

# Agenda

*Presented by*  
**Feng Mu, Ph.D., P.E. and Blake Wright, P.E.**

## Principles of Pavement Design

Functions and design criteria of pavements  
Considerations in pavement design

- Traffic
- Materials
- Subgrade soil
- Use of base/soil improvement
- Environment
- Drainage

Pavement modeling and design guidelines

## New Flexible Pavement Design

Asphalt material  
Empirical design method - AASHTO 93  
Mechanistic design methods

## New Rigid Pavement Design

Critical design factors  
AASHTO, ACI, and other mechanistic design methods  
Design optimization

## Pavement Preservation, Maintenance and Rehabilitation

Asphalt pavement maintenance and rehabilitation  
Concrete pavement maintenance and rehabilitation

## Construction and Sustainability of Pavements

Construction related issues  
What is sustainability?  
Measuring sustainability

- Rating systems
- Life-cycle assessments

Developing sustainable pavement designs

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## Pavement Design

Live, Interactive Webinar - Fri., December 11, 2020



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## Learning Objectives

### You'll be able to:

**Study** the impact of traffic, soils, materials, environment and drainage on pavement design.

**Review** AASHTO 93 and AASHTO Pavement ME design methods.

**Examine** flexible and rigid pavement structural design.

**Learn** about pavement preservation, maintenance, and rehabilitation.

**Explore** the sustainability of pavements.



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### Continuing Education Credits

**Professional Engineers**  
6.5 PDHs

**Architects**  
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**AIA**  
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# Faculty

**Feng Mu, Ph.D., P.E.** *Senior Flatwork Engineer at PNA*  
Dr. Mu is a licensed professional engineer in the state of Texas, and he has over 10 years of experience in concrete paving, engineering and research. Dr. Mu has a master’s degree in Geotechnical Engineering and a doctorate degree in Pavement Engineering. He has authored over 30 peer-reviewed technical papers, some of which have been highly recognized or awarded in the pavement community. He currently serves on the Pavement Maintenance Committee of the Transportation Research Board (TRB) of the National Academies. He is also the co-chair of the Pavement Design Committee of the American Concrete Pavement Association (ACPA). Dr. Mu has developed optimized paving solutions and life cycle analysis/assessment for many roadway, commercial and industrial projects.

**Blake Wright, P.E.** *Project Manager, Raba Kistner, Inc.*  
Mr. Wright is responsible for managing geotechnical engineering projects throughout San Antonio and south/central Texas. He first worked for Raba Kistner, Inc., from 2007 to 2014 and recently re-joined the firm in March of 2018. Mr. Wright has extensive experience with all geotechnical engineering applications with a focus on rigid and flexible pavement design, soil stabilization, and pavement construction. Prior to re-joining Raba Kistner, Inc., he was a paving engineer at CEMEX where he was responsible for promoting the use of cement-based paving options which included unreinforced concrete pavements, roller-compacted concrete, cement-stabilized soil and cement-treated base, and full-depth asphalt reclamation. On a daily basis he provided pavement designs, cost analyses, and other technical recommendations to public agencies, developers, consultants, and contractors. Mr. Wright has a bachelor of arts degree in Psychology from Texas A&M University and both bachelor’s and master’s degrees in Civil Engineering from the University of Texas at San Antonio.

# Webinar Information

|                                        |                                          |
|----------------------------------------|------------------------------------------|
| Log into Webinar<br>8:00 - 8:30 am CST | Break<br>11:30 am - 12:30 pm CST         |
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**Electrifying the Transportation Sector: Planning and Designing for Electric Vehicle Usage**  
- Thurs., December 3, 2020 | 11:00 am - 2:15 pm CST  
- Fri., December 4, 2020 | 11:00 am - 2:15 pm CST

**Structural Forensic Engineering**  
- Fri., December 4, 2020 | 7:30 am - 3:30 pm CST

**AIA Contract Document Workshop**  
- Mon., December 7, 2020 | 9:00 am - 5:00 pm CST

**Soil Mechanics and Slope Stabilization, Failures and Repairs**  
- Tues., December 8, 2020 | 10:00 am - 1:45 pm CST  
- Wed., December 9, 2020 | 10:00 am - 2:15 pm CST

**Construction Cost Estimating**  
- Wed., December 9, 2020 | 8:30 am - 3:50 pm CST

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# Registration

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