

4th World Congress and Exhibition on

CONSTRUCTION & STEEL STRUCTURE

October 16-18, 2017 | Atlanta, Georgia, USA



Conference Series - America

One Commerce Center-1201, Orange St. #600, Wilmington, Zip 19899, Delaware, USA P: +1-702-508-5200, F: +1-650-618-1417

Conference Series - UK

Kemp House, 152 City Road, London EC1V 2NX Toll Free: +1-800-216-6499

Conference Hall-Piedmont 1

conference**series**.com 09:15 - 9:45

Opening Ceremony

Keynote Forum

Introduction

09:45-10:15 **Title: Influence of collision damage on load-carrying capacity of steel girder**
Eiki Yamaguchi, Kyushu Institute of Technology, Japan

10:15-10:45 **Title: Future trends in the design and construction of steel and composite infrastructure**
Brian Uy, University of Sydney, Australia

10:45-11:15 **Title: Influence of road surface and vehicle dynamics on bridge design**
Sukhvarsh Jerath, University of North Dakota, USA

Panel Discussion

Networking & Refreshment Break 11:15-11:45 @ Piedmont Prefunction

11:45-12:15 **Title: Recent advancement of steel materials for construction and their future trends**
Ryoichi Kanno, Nippon Steel and Sumitomo Metal Corporation, Japan

12:15-12:45 **Title: Effective use of steel composites in blast and impact load damage mitigation**
Damith Mohotti, University of Sydney, Australia

Sessions:

Structures | Steel Construction | Civil Engineering | Digital Structural Designs

Session Chair: Sukhvarsh Jerath, University of North Dakota, USA

Session Introduction

12:45-13:10 **Title: Risk management in the construction projects facilitation by building information modelling**
M. Manikandan, Gulf Consult, Kuwait

Group Photo @ 13:10-13:15

Panel Discussion

Lunch Break 13:15-14:00 @ OAK

14:00-14:25 **Title: Characteristics of seesaw system for vibration control of structures**
Hiroshi Tagawa, Hiroshima University, Japan

14:25-14:50 **Title: Structural optimization for buildings under stochastic excitations**
Junho Chun, Syracuse University, USA

14:50-15:15 **Title: Prediction method of low cycle fatigue capacities of steel vibration control devices under random plastic deformation**
Takumi Ito, Tokyo University of Science, Japan

15:15-15:40 **Title: Hydraulic and structural design of navigational lock**
Amit Dhanuka, Structural Engineer, India

Panel Discussion

Networking & Refreshment Break 15:40-16:00 @ Piedmont Prefunction

16:00-16:25 **Title: Near miss reporting, analysis and data visualization in BIM**
Eric Marks, Georgia Institute of Technology, USA

Panel Discussion

Conference Hall-Piedmont 1

Keynote Forum

- 09:30-10:00** **Introduction**
Title: Analytical assessment of combined and sequential earthquake and fire effects on steel structures
 Amr S. Elnashai, University of Houston, USA
- 10:00-10:30** **Title: Performance of cold-formed steel framed structures under extreme events: Seismic, fire and blast**
 Gilbert A. Hegemier, University of California, San Diego, USA
- 10:30-11:00** **Title: Alloy design of ultra-high strength steels hardened by nanoscale particles for structural applications**
 LIU Chain Tsuan, City University of Hong Kong, Hong Kong

Panel Discussion

Networking & Refreshment Break 11:00-11:30 @ Piedmont Prefunction

- 11:30-12:00** **Title: Tall building design and ultra-high strength concrete core wall behaviour from the constructability perspectives**
 M. Manikandan, Gulf Consult, Kuwait
- 12:00-12:30** **Title: A new concept of crack analysis of reinforced concrete members**
 Gintaris Kaklauskas, Vilnius Gediminas Technical University, Lithuania

Sessions: Earthquake Resistance Design | Construction Engineering and Management | Construction Industry | Structures | Concrete Structures

