ANNE B. NICHOLS (FORMERLY ABELL) — CURRICULUM VITA

Texas A&M University
Department of Architecture
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EDUCATION

2000 Ph.D. Civil and Environmental Engineering, University of Illinois, Urbana-Champaign (UIUC)
Construction Materials & Structures

1986 Master of Science in Civil Engineering, Purdue University
Computer Graphics Applications in Structural Engineering

1985 Bachelor of Science in Civil Engineering with Distinction, Purdue University
Structural Major, Geotechnical & Systems Analysis Minors

PROFESSIONAL REGISTRATION

Engineer in Training (Indiana), 1985
Eligible for Professional Registration (Illinois), 1997

EXPERIENCE

ACADEMIC POSITIONS

2011 – present	Associate Professor of Practice	Texas A&M University
2002 – 2011	Assistant Professor	Texas A&M University
1999 – 2002	Assistant Professor	University of Illinois, Urbana-Champaign
2001 – 2002	Research Associate	University of Illinois, Urbana-Champaign
1993 – 1999	Graduate Research Assistant	University of Illinois, Urbana-Champaign
1986	Visiting Instructor	Purdue University
1986	Graduate Teaching Assistant	Purdue University
1985	Graduate Research Assistant	Purdue University

PROFESSIONAL EMPLOYMENT

2001	Consultant Engineer	Vegrzyn, Sarver & Associates, Inc.
1997 – 1998	Microscopist	Construction Technology Laboratories, Inc.
1988 – 1993	Computing Engineer	Caterpillar, Inc.
1986 – 1988	Civil Engineer	Stevens Associates, Architects

HONORS & RECOGNITIONS

2010	Guest Coach, Texas A&M's Guest Coach Program, Men's Basketball
2004	Honorary member of Tau Sigma Delta, Texas Alpha Alpha chapter
2002	Image Technology Group Image of the Week, Beckman Institute for Advanced Science and Technology, University of Illinois-Champaign-Urbana
2002	Inclusion in the 2001-2002 Strathmore's Who's Who
1984	Mortar Board, Barbara Cook chapter
1983	Member of Tau Beta Pi, Indiana Alpha chapter
1983	Member of Chi Epsilon, Indiana Alpha chapter

RESEARCH

Note: My name was formally changed from Abell to Nichols in June 2003 when I married John Nichols. The critical information about the published articles is:

1. Total Citations 63
2. Average of the Impact Factor 2.095
3. Top Impact Factor 3.172

PUBLICATIONS

Peer Reviewed Journals

1. **Nichols, A.B.**, Lange, D.A. (2012) "Fracture Surface-Based Toughness Modeling of Cement-Based Materials." *ACI Journal of Materials,* 109(1), 41-52.
2. **Nichols, A.B.**, Lange, D.A. (2006). "3D Surface Image Analysis for Fracture Modeling of Cement-Based Materials." *Cement and Concrete Research,* 36(6), 1098-1107.
3. **Abell, A.B.**, Willis, K.L., Lange, D.A. (1999). "Mercury Intrusion Porosimetry and Image Analysis of Cement-Based Materials." *Journal of Colloid and Interface Science*, 211(1), 39-44.
4. Willis, K., **Abell, A.B.**, Lange, D.A. (1998). "Image Based Characterization of Cement Pore Structure Using Wood's Metal Intrusion." *Cement and Concrete Research*, 28(12), 1695-1705.
5. **Abell, A.B.**, Lange, D.A. (1997). "Fracture Mechanics Modeling Using Images of Fracture Surfaces." *International Journal of Solids and Structures*, 35(31-32), 4025-4034.

Peer Reviewed Conference Proceedings

1. Holland, N.L., **Nichols, A.B.**, Nichols, J.M. (2012), "The Use of Hydrated Lime in Concrete as a Cement Replacement: Effect on Compressive Strength." *Lime: Building on the 100-Year Legacy of The ASTM Committee C07* (ASTM STP 1557), Thomson, M.L., Brisch, J.H. (Eds.), ASTM International, West Conshohocken, PA, 106-112.
2. Holland, N.L., Nichols, J.M., **Nichols, A.B.** (2012), "Fibre Reinforced Concrete Using Polyethylene Strips." *Proceedings of the 8th RILEM International Symposium (BEFIB 2012),* Fibre Reinforced Concrete: Challenges and Opportunities, Barros, J.A.O, et al. (Eds.),RILEM., Bagneux, France, e-ISBN 978-2-35158-133-9, Electronic Paper 02_516.
3. **Nichols, A.**, Holliday, S. (2011), "From Foundations to Integration in Structures: A Response to Curriculum Consolidation." *Proceedings of the Building Technology Educators' Society Conference Proceedings: Convergence + Confluence,* The Building Technology Educators' Society, Toronto, ON, ISBN 978-1-257-93941-1, 3-12.
4. **Nichols, A.B.**, Paul, V.L., and Nichols, J.M. (2011). "Vaulting of Narbonne Cathedral." *Proceedings of the 11th North American Masonry Conference: Transforming Traditions,* The Masonry Society, Boulder, CO, ISBN 1-929081-39-3, Electronic Paper 5.03-1.
5. **Nichols, A.B.**, Fisk, P. (2011). "Structural Integration Solution for the Texas A&M 2007 Solar Decathlon "GroHome." *Proceedings of the Architectural Engineering Institute Conference: Building Integration Solutions,* American Society of Civil Engineers, Reston, VA, ISBN 978-0-7844-1168-1, 65-72.
6. **Nichols, A.B.** (2011). "Evaluation of the Development of Student Skills in Visual and Computer-aided Structural Modeling in Architecture" *Proceedings of the Architectural Engineering Institute Conference: Building Integration Solutions,* American Society of Civil Engineers, Reston, VA, ISBN 978-0-7844-1168-1, 73-80.
7. **Nichols, A.B.,** Paul, V.L., and Nichols, J.M. (2010). "The Intent of the Buttresses of Narbonne Cathedral." *Proceedings of the 8th International Masonry Conference,* International Masonry Society, Dresden, DE, ISBN 978-3-00-031381-3, 2081-2090.
8. **Nichols, A.B. (**2009). "Enhancement of Written Communication on Structural Systems Using Calibrated Peer Review." *Proceedings of the 2009 American Society of Engineering Educators Conference,* ASEE, Washington, DC, Electronic Paper AC-2009-628.

