
SUMMARY

- 5 years of combined professional and research engineering experience in modeling, analysis and design of structures, supervision at construction sites, and business application in engineering.
- Strong focus on performance-based engineering, analysis and sophisticated structural modeling of bridges and buildings with OpenSees and SAP2000.
- Experienced in working with colleagues of different backgrounds and expertise.
- Supervised UCI undergraduate students as an instructor and mentor for EERI seismic competition.
- Strong public speaking skills developed through oral and poster presentations at international conferences.

EDUCATION

Ph.D. Structural Engineering University of California, Irvine Dissertation: <i>Performance-Based Seismic Assessment of Skewed Bridges</i> Advisor: <i>Professor Farzin Zareian</i>	September 2011
M.Sc. Structural Engineering University of Kerman, Iran	September 2004
B.Sc. Civil Engineering Azad University, Iran	September 2001

RESEARCH EXPERIENCE

Assistant Specialist UC Irvine, Civil and Environmental Engineering Department	October 2011 – Present
<ul style="list-style-type: none">• Considering the soil-structure-interaction effect of the bridge foundation in the modeling.• Finalizing journal articles derived from the Ph.D. research project.• Studying nonlinear seismic response of structures under recorded and simulated ground motions.• Enhancing developed nonlinear finite element models by considering more detailed nonlinearity of elements.• Participating in professional conferences and seminars related to the seismic risk reduction issues.	
Graduate Research Assistant UC Irvine, Civil and Environmental Engineering Department	September 2008 – September 2011
<ul style="list-style-type: none">• Developing a probabilistic framework for seismic assessment of structural response with multi-phase behavior.• Sophisticated nonlinear modeling of bridge structures using OpenSees and SAP2000.• Verification of results derived from time-history analysis by comparing simulated and experimental data.• Comprehensive statistical study on derived data using statistical software: JMP and STATISTICA.• Published one journal manuscript and eight conference papers.• Four oral and two poster presentations at international conferences and Caltrans meeting.	

RESEARCH EXPERIENCE

Teaching Assistant

September 2010 – December 2011

UC Irvine, Civil and Environmental Engineering Department

- Instructor of Mechanics of Materials Laboratory with more than 140 undergraduate students.
- Supervising undergraduate students to conduct different structural tests at a structural laboratory.

PROFESSIONAL EXPERIENCE

Structural Engineer

March 2008 – May 2009

IDC Consulting Engineers, California

- Modeling and analysis of bridges, culverts, and retaining walls using SAP2000, XTRACT, BDS.
- Preparing independent checking package for structural design of bridges, and developing design spreadsheets.
- Collaboration with Caltrans and other consulting engineers to complete projects.
- Experience working with colleagues of different nationalities and areas of expertise.

Structural Engineer

March 2005 – December 2006

Parsian High-Voltage Posts Development Company, Iran

- Analysis and design of structures at high-voltage posts, such as gantries and equipment structures.
- Modeling and analysis of steel and concrete structures using SAP2000.
- Preparing of installation workshop drawings and documents of high-voltage post structures.

COMMUNICATION EXPERIENCE

Vice-President of EERI-UCI Student Chapter

June 2009 – Present

University of California, Irvine

- Mentoring undergraduate students to attend the annual seismic EERI competition.
- Organizing professional lectures by inviting experts in earthquake engineering field.
- Publishing the seasonal newsletters of EERI-UCI student chapter.

COMPUTER SKILLS AND LANGUAGE

- **Structural:** OpenSees, SAP2000, ABAQUS, GiD, WinBDS, XTRACT, Bispec, ETABS2000, SAFE2000.
- **General:** MATLAB, AutoCAD, Office, Mathematica, FORTRAN, JMP and STATISTICA (statistics).
- **Language:** Bilingual (Persian).

AWARDS

EERI-NSF Award: Travel grant for 9USN and 10CCEE conference, Toronto, Canada

July 2010

PEER Award: Travel grant for 7CUEE and 5ICEE conference, Tokyo, Japan

March 2010

PROFESSIONAL AFFILIATIONS

EERI, PEER, ASCE, ASCEOC, AASHTO, TRB, ACI, AISC, SEAOC.

JOURNAL PUBLICATIONS

- Zareian, F., **Kaviani, P.**, and Taciroglu, E. (2011). "Multi-phase Probabilistic Assessment of Structural Response to Seismic Excitations (M-PARS)." *Journal of Structural Engineering (ASCE)*. (in Preparation)
- Kaviani, P.**, Zareian, F., and Taciroglu, E. (2011). "Seismic Behavior of Reinforced Concrete Bridges with Skew-angled Seat-type Abutment." *Engineering Structures*. (Submitted)
- Kaviani, P.**, Rahgozar, R., Saffari, H. (2008). "Approximate Analysis of Tall Buildings Using Sandwich Beam Models with Variable Cross-section." *The Structural Design of Tall and Special Buildings*, 17 (2): 401-418.

TECHNICAL REPORT

- Kaviani, P.**, Zareian, F., and Taciroglu, E. (2011). "Performance-based Seismic Assessment of Skewed Bridges." *Technical Report 2011/x*, Pacific Earthquake Engineering Research Center, University of California, Berkeley, CA. (in Preparation)

CONFERENCE PUBLICATIONS

- Kaviani, P.**, Zareian, F., Taciroglu, E., and Sarraf, M. (2011). "Simplified Method for Seismic Performance Assessment of Skewed Bridges." *Proceedings of 3rd International Conference on Computational Methods in Structural Dynamics and Earthquake engineering*, Corfu, Greece, May.
- Zareian, F., Taciroglu, E., **Kaviani, P.**, Haselton, C. B., and Pla-Junca, P. (2011). "Performance-based Seismic Assessment of Skewed Bridge." *Proceedings of 8th International Conference on Urban Earthquake Engineering*, Tokyo, Japan, March.
- Kaviani, P.**, Zareian, F., Sarraf, M., and Pla-Junca, P. (2010). "Sensitivity of Skewed Bridges Response to Seismic Excitations." *Proceedings of 14th European Conference on Earthquake Engineering*, Ohrid, Republic of Macedonia, September.
- Pla-Junca, P., Zareian, F., **Kaviani, P.**, and Haselton, C. B. (2010). "Response of Curved Bridges Response Subjected to Seismic Excitations in Regions of High Seismicity." *Proceedings of 14th European Conference on Earthquake Engineering*, Ohrid, Republic of Macedonia, September.
- Kaviani, P.**, Zareian, F., and Sarraf, M. (2010). "Comparison of Seismic Response of skewed Bridges to Near vs. Far Field Motions." *Proceedings of 7th International Conference on Urban Earthquake Engineering & 5th International Conference on Earthquake Engineering*, Tokyo, Japan, March.
- Kaviani P.**, Rahgozar, R., Saffari, H. (2005). "Approximate Analysis of Tall Buildings Under Earthquake Using Sandwich Beam with Variable Cross-section." *Proceedings of 3rd International Structural Engineering and Construction Conference*. Shunan, Japan.
- Rahgozar, R., Saffari, H., **Kaviani, P.** (2004). "Free Vibration of Tall buildings Using Timoshenko Beam with Variable Cross-section." *Proceedings of 8th International Conference on Structures Under shock and impact*. Crete, Greece.
- Saffari, H., Rahgozar, R, **Kaviani, P.** (2004). "Free Vibration of Tall Buildings Using Timoshenko Beam Section." *Proceedings of 1st National Congress of Civil Engineering*. Tehran, Iran.