Curriculum Vitae

Shih-Ho (Simon) Chao, Ph.D.

Assistant Professor
Department of Civil Engineering
University of Texas at Arlington
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EDUCATION

- Ph.D., Civil and Environmental Engineering (Structural and Materials Engineering), University of Michigan, Ann Arbor, MI, December 2005.

  Ph.D. Dissertation: *Bond Characterization of Reinforcing Bars and Prestressing Strands in High Performance Fiber Reinforced Cementitious Composites (HPFRCCs) Under Monotonic and Cyclic Loading* (Advisor: Dr. Antoine E. Naaman, Co-advisor: Dr. Gustavo J. Parra-Montesinos)

- M. S., Civil and Environmental Engineering (Structural Engineering), National Chung-Hsing University, Taichung, Taiwan, 1995.

- B.S., Bioenvironmental Systems Engineering, National Taiwan University, Taipei, Taiwan, 1993.

RESEARCH INTERESTS

High performance fiber reinforced/prestressed concrete, seismic behavior of structural systems, earthquake engineering, performance-based plastic design (PBPD) for earthquake resistant structures, and large scale testing of reinforced concrete, prestressed concrete, and steel structures.

POSTITIONS HELD

- Assistant Professor, Department of Civil Engineering, The University of Texas at Arlington, Arlington, Texas, August 2007-present.

- Post Doctoral Research Fellow and Lecturer, Civil and Environmental Engineering, University of Michigan, Ann Arbor, Michigan, January 2006 to July 2007.

- Graduate Research Assistant, Civil and Environmental Engineering, University of Michigan, Ann Arbor, Michigan, September 2000 to December 2005.

GRANT AWARDS

1. "Strength of Horizontal Shear Reinforcement with Limited Development." Principal Investigator. $413,142. Sponsored by Texas Department of Transportation. Award period: 9/1/2011 to 8/30/2014.

2. "Quantification of Seismic Performance Factors for Steel Staggered Truss and Eccentrically Braced Framing Systems." Principal Investigator. $132,000. Sponsored by American Institute of Steel Construction (AISC). Award period: 2011 to 2015.

3. "Application of Steel Fiber for Precast Concrete Pipe." Co-Principal Investigator. PI and other Co-PI: Ali

Abolmaali, Pranesh Aswath, and Tri Le. $155,000. Sponsored by Bekaert Corporation. Award period: 2/1/2011 to 6/30/2012.

4. "NEESR-CR: Full-Scale RC and HPFRC Frame Subassemblages Subjected to Collapse-Consistent Loading Protocols for Enhanced Collapse Simulation and Internal Damage Characterization." Principal Investigator. $1,098,262. Sponsored by National Science Foundation. Award period: 11/1/2010 to 10/31/2013.

5. NSF REU for "NEESR-CR: Steel Truss Systems with Enhanced Seismic Safety and Performance." Principal Investigator. $12,000. Sponsored by National Science Foundation. Award period: 12/1/2010 to 11/30/2011.

6. "An innovative Hybrid Sensor for Rapid Assessment of Sulfate Induced Heaving in Stabilized Soils." Co-Principal Investigator. PI: Anand Puppala. $139,962. Sponsored by National Cooperative Highway Research Program (NCHRP). Award period: 2/1/2011 to 8/31/2012.

7. "Sustainable Cementitious Materials for Mitigation of Alkali-silica Reaction and Corrosion through the Use of High-Performance Fiber Reinforced Concrete." Principal Investigator. $6,000. Sponsored by University of Texas at Arlington. Award period: 6/1/2010 to 5/31/2011.

8. "NEESR-CR: Steel Truss Systems with Enhanced Seismic Safety and Performance." Principal Investigator. $599,543. Sponsored by National Science Foundation. Award period: 10/1/2010 to 9/31/2012.

9. "Upgrade of the Instron Universal Testing System." Co-Principal Investigator. PI and other Co-PI: Haiying Huang, Dragos-Stefan Dancila. $50,718. UTA College of Engineering Research Equipment Fund. 2010.

