

## TOPICS AND SUBTOPICS

<b>Blast &amp; Impact Loading &amp; Response of Structures</b>
Blast and Impact Load Characterization
Computational Methods
Non-structural components
Post blast issues
Progressive Collapse
Risk Assessment
Robustness/Resilience/Redundancy of Structures
Special Structures
Structural Engineer as Innovator in Terrorism Protection
<b>Bridges, Tunnels and other Transportation Structures</b>
Analysis and Material Issues
Design Practice, Code & Standards
Solutions to Societies Transportation Issues
Construction & Rehabilitation
Design & Extreme Loads
Foundations and Substructures
Inspection, Assessment, and Evaluation
Monitoring, Serviceability and Structural Health Monitoring
Resilience and Sustainability
<b>Buildings</b>
Codes and Standards -Buildings
Connection Detailing and Design
Constructability/Erection/Fabrication Issues and Techniques
Construction & Varied Building Types
Damping, Isolation and Smart Structures
Design for Serviceability
Extreme Load Issues (fire, seismic, flood and wind)
Disproportionate Collapse
Foundations and Substructures
Lateral Design and Analysis
Resilience and Sustainability
Restoration and Repair of Existing Structures
Seismic Retrofitting
Structural Innovations--Materials, Analysis or Design
<b>Business and Professional Practice</b>
<b>Sharing Claim and near miss experiences (Priority) **</b>
Risk Reduction and Claims Management
Trial Designs & Design Examples
Law and Ethics
Licensing and Certification
Professional Practices Lessons Learned
BIM in Business Practice
Project Delivery Systems
Engineer's Role in Leading Social Change
Globalization
Risk Management
<b>Education</b>
ABET Accreditation
Capstone Projects
Educating the Global Engineer
Leadership and Nontechnical Education
Learning and Education Reform
Structural Engineering Curriculum

## Forensic

Accidents and accident investigation methods

Collapses and collapse investigation methods

Failure case studies and investigation methods

Failures due to design errors and omissions

Failures due to product or material defects

## Natural Disasters

Climate Change

Earthquake

Hurricane

Storm surge

Tornado

Tsunami

## Nonbuilding and Special Structures

Analysis procedures for loads other than seismic

Application of Seismic Isolation and Supplemental Damping to Nonbuilding ST

Codes and Standards Nonbuilding

Design Loads for Nonbuilding Structures and Special Structures

Foundations for Nonbuilding and Special Structures

Performance & Loading of Nonbuilding Structures in Past earthquakes

Practical Design and Detailing

## Nonstructural Components and Systems

Interior Architectural Components

Exterior Architectural Components

Loads on Nonstructural Components and Systems other than seismic

Ceiling Systems, Curtain Walls and Cladding

Codes and Standards-Nonstructural Components and Systems

Design Loads for Nonstructural Systems and Components

Anchorage in Nonstructural Component Design

Mechanical, Electrical and Plumbing Components and Systems

Performance of Nonstructural Components in Past Events

Practical Design and Detailing

Seismic Qualification of Equipment to Meet ASCE 7-10 Certification

## Research

Structural 3D Printing

Hybrid Simulation

New Research

Computational Methods of Analysis

Novel Structural Materials

Resilience

Risk and Reliability Analysis

Structural Control

Structural Health Monitoring

Structural Optimization Methodology & Applications

Structural Testing