

Agenda

Presented by Chris Naidu

Understanding Open Channel Flow and Pipe Flow

- Understanding pipe flow
- Understanding open channel hydraulics
- Examining types of open channel flows
- Looking at examples of open channels

Making Open Channel Calculations

- Channel shapes and varying flow
- Manning's equation and open channels
- Uniform flow calculations
- Critical flow calculations
- Varied flow

Evaluating Channel Shapes

- Evaluating the effect of channel shapes:
 - Trapezoidal, parabolic

Evaluating Channel Linings

- Smooth surfaces
- Uneven or rough surfaces
- Vegetated surfaces

Designing Open Channels

- Low slope
- Steep slope
- Transitions

Applications for Open Channels and Case Studies

- Stormwater management
- Drainage
- Stream flow

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Open Channel Hydraulics and Design

Live, Interactive Webinar - Friday, June 10, 2022



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

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Learning Objectives

You'll be able to:

Apply the physics of pipe flow and open channel flow to stormwater, drainage and stream flow applications.

Get tips on making open channel flow calculations, and consider channel shapes and varied flow.

Take into account the effect of different channel shapes and linings.

Explore the effect of vegetated surfaces in channels.

Design open channels for low and steep slopes.

Discuss considerations for making transitions between different types of open channels.



HalfMoon Education Live Webinars

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Examine open channel hydraulics and examples of open channels

Study channel shapes and varying flow

Learn about making open channel calculations

Evaluate channel linings, including smooth, uneven, rough and vegetated surfaces

Explore open channels with low and steep slopes

Review applications for open channels including stormwater management, drainage and stream flow

Continuing Education Credits

Professional Engineers
6.5 PDHs

Landscape Architects
6.5 HSW CE Hours
6.5 HSW PDHs

Floodplain Managers
6.5 ASFPM CECs



Faculty

Chris Naidu *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 (geoHMS, HEC River Analysis System(HEC-RAS), US Environmental Protection Agency Storm Water Management Model (EPA SWMM), StormCad, and CulvertMaster.

Webinar Information

Log into Webinar 8:00 - 8:30 am CDT	Break 12:00 - 1:00 pm CDT
Morning Session 8:30 am - 12:00 pm CDT	Afternoon Session 1:00 - 4:30 pm CDT

Tuition
\$319 for individual registration
\$289 for two or more registrants from the same company at the same time.
Included with your registration: PDF 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

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

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Additional Learning

- 2020 National Electrical Code Update**
- Fri, May 6, 2022 | 8:30 am - 4:00 pm CDT
- Orthometric Heightening with GNSS**
- Tues, May 10, 2022 | 9:00 am - 1:15 pm CDT
- Structural Design Loads under the ASCE 7-22 Standard**
- Thurs, May 12, 2022 | 9:00 am - 4:30 pm CDT
- Urban Stormwater System Design and Construction**
- Thurs, May 12, 2022 | 8:30 am - 4:30 pm CDT
- International Existing Building Code 2021**
- Tues, May 17, 2022 | 9:00 am - 4:30 pm CDT
- Managing Construction Projects**
- Thurs, May 19, 2022 | 8:30 am - 5:00 pm CDT
- Site Design: Grading and Drainage**
- Fri, May 20, 2022 | 8:30 am - 4:30 pm CDT
- HEC-RAS Modeling Basics**
- Mon, May 23, 2022 | 8:30 am - 5:00 pm CDT
- Aerial Mapping Technologies and Procedures**
- Tues, May 24, 2022 | 8:30 am - 5:00 pm CDT
- How to Design a Stormwater Management System for Residential Sites**
- Tues, May 24, 2022 | 2:00 - 4:00 pm CDT
- Flood-Resistant Design and Construction**
- Wed, May 25, 2022 | 11:00 am - 2:00 pm CDT
- Thurs, May 26, 2022 | 11:00 am - 3:00 pm CDT
- Soil Mechanics, Bearing Capacity and Slope Stabilization**
- Wed, May 25, 2022 | 8:30 am - 4:30 pm CDT
- Federal Wetlands Science, Law, and Compliance**
- Fri, June 3, 2022 | 9:00 am - 4:00 pm CDT

Continuing Education Credit Information
This webinar is open to the public and offers 6.5 PDHs to professional engineers and 6.5 HSW CE hours to landscape architects in most states that allow this learning method. Please refer to specific state rules to determine eligibility.

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 and landscape architects via its registration with the Landscape Architecture Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §79-1.5(i)(2)). Other states do not preapprove continuing education providers or courses.

The Association of State Floodplain Managers has approved these courses for 6.5 CECs for floodplain managers.

The Landscape Architecture Continuing Education System has approved this course for 6.5 HSW PDHs. Only full participation is reportable to the LA CES.

Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the quiz that follows the course (multiple attempts allowed).

Added Value:
Enhance your learning - a recording of this webinar will be available for attendees to stream online for two weeks after the program date.
(Must attend live webinar to earn live webinar credits)

Registration

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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 webinar. Single Registrant - \$319.00 . Two or more registrants from the same company registering at the same time - \$289.00 each. () I am not attending. Please send me the webinar recording: <input type="checkbox"/> Streamable MP4 Video/PDF Manual for \$329.00 . <input type="checkbox"/> USB Video/PDF Manual for \$329.00 .	
Checks: Make payable to HalfMoon Education Inc. Credit Card: <i>Mastercard, Visa, American Express, or Discover</i> Credit Card Number: _____ Expiration Date: _____ CV2 Code: _____ Cardholder Name: _____ Billing Address: _____ City: _____ State: _____ Zip: _____ Signature: _____ Email: _____	