

**CEE 595F – Geotechnical Seminar – ONLINE**

Friday, March 26, 2021 | 11:00am Central Time on Zoom

**Advancements in  
Liquefaction Mitigation  
Using Rammed Aggregate  
Pier Elements****Kord Wissmann, Ph.D., P.E., D.GE***Geopier*

**Abstract:** Since the Alaska and Niigata Earthquakes in 1964, the effects and consequences of earthquake-induced liquefaction have been well documented in the literature. In the past two decades, major earthquakes have occurred in New Zealand, Indonesia, Haiti, Ecuador, Alaska, Indonesia, Puerto Rico, Japan, and many other locations causing billions of dollars of liquefaction-induced damage. The development of sites containing liquefiable soils generally necessitates the acceptance of liquefaction-induced damage, the use of deep foundations to bypass the liquefiable materials, or the utilization of ground improvement methods to stabilize the liquefiable deposits. The efficacy of these methods and the associated mechanisms that lead to liquefaction stabilization are not generally well understood mostly because of a lack of full-scale field test results for improved ground subject to shaking. This presentation presents a review of liquefaction-induced damage and the results of full-scale field test programs used to develop an understanding of mechanism for liquefiable soil improved by Rammed Aggregate Pier elements.

**Speaker Bio:** Kord J. Wissmann, Ph.D., P.E., D.GE is the president and chief engineer of Geopier Foundations. Dr. Wissmann has more than 25 years of geotechnical-engineering experience and has led Geopier since 2002 in the development and implementation of Geopier's multiple innovative ground improvement technologies now deployed worldwide. Kord holds 23 U.S. patents, has authored more than 35 papers, and is a past President of the Geo-Institute. He earned Bachelor of Science and Doctorate degrees in civil engineering from Virginia Tech and a Master of Science degree in civil engineering from the University of California, Berkeley. Prior to Geopier Foundations, Kord held positions with Harding Lawson Associates, Fluor Daniel, and Shannon & Wilson, Inc.