10. "Controlling Cracking in Prestressed Concrete Panels and Optimizing Bridge Deck Reinforcing Steel." Co-Principal Investigator. $119,856. Sponsored by Texas Department of Transportation. Award period: 9/1/2008 to 8/31/2012.

TOTAL FUNDING AS PI: $2,260,947

TOTAL FUNDING AS CO-PI: $465,536

TOTAL FUNDING AS PI AND CO-PI: $2,726,483

PEER-REVIEWED PUBLICATIONS

Books

- Goel, S. C., and Chao, S.-H. (2009), "Performance-Based Plastic Design—Earthquake Resistant Steel Structures," International Code Council (ICC), 261 pp.

Chapters

- Leelataviwat. S., Goel, S. C., and Chao, S.-H. (2010), "Plastic Versus Elastic Design of Steel Structures," in Encyclopedia on Life Support Systems, to be published.

Peer-Reviewed Journal Papers

1. Sahoo, D. R., Flores, C. A., and Chao, S.-H. (2011), "Behavior of Steel Fiber Reinforced Concrete Deep Beams with Large Opening," *ACI Structural Journal* (in press).

2. Chao, S.-H., Cho, J.-S., Karki, N., Sahoo, D. R., and Yazdani, N. (2011), "FRC Performance Comparison: Direct Tensile Test, Beam-Type Bending Test, and Round Panel Test," *ACI Special Publication 276 Durability Enhancements in Concrete with Fiber Reinforcement*, pp. 5-1 to 5-20.

3. El-Tawil S., Ekiz, E., Goel, S. C., Chao, S.-H. (2011), "Retraining Local and Global Buckling Behavior of Steel Plastic Hinges Using CFRP," *Journal of Constructional Steel Research*, Vol. 67, No. 3, March 2011, pp. 261-269.

4. Sahoo, D. R. and Chao, S.-H. (2010), "Performance-Based Plastic Design Method for Buckling-Restrained Braced Frames," Engineering Structures, Vol. 32, pp. 2950-2958.

5. Liao, W.-C., Chao, S.-H., and Naaman, A. E. (2010), "Experience with Self-Consolidating High Performance Fiber Reinforced Mortar and Concrete," *ACI SP-274 Fiber Reinforced Self-Consolidating Concrete: Research and Applications*, pp. 79-94.

6. Chao, S.-H., Naaman, A. E., and Parra-Montesinos, G. J. (2010), "Local Bond Stress-Slip Models for Reinforcing Bars and Prestressing Strands in High-Performance Fiber Reinforced Cement Composites (HPFRCCs)," *ACI SP-272 Antoine E. Naaman Symposium - Four Decades of Progress in Prestressed Concrete, FRC, and Thin Laminate Composites.*, pp. 151-172.

7. Goel, S. C., Liao, W.-C., Bayat, M. R., and Chao, S.-H. (2010), "Performance-Based Plastic Design (PBPD) Method for Earthquake-Resistant Structures: An Overview," The Structural Design of Tall and Special Buildings V. 19, pp. 115-137.

8. Chao, S.-H., Naaman, A. E., and Parra-Montesinos, G. J. (2009), "Bond Behavior of Reinforcing Bars in Tensile Strain-Hardening Fiber Reinforced Cement Composites," ACI Structural Journal, V. 106, No. 6, November-December, 2009, pp. 897-906.

9. Chao, S.-H., and Goel, S. C. (2008), "A Modified Equation for Expected Maximum Shear Strength of the Special Segment for Design of Special Truss Moment Frames," AISC Engineering Journal, second quarter, pp. 117-125.

10. Chao, S.-H., and Goel, S. C. (2008), "Performance-Based Plastic Design of Special Truss Moment Frames," AISC Engineering Journal, second quarter, pp. 127-150.

11. Chao, S.-H., and Goel, S. C., and Lee S.-S. (2007), "A Seismic Design Lateral Force Distribution Based on Inelastic State of Structures," Earthquake Spectra, Earthquake Engineering Research Institute, Vol. 23, No. 3, August 2007, pp. 547-569.

12. Chao, S.-H., and Naaman, A. E. (2006), "Simplified Calculation of Short-Term Deflection in Prestressed Two-Way Flat Slabs," ACI Structural Journal, V. 103, No. 6, November-December, 2006, pp. 850-856.

