat hot mix asphalt and why contractors select the fuels they use. I will also discuss fuels of the future and the progress being made towards making them a reality.

Learning Objectives

1. Fuel options currently available.
2. Fuels of the future.
3. Economic and environmental advantages and disadvantages of each fuel.

Grant & Funding through the Kansas Infrastructure Hub

Woodruff Auditorium

11:10 - 11:50 a.m.

Matt Volz

Executive Director, Kansas Infrastructure Hub

Volz is the executive director of the Kansas Infrastructure Hub. His experience includes 34 years in the infrastructure industry in Kansas, nationally and internationally. Matt began his career with the State of Kansas at KDOT, has been on the private side for the past 22 years and is now back with the State of Kansas. An experienced project manager and grant application manager, Matt has developed over $350 million in successful Federal grant applications for local and state agencies and has developed numerous transportation technology projects over his career. He received his B.S. in Civil Engineering from North Dakota State University, his M.S in Civil Engineering from Kansas State University and is a licensed Professional Engineer.

Abstract

The Kansas Infrastructure Hub is Kansas' coordinated approach identifying best practices from across the nation for deploying funds and maximizing Kansas' Bipartisan Infrastructure Law funding opportunities. A multi-state agency steering committee has been established and includes representatives from the Kansas Departments of Administration, Agriculture, Commerce, Health and Environment, Emergency Management and Transportation, as well as the Kansas Corporation Commission and Kansas Water Office. The Hub is engaged with federal and local agencies to develop partnerships and seek grant funds to strengthen Kansas infrastructure. Water, Transportation, Energy, Broadband, Cybersecurity and Resilience are infrastructure areas the Hub is focused on. The Hub is serving as the processing and clearinghouse for the Build Kansas Fund which is providing $200M in local matching funds over the life of the fund, Fiscal Year (FY) 2024-2027, for Kansas projects funded through the BIL. The presentation will focus on the purpose of the Hub and the services offered, as well as the status of projects in Kansas already receiving Federal grants and funding from the Build Kansas Fund.

Learning Objectives

1. Understand the role of the Kansas Infrastructure Hub.
2. Learn how the Build Kansas Fund is used to provide matching dollars for Federal grants.
3. Learn how to contact the Kansas Infrastructure Hub for assistance.

1:15 - 1:45 p.m.

General Refinery & Asphalt Terminal Operations

Woodruff Auditorium

Kent Ernst

Asphalt Technical Rep, Phillips 66

Ernst has spent 23 years with Phillips 66 at the Wood River Refinery, Roxana, IL. He has served various roles at the Wood River Refinery including, Transportation, Distribution and Short-Term Planning. Short-Term planning asphalt responsibilities included production, blending and quality. For the past three years Ernst has filled the Asphalt Technical Representative role. His current responsibilities include asphalt production quality at the Wood River refinery, Lake Charles, Louisiana refinery, polymer modified asphalt production and asphalt quality at ten terminals in the mid-continent.

Abstract

General refinery operations, emphasizing asphalt binder production. The distribution of asphalt binder from a refinery to the end user or terminal. Asphalt terminal operations and requirements.

Learning Objectives

1. How are refinery product yields impacted by crude oil?
2. How is crude oil fractionated?
3. What is the most efficient way to distribute asphalt binder?

MAINTENANCE TRACK

Best Practices for Crack Sealing

Alderson Auditorium

1:55 - 2:55 p.m.

Austin Stading

Territory Manager, Crafco

Stading has been working for Crafco Since the fall of 2022. He enjoys golfing and coaching his kids sports.

Abstract

This presentation will discuss how pavement preservation will improve and increase the life of your pavement. We will diiscuss the importance of crack sealing, mastic and tech crete to improve roads.

Learning Objectives

1. Why crack sealing is important.
2. How to properly apply crack seal, mastic and tech crete.
3. Cost effective.

1:55 - 2:25 p.m.

