

# Agenda

*Presented by: Casey Hemmatyar*

## Examining the Role of Forensic Engineering

- Causes and consequences of structural failures
- Importance of good design
- Impact of codes and standards
- Legal and economic impacts of failures
- Results and consequences of forensic engineering

## Understanding the Forensic Engineering Process

- Documenting the failure
- Conducting investigation and research
- Test protocols and tests
- Determining causation and responsibility
- Learning from failure

## Preparing the Forensic Engineering Report

- Identifying the report's purpose and its audience
- Examining content
- Organizing the report
- Evaluating sample reports

## Understanding Causes of Structural Failures

- Lessons learned from historic failures
- Design errors
- Defective construction
- Material deficiencies
- Excessive loadings
- Deterioration and degradation

## Forensic Examination of Structures

- Investigation of steel structures
- Investigation of wood structures
- Investigation of concrete structures
- Investigation of masonry and building facades
- Load testing and instrumentation of existing structures

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**Structural Forensic Engineering**  
Reno, NV - Tuesday, July 30, 2019

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



## Learning Objectives

### ***You'll be able to:***

**Discuss** the importance of good design and the impact of codes and standards.

**Explore** the results and consequences of forensic engineering.

**Understand** how forensic engineering can help to determine causation of and responsibility for failures.

**Review** the content of forensic engineering reports.

**Analyze** the legal and economic impacts of failures.

**Evaluate** design errors and material deficiencies.

**Learn** about the forensic investigation of steel, wood and concrete structures.



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# Structural Forensic Engineering

*Reno, NV - Tuesday, July 30, 2019*



**Understand** the role of forensic engineering

**Identify** the contents of forensic engineering reports

**Examine** the causes of structural failures

**Discuss** tests and test protocols

**Learn** lessons from historic failures

**Explore** the importance of good design

## Continuing Education Credits

### **Architects**

6.0 HSW CEUs  
6.0 AIA HSW Learning Units

### **Professional Engineers**

6.0 PDHs

### **Contractors**

Non-Credit Continuing Ed.



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# Faculty

**Casey Hemmatyar** *Engineer with Pacific Structural and Forensic Engineers Group*



As a forensic structural and civil engineer and an expert consultant with over three decades of experience, Mr. Hemmatyar has provided extensive services for defendant and plaintiff attorneys on construction litigation matters in single cases and class actions in both state and federal courts. His understanding of core legal concepts has enabled him to assist his attorney clients in the most efficient manner. He brings diversified experience in the fields of structural, civil and forensic engineering including experience in design, investigation, evaluation, research, building code and standards development, and construction supervision of US, Canada and international projects. His experience includes new buildings and special structures, as well as modifications, alterations, seismic/wind retrofits and upgrades. He has provided failure analysis, expert consultation, structural forensic investigation and damage assessment services for many litigation and insurance-related matters. He has been principal structural engineer on projects for clients such as NASA and several other high profile agencies. Currently he works as director at PSFEG, and he served as director for the Structural Engineers Association of Southern California (SEAOSC) in 2011-2013.

**Here’s what past attendees had to say about the program and presenter Casey Hemmatyar:**

“Personal case studies and explanation made information presented more meaningful/memorable.” – *Architect*

“Good refresher. Enjoyed the examples.” – *Structural Engineer*

# Seminar Information

**Courtyard by Marriott Reno**  
6855 South Virginia Street  
Reno, NV 89511  
(775) 851-8300

### Tuition

**\$289** for individual registration  
**\$269** 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](http://www.halfmoonseminars.org).

### How to Register

- Visit us online at [www.halfmoonseminars.org](http://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 self-study package. You may also send another person to take your place.

### Continuing Education Credit Information

This seminar is open to the public. It offers 6.0 HSW continuing education units/continuing education hours architects and 6.0 PDHs to professional engineers in all states. Educators and courses are not subject to preapproval in Nevada.

This seminar is approved by the American Institute of Architects for 6.0 HSW Learning Units (Sponsor No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700), North Carolina, and North Dakota. HalfMoon Education is deemed an approved continuing education sponsor for New York architects.