9. Nichols, J.M., Kavars, C., **Nichols, A.B.** (2009). "Measurement of Damage in Masonry." *Proceedings of the 11th Canadian Masonry Symposium*, McMaster University, Toronto, Ontario, Electronic Paper A8-1.
10. **Nichols, A.B.** (2008). "Using Calibrated Peer Review as a Teaching Tool for Structural Technology in Architecture." *Proceedings of the 2008 American Society of Engineering Educators Conference,* ASEE, Washington, DC, Electronic Paper AC 2008-1113.
11. **Nichols, A.B.**, Lange, D.A. (2007). "Fracture Behavior and Mechanics Modeling for Mortars." *Proceedings of the 10th North American Masonry Conference*, TMS, Boulder, CO, ISBN 1-929081-28-6, 779-790.
12. Roachanakanan, K., **Nichols, A.B.** (2005). "The Suankularb College, Bangkok, Thailand – A Case Study of the Restoration of a Late 19th Century Thai School Building." *Proceedings of the 10th Canadian Masonry Conference*, University of Calgary, Calgary, Alberta, ISBN 0-88953-283-4, 781-791.
13. **Nichols, A.B.** (2005). "Structures and Studio: Re-integration of Art and Science." *Proceedings of the Annual Meeting of the Association of Collegiate Schools of Architecture*, *The Art of Architecture – The Science of Architecture,* Hejduk, R.J., van Oudenalien, H. (Eds.), ASCA, Washington, DC, 180-185.
14. Nichols, J.M., **Abell, A.B.** (2003). "Implementing the Degrading Properties of the Effective Stiffness from Increased Strain Levels in FEM Programs." *Proceedings of the 9th North American Masonry Conference*, TMS, Boulder, CO, ISBN 1-929081-17-0, 112-121.
15. **Abell, A.B.**, Nichols, J.M., (2003). "Characterization of Hydrated Lime and Sand for Workability and Water-Tightness of Mortars." *Masonry: Opportunities for the 21st Century* (ASTM STP 1432), Throop D., Klinger, R.E. (Eds.), ASTM International, West Conshohocken, PA, 23-35.
16. Lange, D.A., **Abell, A.B.**, Willis, K., Powell, S. (1998). "Characterization of Cement Pore Structure Using Image Analysis of Samples Intruded with Wood's Metal." *International Conference Proceedings*, Imaging Technologies: Techniques and Applications in Civil Engineering 2, Frost, J.D., McNeil, S. (Eds.), ASCE, Reston, VA, 197-206.
17. **Abell, A.B**., Lange, D.A. (1997). "The Role of Crack Deflection in Toughening of Cement-Based Material." *International Symposium Proceedings*, Brittle Matrix Composites 5, Brandt, A.M., Li, V.C., Marshall, L.H. (Eds.), BIGRAF, Warsaw, 241-250.
18. **Abell, A.B.**, Lange, D.A. (1996). "Fracture Mechanics Modeling with Fracture Surface Image Data." *Proceedings of the Materials Engineering Conference*, Materials for the New Millennium (Vol. 1), Chong, K.P. (Ed.), ASCE, Reston, VA, 741-750.
19. **Abell, A.B.**, Lange, D.A. (1995). "Image-Based Characterization of Fracture Surface Roughness." *Materials Research Society Symposium Proceeding*, Microstructure of Cement-Based Systems – Bonding and Interfaces in Cementitious Materials (Vol. 370), 107-114.

Poster Paper with Peer Reviewed Abstracts

1. **Abell, A.B.**, Lange, D.A. (1999). "Micromechanical Modeling of Fracture Processes." Poster Session, American Ceramic Society Annual Meeting, Indianapolis, IN, April 25-28.
2. **Abell, A.B.**, Lange, D.A. (1998). "Microstructure and its Relationship to Fracture in Portland Cement Mortar and Concrete." Poster Session, NSF Center for Advanced Cement-Based Materials Semiannual Technical Review, Urbana, IL, October 7-8.
3. **Abell, A.B.**, Willis, K.L., Lange, D.A. (1997). "Interpretation of Mercury Intrusion Data for Cements Using Wood's Metal Porosimetry and Image Analysis." Poster, TRI/Princeton Workshop, Characterization of Porous Materials: from Angstroms to Millimeters, Princeton, NJ, June 18-20.

4. **Abell, A.B.**, Lange, D.A. (1996). "Fracture Surface and Pore Characterization of Cement-Based Materials." Poster Session, NSF Center for Advanced Cement-Based Materials Semiannual Meeting, Evanston, IL, September 24-25.
5. Lange, D.A., **Abell, A.B.** (1994). "Confocal Microscopy for Characterization of Cement-Based Materials." Poster Session, NSF Center for Advanced Cement-Based Materials Site Visit, Evanston, IL, September 8-9.

