



STRUCTURES CONGRESS 2018

Fort Worth, TX | April 19-21



Topics and Subtopics

Blast & Impact Loading & Response of Structures

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

Bridges and Transportation Structures

Analysis and Material Issues
Bridge Design Practice, Code & Standards
Bridges as Solutions to Societies Transportation Issues
Construction & Rehabilitation
Design & Extreme Loads
Foundations and Substructures
Inspection, Assessment, and Evaluation
Monitoring, Serviceability and Smart Bridges
Resilience and Sustainability

Buildings

Codes and Standards -Buildings
Connection Detailing and Design
Constructability/Erection/Fabrication Issues and Techniques
Construction & Varied Building Types
Damping, Isolation and Smart Structures
Extreme Load Issues (fire, seismic, flood)
Disproportionate Collapse
Foundations and Substructures
How Buildings & Codes can Address Underserved Populations & Congestion
Resilience and Sustainability
Restoration and Repair of Existing Structures
Seismic Retrofitting
Structural Innovations--Materials, Analysis or Design

Business and Professional Practice

BIM in Business Practice
CASE Spring Risk Management Convocation
Engineer's Role in Leading Social Change
Globalization
Law and Ethics
Licensing and Certification
Profession Practice and Engineering Management

Professional Practices Lessons Learned

Project Delivery Systems
Risk Reduction and Claims Management
Sharing Claim experiences
Trial Designs & Design Examples

Education

ABET Accreditation
Capstone Projects
Educating the Global Engineer
Leadership and Professionalism
Learning and Education Reform
Structural Engineering Curriculum
Teamwork and Non-Technical Education

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
Performance & Loading of Nonbuilding Structures in Past earthquakes
Practical Design and Detailing

Nonstructural Systems and Components

Analysis procedures for Loads other than seismic
Ceiling Systems, Curtain Walls and Cladding
Codes and Standards-Nonstructural Systems
Design Loads for Nonstructural Systems and Components
Equipment Anchorage and Design
Mechanical, Electrical and Plumbing Systems
Performance of Nonstructural Components in Past Earthquakes

Practical Design and Detailing
Seismic Qualification of Equipment to Meet ASCE 7-10 Certification
Research
Computational Methods of Analysis
Hybrid Simulation
New Research
Novel Structural Materials
Resilience
Risk and Reliability Analysis
Structural Control
Structural Health Monitoring
Structural Optimization Methodology & Applications
Structural Testing