Agenda

Presented by Chris Naidu, PE

Applications for Open Channel Hydraulic Analysis
- Flood risk assessment
- Floodplain management
- Roadways, bridge and culvert design
- New channel or channel modification projects

Hydraulic Principles
- Conservation of energy and momentum
- Energy losses and Manning's equation
- Backwater effects
- Need for computer models

History and Development of US Army Corps HEC-RAS Software

Working with the HEC-RAS User Interface
- File management
- Data entry and editing
- Displays, mapping, animations and reporting

Steady Flow Water Surface Profiling
- Types of flow: uniform flow, rapidly and gradually varied flow
- Data required
- Locating cross sections
- Setting boundary conditions
- Calculating water profiles in HEC-RAS

Special Elements
- Bridge and culvert modeling
- Lateral and diversion structures

Steady Flow Simulation 1
- Demonstration for standard stream flow
- Project file setup
- Setting geometry and boundary conditions
- Modeling tips

Steady Flow Simulation 2
- Demonstration for a standard bridge
- Modeling tips

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Introduction to HEC-RAS Modeling
Live, Interactive Webinar - Friday, February 25, 2022

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

Learning Objectives

You'll be able to:

Use open channel hydraulic analysis to asses flood risk, manage floodplains and design roadways and bridges.

Examine hydraulic principles, including conservation of energy and momentum.

Learn about working with the HEC-RAS user interface to create displays, mapping and animations.

Identify different types of flow, including uniform flow and rapidly and gradually varied flow.

Gather data and calculate water profiles in HEC-RAS.

Participate in a demonstration of standard stream flow and get modeling tips.

Model bridges and culverts.

HalfMoon Education Live Webinars

Introduction to HEC-RAS Modeling

Live, Interactive Webinar - Friday, February 25, 2022

Use open channel hydraulic analysis to asses flood risk and design roadways and bridges

Use hydraulic principles to model surface water behavior

Work with the US Army Corps HEC-RAS user interface

Explore steady flow water surface profiling

Participate in a demonstration of standard stream flow modeling

Participate in a demonstration of bridge modeling

Continuing Education Credits

Professional Engineers
7.0 PDHs

Floodplain Managers
7.0 ASFPM CECs

Landscape Architects
7.0 HSW CE Hours
7.0 LA CES HSW PDHs

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WWW.HALFMOONSEMINARS.ORG

Faculty

Chris Naidu, PE *Water Resources Civil Engineer, Senior Project Manager at RESPEC*

Mr. Naidu has more than 10 years of experience in drainage and flood control projects throughout New Mexico. His experience includes preparation of drainage management plans (DMP), hydrologic analysis, hydraulic analysis of flood control structures, sediment transport, and scour analysis for unlined arroyos and bridge structures. Using modeling/analysis software, Mr. Naidu produces high-quality hydrologic and hydraulic models. He has a proven record of preparing easy to understand reports and corresponding maps and figures. He has prepared hydrographs and analyzed storm drains, weirs, pump stations, and detention/surge ponds. Additional skills include preparation of plan specifications, bidding and construction plans, cost estimates, and bidding services. He is familiar with Arc Geographic Information System (ArcGIS), Hydrologic Engineering Center (HEC) Hydrologic Modeling System, HEC Geospatial Hydrologic Modeling Extension (geoHMS0), HEC River Analysis System, US Environmental Protection Agency Storm Water Management Model (EPA SWMM), StormCad, and CulvertMaster.

Additional Learning

Handling Ethical Issues in Construction
- Tues, Jan 18, 2022|3:00 - 5:00 pm CST

Construction Cost Estimating
- Thurs, Jan 20, 2022|8:30 am - 4:30 pm CST

Current Issues in Landscape Architecture for the Eastern US
- Fri, Jan 21, 2022|7:30 am - 4:00 pm CST

Current Issues for Land Surveyors
- Mon, Jan 24, 2022|8:30 am - 3:30 pm CST

Erosion and Sediment Control
- Tues, Jan 25, 2022|8:30 am - 5:00 pm CST

How to Calculate Soil Volumes for Cut and Fill
- Wed, Jan 26, 2022|1:30 - 4:30 pm CST

Current Issues for Landscape Architects in the West
- Thurs, Jan 27, 2022|11:00 am - 3:30 pm CST
- Fri, Jan 28, 2022|11:00 am - 2:30 pm CST

Seismic Design and Construction
- Thurs, Jan 27, 2022|8:30 am - 5:00 pm CST

Stormwater Best Management Practices
- Thurs, Jan 27, 2022|8:30 am - 5:00 pm CST

Introduction to HEC-HMS Modeling
- Mon, Jan 31, 2022|8:30 am - 5:00 pm CST

2021 International Property Maintenance Code
- Wed, Feb 2, 2022|9:00 am - 4:00 pm CST

Estimating the Cost of Sitework
- Wed, Feb 9, 2022|7:30 am - 3:30 pm CST

Construction Contract Workshop
- Thurs, Feb 10, 2022|9:00 am - 5:00 pm CST

Project Management for Engineers
- Fri, Feb 11, 2022|8:30 am - 5:00 pm CST

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Webinar Information

Log into Webinar
8:00 - 8:30 am CST

Break
12:00 - 1:00 pm CST

Morning Session
8:30 am - 12:00 pm CST

Afternoon Session
1:00 - 5:00 pm CST

Tuition

$289 for individual registration
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Included with your registration: *PDF seminar manual.*

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Continuing Education Credit Information

This webinar offers 7.0 PDHs to professional engineers in all states and 7.0 HSW CE hours to landscape architects in all states except New Jersey.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers, architects and landscape architects via its registration with the Landscape Architecture Continuing Education System (Regulations of the Commissioner §68.14(i)(2), §69.6(i)(2) and §79-1.5(i)(2)). LA CES approval qualifies this course for landscape architects licensed in Florida and North Carolina. HalfMoon Education is not seeking approval for landscape architects in New Jersey. Other states do not preapprove continuing education providers or courses.

The Landscape Architecture Continuing Education System has approved this course for 7.0 HSW PDHs. Only full participation is reportable to LA CES.

This webinar has been approved by the Association of State Floodplain Managers for 7.0 CECs for floodplain managers.

Completion certificates will be awarded to participants who complete this event, respond to prompts and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Registration

Introduction to HEC-RAS Modeling

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How to Register

Online:
www.halfmoonseminars.org

Phone:
715-835-5900

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Complete the entire form.
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Tuition

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