REPORTS

1. **Nichols, A.B.** (2007). "Curricula Changes at Texas A&M University College of Architecture." Southwestern Brick Institute's Texas Masonry Professors Roundtable, Galveston, TX, August 16-17.
2. **Abell, A.B.**, Nichols, J.M., Beavers, J.E. (2002). "Report on the Experimental Study of Insulated Concrete Forms." Mid America Earthquake Center, University of Illinois-Urbana Champaign. For State Farm Insurance Companies, Bloomington, IL.
3. **Abell, A.B.**, Lange, D.A. (1996). "Texture Characterization of Brick Surfaces," Department of Civil Engineering, University of Illinois-Urbana Champaign. For the International Concrete Repair Institute, Sterling, VA.

OTHER PUBLICATIONS

Articles

1. **Nichols, A.B.** (2006, Fall). "The Wall and the Handover of the Plans by Architects and Engineers." *Platform*, Architects and Engineers, School of Architecture, University of Texas at Austin, pp. 14 & 20. [invited]
2. **Abell, A.B.** (2002). "Book Review of *Mechanics and Meaning in Architecture* by Lance LaVine." *Technology and Culture*, 43(1), 160-161. [invited]

Course Packages

1. **Nichols, A.B.** (2008-present). "Lecture Note Set for ARCH 331 – Architectural Structures" (447 pgs.). Produced at Notes-n-Quotes (9 semesters) and the Texas A&M TEES Copy Center (5 semesters) and available at http://faculty.arch.tamu.edu/anichols/331frame.html
2. **Nichols, A.B.** (2004-present). "Lecture Note Set for ARCH 614 – Elements of Architectural Structures" (401 pgs.). Produced at Notes-n-Quotes (4 semester) and the Texas A&M TEES Copy Center (7 semesters) and available at http://faculty.arch.tamu.edu/anichols/614frame.html
3. **Nichols, A.B.** (2003-present). "Course Note Set for ARCH 631 – Applied Architectural Structures" (492 pgs.). Produced at Notes-n-Quotes (4 semester) the Texas A&M TEES Copy Center (8 semesters) and available at http://faculty.arch.tamu.edu/anichols/631frame.html
4. **Nichols, A.B.** (2003-2008). "Lecture Note Set for ENDS 231 – Architectural Structures I" (186 pgs.). Produced at the Texas A&M TEES Copy Center (16 semesters) and available at http://faculty.arch.tamu.edu/anichols/231frame.html

Course Web Pages

1. **Nichols, A.B.** (created 2008). "Web Page of ARCH 331 – Architectural Structures." http://faculty.arch.tamu.edu/anichols/architectural-structures/
2. **Nichols, A.B.** (created 2003). "Web Page of ARCH 614 – Elements of Architectural Structures." http://faculty.arch.tamu.edu/anichols/elements-architectural-structures/
3. **Nichols, A.B.** (created 2002). "Web Page of ARCH 631 –Applied Architectural Structures." http://faculty.arch.tamu.edu/anichols/applied-architectural-structures/

4. **Nichols, A.B.** (created 2003). "Web Page of ENDS 231 – Architectural Structures I." http://faculty.arch.tamu.edu/anichols/architectural-structures-i/

Online Courses

1. **Nichols, A.B.** (2008-present). Texas A&M eCampus Online Course Section of ARCH 331 (4 semesters); Texas A&M ELearning (retired 2013) (12 semesters). Most recent section: 14 SUMMER ARCH 331 100: Architectural Structures at https://eCampus.tamu.edu.
2. **Nichols, A.B.** (2013-present). Developer for Texas A&M eCampus Online Course Section 13 FALL ARCH 431 501-503,505: Integrated Structures_2 at https://eCampus.tamu.edu
3. **Nichols, A.B.** (2003-present). Texas A&M eCampus Online Course Section of ARCH 614 (1 semester); Texas A&M ELearning (retired 2013) (11 semesters). Most recent section: 14 SPRING ARCH 614 600: Elements Of Arch Struc at https://eCampus.tamu.edu
4. **Nichols, A.B.** (2002-present). Texas A&M eCampus Online Course Section of ARCH 631 (1 semester); Texas A&M ELearning (retired) (10 semesters). Most recent section: 13 FALL ARCH 631 600: Applied Arch Structures at https://eCampus.tamu.edu
5. **Nichols, A.B.** (2011-2012). Texas A&M ELearning (retired) Online Course Sections of ARCH 431 (2 semesters).
6. **Nichols, A.B.** (2002-2008). Texas A&M ELearning (retired) Online Course Sections of: ENDS 231 (15 semesters).
7. **Nichols, A.B.** (2008). Texas A&M ELearning (retired) Online Course Section of: COSC 321 (1 semester).

PROFESSIONAL PRESENTATIONS

Peer Reviewed Abstracts

1. Lange, D.A., **Nichols, A.B.**, Roesler, J.R., Nelson, H. (2006). "Image Acquisition and Analysis of Concrete Fracture Surfaces." American Concrete Institute Fall Convention, Charlotte, NC, March 22-30.
2. **Abell, A.B.** (2003). "Integration of Structural Design and Architectural Design for Comprehensive Design: An Engineer's Perspective." Southwest Regional Meeting of the Association of Collegiate Schools of Architecture, Houston, TX, November 14-16.
3. **Abell, A.B.**, Lange, D.A. (2002). "Image-Based Fracture Surface Characterization for Micromechanical Modeling of Cement-Based Materials." American Concrete Institute Spring Convention, Detroit, MI, April 21-25.
4. **Abell, A.B.**, Lange, D.A. (2001). "Image-Based Microstructural Modeling of Mortar and Concrete Fracture." American Ceramic Society Annual Meeting, Indianapolis, IN, April 22-25.
5. **Abell, A.B.**, Lange, D.A. (1996). "Fracture Mechanics Modeling with Fracture Surface Image Data." American Ceramic Society Annual Meeting, Cincinnati, OH, April 14-17.
6. **Abell, A.B.**, Lange, D.A. (1995) "Application of Fracture Surface Images to Fracture Mechanics Models." American Ceramic Society Annual Meeting, Indianapolis, IN, April 30 - May 3.
7. Ramirez, J.A., Lee, R.H., **Abell, A.B.** (1985). "Computer Graphics Applications in Reinforced Concrete." ASCE Structural Engineering Congress, Chicago, IL, September 16-18.

