

Agenda

Principles of Pavement Design

M. Won

- Goals of pavement design
 - Smooth, stable surface and longevity
- Terminology and basic components
 - Pavement section
 - Asphalt and concrete components
 - Loading
- Consulting guidelines and standards
- Collecting data necessary for design
- Economics and lifecycle analysis

Flexible Pavement Design

S. Senadheera

- Soil support and subsurface preparation
- Reclamation and recycling
- Mixture content and pavement thickness
- Preparing and overlaying existing pavement

Rigid Pavement Design

M. Won

- Soil support and subsurface preparation
- Mixture content and pavement thickness
- Preparing and overlaying existing pavements
- Joint design

Rigid Pavement Design, Continued

M. Won

Maintenance and Rehabilitation

M. Won

- | | |
|-------------------------|--------------------------|
| Goals | Distresses |
| Preservation techniques | Rehabilitation practices |

Sustainability of Pavements

S. Senadheera

- | | |
|---|--|
| Carbon footprint analysis <ul style="list-style-type: none">• Treatment• Fuel | <ul style="list-style-type: none">• Raw materials• Traffic delays |
| Environment and LEED credits <ul style="list-style-type: none">• Recycled materials• Runoff filtration zones | <ul style="list-style-type: none">• Pervious pavements |

Pavement Design
El Paso, TX - Thursday, February 22, 2018

NON-PROFIT
U.S. POSTAGE PAID
EAU CLAIRE, WI
PERMIT NO. 2016

Halfmoon Education Inc.
PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

- Explain** terminology and basic components.
- Understand** soil support and subsurface preparation.
- Collect** the data necessary for flexible and rigid pavement design.
- Discuss** joint design.
- Evaluate** pavement preservation techniques and rehabilitation practices.
- Conduct** carbon footprint analysis.



Pavement Design

El Paso, TX - Thursday, February 22, 2018



- | | |
|--|--|
| Understand the principles of pavement design | Discuss preparing and overlaying existing pavements |
| Learn consulting guidelines and standards | Identify pavement preservation techniques |
| Examine both flexible and rigid pavement design | Explore reclamation and recycling |

Continuing Education Credits

- Professional Engineers**
6.5 PDHs
- Contractors**
Non-Credit Continuing Ed.



Faculty

Moon Won, Ph.D., P.E. *Professor of Civil and Environmental Engineering at Texas Tech University*
Mr. Won started his career at the Texas Department of Transportation, where he worked on roadway design, concrete materials and pavement for over 14 years. Currently, he is a professor of Civil and Environmental Engineering at Texas Tech University. His teaching and research areas include concrete pavement design, materials, construction and rehabilitation.

Sanjaya Senadheera, Ph. D. *Director, Texas Tech Center for Multidisciplinary Research in Transportation (TechMRT)*
Dr. Senadheera is an associate professor in the Department of Civil, Environmental and Construction Engineering at Texas Tech University. He also serves as associate director of the Southern Plains Transportation Center (SPTC), a USDOT-funded Regional University Transportation Center (UTC) that focuses on transportation infrastructure with emphasis on extreme climate events. His primary research interests are civil engineering materials, pavement engineering, and sustainable design. He has been involved with transportation research for over 20 years, mostly for Texas DOT, and his research projects have covered topics such as materials engineering, design, constructability, and maintenance of pavements. Dr. Senadheera obtained his M.S. and Ph.D. degrees from Texas A&M University in College Station specializing in Pavement Engineering. At Texas Tech, he has developed and taught graduate courses in advanced pavement materials, advanced pavement design, materials systems for sustainable design, and pavement management systems. Dr. Senadheera has also developed and conducted five statewide training courses for TxDOT engineers during the past 20 years. These include flexible pavement constructability of surface treatments and seal coat, and an eight-hour training module of the training course GEO 102: Geotechnical Applications for Transportation Projects.