13. Chao, S.-H., Naaman, A. E., and Parra-Montesinos, G. J. (2006), "Bond Behavior of Strands Embedded in Fiber Reinforced Cementitious Composites," PCI Journal, V. 51, No. 6, November-December 2006, pp. 56-71.

14. Chao, S.-H., and Goel, S. C. (2006), "Performance-Based Design of Eccentrically Braced Frames Using Target Drift and Yield Mechanism," AISC Engineering Journal, 3rd Quarter, 2006, pp. 173-200.

15. Chao, S.-H., Khandelwal, K., and El-Tawil, S. (2006), "Ductile Web Fracture Initiation in Steel Shear Links," ASCE Journal of Structural Engineering, Vol. 132, No. 8, August, 2006, pp. 1192-1200.

16. Parra-Montesinos, G. J., Peterfreund, S. W., and Chao, S.-H. (2005), "Highly Damage Tolerant Beam-Column Joints Through the Use of High-Performance Fiber Reinforced Cement Composites," ACI Structural Journal, V. 102, No.3, May-June, 2005, pp. 487-495.

Peer-Reviewed Conference Papers

1. Chao, S.-H., Karki, N. B., Cho, J.-S., and Waweru, R. N. (2011) "Use of double punch test to evaluate the mechanical performance of fiber reinforced concrete," High Performance Fiber Reinforced Cement Composites (HPFRCC 6), International Workshop, Ann Arbor MI., June 20-22, 2011.

2. Chao, S.-H., Pareek, T., and Sahoo, D. R. (2011) "Effect of fiber reinforced concrete in members with highly complex stress fields," High Performance Fiber Reinforced Cement Composites (HPFRCC 6), International Workshop, Ann Arbor MI., June 20-22, 2011.

3. Sahoo, D. R. and Chao, S.-H. (2010) "Performance-Based Plastic Design Method for Buckling-Restrained Braced Frames," 9th US National/10th Canadian Conference on Earthquake Engineering, July 25-July 29, 2010, Toronto, Canada.

4. Bayat, M. R., Chao, S.-H., and Goel, S. C. (2010) "Further Development of Performance-Based Plastic Design Method for Concentrically Braced Frames," 9th US National/10th Canadian Conference on Earthquake Engineering, July 25-July 29, 2010, Toronto, Canada.

5. Chao, S.-H., Cho, J.-S., Karki, N. B., and Lundy, J. (2010) "Enhanced Structural Performance and Constructability of Prestressed Concrete Beams through the Use of Steel Fibers," 2010 PCI Convention & 3rd fib International Congress, May 29-June 2, 2010, Washington, D. C.

6. Chao, S.-H., Liao, W.-C., Wongtanakitcharoen, T., and Naaman, A. E. (2007), "Large Scale Tensile Tests of High Performance Fiber Reinforced Cement Composites," High Performance Fiber Reinforced Cement Composites: HPFRCC-5, International Workshop, Mainz, Germany, July 10-13, 2007.

7. Liao, W.-C., Chao, S.-H., Park, S.-Y., and Naaman, A. E. (2007), "Self-Consolidating High Performance Fiber Reinforced Concrete: SCHPFRC," High Performance Fiber Reinforced Cement Composites: HPFRCC-5, International Workshop, Mainz, Germany, July 10-13, 2007.

CONFERENCE PAPERS

8. Sahoo, D. R., Netra, B. K., and Chao, S.-H. (2010) "An Analytical Study of Combined Brace Systems for Enhanced Seismic Performance of Steel Buildings," 2010 Structural Engineers Association of California (SEAOC) Convention. September 22-25, Indian Wells, CA.

9. Sahoo, D. R. and Chao, S.-H. (2010) "Use of Steel Fiber Reinforced Concrete for Enhanced Performance of Deep Beams with large Opening," ASCE Structures Congress'10, May 12-May 15, 2010, Orlando, Florida.

10. Cho, J.-S., Lundy, J., and Chao, S.-H. (2009), "Shear Strength of Steel Fiber Reinforced Prestressed Concrete Beams," ASCE Structures Congress'09, April 30-May 2, 2009, Austin, Texas.