DOCTORAL THESIS

Microstructure and Its Relationship to Fracture in Portland Cement Mortar and Concrete, University of Illinois, Urbana-Champaign (2000)

Imaging, characterization, testing and computer modeling of microstructural fracture behavior.

RESEARCH PROJECTS

Externally Funded

1. "Concrete Manufactured with Coconut Fiber." Nichols, J., Holland, N., **Nichols, A., Co-P.I.**, $10,000 awarded, April to July 2012.
2. "Insurance Research of Building Components," sponsored by State Farm through the Mid America Earthquake Research Center, University of Illinois. Beavers, J., P.I, Nichols, J., **Nichols, A., Co-Research Associate**, $25,000 awarded, June 2001 to October 2002.
3. "Saturated Lime Mortar Characterization," sponsored by Graymont Dolime (OH) Inc. and Chemical Lime Company. Nichols, J., **Nichols, A., Co-P.I.**, $500 awarded, November 2001 to March 2002.

Internally Funded

1. "Structural Modeling of Narbonne Cathedral," sponsored by Haberl, J., Texas A&M University Salary Savings, Paul, V., Nichols, J., **Nichols, A., Co-P.I.**, 1 student worker, $5,000 awarded, August 2009 to December 2009.
2. "Masters of Architecture Distance Education Conversion Project," Higher Education Grant from the Texas Telecommunications Infrastructure Board. Vasquez de Velasco, G., P.I., **Nichols, A., Content Designer**, 1 graduate assistant, $59,528 awarded, June 2004 to December 2004.
3. "Fracture and Shear Behavior of Plain Concrete," University of Illinois Campus Research Board, **Abell, A., P.I.**, 2 graduate assistants, $14,978 awarded, May 2001 to May 2002.

Startup Funding

1. "Structural Mechanics Research," Startup Funding, Office of the Vice Provost for Research, Texas A&M University, **Nichols, A., P.I**., $37,000 awarded, January 2003-present.
   Note: Amount not included in funding summary.

Instructional Equipment

1. "Technological Advancement of Structures in Architecture," Texas A&M College of Architecture Instructional Equipment / Enhancement Grant. **Nichols, A., P.I.,** $1,050 awarded, May 2007.
   Note: Amount not included in funding summary.
2. "Portable Digital Assistant for use in Structural Courses for Student Evaluation," Texas A&M College of Architecture Instructional Equipment / Enhancement Grant. Nichols, J., Bryant, J., **Nichols, A**., **Co-P.I.**, $30,000 awarded, May 2004.
   Note: Amount not included in funding summary.

PRINCIPAL SUPERVISION OF GRADUATE STUDENT RESEARCH

Former

James Haliburton, September 2003-December 2004, Ph.D. candidate in Architecture, Texas A&M University Office of Graduate Studies *Pathways to the Doctorate* Fellowship (concrete fracture mechanics).

Yun Lee, Summer 2001, post graduate student (MArch/structures), University of Illinois Campus Research Board Grant project (concrete fracture mechanics).

Qing Wang, August 2001-May 2002, Masters of Architecture (structures) May 2002, University of Illinois Campus Research Board Grant project (concrete fracture mechanics), Employed by Advanced Technologies Group, Inc..

TEACHING

TEACHING AREAS

Statics, Mechanics of Materials, Soil Mechanics, Civil Engineering Materials, Concrete Technology, Structural Analysis, Structural Design (Concrete, Masonry, Steel, Wood), Foundation Design, Structural Planning, Surveying

COURSE PROGRAM

Semesters	Course	Course Title/ Description	Total Enrollment
Fall 2008, Spring 2009	ARCH 331 (w/ ARCH 489)	Architectural Structures (Special Topic in Structures)	37
Fall 2009, Spring 2010, Summer 2010			108
Fall 2010, Spring 2011, Summer 2011			85
Fall 2011, Spring 2012, Summer 2012			91
Fall 2012, Spring 2013, Summer 2013	(w/ ARCH 489, COSC 321)	(Directed Studies in Structures: in-absentia) (Structural Systems I)	104
Fall 2013, Spring 2014. Summer 2014			92
Fall 2011	ARCH 431	Integrated Structures	12
Fall 2012			14
Spring 2003	ARCH 614	Elements of Architectural Structures	13
Spring 2004			16
Spring 2005			14
Spring 2006			13
Spring 2007			12
Spring 2008			7
Spring 2009	(w/ COSC 608)	(Structural Principles and Practices)	18
Spring 2010			8
Spring 2011			5
Spring 2012			5
Spring 2013			9
Spring 2014			7
Fall 2002, Spring 2003, Summer 2003	ARCH 631 (w/ ARCH 685)	Applied Architectural Structures (Directed Studies in Structures)	61
Fall 2003, Spring 2004, Summer 2004	(w/ ENDS 485, ARCH 685, CARC 685)	(Directed Studies in Structures) (Directed Studies in Structures) (Directed Studies in Structures)	47
Fall 2004			42
Fall 2005			42
Fall 2007			49
Fall 2008			37
Fall 2009			49
Fall 2010			46
Fall 2011			37
Fall 2012			45
Fall 2013			43

