Structural Forensic Engineering
Live, Interactive Webinar - Tuesday, September 29, 2020

Learning Objectives

You’ll be able to:

Discuss the importance of good design and code compliance in the design of structures.

Understand the legal and economic impacts of structural failures.

Describe the forensic engineering process from failure documentation, through testing and determination of causation.

Identify common causes of structural failures, including material deficiencies, design errors, construction errors, excessive loading and deterioration.

Discuss the forensic examination of steel, concrete, wood and masonry structures.

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
Material deficiencies
Design errors
Construction errors
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
Lead testing and instrumentation of existing structures

Using Forensic Engineering Information in Litigation
Examining the nature of post-failure conflicts and disputes
Understanding the use of forensic engineering information in arbitration, litigation and mediation
Presenting forensic engineering information as an expert witness
- Expert witness qualifications
- Offering testimony as an expert witness

Continuing Education Credits
Professional Engineers
6.5 PDHs

Architects
6.5 HSW CE Hours

International Code Council
.65 CEUs (Building)

Presented by Mr. Collins O.Y. Ofori-Amanfo, P.E.

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
Material deficiencies
Design errors
Construction errors
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
Lead testing and instrumentation of existing structures

Using Forensic Engineering Information in Litigation
Examining the nature of post-failure conflicts and disputes
Understanding the use of forensic engineering information in arbitration, litigation and mediation
Presenting forensic engineering information as an expert witness
- Expert witness qualifications
- Offering testimony as an expert witness

You’ll be able to:

Discuss the importance of good design and code compliance in the design of structures.

Understand the legal and economic impacts of structural failures.

Describe the forensic engineering process from failure documentation, through testing and determination of causation.

Identify common causes of structural failures, including material deficiencies, design errors, construction errors, excessive loading and deterioration.

Discuss the forensic examination of steel, concrete, wood and masonry structures.

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
Material deficiencies
Design errors
Construction errors
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
Lead testing and instrumentation of existing structures

Using Forensic Engineering Information in Litigation
Examining the nature of post-failure conflicts and disputes
Understanding the use of forensic engineering information in arbitration, litigation and mediation
Presenting forensic engineering information as an expert witness
- Expert witness qualifications
- Offering testimony as an expert witness
Faculty

Mr. Collins O.Y. Ofori-Amanfo, P.E., is a board certified diplomate forensic engineer and is the owner and principal engineer of Collins Forensics LLP. Prior to establishing Collins Forensics LLP, Mr. Ofori-Amanfo previously worked for many years at Wiss, Janney, Elstner Associates, Inc. (WJE), the Illinois Department of Transportation and Twin City Testing Corporation. He received his B.S. degree in Civil Engineering from the University of Science and Technology in Ghana and his M.S. degree in Structural Engineering from the University of Minnesota. Minneapolis. Mr. Ofori-Amanfo is a registered professional engineer in Minnesota, Wisconsin, Iowa, North Dakota, Nebraska and Illinois. His broad-based experience includes investigation of collapsed structures, investigation of construction defects and damage, investigation of condensation in building envelopes, evaluation of roof and wall leakage, field water spray testing of windows, and assessment of wind and hail damage to buildings. His work also involves giving expert testimony and assisting attorneys in resolving disputes over construction and materials-related problems. Mr. Ofori-Amanfo has been an instructor at HalfMoon Education Inc.’s Structural Forensic Engineering Continuing Education Seminars in Kentucky, North Carolina, North Dakota, South Dakota, Minnesota, Texas, Iowa and Nebraska.

Additional Learning

Current Issues in Interior Design
- Mon., Sept. 21, 2020 | 11:00 am - 1:30 pm CDT
- Tues., Sept. 22, 2020 | 11:00 am - 1:25 pm CDT
Designing for Accessibility under ADA Standards and IBC
- Tues., Sept. 22, 2020 | 10:00 am - 2:00 pm CDT
- Wed., Sept. 23, 2020 | 10:00 am - 2:00 pm CDT
Floodplain Modeling, Mapping and Regulation
- Tues., Sept. 22, 2020 | 10:00 am - 2:00 pm CDT
- Wed., Sept. 23, 2020 | 10:00 am - 2:00 pm CDT
Geothermal Heating and Cooling: Technology and Applications
- Tues., Sept. 22, 2020 | 8:30 am - 4:30 pm CDT
- Wed., Sept. 23, 2020 | 10:00 am - 1:30 pm CDT
Wood as a Raw Building Material
- Wed., Sept. 23, 2020 | 9:00 am - 2:30 pm CDT
- Fri., Sept. 25, 2020 | 9:00 am - 1:00 pm CDT
Drones in Construction
- Thurs., Sept. 24, 2020 | 9:00 am - 2:30 pm CDT
- Fri., Sept. 25, 2020 | 9:00 am - 1:00 pm CDT

Introduction to Mass Timber Construction
- Fri., Sept. 25, 2020 | 10:00 am - 1:30 pm CDT

International Plumbing Code
- Fri., Sept. 25, 2020 | 8:30 am - 5:00 pm CDT

2018 International Residential Code: Structural Construction
- Fri., Sept. 25, 2020 | 1:00 pm - 3:00 pm CDT

Parking Structure Design, Construction and Maintenance
- Tues., Sept. 29, 2020 | 10:00 am - 3:00 pm CDT
- Wed., Sept. 30, 2020 | 11:00 am - 2:30 pm CDT

Project Management Fundamentals for Engineers
- Tues., Sept. 29, 2020 | 8:30 am - 4:00 pm CDT

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

Continuing Education Credit Information
This webinar offers 6.5 PDHs to professional engineers and 6.5 HSW continuing education hours to architects in all states.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0064647), Indiana (License No. CE2170059), Maryland, New Jersey (Approval No. 26G00006700), North Carolina (S-0130), and North Dakota. HalfMoon Education is deemed an approved continuing education provider for New York engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)). Other states do not preapprove continuing education providers or courses. The American Institute of Architects Continuing Education System has approved this course for 6.5 LU|HSW (Sponsor No. 1888). Only full participation is reportable to the AIA/CES. The International Code Council has approved this event for 6.5 CEUs in the specialty area of Building (Preferred Provider No. 1232).

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

Can’t Attend? Order the Webinar as a Self-Study Package!
Recordings of this webinar are available for purchase. 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.

Tuition

- I will be attending the live webinar. Single Registrant - $299.00. For more than three registrants from the same company registering at the same time - $199.00 each.
- I am not attending. Please send me the webinar recording:
  - Streamable MP4 Video/PDF Manual for $279.00
  - USB Video/PDF Manual for $279.00

Checks: Make payable to HalfMoon Education Inc.
Credit Card: Mastercard, Visa, American Express, or Discover
Credit Card Number:
Expiration Date: CVV2 Code:

Billing Address:
City: State: Zip:
Signature:
Email:

© 2020 HEI •20 USSTFENG 9 29 WEBR CP