ASPHALT TRACK

Mitigating Moisture-Related Road Problems with Wicking Fabric

Woodruff Auditorium

Jie Han

Roy A. Roberts Distinguished Professor, University of Kansas

Dr. Jie Han is a Roy A. Roberts University distinguished professor in the Civil, Environmental and Architectural Engineering Department at the University of Kansas. His research has focused on geosynthetics, ground improvement, pile foundations, buried structures and roadways. Dr. Han has published more than 450 peer-reviewed journal and conference papers. Dr. Han is the immediate president of the ASCE Geo-Institute, the treasurer of the International Geosynthetics Society and the current chair of the TRB Transportation Earthworks Committee. Dr. Han has been invited to give nearly 300 keynote/invited lectures and short courses around the world, including the 2021-2023 GMA Robert M Koerner Award Lecture. He has received numerous awards from the profession and universities including the 2014 the International Geosynthetics Society Award and and the 2024 Irvin E. Youngberg Award from the Kansas State Higher Education system.

Abstract

Moisture has detrimental effects on road performance. In recent years, wicking geotextile has been increasingly used to mitigate moisture-related road problems by facilitating moisture removal through wicking action, lateral drainage and evaporation. This presentation will explain the functions of wicking geotextile and present both laboratory and field studies on its effectiveness in addressing moisture-related road problems, particularly in comparison to sections without geotextile or those utilizing non-wicking geotextile.

Learning Objectives

1. To explain the functions of wicking geotextiles.
2. To demonstrate the effectiveness of wicking geotextile in soil moisture reduction
3. To apply wicking geotextile to solve moisture-related pavement problems.

MAINTENANCE TRACK

Advantage of Thin Lift HMA Overlays

Alderson Auditorium

2:25 - 2:55 p.m.

Mel Monk

Executive Director, Alabama Asphalt Paving Association

Monk graduated from Auburn University with his Bachelor of Civil Engineering Degree in 1991. He is a registered professional engineer in the State of Alabama. After his graduation, he worked with Professional Service Industries (PSI), Inc. in Roanoke, Virginia before returning to Alabama to join the Alabama Department of Transportation. He joined the Alabama Asphalt Pavement Association as executive director in 2002.

Abstract

This presentation will discuss advantages of Thin Lift HMA Overlays including specifications, projects and economic analysis.

Learning Objectives

1. Learn about Thin Lift HMA Overlay Specifications
2. Learn about Thin Lift HMA Overlay Projects.
3. Learn about economics of Thin Lift HMA Overlays.

2:25 - 2:55 p.m.

ASPHALT TRACK

Artificial Intelligence & Asphalt

Woodruff Auditorium

Sean Devine

CEO, XBE

Back in 2016, Devine was looking for what to do next. After selling his previous company (Partage - a semi-automated freight brokerage) at the end of 2014, he was ready to start something new.

Devine wanted to leverage his logistics and technology experience in an area of the economy that had been underserved by innovation. After some interesting discussions with a former classmate who was in the horizontal construction business, he became convinced that something fundamentally better than the status quo was possible. After finishing a successful proof of concept, he decided to start working in earnest on what would become XBE.

KHP Perspective on Work Zone Safety

Woodruff Auditorium

3:25 - 3:55 p.m.

Mark Christesen

Lieutenant, Kansas Highway Patrol Troop G

Lt. Christesen joined the Kansas Highway Patrol in July 2001. He was stationed in Troop A through September 2003 before transferring to Troop G. In July 2008, Christesen was promoted to Master Trooper and in December 2013, he was promoted again to Field Lieutenant.

Abstract

This presentation will discuss traffic safety and distracted driving in regards to work zone safety.

Learning Objectives

1. Traffic crashes and distracted driving.
2. How KHP investigates traffic crashes

3:55 - 4:25 p.m.

Design of Rural Collector Roads Using PaveXpress

Woodruff Auditorium

Jie Han

Roy A. Roberts Distinguished Professor

Syed Shadman Sakib

Ph.D. Candidate

Syed Shadman Sakib is a Ph.D. student in the CEAE Department at KU. He received his Master of Science in Structural Engineering (Geotechnics and Geology) from Budapest University of Technology and Economics, Hungary, in 2024 and Bachelor of Science in Civil Engineering in Islamic University of Technology, Bangladesh, in 2017.

Abstract

This presentation will explain the background and demonstrate the use of the online program – PaveXpress to design rural collector roads including a new asphalt pavement and asphalt overlay on an existing asphalt pavement.

Learning Objectives

1. To demonstrate the abilities of this program.
2. To apply this program for future design of asphalt pavements.

NOTES

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