Semesters	Course	Course Title/ Description	Total Enrollment
Fall 2002, Spring 2003, Summer 2003	ENDS 231	Architectural Structures I	142
Fall 2003, Spring 2004, Summer 2004			226
Fall 2004, Spring 2005, Summer 2005			209
Fall 2005, Spring 2006, Summer 2006			161
Spring 2007			43
Fall 2007, Spring 2008			93
Summer 2008	COSC 321	Structural Systems I	22

COURSE DESCRIPTIONS

Texas A&M University

ARCH 331, Architectural Structures
Physical principles that govern statics and strength of materials through the design of architectural structures from a holistic view, in the context of architectural ideas and examples; introduction to construction, behavior of materials, and design considerations for simple and complex structural assemblies; computer applications.

ARCH 431, Integrated Structures
Selection and economics of structural systems in the context of integrating structural systems into a building through good design; analysis and design of wood, steel, concrete, and composite systems and members in relation to building design. Concurrent enrollment in 4th year studio and Integrated Systems.

ARCH 614, Elements of Architectural Structures
Investigation of the structural factors that influence the development of architectural space and form; introduction of the physical principles that govern statics and strength of materials through design of timber and steel components of architectural structures.

ARCH 631, Applied Architectural Structures
Structural analysis of building structural systems: components, frames, shapes. Selection and economics of structural systems; survey of current structural design codes; supervision practices in structural construction.

ENDS 231, Architectural Structures I
Introduction to the physical principles that govern classical statics and strength of materials through the design of timber and steel components of architectural structures; computer applications.

COSC 321, Structural Systems I
Introduction to the physical principles that govern classical statics and strengths of materials through the design of timber and steel components of architectural structures; with computer applications.

University of Illinois – Urbana-Champaign

ARCH 251, Statics and Dynamics
ARCH 252, Mechanics of Materials and Design Applications
ARCH 353, Reinforced Concrete Design
ARCH 355, Structural Analysis
ARCH 452, Foundation Engineering
ARCH 455, Prestressed Concrete Design
ARCH 459, Structural Masonry Design

Purdue University

CE 273, Mechanics of Materials

STUDIO PARTICIPATION

Semesters	*Course and Title*	*Description*
Spring 2004	ENDS 103 – Design Foundations II	Lecture on structures and art in architecture
Fall 2009	ENDS 105 – Design Foundations II	Desk critique of structures
Spring 2005, Spring 2008	ENDS 106 – Design Foundations I	Lecture on concrete materials and construction, desk critique of structures
Fall 2008	ARCH 205 – Architectural Design I	Desk critique of structures
Spring 2009, Spring 2010	ARCH 206 – Architectural Design I	Desk critique of structures
Fall 2002, Fall 2003 (2 sections), Fall 2006, Fall 2010	ARCH 305 – Architectural Design I	Desk critique of structures, formal review
Fall 2003	VIST 305 – Visual Studies Design I	Formal review
Spring 2009	ARCH 306 – Architectural Design III	Formal review
Summer 2003	ARCH 405 – Architectural Design IV	Formal review
Fall 2007	ARCH 405 – Architectural Design II	Informal review
Fall 2008	ARCH 405 – Architectural Design IV	Informal review, weekly desk critique of structures for 7 weeks
Fall 2011	ARCH 405 – Architectural Design IV	Formal reviews, desk critique of structures term project integrating structures and environmental systems
Spring 2008	ARCH 406 - Interdisciplinary Design III	Structural testing of student-designed materials
Spring 2009, Spring 2011	ARCH 406 - Architectural Design V	Desk critique of structures, informal review, formal review
Fall 2003, Fall 2005	ARCH 601 - Design Fundamentals I	Informal review, desk critique of structures
Spring 2003, Spring 2004, Spring 2007, Spring 2008, Spring 2009	ARCH 602 - Design Fundamentals II	Formal review, desk critique of structures
Fall 2003 (2 sections), Fall 2004 (2 sections), Fall 2008	ARCH 605 - Architectural Design I	Formal review, desk critique of structures
Spring 2003 (2 sections), Spring 2005 (2 sections), Spring 2008	ARCH 606 - Architectural Design II	Formal review, desk critique of structures, lecture on timber materials and design, informal review
Fall 2005	ARCH 607 - Architectural Design III	Existing building condition evaluation for project

GRADUATE RESEARCH ADVISING

MASTERS STUDENTS

Co-Chair

Paul Young	"Efficiency of Construction Crane Operation," Department of Construction Science	December 2010
Nishit Parekh	"Effect of Metakaolin on the Early Strength Properties of High Volume Fly Ash Concrete," Department of Construction Science	August 2010
Hidekazu Takahashi	"The Landscape Stadium at Central Park," Department of Architecture; Employed as Architectural Inter, Morris Architects, Houston, TX.	May 2008