Session Chair: Manikandan, Gulf Consult, Kuwait

Session Introduction

- 12:30-12:55** **Title: Micromechanical modelling of fracture and fatigue in structural steels**
 Ravi Kiran Yellavajjala, North Dakota State University, USA

Panel Discussion

Lunch Break 12:55-13:50 @ OAK

- 13:50-14:15** **Title: OSHA Data Initiative's (ODI) meaning and findings**
 Scott A. Arias, Eastern Kentucky University, USA

Young Research Forum

- 14:15-14:35** **Title: Strongback system coupled with framed structures to control the building seismic response**
 Vittoria Laghi, University of Bologna, Italy
- 14:35-14:55** **Title: Long term durability problems of steel girder bridges due to temperature variation**
 Yang Zhou, University of Colorado Denver, USA
- 14:55-15:15** **Title: Coupled corrosion fatigue of A572 hot rolled steel beams**
 Elsayed Salem, Rensselaer Polytechnic Institute, USA

Panel Discussion

Networking & Refreshment Break 15:15-15:35 @ Piedmont Prefunction

- 15:35-15:55** **Title: Study on ultimate seismic behavior and repair method of damaged steel frames**
 Ayumu Ushigome, Tokyo University of Science, Japan
- 15:55-16:15** **Title: A study on ultimate state and mechanical characteristics of connection joint of damaged H-shaped bracing structure**
 Yasuto Yonezawa, Tokyo University of Science, Japan
- 16:15-16:35** **Title: A study on restoring force characteristics and passive control design method of steel framed structures with scaling-frame**
 Keita Saito, Tokyo University of Science, Japan

16:35-16:55 Title: **An experimental study on resistant mechanism of embedded connection for steel square tube filled with filler ~effect of characteristics of filler~**
Yuta Nakaie, Tokyo University of Science, Japan

Panel Discussion

Day 3 October 18, 2017

Conference Hall-Piedmont 1

Keynote Forum

- 09:30-10:00** Introduction
Title: **Emerging issues in the construction industry: A critical review of past and present trends**
Ahmed Syed, East Carolina University, USA
- 10:00-10:30** Title: **Demountable and reusable composite floor systems**
Milan Veljkovic, Delft University of Technology, Netherlands
- 10:30-11:00** Title: **Shape memory alloy (SMA) based smart bracing system for improving the seismic performance of steel structures**
Shahria Alam, University of British Columbia, USA

Panel Discussion

Networking & Refreshment Break 11:00-11:20 @ Piedmont Prefunction

- 11:20-11:50** Title: **A dynamic approach for the analysis of thin-walled members within the generalised beam theory**
Gianluca Ranzi, University of Sydney, Australia

Sessions:

Construction Industry | Earthquake Resistance Design | Digital Structural Designs | Construction Engineering and Management

Session Chair: LIU Chain Tsuan, City University of Hong Kong, Hong Kong

Session Introduction

- 11:50-12:15** Title: **Modelling of composite beam connected to box-column**
Mohammadreza Eslami, Clemson University, USA
- 12:15-12:40** Title: **Structural design of powerhouses for hydropower projects**
Honey Mehra, SMEC(I) Pvt. Ltd., India
- 12:40-13:05** Title: **An experimental study of the capacity of top and seat T connections with stiffeners**
Abdulkadir Cüneyt Aydın, Ataturk University, Turkey

Lunch Break 13:05-13:50 @ OAK

- 13:50-14:15** Title: **Effect of wall penetration depth of sheet pile retaining wall for seismic response**
Julius Emmanuel Emuriat, Addis Ababa University School of Technology, Ethiopia

Workshop

- 14:15-15:15** Title: **Damage to steel buildings after 2011 Tohoku earthquake in Japan**
Mohammadreza Eslami, Clemson University, USA

Video Presentation

- 15:15-15:35** Title: **Mechanisms responsible for porosity in structure**
Peng Sheng Wei, National Sun Yat- Sen University, Taiwan

Panel Discussion @ 15:35-16:20

Networking and Refreshment Break 16:20-16:40 @ Piedmont Prefunction

Extended Networking Session

Closing Ceremony