

Amir Soltani

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EDUCATION

- **University of Pittsburgh,**
Ph.D., Structural Engineering, Pittsburgh, Pennsylvania. (GPA: 3.7/4.0)
(Advisement: Dr. Kent A. Harries), Expected: December 2010
Dissertation title: *Bond and serviceability characterization of concrete reinforced with high strength steel*
- **International Institute of Earthquake Engineering and Seismology,**
Master of Science., Structural dynamics and Earthquake Engineering, Tehran, Iran June 2002
(Advisement: Dr. Mansour Zeyaeifar),
Thesis title: *Optimizing non-linear parameters of viscous dampers using active control algorithm.*
- **University of Tehran,**
Bachelor of Science, Civil Engineering, Iran, June 1999

PROFESSIONAL EXPERIENCE

- **University of Pittsburgh**
Graduate Research Assistant; Primary researcher on NCHRP 12-77 project. (Aug 2007 – Present)
-Conducted extensive analytical study of concrete deflections and cracking.
-Simulated crack opening in a reinforced concrete beam.
-Conducted two large-scale stress/fatigue tests on reinforced concrete beam.
-Evaluated existing *AASHTO LRFD Design Specifications*.
-Conducted 18 full scale hook development tests.
-Assisted on the other aspects of testing such as shear friction behavior of concrete specimens reinforced with high-strength steel bars.
- **Pennsylvania Department of Transportation**
Structure/Bridge Analysis Intern; Bridgeville, PA (May 2010 – Oct 2010)
-Assisted the bridge engineering section in analyzing bridges in Pittsburgh.
-Performed stress evaluation of existing bridges in Allegheny County using STAAD PRO and Engineering Data Set program.
- **Vinehsaar Consulting Engineer**
Structural Engineer; Tehran, Iran. (Dec 2006 – August 2007)
-Activated and supervised a structural engineering section for analyzing and designing bridges.
-Served as lead supervisor for the department and made the company independent from other subcontractors in designing bridges.
- **Namvaran Engineering and Management**
Structural Analysis and Design Engineer; Tehran, Iran July 2004 – December 2006)
-Designed the supporting structures for cooling system in Ethylene Olefin Khark Project using SAP2000.
-Analyzed the stress distribution and identified the stress concentration of cooling channels using finite element methods using ANSYS.
-Designed supporting structure for pipelines and other facilities using SAP2000.
- **Research Center of Energy**
Seismic Engineer; Tehran, Iran (Sept 2002 –July 2004)
-Inspected the Powerhouses for hazard reduction and health monitoring and damage identification of facilities and structures.
-Evaluated Stress/Fatigue of dynamic structures.
-Utilized applicable industry codes and standards of implant projects.

- **International Earthquake Engineering and Seismology**
Graduate Research Assistant; Tehran, Iran (August 2000 – June 2002)
-Simulated and analyzed a 2D multi stories building in time domain analysis using MATLAB.
-Optimized a passive control system in LQR algorithm to control the displacement and acceleration of a multi stories building excited by wind and earthquake using MATLAB.
-Designed a viscous damper with optimized non-linear characteristics.
- **Civil Engineer Intern; SABIR Co.** (June 1997 – Sept 1997) Karoon III dam, Khozestan, Iran.
-Designed the switch yard building.
-Assisted on the other aspects of design.
Programs: Sap90.

COMPUTER SKILLS

- **Engineering:**
ANSYS Mathcad AutoCAD MS Office
STAAD SAP ADINA
- **Programming:**
MATLAB Visual Basic Fortran C++

CONFERENCES AND PRESENTATIONS

- **Transportation Research Board; 89th Annual Meeting**, January 10-14, 2010
“*Bonding and Anchorage of High-Strength Reinforcing Steel*” Harries, K.; Shahrooz, B.; **Soltani, A.**; Reis, J.; Wells, E.; Miller, R.; Russell, H. Paper #10-1328.
- Earthquake Engineering Research Institute; Annual Meeting, Feb 2-6, 2010.
“*Design of a Nonlinear Damping System for Seismic Response Control*” **Soltani, A.**; Ziyaeifar, M..
- **Soltani, A.** and Ziyaeifar M. 2006. *Determining of Dashpot Optimal Characteristics using Structural Control Algorithms*; First European Conference on Earthquake Engineering and Seismology, Geneva, Switzerland , 3rd -8th September, 2006. Paper No: 1329.

PUBLICATIONS

- **Soltani, A.** and Harries, K.A; 2010 (In progress) *Serviceability Characterization of High Strength Reinforcing Steel*, Transportation Research Record.
- **Soltani, A.** and Harries, K.A; 2010 (In progress) *Fatigue Characterization of High Strength Reinforcing Steel*, Transportation Research Record.
- Harries, K.A., Shahrooz, B.M., **Soltani, A.**, Miller, R., Russell, H.G.; 2010; *Bond and Anchorage of High Strength Reinforcing Steel*, Transportation Research Record.

HONORS AND AWARDS

- **Abstract paper Award**, EERI Conference, San Francisco, February, 2010.
- **Scholarship**, University of Pittsburgh, Pittsburgh, August, 2007.

References available upon request