Member

Andrew Ilges	"Vertical Neighborhood", Department of Architecture	May 2014
Shu Yuan	"Reverse Auction Bidding – Bid Arrivals Analysis", Department of Construction Management	August 2013
John Hart	"Children's Sustainable Neighborhood", Department of Architecture	May 2013
Arnold Ghil	"A New Stadium for the Brazos Valley Bombers", Department of Architecture	August 2012
Srigiri Shankar Bellam	*Intraplate vs. Innerplate Earthquakes,* Department of Construction Science	August 2012
Ashley Reinisch	"Cost Analysis for Delivery Systems for Construction of Elementary Schools", Department of Construction Science	December 2011
Joshua Hullum	"Knowledge of Sustainability: Company Expectations for TAMU Construction Science Graduates," Department of Construction Science	May 2011
Mattheau Ford	"An Evaluation of Delivery Systems for Construction of High Schools," Department of Construction Science	December 2010
Punit Saraf	"Measuring Compressive Stress and Determination of Young's Modulus of Brick Masonry," Department of Construction Science	December 2010
Akhilesh Nadgauda	"Economic Determinants for Wage and Salary Disbursements: A Case for Texas and California," Department of Construction Science	December 2010
Lekshmi Girija	"Economic Feasibility of Recycling Operation with Particular Reference to the Type of Recycling Approach," Department of Construction Science	December 2010
Amit Patil	"Determination Compressive Stress and Evaluation of Young's Modulus of Brick Masonry," Department of Construction Science	August 2010
Rahul Desale	"Comparison of Earned Value Management and Earned Schedule in Project Forecasting - A Case Study," Department of Construction Science	August 2010
Mayurkumar Dankhara	"Impact on Embodied Energy and CO2 Emission by Addition of Fly Ash in Concrete," Department of Construction Science	August 2010
Jingnesh Patel	"Comparative Analysis of Magneto-Rheological Damper system and Variable Orifice Damper System for Seismic Response of Base Isolated Reinforced Concrete Buildings," Department of Construction Science	August 2010
Karan Sharma	"Analysis of Flexural Strength of Plastic Fiber Reinforced Concrete," Department of Construction Science	August 2010
Chinmay Abhyankar	"Analysis of Physical Properties of Plastic Fiber Reinforced Concrete," Department of Construction Science	August 2010
Meet Patel	"Effect of Same Personality Type Bidders on Reverse Auction Bidding Process," Department of Construction Science	August 2010

Swapnil Somani	"Studying Effect of Strength on the role Variant of Guardian in the Reverse Auction Bidding Game for the Construction Industry," Department of Construction Science	August 2010
Bhavana Sudhakaran	"Development of a Standard Classification and Recording System for First-Aid Related Injuries in the Construction Industry," Department of Construction Science	May 2010
Komal Patel	"Measuring Compressive Stress and Determination of Young's Modulus of Masonry," Department of Construction Science	May 2010
Sagar Chavan	"Determination of Young's Modulus of Brick Masonry," Department of Construction Science	May 2010
Rahul Patel	"Experimental Methods to Calculate the Young's Modulus of Elasticity for Bricks," Department of Construction Science	May 2010
David Hudson	"The Necessity of Spanish Speaking Education in Texas A&M's Department of Construction Science," Department of Construction Science	May 2010
Sushil Chaudhari	"Owner's Interference in Reverse Auction Bidding to Skew a Free Market," Department of Construction Science	December 2009
Mayur Sethi	"Key Factors Influencing the Optimum Efficiency Expense Per Month of Recently Constructed Schools in Texas," Department of Construction Science	May 2009
In Sung Song	"The Way to Improve Efficiently Construction Safety Management in Korea: From Safety Managers' Perspective," Department of Construction Science	May 2009
Prashant Somanchi	"Investigation of Time-Cost Relation for Infrastructure Projects in India," Department of Construction Science	December 2008
Shilpa Ramesh	"Accuracy of Soil Moisture Meters Compared to the Traditional Oven Drying Method," Department of Construction Science	December 2008
Rupa Nair	"A Comparative Analysis of Housing Construction in Gujarath, India Before and After the Earthquake of January 2001," Department of Construction Science	December 2008
Swapnil Jadhav	"Vibration Measurements on Masonry and Timber," Department of Construction Science	December 2008
Gaurav Lohiya	"Extending the List of LEED Credits for Contractors," Department of Construction Science	December 2008
Priyanka Guha	"A Study of Traffic-Induced Vibration in Buildings," Department of Construction Science	August 2008
Pranalika Shinde	"Dubai: A New Role for Coastal Land Reclamation in Construction Projects," Department of Construction Science	August 2008
Nilesh Panchal	"Reverse Auction Bidding – Studying the Game," Department of Construction Science	August 2008
Robert Sandoval Jr.	"Analysis of Fall Fatalities in the State of Texas: 2003-2006," Department of Construction Science	May 2008
Denis Xavier	"Construction Costs of Green Buildings," Department of Construction Science	May 2007
Guillermo Recalde	"Green Building Costs and Financial Benefits," Department of Construction Science	May 2007
Timothy Shaw	"Starting Strategies for Green Building," Department of Construction Science	May 2007
Harshad Kaple	"Impact of Design Fees in Commercial Construction," Department of Construction Science	May 2007

