CALL FOR ABSTRACTS & SESSION PROPOSALS

9th FORENSIC ENGINEERING CONGRESS
Denver, Colorado | November 5-8, 2021

Elevating Forensic Engineering

Call for papers: https://catalyst.omnipress.com/asce_forensic_engineering_2021
Elevating Forensic Engineering through Collaboration

Forensic engineering is the application of engineering and scientific principles to the investigation of serviceability and catastrophic failures. Failures need not be catastrophic, such as a building collapse but can include components or assemblies that do not perform as intended. Forensic engineering may involve providing testimony of investigation findings at mediation, arbitration, or in a court of law. Forensic engineering relies on the collaboration of many disciplines to understand failures and resolve disputes.

Why attend?

Organized by ASCE’s Forensic Engineering Division, the congress will bring together practicing engineers, academics, and forensic experts from various disciplines to share their knowledge and experience. Attending will provide you with the opportunity to learn from the experience of others, to share your experience by presenting a paper, participate in a committee meeting focused on specific aspects of forensic engineering, attend a workshop led by industry experts, and network in a way that will allow collaboration with others.

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Congress Theme

The practice of forensic engineering is most successful when issues are addressed through collaboration among disciplines. When owners, insurance professionals, attorneys, scientists, architects, engineers and other design professionals work together to understand the issues, they can find answers and present sound arguments supporting their opinions to resolve disputes. Frequently, engineers can benefit from the experience of engineers from other disciplines, materials scientists, architects, and financial, loss, and scheduling experts. What better venue than the Mile High City for elevating forensic engineering through collaboration!

Target Audience

- Civil Engineers
- Structural Engineers
- Geotechnical Engineers
- Construction Engineers
- Architects
- Building Scientists
- Construction Managers
- Contractors
- Facility Managers
- Risk Managers
- Attorneys
- Insurance Professionals
Success through Diversification

ASCE’s Forensic Engineering Division (FED) is pleased to collaborate with ASCE Colorado Section, ASCE Institutes, Divisions, and Committees, the legal and insurance communities, and other cooperating organizations on the 9th Forensic Engineering Congress. The goals of the Congress are to develop, improve, and promulgate best practices and procedures to reduce the number of failures; to demonstrate and promote the use of advanced technologies in forensic investigation, to disseminate information on civil infrastructure failures and their causes; to provide guidelines for conducting failure investigations, and to promote ethical conduct in forensic engineering.

We invite abstracts for technical papers, sessions, and panel discussions on forensic engineering topics within the following tracks.

### Suggested Topics

**Building Enclosure (roof, facades, foundation)**
- Performance and durability
- Building science (water, air, thermal, vapor)
- Energy performance and modeling
- Architectural materials and products
- Façade/structure interfaces and interaction
- Innovations in façade and roof assessment
- Adapting legacy facades to modern requirements

**Infrastructure Performance**
- Pipelines, water/wastewater, dams, levees, and treatment plants
- Recreational facilities (arenas, stadiums, stages, tents, and theaters)
- Special structures, including retaining walls, tall buildings, schools, and temporary structures
- Transportation, including airports, bridges, highways, parking facilities, railroads, and tunnels
- Transmission towers and wind turbines

**Natural Disasters and Extreme Conditions**
- Failures caused by tornados, hurricanes, flooding, earthquakes, tsunamis
- Blast and impact loading
- Fire
- Risk management
- Emergency response
- Lifeline engineering
Success through Diversification

Technologies for Forensic Investigation
- Emerging technologies i.e., machine learning, artificial intelligence, and data science
- Building information modeling (BIM)
- Structural health monitoring
- Remote sensing
- Nondestructive testing
- Sampling and statistical analysis

Forensic Engineering Education
- Historical failures
- Use of case studies in forensic engineering education
- Teaching the investigation process
- Forensic engineering course content

Construction Performance and Safety
- Adjacent construction (damages, protection, shoring, and undermining)
- Demolition and excavation (collapse and implosion)
- Equipment (cranes and scaffolding)
- Loads (instability, temporary, and construction loading)
- Worker safety (OSHA)

Professional Practice in Forensic Engineering
- Engineering ethics, codes of ethics, and case studies in ethics
- Standard of care and engineering judgment
- Conducting the right investigation for your client
- Marketing a forensic engineering practice
- Working with attorneys and insurance professionals
- The legal process in the time of COVID-19
Repairs and Remediation
- Structural repairs
- Innovative approaches to repairs
- Strengthening methods
- Advanced construction materials and methods
- Repair-induced problems

Colorado Topics
- Expansive soils
- Localized high-velocity wind regions and cold regions
- Snow loads and snow drifting
- Material issues – reactive aggregates in concrete, coating failures, and corrosion of structural steel, establishing timber design values in older structures
- Threshold inspections to reduce failures, water control layer failures

Deadlines and Important Dates

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*Authors must register for the conference by this date or their paper(s) will be removed from the proceedings, and they will not be permitted to present their paper(s).
DESTINATION Denver, Colorado

JOIN US IN THE MILE HIGH CITY

ENJOY THE NATURAL BEAUTY OF DENVER with a 140-mile long panorama and 200 named peaks visible from the city.