11. Chao, S.-H., Bayat, M. R., and Goel, S. C. (2008), "Performance-Based Plastic Design (PBPD) of Steel Concentric Braced Frames for Enhanced Confidence Level," 14th World Conference on Earthquake Engineering, Paper No. 05-01-0033, Beijing China.

12. Goel, S. C., Chao, S.-H., Leelataviwat, S., and Lee, S.-S. (2008), "Performance-Based Plastic Design (PBPD) Method for Earthquake-Resistant Structures," 14th World Conference on Earthquake Engineering, Paper No. 05-01-0036, Beijing China.

13. Furukawa, S., Goel, S. C., and Chao, S.-H. (2008), "Seismic Evaluation of Eccentrically Braced Steel Frames Designed by Performance-Based Plastic Design (PBPD) Method," 14th World Conference on Earthquake Engineering, Paper No. 05-01-0385, Beijing China.

14. Bayat, M. R., Goel, S. C., and Chao, S.-H., (2008), "Further Refinement of Performance-Based Plastic Design (PBPD) of Structures for Earthquake Resistance," 14th World Conference on Earthquake Engineering, Paper No. 05-01-0412, Beijing China.

15. Chao, S.-H. (2008), "Achieving "Green" Concrete through the Use of High Performance Fiber Reinforced Concrete," ASCE Texas Section Fall Meeting, Addison, Dallas, October 3rd, 2008.

16. Chao, S.-H., and Goel, S. C. (2006), "Performance-Based Seismic Design of Special Truss Moment Frames," Proceedings, Fourth International Conference on Earthquake Engineering, Taipei, Taiwan.

17. Chao, S.-H., and Goel, S. C. (2006), "A Seismic Design Method for Steel Concentric Braced Frames for Enhanced Performance," Proceedings, Fourth International Conference on Earthquake Engineering, Taipei, Taiwan.

18. Chao, S.-H., Goel, S. C., and Lee, S. S. (2006), "Seismic Design Lateral Force Distribution Based on Inelastic State," Proceedings, Eighth U.S. National Conference on Earthquake Engineering, San Francisco, California.

19. Lee, S.-S., Goel, S. C., and Chao, S.-H. (2004), "Performance-Based Design of Steel Moment Frames Using Target Drift and Yield Mechanism," Proceedings, 13th World Conference on Earthquake Engineering, Paper No. 266, Vancouver, B. C., Canada.

TECHNICAL REPORTS

1. Klingner, R. E., Bayrak, O, Jirsa J. O., Chao, S.-H. (2010), "PCP Cracking and Bridge Deck Reinforcement: An Interim Report," Report No. FHWA/TX-11/0-6348-1.
2. Liao, W.-C., Chao, S.-H., Park, S.-Y., and Naaman, A. E. (2006), "Self-Consolidating High Performance Fiber Reinforced Concrete (SCHPFRC)—Preliminary Investigation," Report No. UMCEE 06-02, 76 pp.

3. Chao, S.-H. (2005), "Bond Characterization of Reinforcing Bars and Prestressing Strands in High Performance Fiber Reinforced Cementitious Composites (HPFRCCs) Under Monotonic and Cyclic Loading," Doctorial Dissertation, 475 pp.

4. Chao, S.-H., and Goel, S. C. (2006), "Performance-Based Plastic Design of Seismic Resistant Special Truss Moment Frames," Report No. UMCEE 06-03, 225 pp.

5. Chao, S.-H., and Goel, S. C. (2005), "Performance-Based Seismic Design of Eccentrically Braced Frames Using Target Drift and Yield Mechanism as Performance Criteria," Report No. UMCEE 05-05, 149 pp.

6. Chao S.-H. (2003), "Innovative Hybrid Reinforced Concrete-Special Segment Frame for High Seismic Zone," Independent Study Report. 105 pp.

PRESENTATIONS

1. "Challenges of Using Steel Staggered Truss Framing Systems in High Seismic Regions: Behavior, Issues, and Possible Solutions," Presentation at the 2011 Quake Summit, NEES and MCEER Annual Meeting, Buffalo, New York, June 10, 2011.

