

Agenda

Presented by Mark D. Jones, PE

Applications of Open Channel Hydraulics

River and watercourse analysis
Floodplain management
Flood hazard mapping and risk analysis
Channel and levee design
Roadway crossing and bridge analysis and design
Bridge scour analysis

Principles of Hydraulic Analysis

Conservation of energy
Conservation of momentum
Bernoulli Equation
Energy losses
Backwater and forewater calculations
Computer-based analysis and computations

History and Development of US Army Corps of Engineers HEC-RAS Application

HEC-RAS Application User Interface

Program file and project management
Data entry and editing
Results and reporting

GIS data usage
Mapping capabilities

Water Surface Profiling

Flow types
Analysis data required for modeling
Cross section location
Discharge flows and boundary conditions
Step backwater calculations
Model calibration

Bridge and Culvert Modeling

Crossing locations
Ineffective flow areas

Crossing flow regimes
Bridge model setup

Steady Flow Surface Profile Demonstrations 1 and 2

Live demo for typical river reach
Project file setup
Geometry file demo
Steady flow file demo
Setting boundary conditions
Simple river reach modeling tips
Live demo for simple bridge
Setup of typical bridge cross section model
Establishment of ineffective flow areas
Simple bridge modeling tips

Introduction to HEC-RAS Modeling

White Plains, NY - Thursday, November 15, 2018

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PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Discuss applications for open-channel hydraulic analysis, including flood risk assessment and roadway design.

Review hydraulic principles, including the principles of conservation of energy and conservation of momentum.

Learn about the HEC-RAS user interface.

Explore bridge and culvert modeling.

Explore steady flow water surface profiling.



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Understand the applications of open channel hydraulics

Identify the principles of hydraulic analysis and review the history and development of US Army Corps HEC-RAS application

Examine the HEC-RAS user interface

Learn about types of flow and the data required for modeling

Explore steady flow surface profile demonstrations

Continuing Education Credits

Professional Engineers
6.5 Continuing Ed. Hours

Floodplain Managers
6.5 ASFPM CECs

Landscape Architects
6.5 HSW Continuing Ed. Hours
6.5 LA CES HSW PDHs



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Faculty

Mark D. Jones, PE *Principal, Hartech Engineering & Consulting, LLC*

Mr. Jones, PE, is president of Hartech Engineering which was founded in 2007 as a multi-discipline civil engineering consulting firm providing infrastructure, development and municipal design services for the public and private sectors. Mr. Jones brings over 30 years of engineering expertise to the table, along with specific state-of-the-art, computer-aided technology to achieve efficient, cost-saving design solutions. He also provides hydrology and hydraulic studies and reports, along with general civil engineering support for prime consultants to PennDOT or local municipality projects. Mr. Jones is a licensed pilot and studied Military Civil Engineering while serving in the USAF and continues his Masters education locally through Penn State. Additionally, he is also a registered professional engineer in the states of Pennsylvania, Maryland, Arizona and Georgia.

Here’s what past attendees had to say about the program and presenter Mark Jones:

“Comprehensive and relevant.” – *Civil Engineer*

“Mark did a great job capturing the basics and more of a complex model.”– *Hydrologist*

“Outstanding job!” – *Environmental Engineer*

Seminar Information

Crowne Plaza White Plains 66 Hale Avenue White Plains, NY 10601 (914) 682-0050	Registration 8:00 - 8:30 am Morning Session 8:30 am - 12:00 pm	Lunch (On your own) 12:00 - 1:00 pm Afternoon Session 1:00 - 4:30 pm
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Tuition

\$279 for individual registration

\$259 for three or more simultaneous registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual.

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. You may also send another person to take your place.

Additional Learning

Webinar Series

Off-grid Photovoltaic Master Class

- **Off-grid Photovoltaic Master Class, Part I**
Wed., Oct. 3, 2018, 11:00 AM - 2:15 PM CDT
- **Off-grid Photovoltaic Master Class, Part II**
Thurs., Oct. 4, 2018, 11:00 AM - 2:15 PM CDT

Stormwater Management Systems

- **Basics of Stormwater Regulations and Requirements, Including New EPA Regulations**
Thurs., Oct. 4, 2018, 11:00 AM - 12:00 PM CDT
- **Working with the Regulator**
Thurs., Oct. 4, 2018, 12:30 - 2:00 PM CDT
- **Site Planning and Choosing Best Management Practices**
Fri., Oct. 5, 2018, 11:00 AM - 12:00 PM CDT
- **Long-term Stormwater Management Practices**
Fri., Oct. 5, 2018, 12:30 - 2:00 PM CDT

For more information
and other online learning opportunities visit:
www.halfmoonseminars.org/webinars/

Floodplain Mapping and Regulation

- **Floods, Floodplains and Introduction to Floodplain Management**
Wed., Oct. 10, 2018, 11:00 AM - 12:30 PM CDT
- **Flood Maps and Flood Zones**
Wed., Oct. 10, 2018, 1:00 - 2:30 PM CDT
- **Elevations in the National Flood Insurance Program (NFIP) and Floodplain Regulation**
Thurs., Oct. 11, 2018, 11:00 AM - 12:30 PM CDT
- **Practical Floodplain Management**
Thurs., Oct. 11, 2018, 1:00 - 2:30 PM CDT

HEC-RAS Webinar Series

- **Hydraulic Principles and Applications**
Thurs., Oct. 18, 2018, 11:00 AM - 1:00 PM CDT
- **Working with the HEC-RAS User Interface**
Thurs., Oct. 18, 2018, 1:30 - 3:00 PM CDT
- **Water Surface Profiling**
Fri., Oct. 19, 2018, 11:00 AM - 1:00 PM CDT
- **Steady Flow Surface Profile Demonstrations**
Fri., Oct. 19, 2018, 1:30 - 3:30 PM CDT

Continuing Education Credit Information

This seminar is open to the public and offers up to 6.5 HSW continuing education hours to professional engineers and landscape architects in New York.

HalfMoon Education is deemed a New York-approved continuing education provider for landscape architects via its affiliation with the American Institute of Architects. HalfMoon Education is an approved continuing education provider for New York engineers (NYSED Sponsor No. 35).

This event is approved by the Landscape Architecture Continuing Education System for 6.5 HSW PDHs. Only full attendance can be reported to the LA/CES.

The Association of State Floodplain Managers has approved this course for 6.5 CECs.

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.

Registration

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How to Register		Registrant Information
Online: www.halfmoonseminars.org		Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____
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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.

Checks: Make payable to HalfMoon Education Inc.

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

Credit Card Number: _____

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