

## SEI HOUSTON MONTHLY NEWSLETTER

### NEWS THIS MONTH

AERODYNAMICS OF  
BRIDGE  
REHABILITATION,  
MODIFICATIONS  
AND RETROFITS

### UPCOMING EVENTS

"Flood Design Using  
ASCE 7 and ASCE 24"  
and More...

### GET TO KNOW YOUR COMMITTEE MEMBER

Roya Abyaneh, P.E.,  
Past Chair of SEI  
Houston



*Wind Tunnel Testing Facility*

## AERODYNAMICS OF BRIDGE REHABILITATION, MODIFICATIONS AND RETROFITS

**On October 26, 2021, Dr. Guy Larose delivered a SEI Technical Session Webinar regarding aerodynamics of bridge.**

Dr. Larose is an internationally recognized expert in the field of bridge aerodynamics analysis. In this technical session, he shared his technical insights on some of the well-known bridges experienced the aerodynamics effects. As the modern bridges uses light-weight materials, the aerodynamic engineering becomes more important than ever. By Dr. Larose's estimate, roughly 70% of the new bridge geometric designs have to be modified after the aerodynamics analysis. Dr. Larose further explained the general considerations of CFD desktop assessment, bridge microclimate/topography, wind tunnel testing, pedestrian induced vibrations, and one-site studies.

The audiences were enthusiastic about the technical pitches of the topic. Many interesting questions were raised and Dr. Larose kindly explained each of them until the scheduled time ran out. There are 29 people registered this event.



Guy Larose, PhD,  
P.E.

## UPCOMING EVENTS



William Coulbourne, P.E.

- **“Flood Design Using ASCE 7 and ASCE 24” by Mr. William Coulbourne on 11/18/2021.** The webinar will cover the basic requirements for flood design using ASCE 7-16 and ASCE 24-14. Mr. Coulbourne is a Fellow of the American Society of Civil Engineers (ASCE) and a Fellow in the Structural Engineering Institute (SEI) of ASCE. He actively participates on the ASCE engineering standards committees for ASCE 7 Minimum Design Loads for Buildings and Other Structures for wind loads and flood loads, and ASCE 24 Flood Resistant Design and Construction.

Registration Link:

<https://ascehouston.org/meetinginfo.php?id=619&ts=1634748485>



**Happy Holiday Break!!**

**There will be no monthly technical session in December 2021.**



John Hand PE, SE, LEED AP  
(Associate, Arup)

- **Texas SEI Chapter Annual Meeting on 01/25/2022.** TXSEI (The Texas Structural Engineering Institute Chapter) will have the first annual meeting next January. With three great presentations on the unique projects in Texas, this event provides an opportunity for Texas engineers to connect in the state level.

### Agenda

- 11:10 - 11:40 AM - *Dallas Southern Gateway Bridge Overview* presented by Elaine Jin PE (Vice President, WSP)
- 11:45 AM - 12:15 PM - *Houston's First Hybrid Steel & Mass Timber Building* presented by John Hand PE, SE, LEED AP (Associate, Arup)
- 12:20 - 12:50 PM - *Structural Design of Q2 Stadium for the Austin FC MLS Club* presented by Mark Waggoner PE (Senior Project Manager, Walter P Moore)

Registration Link:

<https://www.texasce.org/event/txsei-annual-meeting/>

## GET TO KNOW YOUR COMMITTEE MEMBER - PAST CHAIR



Roya Abyaneh, P.E.

Ms. Roya Abyaneh has been a board member of the SEI Houston Chapter since 2017. She is a licensed professional engineer practicing in the field of repair and rehabilitation of structures as well as forensic investigations. Her consulting experience has taken her to various cities in Ontario, Canada, and now in Texas. Ms. Abyaneh is a fan of the outdoors and trying new cooking recipes.

### WHAT DO YOU ENJOY MOST ABOUT SEI HOUSTON CHAPTER?

I appreciate that it has given me the opportunity to meet and work with various engineers across town. I believe the chapter provides a strong pillar for bringing the local engineers together and continuously providing presentations on innovative projects, most recent code advancements and even engineering entrepreneurship.