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

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.

# Additional Learning

### Webinar Series

#### Fire Protection and Building Codes

- **Introduction to Fire Protection and Life Safety Design**  
Thurs., June 6, 2019, 11:00 AM - 12:30 PM CDT
- **Occupancy Classifications**  
Thurs., June 6, 2019, 1:00 - 2:30 PM CDT
- **Means of Egress**  
Fri., June 7, 2019, 11:00 AM - 1:00 PM CDT
- **Fire Protection Features and Occupancy Exercises**  
Fri., June 7, 2019, 1:30 - 3:30 PM CDT

#### Distributed Battery Webinar

- **The Distributed Battery Webinar, Part I**  
Wed., June 12, 2019, 11:00 AM - 2:15 PM CDT
- **The Distributed Battery Webinar, Part II**  
Thurs., June 13, 2019, 11:00 AM - 2:15 PM CDT

#### Water Conservation

- **Evaluating the Owner’s Commitment to Water Conservation and Applicable Codes and Standards**  
Thurs., June 13, 2019, 11:00 AM - 12:30 PM CDT
- **Assessing the Building Site**  
Thurs., June 13, 2019, 1:00 - 2:00 PM CDT
- **Conserving and Reducing Water Use**  
Fri., June 14, 2019, 11:00 AM - 1:00 PM CDT
- **Onsite Water Recycling and Minimizing Water Use**  
Fri., June 14, 2019, 1:30 - 3:30 PM CDT

#### International Existing Building Codes

- **Working with the International Existing Building Code**  
Thurs., June 20, 2019, 11:00 AM - 12:30 PM CDT
- **Chapters 3, 4 & 6**  
Thurs., June 20, 2019, 1:00 - 3:00 PM CDT
- **Chapters 7-10: Alterations and Occupancy**  
Fri., June 21, 2019, 11:00 AM - 1:00 PM CDT
- **Chapters 11, 12 and 14: Additions and Historic Buildings**  
Fri., June 21, 2019, 1:30 - 3:00 PM CDT

For more information visit:  
[www.halfmoonseminars.org/webinars/](http://www.halfmoonseminars.org/webinars/)

### Can’t Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package!

Audio recordings of this seminar are available for purchase starting at \$269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

# Registration

## Structural Forensic Engineering

Reno, NV - Tuesday, July 30, 2019

| How to Register                                                                          |  | Registrant Information                                                                                                                                              |
|------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Online:</b><br><a href="http://www.halfmoonseminars.org">www.halfmoonseminars.org</a> |  | Name: _____                                                                                                                                                         |
| <b>Phone:</b><br>715-835-5900                                                            |  | Company/Firm: _____                                                                                                                                                 |
| <b>Fax:</b><br>715-835-6066                                                              |  | Address: _____                                                                                                                                                      |
| <b>Mail:</b><br>HalfMoon Education Inc.,<br>PO Box 278, Altoona, WI<br>54720-0278        |  | City: _____ State: _____ Zip: _____                                                                                                                                 |
| <b>Complete the entire form.</b> Attach duplicates if necessary.                         |  | Occupation: _____                                                                                                                                                   |
|                                                                                          |  | Email: _____                                                                                                                                                        |
|                                                                                          |  | Phone: _____                                                                                                                                                        |
|                                                                                          |  | <b>Additional Registrants:</b>                                                                                                                                      |
|                                                                                          |  | Name: _____                                                                                                                                                         |
|                                                                                          |  | Occupation: _____                                                                                                                                                   |
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|                                                                                          |  | Name: _____                                                                                                                                                         |
|                                                                                          |  | Occupation: _____                                                                                                                                                   |
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|                                                                                          |  | 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 - **\$289.00**. Three or more registrants from the same company registering at the same time - **\$269.00** each.
- ( ) **I am not attending.** Please send me the self-study package:
- ☐ Downloadable MP3 Audio/PDF Manual for **\$269.00**.
  - ☐ CD/Manual Package for **\$289.00**.
- (Please allow four weeks from seminar date for delivery)

**Checks:** Make payable to HalfMoon Education Inc.

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

|                                         |
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