Seminar Information

Radisson Hotel El Paso Airport
1770 Airway Blvd.
El Paso, TX 79925
(915) 772-3333

Tuition
\$279 for individual registration
\$259 for three or more registrations.
Each registration includes a complimentary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

Continuing Education Credit Information
This seminar is open to the public and offers 6.5 PDHs to professional engineers in all states. Educators and courses are not subject to preapproval in Texas.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Louisiana, Maryland, New Jersey (Approval No. 24GP00000700), New York (NYSED Sponsor No. 35), North Carolina, and North Dakota. Other states do not preapprove educators or courses.

This course also offers a non-credit continuing education opportunity to contractors. It has not been approved by any contractor licensing entity for mandatory continuing education credit.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can't Attend? Order the CD/Manual Package:
An audio recording of this seminar is available for \$289 (including shipping). Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Additional Learning

February Webinar Series

- Building Operations and Efficiency**
- **Identifying Energy Efficiency Opportunities in Major Renovations**
Thurs., Feb. 1, 2018, 11:00 AM - 12:30 PM CST
 - **Integration of “Energy Modeling” in the Design of High Performance Buildings**
Thurs., Feb. 1, 2018, 1:00 - 2:30 PM CST
 - **High Efficiency Building Design Standards**
Fri., Feb. 2, 2018, 11:00 AM - 12:30 PM CST
 - **Commissioning and Operation of High Performance Buildings**
Fri., Feb. 2, 2018, 1:00 - 3:00 PM CST

- International Mechanical Code**
- **International Mechanical Code Background and Application**
Thurs., Feb. 15, 2018, 11:00 AM - 12:30 PM CST
 - **Chapters 2-5: Definitions, Regulations and Ventilation**
Thurs., Feb. 15, 2018, 1:00 - 3:00 PM CST
 - **Chapters 6-10: Ventilation, Appliances and Equipment**
Fri., Feb. 16, 2018, 11:00 AM - 1:00 PM CST
 - **Chapters 11-15: Refrigeration, Piping and Appendices**
Fri., Feb. 16, 2018, 1:30 - 3:00 PM CST

- NFPA 70E**
- **NFPA 70E, Part I**
Thurs., Feb. 8, 2018, 11:00 AM - 3:30 PM CST
 - **NFPA 70E, Part II**
Fri., Feb. 9, 2018, 11:00 AM - 3:30 PM CST

- National Electrical Code: A Solar Photovoltaic System Perspective**
- **National Electrical Code for Building Professionals, Part I**
Wed., Feb. 21, 2018, 11:00 AM - 2:15 PM CST
 - **National Electrical Code for Building Professionals, Part II**
Thurs., Feb. 22, 2018, 11:00 AM - 2:15 PM CST

For more information visit:
www.halfmoonseminars.org/webinars/

Registration

Pavement Design
El Paso, TX - Thursday, February 22, 2018

How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____
		Company/Firm: _____
		Address: _____
		City: _____ State: _____ Zip _____
		Occupation: _____
		Email: _____
		Phone: _____
Phone: 715-835-5900		Additional Registrants:
Fax: 715-835-6066		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
		Name: _____
		Occupation: _____
		Email: _____
		Phone: _____
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		
Complete the entire form. Attach duplicates if necessary.		
		Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.

() I need special accommodations. Please contact me.

Tuition

() **I will be attending the live seminar.** Single Registrant - **\$279.00**. Three or more registrants from the same company registering at the same time - **\$259.00** each.

() **I am not attending.** Please send me the CD manual package for **\$289.00**. (S&H included. Please allow five weeks from seminar date for delivery)

Checks: Make payable to HalfMoon Education Inc.

Credit Card: *Mastercard, Visa, American Express, or Discover*

Credit Card Number: _____

Expiration Date: _____ CVV2 Code: _____

Cardholder Name: _____

Billing Address: _____

City: _____ State: _____ Zip: _____

Signature: _____

Email: _____