



UAA College of Engineering
UNIVERSITY of ALASKA ANCHORAGE



UAA Professional Development Seminar Series

Performance-Based Seismic Design: From Existing Building Assessment to Skyscraper Design

Presented by Wael Hassan, Associate Professor

The modern construction industry is witnessing a substantial increase in heights and architectural irregularity of tall buildings, frequently exceeding building code limits. This has raised the need for using non-prescriptive design or performance-based seismic design (PBSD) for such buildings. Moreover, the existing building stock in many active seismic regions includes many seismically deficient buildings constructed before enforcing seismic details in the 1980s. The guidelines for seismic assessment of such older structures are limited, and believed to be conservative due to lacking reliable test data. Thus, the seismic assessment of existing construction typically needs employment of performance-based assessment methods.

Dr. Wael M. Hassan is an Associate Professor of structural earthquake engineering at UAA's College of Engineering. He obtained his Master, PhD and post-doctorate at University of California Berkeley. Dr. Hassan's research interests and expertise include nonlinear numerical and large-scale experimental simulation of structures under the effect of natural hazards, particularly earthquakes, and performance-based and resilience-based seismic design. He is interested in developing analytical tools for the seismic assessment and design of components, as well as system level fragility and resilience functions for existing structures and modern tall buildings and bridges.

Friday, November 9, 2018

11:45 am-12:45 pm

UAA College of Engineering, EIB 211