

# Pooya Sarabandi

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## Education

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2002 - 2007	<b>PhD in Structural Engineering</b> Department of Civil and Environmental Engineering, Stanford University, CA GPA: (4.0/4.0)  Thesis: "Development of Algorithms for Building Inventory Compilation through Remote Sensing and Statistical Inferencing"
2005 - 2006	<b>MS in Electrical Engineering</b> Department of Electrical Engineering, Stanford University, CA
2000 - 2001	<b>MS in Earthquake Engineering</b> Faculty of Engineering, University of Tehran, Tehran, Iran
1996 - 2000	<b>BS in Civil and Environmental Engineering</b> Faculty of Engineering, University of Tehran, Tehran, Iran

## Awards and Honors

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- **The John A. Blume Fellowship**, Winter 2007.
- **NHMJ (The Natural Hazards Mitigation in Japan) Fellowship**  
Awarded by NSF/JSPS, for doing summer research in Japan, Summer 2003.
- **Ranked 2<sup>nd</sup>** in Earthquake Engineering graduate entrance exam, University of Tehran, Iran, September 2000.
- **Honor degree** in Civil and Environmental Engineering, class of 2000, University of Tehran, Iran (with distinction).

## Research and Work Experience

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Nov. 2007 - Present	<b>Consulting Assistant Professor</b> <a href="#">Advanced Global Risk Assessment (AGRA) Laboratory</a> <a href="#">The John A. Blume Earthquake Engineering Center</a> <a href="#">Stanford University</a> , CA
Oct. 2007 - Present	<b>Senior Catastrophe Risk Modeler</b> <a href="#">Risk Management Solutions</a> , Newark, CA

Sept. 2001 – Sept. 2007	<p><b>Research Assistance</b>  <a href="#">Stanford University</a>, CA</p> <ul style="list-style-type: none"> <li>• PhD dissertation: 2003-Present.</li> <li>• California Geological Survey - Strong Motion Instrumentation Program CSMIP 01 Project: 2001-2003.</li> </ul>
April 2005 – Oct. 2007	<p><b>Structural Engineer</b>  <a href="#">Sensometrics Inc.</a>, Palo Alto, CA</p> <p>Structural Engineer, Structural Health Monitoring algorithm development team.</p>
Sept. 2004 – Oct. 2007	<p><b>Remote Sensing Researcher</b>  <a href="#">ImageCat Inc.</a>, Long Beach, CA</p> <ul style="list-style-type: none"> <li>• Remote sensing and modeling team.</li> <li>• Software development: Mono-Image Height Extraction Algorithm (MIHEA).</li> </ul>
June 2004 - Sept. 2004	<p><b>Internship</b>  <a href="#">ImageCat Inc.</a>, Long Beach, CA</p> <p>Remote Sensing team</p>
June 2003 - Sept. 2003	<p><b>Internship</b>  Earthquake Disaster Mitigation Research Center (<a href="#">EDM</a>), Kobe, Japan  Disaster Information System Team</p>
June 2000 - Aug. 2001	<p><b>Project Engineer</b>  Iran Sokna Co., Tehran, Iran  Construction Management and Planning Team.</p>
June 1999 - Sept. 1999	<p><b>Internship</b>  Tehran Sahab Co., Tehran, Iran  Hydraulic structures design and construction.</p>

## Teaching Experience

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2001 - 2004	<p><b>Teaching Assistance</b>  Stanford University, CA</p> <ul style="list-style-type: none"> <li>• ENGR14: Applied Mechanics, Statics (Spring Q. 2003-04)</li> <li>• CEE 101A : Mechanics of Materials (Win. Q. 2001-02)</li> <li>• CEE 203: Probabilistic Methods in Civil Engineering (Fall Q. 2001-02)</li> <li>• CEE 283: Structural Dynamics (Fall Q. 2002-03)</li> <li>• CEE 287: Earthquake Resistant Design (Spring Q. 2001-02)</li> <li>• CEE 288: Earthquake Hazard and Risk Analysis (Win. Q. 2002-03 and 03-04)</li> <li>• CEE 288B: Earthquake Risk Assessment (Spring Q. 2002-03)</li> </ul>
1998	<p><b>Teaching Assistance</b>  University of Tehran, Iran</p> <ul style="list-style-type: none"> <li>• Applied Mechanics, Statics (2<sup>nd</sup> Semester 1997-98)</li> </ul>