2. "FRC NEESR-CR: Full-Scale RC and HPFRC Frame Sub-assemblages Subjected to Collapse-Consistent Loading Protocols for Enhanced Collapse Simulation and Internal Damage Characterization," Presentation at the ACI Spring 2011 Convention in Tampa, FL, April 6th, 2011.

3. "An Analytical Study of Combined Brace Systems for Enhanced Seismic Performance of Steel Buildings," Presentation at the 2010 Structural Engineers Association of California (SEAOC) Convention. September 22-25, Indian Wells, CA.

4. "Performance-Based Plastic Design Method for Buckling-Restrained Braced Frames," 9th US National/10th Canadian Conference on Earthquake Engineering, July 25-July 29, 2010, Toronto, Canada.

5. "Further Development of Performance-Based Plastic Design Method for Concentrically Braced Frames," 9th US National/10th Canadian Conference on Earthquake Engineering, July 25-July 29, 2010, Toronto, Canada.

6. "Performance-Based Plastic Design (PBPD) for Earthquake Resistant Design of Steel Structures," Presentation at National Chung-Hsing University, Taichung, Taiwan, July 6, 2010.

7. "NEESR-CR: Steel Truss Systems with Enhanced Seismic Safety and Performance," Presentation at National Center for Research on Earthquake Engineering (NCREE), Taipei, Taiwan, July 1st, 2010.

8. "Enhanced Structural Performance and Constructability of Prestressed Concrete Beams through the Use of Steel Fibers," Presentation at the 2010 PCI Convention & 3rd fib International Congress on June 2 in Washington, D. C.

9. "Use of Steel Fiber Reinforced Concrete for Enhanced Performance of Deep Beams with Large Opening," Presentation at the 2010 ASCE Structures Congress on May 15 in Orlando, Florida.

10. "Essentials of Prestressed Concrete," Presentation at SEAoT - Fort Worth Chapter, March 31, 2010.

11. "FRC Performance Comparison: Direct Tensile Test, Beam-Type Bending Test, and Round Panel Test," Presentation for "Advances in Fiber Reinforced Concrete – A Tribute to Gordon Batson" at the ACI Fall 2008 convention in St. Louis, MO, November 5, 2008.

12. "Performance-Based Plastic Design (PBPD) Method for Earthquake-Resistant Structures," Presentation at the 14th World Conference on Earthquake Engineering in Beijing China, October 12-17, 2008.

13. "Seismic Evaluation of Eccentrically Braced Steel Frames Designed by Performance-Based Plastic Design (PBPD) Method," Presentation at the 14th World Conference on Earthquake Engineering in Beijing China, October 12-17, 2008.

14. "Further Refinement of Performance-Based Plastic Design (PBPD) of Structures for Earthquake Resistance," Presentation at the 14th World Conference on Earthquake Engineering in Beijing China, October 12-17, 2008.

15. "Achieving "Green" Concrete through the Use of High Performance Fiber Reinforced Concrete," ASCE Texas Section Fall Meeting, Addison, Dallas, October 3rd, 2008.

16. "Performance-Based Plastic Design (PBPD) of Earthquake-Resistant Structures," Presentation at SEAoT - Fort Worth Chapter, September 24, 2008.

17. "Local Bond Stress-Slip Models for Reinforcing Bars and Prestressing Strands in High-Performance Fiber Reinforced Cement Composites (HPFRCCs)," Presentation for ACI symposium in honor of Tony Naaman at the ACI Spring 2008 convention in Los Angles, California, March 31, 2008.

18. "Large Scale Tensile Tests of High Performance Fiber Reinforced Cement Composites," Presentation at High Performance Fiber Reinforced Cement Composites: HPFRCC-5, International Workshop, Mainz, Germany, July 11, 2007.

19. "Bond Performance of Reinforcing Steel in High-Performance Fiber Reinforced Concrete under Monotonic and Cyclic Loading," Presentation at ACI Committee 408 (Bond and Development of Reinforcement) meeting, ACI Convention, Denver, November 5th, 2006.

