

Agenda

Presented by Artur Daniliants, PE, PTOE

Transportation Planning

- Introduction
- Trip generation
- Modal split
- Trip distribution
- Traffic assignment

Traffic Analysis

- Traffic flow parameters
- Queuing analysis
- Traffic studies
- Capacity and level of service

Functional Classification of Roadways

- Principle arterials
- Minor arterials
- Major and minor collectors
- Urban and rural local roads

Intersections and Interchanges

- Conventional at-grade intersections
- Roundabout
- Diamond, directional and cloverleaf interchanges
- DDI and SPUI interchanges

Traffic Signal

- Types of signalization
- Phasing, timing and offset
- Cycle length
- Signal timing optimization

Elements of Roadway Geometric Design

- Horizontal alignment
- Site distance
- Combination of horizontal and vertical alignments
- Cross-section elements
- Intersection geometry
- Vertical alignment
- Superelevation

Overview of Roadway Design Software

- Autodesk Civil 3D
- Bentley InRoads

Roadway Drainage

- General considerations
- Subsurface drainage
- Surface drainage
- Culverts

Roadway Pavement

- General considerations
- Rigid pavement
- Flexible pavement

Pedestrian and Bicycle Facilities

Safety

Future of Highways

Fundamentals of Roadway Design
Piscataway, NJ - Friday, May 18, 2018

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Learning Objectives

You'll be able to:

Learn the principles of transportation planning and traffic analysis.

Explore the functional classifications of roadways.

Understand the fundamental elements of roadway geometric design.

Identify types of traffic signalization and understand signal phasing, timing and offset.

Compare roadway design software including Autodesk Civil 3D and Bentley InRoads.

Discuss pavement choices and drainage considerations.



Fundamentals of Roadway Design

Piscataway, NJ - Friday, May 18, 2018



Learn about transportation planning and traffic analysis

Understand the elements of roadway geometric design

Discuss the design of intersections and interchanges

Receive an overview of roadway design software

Explore roadway drainage and pavement considerations

Discuss pedestrian and bicycle facilities

Continuing Education Credits

Professional Engineers

6.5 CPC Credits/Continuing Ed. Hours

Contractors

Non-Credit Continuing Education



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Faculty

Artur Daniliants, PE, PTOE is a senior civil/highway design engineer at Arup, a global engineering firm known by its ambitious projects around the world. Expert in all aspects of highway design and traffic engineering, Mr. Daniliants spent most of his carrier working on challenging projects in New York and New Jersey – the nation’s most congested region. Throughout his 25-year professional carrier Mr. Daniliants has been involved in a wide range of highway projects including traffic impact studies; design of roadways, intersections, roundabouts and highway interchanges; design of toll plazas, pedestrian and bicycle facilities; traffic signals, roadway drainage; pavement; and utility relocation. Mr. Daniliants holds a bachelor’s degree in Civil Engineering, and a master’s degree in Traffic Engineering and Transportation Planning. He is a member of American Society of Civil Engineers (ASCE) and The Institute of Transportation Engineers (ITE).

Seminar Information

Embassy Suites Hotel 121 Centennial Ave. Piscataway, NJ 08854 (732) 980-0500	Registration 8:00 - 8:30 am Morning Session 8:30 - 11:45 am	Lunch (On your own) 11:45 am - 12:45 pm Afternoon Session 12:45 - 4:45 pm
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\$279 for individual registration
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Additional Learning

- Webinar Series**
HEC-RAS
- **Hydraulic Principles and Applications**
Thurs., Mar. 22, 2018, 11:00 AM - 1:00 PM CDT
 - **Working with the HEC-RAS User Interface**
Thurs., Mar. 22, 2018, 1:30 - 3:00 PM CDT
 - **Water Surface Profiling**
Fri., Mar. 23, 2018, 11:00 AM - 1:00 PM CDT
 - **Steady Flow Surface Profile Demonstrations**
Fri., Mar. 23, 2018, 1:30 - 3:30 PM CDT

- Commercial Energy Conservation Code**
- **Commercial Energy Conservation Code and COMcheck Introduction**
Weds., Mar. 28, 2018, 11:00 AM - 1:00 PM CDT
 - **Building Envelope Energy Efficiency**
Weds., Mar. 28, 2018, 1:30 - 3:30 PM CDT
 - **Heating, Ventilation and Air Conditioning Systems**
Thurs., Mar. 29, 2018, 11:00 AM - 1:00 PM CDT
 - **Service Water Heating, Power and Lighting**
Thurs., Mar. 29, 2018, 1:30 - 3:00 PM CDT

For more information visit:
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Continuing Education Credit Information

This seminar is open to the public and offers up to 6.5 CPC credits/continuing education hours to professional engineers in all states.

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This course offers a non-credit continuing education opportunity to construction contractors. It has not been approved for required contractor 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.

- The Distributed Battery Webinar Series**
- **The Distributed Battery Webinar, Part I**
Wed., April 4, 2018, 11:00 AM - 2:15 PM CDT
 - **The Distributed Battery Webinar, Part II**
Thurs., April 5, 2018, 11:00 AM - 2:15 PM CDT

- AutoCAD 2018 Beginners 2-D Course**
- **Create a Drawing**
Thurs., April 5, 2018, 11:00 AM - 12:30 PM CDT
 - **Edit a Drawing**
Thurs., April 5, 2018, 1:00 - 2:30 PM CDT
 - **View and Display a Drawing**
Fri., April 6, 2018, 11:00 AM - 12:30 PM CDT
 - **Print, Plot or Print File**
Fri., April 6, 2018, 1:00 PM - 2:30 PM CDT

- Special Inspections**
- **Overview of Special Inspections**
Wed., April 11, 2018, 11:00 AM - 12:30 PM CDT
 - **Steel, Wood and Cold-Formed Steel**
Wed., April 11, 2018, 1:00 - 2:30 PM CDT
 - **Concrete, Masonry and Soils**
Thurs., April 12, 2018, 11:00 AM - 1:00 PM CDT
 - **Fire-Resistant Materials and Material Standards**
Thurs., April 12, 2018, 1:30 PM - 2:30 PM CDT

Registration

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How to Register		Registrant Information
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