Seth Gregory	"Tacit Collusion in Reverse Auction Bidding," Department of Construction Science	December 2006
Amrit Singh	"New Town Master Planned Communities: Creating Value Through Sustainable Design," Department of Landscape Architecture & Urban Planning	December 2006
Andrew Koska	"A Traditional Catholic Church in Modern America," Department of Architecture	December 2005
Brianna Callaway	"Barcelona Building Codes as They Relate to Retrofitting Historic Structures for People with Disabilities," Department of Construction Science	December 2005
Bryan O'Sullivan	"A New Stadium for Dallas Cowboys, Fair Park, Dallas," Department of Architecture	August 2005
Jennifer Dye	"Case Studies Analyzing Enforcement of a Construction Waste Management Plan," Department of Construction Science	August 2005
Anjana Shankar	"Reverse Auction Bidding: Case Analysis," Department of Construction Science	August 2005
Aparna Muthusubramaniam	"An Analysis of the Effect of Geographic Location and Climate on LEED Credit Distribution for Construction Projects," Department of Construction Science	August 2005
Jennifer Parrish	"Sustainable and Innovative Technical Education for Fort Worth," Department of Architecture	May 2005
Sekson Wongwanichrat	"An Analysis Management's Perception of Performance Indicators for Construction," Department of Construction Science	May 2005
Ranjeet Mohandas	"Evaluation and Comparison of Space Requirements in Design Guides to As-built Conditions for Mechanical Spaces in Large Institutional Buildings," Department of Construction Science	December 2004
Chirag Shah	"Gender and Ethnic Diversity in Construction Companies that Employ Construction Science Graduates," Department of Construction Science	December 2004
Elizabeth Williamson	"Deep Ellum: Yesterday, Today & Tomorrow...," Department of Architecture	May 2004
John Mayfield	"An Advisory System for Scraper Selection," Department of Construction Science	May 2004
Jung Yun Kim	"Experimental Performing Arts," Department of Architecture	December 2003
Preeti D'Souza	"Analysis of Residential Appliance Energy Usage in Bryan, TX," Department of Construction Science	August 2003
Pooja Goel	"Use of Mobile Computing Devices on Construction Jobsites," Department of Construction Science	August 2003
Sachin Lakhani	"Identification and Assessment of the Benefits of Information Technology in Various Construction Business Processes," Department of Construction Science	May 2003
Shiva Ramakrishnan	"Cultural Effect on Residential Cooling Energy Consumption in Bryan/College Station," Department of Construction Science	May 2003
Dennis Yu	"Analog vs. Digital Design," University of Illinois School of Architecture	May 2002

DOCTORATE STUDENTS

Co-Chair

Mike T. Duff	"Instruction in Critical Path Method Scheduling and Application in Practice," Department of Architecture	December 2015 *(scheduled)*

Member

James Haliburton	"An Analysis of the Impacts of BIM Transition on the Small Architectural Practice," Department of Architecture	May 2015 *(scheduled)*

PROFESSIONAL ORGANIZATIONS AND SERVICE

DISCIPLINARY AND PROFESSIONAL SOCIETIES

American Ceramic Society (ACerS); Member, 1993-99; Cements Division Web Page Editor, 1997-99

American Concrete Institute (ACI), Member, 2000 - present

American Institute of Architects (AIA); Associate Member. 2002

American Society of Civil Engineers (ASCE); Associate Member, 1985-present;
Concrete Canoe Design Team, University of Illinois Chapter, 1993

American Society of Engineering Educators (ASEE); Member, 2007-present;
NSF Graduate Research Fellowships and Awards Panelist, 2010

American Society of Testing and Materials (ASTM); Member, 2001-present;
Technical Committee C01 on Cements
Technical Committee C09 on Concrete and Concrete Aggregates
Technical Committee C12 on Mortars and Grouts for Masonry
Technical Committee C27 on Precast Concrete Products
Technical Committee E06 on Performance of Buildings
Technical Committee E08 on Fatigue and Fracture, 2001-06

Building Technology Educators' Society (BTES); Member, 2008-present

Chi Epsilon Honor Society (*Civil Engineering*); Member, 1983-present;
Associate Editor, Purdue University Chapter, 1984
President, Purdue University Chapter, 1985

Texas A&M Women's Faculty Network; Member, 2005-present

Tai Beta Pi Honor Society (Engineering); Member, 1983-present

Tau Sigma Delta Honor Society (Architecture and Allied Arts); Honorary Member, 2004-present

MANUSCRIPT REVIEWS

Journal Manuscripts

ACI Materials Journal (American Concrete Institute); 2005, 1 draft (rejected)

Applied Surface Science; 2006, 1 draft (published)

Cement and Concrete Research; 2009 & 2010, 2 drafts and 1 revision (1 published)

Computers and Concrete (International Journal); 2006, 1 draft and revision (published)

Engineering Fracture Mechanics (International Journal); 1997, 2000 & 2005, 3 drafts and 1 revision (published)

Journal of Architectural and Planning Research; 2008, 1 draft (declined)

Journal of Materials in Civil Engineering (ASCE); 2007, 1 draft (published)

Journal of Testing and Evaluation (ASTM); 2009, 2012, 2014, 5 drafts and 4 revisions (1 published)

Journal of ASTM International; 2005, 1 draft (published)

Natural Hazards Review (ASCE); 2004, 1 draft (declined)

NED University Journal of Research – Structural Mechanics; 2014, 1 draft and revision

Preservation Education & Research, 2011 & 2014, 2 drafts (unpublished)

Conference Proceedings

9th North American Masonry Conference Proceedings; 2003, 4 drafts (published)

11th North American Masonry Conference Proceedings; 2010, 4 drafts (published)

Conference Abstracts

American Society for Engineering Education Annual Conference; 2011, 2 abstracts

Technical Reports

American Concrete Institute; 2010, ACI Committee 446 Report on Fracture Toughness Testing of Concrete

TEXTBOOK REVIEWS

Textbook Revisions

Simplified Engineering for Architects and Builders, 12rth ed. by Ambrose and Tripeny, for for John Wiley & Sons, Inc. Publishers- Architecture & Design division; 2013. Reviewed the proposal, specific use in my classes, and usefulness of the new electronic resources.

Structure in Architecture: The Building of Buildings, 3rd ed. by Salvadori and Heller, Prentice-Hall, Inc. for Pearson Higher Education; 2009. Reviewed table of contents and complete chapters "Membranes," "Thin Shells and Reticulated Domes," "Structural Failures," "Structural Aesthetics," and "Conclusion" for material accuracy and currency, appropriateness for my students, and depth and breadth, and was asked of my interest in taking the lead on updating this book.