1998 - 2001

## Tutoring

- Applied Mechanics, Statics and Dynamics
- Structural Analysis
- Steel Design

## Publications

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- Sarabandi P., Kiremidjian A., and Eguchi R., "Application of Statistical Inferencing Techniques in Building Inventory Compilation," *5th International Workshop on Remote Sensing Applications to Natural Hazards*, September 10~11, 2007, Washington, D.C.
- Sarabandi P., Kiremidjian A., "Terrain Dependent Correspondence Search for 3D Urban Modeling Using Multiple High-Resolution Satellite Images," *URBAN2007*, April 11~13 2007, Paris, France.
- Cabrera C., Cheung A., Sarabandi P., Nair K. K., Kiremidjian A., "Application of statistical pattern recognition methods for damage detection to field data," *SPIE 14th International Symposium, Nondestructive Evaluation for Health Monitoring and Diagnostics*, 18~22 March, 2007, San Diego, CA.
- Sarabandi P., Kiremidjian A., Adams B. and Eguchi R., "Semi-Automated 3D City Modeling Using Stereo High-Resolution Satellite Images," *4th International Workshop on Remote Sensing for Disaster Response*, September 25~26, 2006, Cambridge, UK.
- Sarabandi P., Chung H-C., Adams B.J., "Remote Sensing for Building Inventory Updates in Disaster Management," *SPIE 11th Annual Symposium, Nondestructive Evaluation for Health Monitoring and Diagnostics*, 26 Feb~2 March, 2006, San Diego, CA.
- Sarabandi P., Adams B., Kiremidjian A. and Eguchi R., "Infrastructure Inventory Compilation Using Single High Resolution Satellite Images," *3rd International Workshop on Remote Sensing for Post-Disaster Response*, September 12~13, 2005, Chiba, Japan
- King S., Kiremidjian A., Sarabandi P. and Pachakis D., "Correlation of Observed Building Performance with Measured Ground Motion," *John A. Blume Earthquake Engineering Center Technical Report No. 148*, Stanford University, Stanford, CA.
- Sarabandi P., Adams B., Kiremidjian A. and Eguchi R., "Methodological Approach for Extracting Building Inventory Data from Stereo Satellite Images," *2nd International Workshop on Remote Sensing for Post-Disaster Response*, October 7~8, 2004, Newport Beach, CA, USA.
- Sarabandi P., Yamazaki F., Matsuoka M. and Kiremidjian A., "Shadow Detection and Radiometric Restoration in Satellite High Resolution Images," *Proceedings of IGARSS-2004*, September 2004, Anchorage, Alaska.
- Sarabandi P., Pachakis D., King S. and Kiremidjian A., "Empirical Fragility Functions from Recent Earthquakes," *Proceedings of the 13th World Conference on Earthquake Engineering, Vancouver, BC, Canada*. Paper No. 1211, 2004.
- King S., Kiremidjian A., Pachakis D. and Sarabandi P., "Application of Empirical Fragility Functions from Recent Earthquakes," *Proceedings of the 13th World Conference on Earthquake Engineering, Vancouver, BC, Canada*. Paper No. 2829, 2004.

- P. Sarabandi, D. Pachakis, A. S. Kiremidjian and S. King, “Development of Empirical Building Performance Functions Data from Past Earthquakes,” *Proceedings of ICASP-9*, July 2003, San Francisco, CA, pp. 629-635.
- King S., Kiremidjian A. , Sarabandi P. and Pachakis D., “Correlation of Observed Building Performance with Measured Ground Motion,” Final project report. California Geological Survey, California Department of Conservation, Sacramento, California, 2003.

## Presentations

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- “[Building Information Extraction from Satellite Imagery for Regional Risk Assessment](#),” *Interdisciplinary Workshop on Management of Earthquake Risks*, August 28-~29, 2006 ETH Zurich, Switzerland.
- “Building Inventory Extraction Method Using Remote Sensing for Urban Risk Management,” *SPIE 14th International Symposium, Nondestructive Evaluation for Health Monitoring and Diagnostics*, 18~22 March, 2007, San Diego, CA.

## Affiliations and Memberships

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- Earthquake Engineering Research Institute (EERI)
- American Society of Civil Engineers (ASCE)
- American Society of Photogrammetry & Remote Sensing (ASPRS)
- Institute of Electrical and Electronics Engineers (IEEE), Geoscience and Remote Sensing Society (GRSS)
- Peer reviewer in SPECTRA
- Peer reviewer in journal of Photogrammetric Engineering and Remote Sensing (PE&RS)
- Peer reviewer in IEEE-GRSS Letters (GRSS)
- Peer reviewer in IEEE transactions for Geoscience and Remote Sensing (IGARSS)
- Peer reviewer in International Journal of Remote Sensing (IJRS)
- Urban 2007 Technical committee ([http://tlc.unipv.it/urban\\_2007/committee.htm](http://tlc.unipv.it/urban_2007/committee.htm))