

## CURRICULUM VITAE

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### WILLIAM R. BURKETT, Ph.D., P.E.

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College of Engineering  
Texas Tech University  
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Lubbock, Texas 79409-3107  
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#### **Credentials:**

Doctor of Philosophy: The University of Texas at Austin, Austin, Texas, 1992.  
Master of Engineering: Civil Engineering, Texas A&M University, College Station, Texas, 1984.  
Bachelor of Science: Civil Engineering, Lamar University, Beaumont, Texas, 1981.  
Bachelor of Science: Industrial Technology, Lamar University, Beaumont, Texas, 1975.  
Associate of Applied Science: Drafting Technology, Lamar University, Beaumont, Texas, 1972.  
Registered Professional Engineer: Texas, 1997 - present, No. 81893.

#### **Articles - National Peer Reviewed Journals:**

1. Bai, Y., Kim, S. H., and Burkett, W. R., "Enhancing the Capability of Rapid Bridge Replacement after Extreme Events," *Engineering, Construction, and Architectural Management*, Vol. 14, No. 4, 2007, pp 375 – 386.
2. Bai, Y., and Burkett, W. R., "Rapid Bridge Replacement: Processes, Techniques, and Needs for Improvements," *ASCE Journal of Construction Engineering and Management*, Vol. 132, No. 11, November, 2006, pp 1139-1147.
3. Bai, Y., Burkett, W. R., and Nash, P. T., "Rapid Bridge Replacement under Emergency Situation: Case Study," *ASCE Journal of Bridge Engineering*, Vol. 11, No. 3, May-June, 2006, pp 266-273.
4. Bai, Y., Burkett, W. R., and Nash, P. T., "Lessons Learned from an Emergency Bridge Replacement Project," *ASCE Journal of Construction Engineering and Management*, Vol. 132, No. 4, April, 2006, pp 338-344.
5. Metin, M. M. and Burkett, W. R., "Formulation of New Development Length Equation for 0.6-Inch Prestressing Strand," *PCI Journal*, Vol. 50, No.5, September-October, 2005, pp 96-105.
6. Kose, M. M. and Burkett, W. R., "Evaluation of Code Requirements for 0.6-Inch Prestressing Strand," *ACI Structural Journal*, Vol. 102, No. 3, May-June, 2005, pp 422-428.
7. Gransberg, D. D., Karaca, I., and Burkett, W. R., "Quantifying Seal Coat Surface Condition Using Digital Image Processing Based on Information Theory," *International Journal of Pavement Engineering*, Vol. 3 (4), March, 2003, pp 197-205.

## **Articles - National Conference Compendium of Papers:**

1. Bai, Y. and Burkett, W. R., "Rapid Bridge Replacement After an Extreme Event," Committee Meeting AFH40 – Construction of Bridges and Structures and Committee AFF30 – Concrete Bridges, 84<sup>th</sup> Transportation Research Board Annual Meeting: Compendium of Papers, Washington, D.C., January, 2005.
2. Bai, Y., Burkett, W. R., and Nash, P. T., "Lessons Learned from the I-40 Webber Falls Bridge Tragedy," Session 568 – Transportation Security and Infrastructure Protection: Strategies and Policy, 83<sup>rd</sup> Transportation Research Board Annual Meeting: Compendium of Papers, Washington, D. C., January, 2004.

## **Articles - State Meeting Proceedings:**

1. Turkyilmaz, S., Burkett, W. R., and Vann, W. P., "Digital Analysis of Prestressed Concrete Beam Cracks," *Proceedings of Texas Section of American Society of Civil Engineers Spring Meeting*, Arlington, Texas, March, 2002, pp 313-322.
2. Cedeno-Rosete, R., Burkett, W. R., and Vann, W. P., "WWF Shear Reinforcement in NSC Prestressed Beams," *Proceedings of Texas Section of American Society of Civil Engineers Spring Meeting*, San Antonio, Texas, March, 2001, pp 305-315.
3. Karaca, I., Gransberg, D. D., and Burkett, W. R., "Seal Coat Evaluation Using Information Theory," *Proceedings of Texas Section of American Society of Civil Engineers Spring Meeting*, Austin, Texas, April, 2000, pp 243-252.
4. Vann, W. P., Sury, A., and Burkett, W. R., "Digital Imaging To Quantify Concrete Cracks," *Proceedings of Texas Section of American Society of Civil Engineers Spring Meeting*, Austin, Texas, April, 2000, pp 171-180.
5. Burkett, W. R., and Vallabhan, C. V. G., "Moment Capacity of Light Pole Transformer Base," *Proceedings of Texas Section of American Society of Civil Engineers Fall Meeting*, Dallas, Texas, September, 1998.
6. Burkett, W. R., and Matta, M., "Coarse Aggregate Effect on Portland Cement Concrete Strength," *Proceedings of Texas Section of American Society of Civil Engineers Fall Meeting*, El Paso, Texas, October, 1995.