Statics and Strength of Materials: Foundations for Structural Design. by Onouye, Prentice-Hall, Inc. for Pearson Higher Education; 2005. Reviewed table of contents, all chapters, the style, features, and organization.

New Textbook Editions

Structure in Architecture: The Building of Buildings, 4rth ed. by Salvadori, Heller, and Oakley, Prentice-Hall, Inc. for Pearson Higher Education; 2013. Reviewed table of contents and complete chapters "Structure in Architecture," "Tension and Compression Structures," and "Structural Aesthetics," for material accuracy and currency, appropriateness for my students, and depth and breadth.

Structural Design: A Practical Guide for Architects by Underwood and Chiuni, for John Wiley & Sons, Inc. Publishers- Architecture & Design division; 2005. Reviewed the complete text with respect to my course texts, the topics and their order, the content, style, features, and organization.

Reinforced Concrete Design,7th ed. by Wang, Salmon, and Pincheira, for John Wiley & Sons, Inc. Publishers- Engineering division; 2005. Reviewed the table of contents, and complete chapters "Strength of Rectangular Sections in Bending" and "Shear Strength and Shear Reinforcement" for approach, topics and organization, accuracy and currency, pedagogical elements, and comparison with competition.

Proposals for Textbooks

Design of Steel and Concrete Buildings by Paramesh Das, for CRC Press/Taylor & Francis – Engineering division; 2012. Reviewed the proposal, table of contents, and sample calculations for topics and organization, and the appropriateness to the level of the target audience.

Structure for Architecture: An Introduction by Bedi and Dabby, for John Wiley & Sons, Inc. Publishers- Architecture & Design division; 2009. Reviewed the proposal, table of contents, and complete chapters "Stability vs. Strength" and "States of Stress" for topics and organization, the appropriateness to the level of the target audience, and illustrations.

Structure for Architecture by Bedi and Dabby, for Prentice Hall Publishing- Careers & Technology division; 2007. Reviewed the proposal, table of contents and complete chapter "States of Stress" for quality, usefulness, and appropriateness, the premise, topics and organization, and the comparison with competition.

Architectural Structures by J. Wayne Place, for John Wiley & Sons, Inc. Publishers- Architecture & Design division; 2004 (published 2007). Reviewed the proposal, table of contents, and complete chapters "Materials," "Structural Analysis," "Trusses," and "Compressive Spanning Structures" for topics and organization, formatting and examples, and the appropriateness to the level of the target audience.

Structures by Schierle, for John Wiley & Sons, Inc. Publishers- Architecture & Design division; 2003 (published 2008, University Readers). Reviewed the proposal, table of contents, and complete chapters "Horizontal Systems – Axial Resistant" and "Horizontal Systems – Form Resistant" for topics, organization and development, writing, pedagogy and format, and the comparison with competition.

Concrete Structures by Setareh and Darvas, for John Wiley & Sons, Inc. Publishers- Architecture & Design division; 2001 (published 2007, Pearson/Prentice-Hall). Reviewed the proposal, the table of contents, and complete chapter on materials for topics and organization, formatting and graphics, currency, and the appropriateness to the level of the target audience.

UNIVERSITY SERVICE

University

Engineers Without Borders Student Chapter; Architectural Consultant, 2009-present

Associate Dean of Faculties and Director for the Center of Teaching Excellence Search Committee; Member, 2009

Honors Faculty; Member, 2008-present

Aggie ALLIES; Ally, 2007-present

Class Councils Lunch Discussions; Invitee, 2005

Expanding Your Horizons Workshop (College of Science); Presenter, 2004-present

Student Research Week; In-Field Judge for Graduate-Oral-Engineering, 2004

Wakonse South Conference on College Teaching; Fellow, 2003-present; Co-Facilitator, *Special Interest Session on Motivating Students*, 2003

Aggie Women in Leadership Program; Mentor, 2003-2004

All Campus Teaching Assistants Orientation (University of Illinois); Presenter, *Lesson Planning for Architecture and Landscape Architecture Teaching Assistants*, 2000

College

Center for Housing and Urban Development; Faculty Fellow, 2008-2012

Center for Heritage Conservation; Faculty Fellow, 2006-present

Architectural Ranch Committee; Member, 2006-2007

Solar Decathlon 2007; Structural Engineering Consultant, 2006-2007

Texas A&M University Commencement; Undergraduate Marshal, 2004, 2005

Career Horizons Egg Drop Project; Co-Advisor; 2003, 2004

Architecture Ranch Design Charrette; Participant, 2003

Department

Masters of Architecture Committee; Member, 2007-present

Technology Caucus Committee; Member, 2006-present; Vice-Chair, 2009-2011

Caudill Research Fellowship Committee; Member, 2006-2010

Texas Masonry Professors Roundtable, Southwest Brick Association; Member, 2003-present; Host Committee Member, 2005

History Faculty Search Committee; Member, 2005-06; Contributor, 2008

Academic Affairs Committee, Retreat on Technology; Participant, 2005

School of Architecture (University of Illinois); Lecture Series Committee; Member, 2001-2002; Structures Faculty Search Committee; Member, 2001-2002

OTHER SERVICE

Friends Congregational Church Capital Campaign Committee; New Construction Subcommittee Member, 2008; Building Committee Member, 2011-2013

Habitat for Humanity; Construction Volunteer, 2007

Purdue University Women in Engineering "Personal Connection Program -Alums for Seniors"; Resource Contact for prospective freshmen, 1991-2006