



EDUCATION

- Shiraz University
 - Bachelor of Science, Civil Engineering, 2007
- Eastern Mediterranean University
 - Master of Science, Civil Engineering, 2010
- Purdue University
 - Doctor of Philosophy, Civil Engineering, 2016

PRACTICE AREAS

- Seismic Repair and Retrofit
- Seismic Risk Assessment
- Failure Analysis
- Bridges and Civil Infrastructure
- Instrumentation/Monitoring /Load Testing
- Repair and Rehabilitation
- Wood Structures
- Plazas and Terraces

PROFESSIONAL AFFILIATIONS

- American Concrete Institute (ACI)
- American Society of Civil Engineers (ASCE)
- American Wood Council (AWC)
- Earthquake Engineering Research Institute (EERI)
- Structural Engineering Institute (SEI)

CONTACT

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EXPERIENCE

Pedram Hesam has experience in inspecting, investigating, analyzing and designing a wide variety of commercial, industrial and residential structures. He has a working knowledge of modeling structures using finite element analysis software. These modeling objectives include analysis, evaluation of existing conditions and design of repairs and retrofits.

Prior to joining WJE, Dr. Hesam studied at Purdue University, where he received his doctoral degree. His PhD research focused on high-performance computing as well as estimating effective viscous damping and restoring force in reinforced concrete structures. He developed a method that empirically estimates the energy dissipation in buildings subjected to earthquake ground motions. Dr. Hesam received his MSC degree from Eastern Mediterranean University in Cyprus. His MSC research focused on collapse risk assessment in steel moment resisting frames subjected to earthquake ground motions. Dr. Hesam received the championship prize at the Asia-Pacific Smart Structure Technology 2015 Competitions held at the University of Illinois at Urbana-Champaign.

REPRESENTATIVE PROJECTS

Seismic Repair and Retrofit

- Ochsner Hospital - New Orleans, LA: Lateral capacity analysis and retrofit design of precast reinforced concrete parking garage

Failure Analysis

- Mid-Kansas Co-Op Grain Bin Investigation - Groveland, KS: Investigation of grain conveyor system failure
- Smith Argo Farms Grain Bin Investigation - Rochester, IN: Investigation of silo structure collapse

Bridges and Civil Infrastructure

- Large P3 Mass Transit Project: Review and assessment of a wide variety of construction claims for multiple in new commuter rail and light rail lines

Repair and Rehabilitation

- Edwards and Scammon Elementary Schools - Chicago, IL: Inspection and repair design of elementary school building roof structures
- Plainfield School District- Plainfield, IL: Analysis of the survey settlement data and condition assessment at several schools

Instrumentation/Monitoring/Load Testing

- Edwards Elementary School- Chicago, IL: Load testing of 1920s vintage reinforced concrete roof structures

Wood Structures

- Northwestern University - Evanston, IL: Assessment and retrofit design of multiple wood-frame residential buildings

Plazas and Terraces

- 222 South Riverside Plaza - Chicago, IL: Design and inspection of reconstruction of the existing plaza structure