**HalfMoon Education Live Continuing Education Webinars** 

# Soil-Structure Interaction (SSI)

Online - Tuesday, July 25, 2023 | 9:00 am - 4:00 pm CDT

**Credits:** 

Professional Engineers: 6.0 PDHs

Architects: 6.0 HSW CE Hours AIA: 6.0 LU|HSW

International Code Council: .6 CEUs (Building)

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# Agenda | Tuesday, July 25, 2023 | 9:00 am - 4:00 pm CDT (including a 30-min. break)

# Introduction and Importance of SSI

Overview

Types of SSI modeling

Understanding and Implementing SSI

Site shear wave velocity and fundamental period of structure

# Base Slab Averaging (BSA) and Embedment Effects

Effective foundation size

When to apply BSA

How to calculate embedment depth

Limitations and Issues

Examples

# Foundation and Soil Flexibility, and Period Lengthening

Soil properties for flexibility calculations

Vertical and rotational springs

Horizontal springs Bounding analysis

Fixed-base and flexible-base conditions

Examples

# Foundation Damping

Requirements Effective damping ratio
Soil damping Radiation damping

Limitations and Issues

## **Basement Modeling**

Comparison of different models Models for buildings on relatively level grade Models for buildings on sloping ground Examples

### **Conclusions and Recommendations**

Helpful resources Comparison of current provisions

# Presented by

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Principal Geotechnical Engineer, RMA Group, Inc.

Dr. Jorge Meneses is Principal Geotechnical Engineer with RMA Group. He was a member of the California Seismic Safety Commission appointed by Governor Brown and confirmed by State Senate (2017-2021). He is a reviewer of seismic ground motions for the seismic design of high rise buildings for the City of San Diego, part-time faculty at San Diego State University, Fellow of the American Society of Civil Engineers (ASCE), member of the Industry Advisory Board of the Department of Structural Engineering at University of California San Diego, member of the Board of Directors of the Earthquake Engineering Research Institute (EERI), and president of the EERI San Diego Chapter. Dr. Meneses is also a past member of the ASCE 7-16 Committee (Minimum Design Loads for Buildings and Other Structures), member of the ASCE I Committee (Geotechnical Analysis, Design, Construction, Inspection and Monitoring of Nuclear Safety-Related Structures), honorary chair of the ASCE Geo-Institute San Diego Chapter, and member of the Academy of Geo-Professionals.

### **Tuition**

**\$319** for individual registration **\$289** for two or more registrants from the same company at the same time.

Included with your registration: PDF seminar manual.

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# **Credit Information**

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The International Code Council has approved this event for .6 CEUs in the specialty area of Building (Preferred Provider No. 1232).

Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the quiz that follows the course (multiple attempts allowed).

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6.0 HSW LUs (AIA)

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