## **Editor Reviewed Articles:**

1. Gransberg, D. D. and Burkett, W. R., "Review of *Masonry and Concrete Construction* by K. Nolan," *Cost Engineering*, Journal of the AACE International, Vol. 42, No. 11, November, 2000, p. 13.
2. Burkett, W. R., "Using Geometry to Improve Survivability," *The Military Engineer*, Society of American Military Engineers, August, 1988.

## **Research and Technical Reports:**

1. Newhouse, C. D., Bole, S., Burkett, W. R., Nash, P. T., and El-Shami, M., *Study of Elastomeric Bearings for Superelevated U-Beam Bridges*, Report No. FHWA/TX - 09-5834-1, Center for Multidisciplinary Research in Transportation, submitted to Texas Department of Transportation, October 2009, 246 pp.
2. Burkett, W. R., Nash, P. T., Bai, Y., Hays, C., and Jones, C., *Rapid Bridge Replacement Techniques*, Report No. FHWA/TX-5/0-4568-1, TxDOT-led Pooled-fund Study, Center for Multidisciplinary Research in Transportation, submitted to Texas Department of Transportation, October, 2004, 189 pp.
3. Phelan, W. S., Vann, W. P., Jayawickrama, P. W., Burkett, W. R., Rasband, D., Leaverton, M., and Senadheera, S., *Innovative Design and Construction Methods for Off-System Bridges: Final Report*, Report No. FHWA/TX-04-0-4375-TT-3, Center for Multidisciplinary Research in Transportation, Texas Tech University, submitted to Texas Department of Transportation November, 2003, 139 pp.
4. Burkett, W. R., Vann, W. P., Cedeno-Rosete, R., and Turkyilmaz, S., *Alternate Vertical Shear Reinforcement in Prestressed Concrete Beams*, Report No. 0-1853-2, Report for Texas Department of Transportation, Texas Tech University, November, 2002, 201 pp.
5. Burkett, W. R., and Kose, M. M., *Development Length of 15-mm (0.6 inch) Diameter Prestressing Strand at 50-mm (2-inch) Grid Spacing in Standard I-Shaped Pretensioned Concrete Beams*, Report No. TX-98-0-1388-2, Report for Texas Department of Transportation, Texas Tech University, June, 1999, 105 pp.
6. Nash, P. T., O'Hair, E. A., Burkes, T. R., Burkett, W. R., Peterson, R. E., and Trost, T. F., *Review of Sandia Report Sand 93-2517, "Evaluation of the Electromagnetic Effects Due to Direct Lightning to Nuclear Explosive Areas at Pantex,"* Report for Amarillo National Resources Center for Plutonium, Texas Tech University, February, 1998, 8 pp.
7. Vallabhan, C. V. G., Burkett, W. R., Mukkamala, A. S., Haque, M. M., and Kumar, R., *Evaluation of Structural Strength Characteristics of Light Pole Transformer Bases*, Report No. TX-97-0-1416-1R, Report for Texas Department of Transportation, Texas Tech University, October, 1997, 74 pp.
8. Burkett, W. R., Matta, M., and Borger, M., *Investigation of Portland Cement Concrete Coarse Aggregate Performance*, Report for City of Lubbock Street/Drainage Engineering Department, Texas Tech University, February, 1995, 101 pp.
9. Burkett, W. R., *The Response of Prestressed Concrete Roof Elements of a Buried Shelter Subjected to a Surface Explosion*, Dissertation, Doctor of Philosophy Degree, The University of Texas at Austin, December, 1992, 200 pp.
10. Burkett, W. R. and Frank, K. H., *Fatigue and Static Tests of 55-Strand Stay Cable Specimen for the Baytown Bridge*, Phil M. Ferguson Structural Engineering Laboratory, The University of Texas at Austin, August, 1989, 44 pp.