STROLL ONE OF THE MOST WALKABLE DOWNTOWNS IN THE NATION. Within a mile radius, downtown Denver has three major sports stadiums, the nation’s second-largest performing arts center, three colleges, an assortment of art and history museums, a mint, a river offering whitewater rafting, downtown aquarium, and hundreds of chef-driven restaurants.

SOAK UP THE SUNSHINE — in this mild, dry and sunny climate with more annual hours of sun than San Diego or Miami Beach.

EXPLORE DENVER’S SHORT BUT COLORFUL HISTORY. Denver saw some of the wildest events in the Wild, Wild West. This fascinating period is relived in museums, old gold mining villages, and hundreds of elegant Victorian buildings.

GET OUTDOORS. Denver has more than 200 parks within the city and 20,000 acres of parks in the nearby mountains, including spectacular Red Rocks Park & Amphitheatre. It has its own buffalo herd and every year plants more than 200,000 flowers in 26 formal flower gardens. Other mountain parks include Echo Lake, at the base of the Mount Evans highway – the highest road in North America – and Buffalo Bill’s Grave on top of Lookout Mountain.

TUNE INTO THE TUNES. Denver’s live music scene entertains year-round, ranging from intimate venues like the Paramount Theatre to legendary open-air spots like Red Rocks Park & Amphitheatre, where the Beatles, U2 and many more have played.

OUTDOOR SPORTS – including worldclass skiing, golf, hiking, boating, and much more.

FARM-FRESH DINING AND CRAFT BEER. Farm to table dining venues along craft breweries several distilleries and wineries, make this a gourmet destination.

Bottom right: Brown Plaza Hotel, conference reception venue.
Submission Requirements

You are invited to submit abstracts for technical papers, technical sessions, and panel discussions for the 9th Forensic Engineering Congress. Prospective authors, session organizers, and panelists are invited to submit a one-page abstract in English not to exceed 250 words, including a summary of the purpose, scope of investigation, problem statement, approach, results, and conclusions.

Abstracts for papers should include names, titles, credentials, and affiliations of authors and coauthors. The complete mailing address, telephone, and e-mail address of the primary author should be included. Any special comments, such as session, track, or topic for which the paper is best suited, should be written at the bottom of the abstract page.

Abstracts for sessions should include the session title, names, titles, credentials, and affiliations of authors and coauthors along with the complete mailing address, telephone, and e-mail address of the session chair.

Abstracts for panel discussions should include the panel discussion title, names, titles, credentials, and affiliations of panelists along with the complete mailing address, telephone, and e-mail address of the panel moderator.


Peer Review Process

Each abstract, paper, and session will be subjected to a confidential peer review with review results distributed to authors. Each reviewer will provide a recommendation of either: “Accepted As Is,” “Accepted with Revisions and Re-Review,” or “Declined.” Final review will be made by the proceeding editors.

Abstract submissions require a minimum of acceptance from two peer reviewers before an invitation to submit full papers. Acceptance of an abstract constitutes an invitation to submit a full paper (maximum of 10 pages). Acceptance of an abstract is not an acceptance of the final paper for publication. The review criteria will assess whether each abstract and paper are applicable, useful, and relevant to forensic engineering and the performance of constructed facilities; whether the abstract and paper has been published previously; whether the methodology is satisfactorily explained; whether the references are verifiable, whether the tables, figures, and photographs complemented the paper; whether the conclusions were clear and justified; whether the elements of the paper are logically related to the paper; and whether the writing style, grammar, and formatting are appropriate.

Rejection of abstracts or papers may occur if papers fail to comply with the submission requirements, are written as advertisements or for self-promotion, or are written without reference to scholastically verifiable data (i.e. propaganda).
Paper Deposit Fee

Authors whose abstracts or draft papers are selected will be requested to submit a final paper along with the paper deposit fee of $150 by the prescribed deadline. Submitting a paper for the conference constitutes agreement that, if the paper is accepted, the author will register for the conference at the appropriate fee(s), attend the conference, and make the presentation in person.

The deposit fee will be credited toward the conference registration for the author submitting the final paper. Upon acceptance of the paper, the registration discount code and instructions will be forwarded to the author. Authors uploading more than one paper will pay only one deposit fee. If an individual uploads a paper but a substitute author will present the paper, please note the deposit fee will not apply to the substitute’s registration fee.

All paper deposit fees are nonrefundable and nontransferable, and payment of the deposit fee does not guarantee the author a copy of the proceedings. Authors must attend the conference to receive the proceedings. Should an individual pay the deposit fee but fail to register for the conference by the prescribed deadline, the individual’s abstract/paper will be removed from the conference program and proceedings, and the deposit will not be refunded. All expenses associated with the preparation, submission, and presentation of abstracts and papers are the responsibility of the authors.

Proceedings will be supplied to registrants as electronic files in a USB drive. Only full papers will be considered for publication.

Expenses

All expenses associated with the preparation, submission and presentation of abstracts are the responsibility of the authors and co-authors. All attendees are required to pay conference registration fees.

9TH FORENSIC ENGINEERING CONGRESS

Elevating Forensic Engineering

Become a Sponsor!

If interested in exhibiting or sponsoring, please contact Drew Caracciolo at dcaracciolo@asce.org or (703) 295-6087.

You’re invited to take part!
Submit your paper abstracts today!

Visit https://catalyst.omnipress.com/asce_forensic_engineering_2021

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