

conference**series**.com

1447<sup>th</sup> Conference

# *Scientific Program*

4<sup>th</sup> International Conference on

# ADVANCED STEEL STRUCTURES

November 09-10, 2017 Singapore



## Conference Series

One Commerce Center-1201  
Orange St. #600, Wilmington, Zip 19899, Delaware, USA  
Ph: 1-650-889-4686

Kemp House, 152 City Road  
London EC1V 2NX, United Kingdom  
Toll Free: +0-800-014-8923

Toll Free: Japan: 81-345780247 | Singapore: 800-852-6126 | General Number: 1-650-889-4686

Email: [steelsummit@engconferences.com](mailto:steelsummit@engconferences.com) | [steelsummit@materialsconferences.org](mailto:steelsummit@materialsconferences.org)

Day 1 November 09, 2017

08:45-09:15 Registrations

## Seletar Room 1, Level 3

conferenceseries.com 09:15-09:30 **Opening Ceremony**

### Keynote Forum

09:30-10:15 **Title: Fracture analysis and assessment: From materials to large-scale steel structures**  
**Xudong Qian**, National University of Singapore, Singapore

10:15-11:00 **Title: Behavior of axially loaded back-to-back cold-formed steel built-up channel sections**  
**Hieng Ho Lau**, Curtin University Sarawak, Malaysia

Group Photo

Networking & Refreshment Break: 11:00-11:15 @ Seletar Foyer

11:15-12:00 **Title: Experimental study on the steel-concrete composite girder joint of a single pylon cable-stayed bridge**  
**Lu Deng**, Hunan University, China

12:00-13:00 **Title: Performance and design of an bolted joint connecting H-shaped beams and square hollow steel columns**  
**Xuechun Liu**, Beijing University of Technology, China

Lunch Break: 13:00-14:00 @ Atrium Restaurant

#### Sessions:

Bridge Engineering | Prestressed Structures | Steel Concrete Composite Structures | Structural Stability | Foundation Engineering | Advanced Structural Analysis

Session Introduction

Session Chair: **Airong Liu**, Guangzhou University, China

Session Co-chair: **Alnuaimi Ali**, Sultan Qaboos University, Oman

14:00-14:30 **Title: Experimental investigation of an existing and new retrofitted steel bridge girder due to fatigue failure**  
**Olivia Mirza**, Western Sydney University, Australia

14:30-15:00 **Title: Behavior of concrete filled rectangular steel tubes subjected to flexural loading**  
**P K Gupta**, Indian Institute of Technology Roorkee, India

Special Keynote Video Session

15:00-15:45 **Title: Advances in intelligent design of structures**  
**Lin Shaopei**, Shanghai Jiao Tong University, China

Networking & Refreshment Break: 15:45- 16:00 @ Seletar Foyer

16:00-16:30 **Title: Investigation on dynamic instability of concrete-filled steel tubular column**  
**Youqin Huang**, Guangzhou University, China

16:30-17:00 **Title: Case studies of innovative composite structural system applied to Singapore and South Korea**  
**Jaewook Jeong**, SEN Engineering Group, Singapore

17:00-17:30 **Title: Local web buckling failure criteria of the steel-concrete composite beam with openings subjected to combined negative bending and axial compression**  
**Mahesan Bhavan**, Member of American Society Civil Engineers, Singapore

Special Keynote Video Session

17:30-18:00 **Title: New trends in structural engineering education with application to design of steel structures**  
**Ezzeldin Y Sayed-Ahmed**, The American University in Cairo, Egypt

Panel Discussion & Day 1 Close

Day 2 November 10, 2017

## Seletar Room 1, Level 3

### Keynote Forum

**09:15-10:00** Title: **Study on rotation construction control of a hybrid-girder cable-stayed bridge with single pylon and single cable plane**

**Lu Deng**, Hunan University, China

**10:00-11:00** Title: **Innovative concept on structural engineering of mega tall buildings: Applied to one kilometer high concrete skyscraper and concept of concrete reduction from shear walls of tall buildings**

**Feroz Alam**, Public Works Authority, Qatar

Networking & Refreshment Break: 11:00-11:15 @ Seletar Foyer

**11:15-12:00** Title: **Experimental research on stable ultimate bearing capacity of leaning-type arch rib systems**

**Airong Liu**, Guangzhou University, China

**12:00-13:00** Title: **Composite shear walls: An efficient seismic resistant system for multi-story buildings**

**Meheddene M Machaka & Nada F Reslan**, Beirut Arab University, Lebanon

Lunch 13:00-14:00 @ Atrium Restaurant

**14:00-14:45** Title: **Non-linear behavior of back-to-back built-up cold-formed steel columns under compression: Finite element modeling and parametric study**

**Hieng Ho Lau**, Curtin University Sarawak, Malaysia

#### Sessions:

Earthquake Engineering | Strength of materials | Geotechnical aspects | Green Building | Fabrication of Structures | Construction Engineering

Session Introduction

Session Chair: **Xuechun Liu**, Beijing University of Technology, China

Session Co-chair: **Hieng Ho Lau**, Curtin University Sarawak, Malaysia

**14:45-15:15** Title: **Basic wind speed map for Oman**

**Alnuaimi Ali**, Sultan Qaboos University, Oman

**15:15-15:45** Title: **Seismic performance of prefabricated cable-braced steel frames**

**Zixuan Shang**, Beijing University of Technology, China

Networking & Refreshment Break: 15:45-16:00 @ Seletar Foyer

**16:00-16:30** Title: **Steel structure optimization through the performance based design: Case study using push over analysis**

**T L Pradeep**, The Open University of Sri Lanka, Sri Lanka

#### Video Presentation

**16:30-17:00** Title: **Structure dependent selection criterion of natural accelerogram sets for non-linear time history analysis**

**Piero Colajanni**, University of Palermo, Italy

**17:00-17:30** Title: **Perforated steel beams and their use for seismic-resistant design of connections**

**Konstantinos Daniel Tsavdaridis**, University of Leeds, UK

Panel Discussion & Closing Ceremony

## Next in Series

5<sup>th</sup> International Conference on

# Advanced Steel Structures

May 09-10, 2018 Tokyo, Japan

e-mail: [steelsummit@enggeconferences.com](mailto:steelsummit@enggeconferences.com) | [steelsummit@materialsconferences.org](mailto:steelsummit@materialsconferences.org)

Website: <https://steelstructures.conferenceseries.com>