20. "Performance-Based Seismic Design of Special Truss Moment Frames," Presentation at Fourth International Conference on Earthquake Engineering, Taipei, Taiwan, October 12th, 2006.

21. "A Seismic Design Method for Steel Concentric Braced Frames for Enhanced Performance," Presentation at Fourth International Conference on Earthquake Engineering, Taipei, Taiwan, October 12th, 2006.

22. "A Seismic Design Lateral Force Distribution Based on Inelastic Response," Presentation at the Eighth U.S. National Conference on Earthquake Engineering, San Francisco, California, April 19th, 2006.

23. "Some Emerging Research on Earthquake and Structural Engineering in the U.S.," Presentation at National Center for Research on Earthquake Engineering (NCREE), Taipei, Taiwan, October 26th, 2005.

TEACHING EXPERIENCE

Summer 2011

CE5300 Earthquake-Resistant Design of Reinforced Concrete Structures (graduate course)

Spring 2011

CE5309 Prestressed Concrete (graduate course)/CE4363 Fundamentals of Prestressed Concrete (undergraduate course)

Fall 2010

CE4347 Reinforced Concrete Design (undergraduate course)

Spring 2010

CE5309 Prestressed Concrete (graduate course)

CE3341 Structural Analysis (undergraduate course)

Fall 2009

CE5385 Structural Dynamics (graduate course)

CE3341 Structural Analysis (undergraduate course)

Summer 2009

CE5300 Plastic Analysis and Design of Structures (graduate course)

Spring 2009

CE5351 Advanced Theory of Structures (graduate course)

CE3341 Structural Analysis (undergraduate course)

Fall 2008

CE2311 Statics (undergraduate course)

CE3341 Structural Analysis (undergraduate course)

Summer 2008

CE6355 Earthquake Engineering: seismic design of structures (graduate course)

Spring 2008

CE5309 Prestressed Concrete (graduate course)

Fall 2007

CE3341 Structural Analysis (undergraduate course)

Winter 2007 (at the University of Michigan, Ann Arbor)

CEE513 Plastic Analysis and Design of Frames (graduate course)

PROFESSIONAL EXPERIENCE

- Civil Engineer, Construction Bureau, Ministry of Domestic Affairs, Taipei, Taiwan, December 1999 to August 2000.
- Taipei City Government, Taipei, Taiwan, October 1997 to December 1999.
- Lieutenant, Taiwanese Marine Corps, September 1995 to August 1997.

PROFESSIONAL MEMBERSHIP

- Member, American Society of Civil Engineers (ASCE)
- Professional Young Member, Earthquake Engineering Research Institute (EERI)
- Member, American Concrete Institute (ACI)
- Member, Precast/Prestressed Concrete Institute (PCI)
- Member, American Institute of Steel Construction (AISC)
- Member, Structural Engineers Association of Texas (SEAoT)

HONORS AND AWARDS

- 2011 American Concrete Institute (ACI) Chester Paul Siess Award for Excellence in Structural Research (with Drs. Antoine Naaman and Gustavo Parra-Montesinos). Paper: "Bond Behavior of Reinforcing Bars in Tensile Strain-Hardening Fiber Reinforced Cement Composites," ACI Structural Journal, V. 106, No. 6, November-December, 2009, pp. 897-906.
- 2010 American Institute of Steel Construction (AISC) Milek Fellowship Award.
- 2010-2011 Outstanding Civil Engineering Instructor Award, University of Texas at Arlington.
- Travel Award for 9th US National/10th Canadian Conference on Earthquake Engineering, July 25-July 29, 2010, Toronto, Canada, National Science Foundation.
- Travel Award for the 14th World Conference on Earthquake Engineering in Beijing China, October 12-17, 2008, National Science Foundation.
- Nominee of Rackham Graduate School Distinguished Dissertation Awards, University of Michigan, 2005.
- Nominee of Rackham Graduate School Predoctoral Fellowship, University of Michigan, 2004.
- Presidential Award of National Taiwan University for Academic Excellence. (1992-1993).

