

# NGSEA SEMINAR SERIES

**Thursday, Dec. 6, 12:00 PM- 1:00 PM Shillman 210**

## **Force-Limiting Deformable Floor Diaphragm Connection for Earthquake-Resistant Buildings**

**Georgios Tsampras, PhD**

Staff II - Engineering Mechanics and Infrastructure  
Simpson Gumpertz & Heger (SGH)

### **ABSTRACT**

The presentation will focus on earthquake-resistant building systems with enhanced reliability and limited earthquake-induced horizontal inertial forces. More specifically, the development and evaluation of a deformable connection that limits the earthquake-induced horizontal inertial forces transferred from each floor of the flexible gravity load resisting system to the stiff lateral force resisting system of earthquake-resistant buildings will be discussed.

### **Speaker Bio**

Dr. Georgios Tsampras received a Doctoral degree from Lehigh University, PA, under the supervision of Prof. Richard Sause. During his studies, he worked at the Advanced Technology for Large Structural Systems on the project “NEESR: Inertial Force-Limiting Floor Anchorage Systems for Seismic Resistant Building Structures” sponsored by NSF and collaborated on a series of large-scale shake table tests at University of California, San Diego. He was the recipient of the Excellent Presentation Award of Japan Association for Earthquake Engineering in Tokyo and was the president and founding member of the Lehigh University Earthquake Engineering Research Institute Student Chapter. Dr. Tsampras currently works at the Engineering Mechanics and Infrastructure division of Simpson Gumpertz & Heger, Inc. For the past two years, he has investigated multiple aspects of challenging engineering problems, such as failure analyses of structural and non-structural components.



**Northeastern University**  
College of Engineering

*Department of Civil & Environmental Engineering*