PROFESSIONAL COMMITTEE

- Associate Member, ACI Committee 544 Fiber Reinforced Concrete
- Associate Member, ACI Committee 408 Bond and Development of Reinforcement

- Associate Member, ACI Committee 423 Prestressed Concrete
- Scientific Committee for International Workshop on High Performance Fiber Reinforced Cement Composites (HPFRCC).
- NEES committee, the Requirements Analysis and Assessment Subcommittee (RAAS) of the Project Advisory Committee (PAC)

Civil Engineering Representatives to College/University Committees

- 2011-2012 Member of Grade Appeals Committee
- 2010-2011 Member of Grade Appeals Committee

Department of Civil Engineering Committee

- 2011-2012 Civil Engineering Laboratory Committee

MANUSCRIPT REVIEWER SERVICE

- ACI Structural Journal
- ACI Materials Journal
- ACI Special Publications
- PCI Journal
- Cement and Concrete Composites
- Materials and Structures
- ASCE Journal of Structural Engineering
- ASCE Journal of Bridge Engineering
- ASCE Journal of Materials
- ASCE Journal of Pipeline Systems - Engineering and Practice
- Engineering Structures
- Structural Engineering and Mechanics
- Journal of Civil Engineering and Management
- Earthquake Engineering and Structural Dynamics
- Steel and Composite Structures

PROPOSAL REVIEWER SERVICE

- National Science Foundation proposal review panelist, 2011.

CONFERENCE SESSION CHAIRED/CO-CHAIRED

- "Performance-Based Plastic Design of Structures" Co-chaired with Dr. Subhash Goel, 9th US National/10th Canadian Conference on Earthquake Engineering, July 25-July 29, 2010, Toronto, Canada

SCHOLARLY SUPERVISION AND SERVICE

PhD Dissertation Supervised

- "Performance-Based Plastic Design of Earthquake Resistant Steel Structures: Plate Shear Wall Frames, Refinement to the Design of Concentric Braced Frames and Columns in Tall Moment Frames", Mohammad Reza Bayat (completed in November 2010).

- "Enhance Shear Performance of Prestressed Concrete Beams Reinforced with Steel Fibers", Jae-Sun Cho (to be completed in October 2011).

- "Flexural Behavior of Steel Fiber Reinforced Prestressed Concrete (SFRPC) Beams, and Combined Brace Systems for Enhanced Seismic Performance of Steel Buildings", Netra Bahadur Karki, (to be completed in November 2011).

- "Steel Truss Systems with Enhanced Seismic Safety and Performance—Staggered Truss Frame (STF)", Sanput Simasathien, (in progress).

- "Steel Truss Systems with Enhanced Seismic Safety and Performance—Special Truss Moment Frame (STMF)", Chatchai Jiansinlapadamrong, (in progress).

Master Thesis Supervised

- "Performance of Large Scale Steel Fiber Reinforced Concrete Deep Beam with Single Opening under Monotonic Loading", Carlos A. Flores (completed in November 2008).

- "The Effect of Fiber Corrosion on Shear Capacity of Steel Fiber-Reinforced Concrete Beams and Initial Investigation on Alkali-Silica Reaction in Steel Fiber Reinforced Concrete", Regina Waweru, (completed in July 2011).

- "SFRC Deep Beams with multiple large openings", Tarun Pareek, (in progress).

- "Behavior of Reinforced Concrete Coupling Beams with Truss-Type Diagonal Reinforcement under Large Displacement Reversal", Vidhi Shah, (in progress).

- "Continuous Deep Beams Reinforced for Steel Fiber Reinforcement" Varun Chheda, (in progress).

Undergraduate Student Researchers Supervised:

- Rachel Simer (NSF REU)
- Brandon Price (NSF REU)
- Crystal Jamaica (supported by McNair Scholars Program)

Postdoctoral Research Fellows Supervised

1. Dr. Xuejian Liu (12/1/2010-present): PhD from Michigan State University. NSF NEESR projects.

2. Dr. Dipti R. Sahoo (from 8/31/2008-6/30/2010), PhD from Indian Institute of Technology at Kharagpur; currently: Assistant Professor, School of Infrastructure, Indian Institute of Technology at Delhi. Major research: Performance-Based Plastic Design of Buckling-Restrained Braced Frames; SFRC Deep Beams with Openings.