11. Moore, J. A., Burkett, W. R., and Frank, K. H., *Fatigue and Static Tests of 43-Strand Stay Cable Specimen for the Baytown Bridge*, Phil M. Ferguson Structural Engineering Laboratory, The University of Texas at Austin, May, 1989, 33 pp.

12. *Annual Report*, Joint Services Civil Engineering Research and Development Coordinating Group - Base Survivability Subcommittee, W. R. Burkett (secretary/editor), May, 1988.

13. Burkett, W. R., *Prestressed Precast Segmental Concrete Bridges Erected Using the Balanced Cantilever Method*, Report, Master of Engineering Degree, Texas A&M University, April, 1984, 124 pp.

### **Presentations - National Meetings (unprinted):**

1. Burkett, W. R., "Rapid Bridge Replacement Techniques Pooled-Fund Project Final Report," Workshop on Bridge and Tunnel Security Update, 2005 Transportation Research Board Annual Meeting, Washington D.C., January 9, 2005. (Invited presentation)

2. Burkett, W. R., "Rapid Bridge Replacement Techniques," T-1 Technical Committee for Bridge and Tunnel Security, American Association of State and Highway Transportation Officials-Subcommittee on Bridges and Structures Annual Meeting, Albuquerque, New Mexico, June 2, 2003. (Invited presentation)

3. Burkett, W. R. and Nash, P. T., "Rapid Bridge Replacement Techniques," National Meeting on Transportation Security Pooled Fund Projects, Austin, Texas, September, 2002.

### **Presentations - Regional/State/Local Meetings (unprinted):**

1. Burkett, W. R., "Rapid Bridge Replacement Techniques," QUOIN/ASC Region V Educators Conference, Dallas, Texas, September 26, 2003.

2. Williamson, E. B. and Burkett, W. R., "Status of TxDOT-Led Pooled-Fund Security Research Projects on Bridge Design and Rapid Replacement," Session 7, 2002 Transportation Short Course, College Station, Texas, October, 2002. (Invited presentation)

3. Burkett, W. R. and Vann, W. P., "Alternate Vertical Shear Reinforcement in Prestressed Concrete Beams," Texas Department of Transportation, Research Management Committee 5 Meeting, Austin, Texas, June, 2002.

4. Burkett, W. R., "Construction Engineering Technology Program at Texas Tech University," Lubbock Chapter of Construction Specifications Institute, Lubbock, Texas, December, 2000. (Invited presentation)

5. Burkett, W. R., and Vann, W. P., "Alternate Vertical Shear Reinforcement in Prestressed Concrete Beams," Texas Department of Transportation, Research Management Committee 5 Meeting, Houston, Texas, June, 2000.

6. Burkett, W. R. and Kose, M. M., "Development Length of 15-mm Prestressing Strand," presented at Texas Section of American Society of Civil Engineers Fall Meeting, Dallas, Texas, 1998.

7. Vallabhan, C. V. G., and Burkett, W. R., "Evaluation of Structural Strength Characteristics of Light Pole Transformer Bases," Texas Department of Transportation, Research Management Committee 9 Meeting, College Station, Texas, May, 1996.

### **Invited Publisher Reviews:**

1. Review of problem set for Mechanics of Materials textbook for Prentice Hall, October, 2002.

2. Review of textbook, *Mechanics of Materials*, by Bedford and Liechti, for Prentice Hall, May, 2002.

3. Review of textbook: *Statics (2<sup>nd</sup> Edition)*, by Bedford & Fowler, for Addison Wesley Publishing, 1997.

4. Review of textbook: *Design of Reinforced Concrete (4<sup>th</sup> Edition)*, by McCormac, for Addison, Wesley, & Longman, 1996.

### **Research Proposals (funded):**

1. "Study of Elastomeric Bearings for Super-elevated U-Beam Bridges," \$225,272.00, Texas Department of Transportation, 2007-2009. (Co-Principal Investigator)

2. "Rapid Bridge Replacement, Refugio County," \$35,000.00, Texas Department of Transportation, 2004-2005. (Research Supervisor / Principal Investigator)

3. Interagency Cooperation Contract, "Construction Tolerances for T-base Foundations," \$13,000.00, Texas Department of Transportation, 2004-2005. (Research Supervisor / Principal Investigator)

4. "Rapid Bridge Replacement Techniques," \$181,650.00, Texas Department of Transportation, 2002-2003. (Research Supervisor / Co-Principal Investigator)

5. "Innovative Design and Construction Methods for Off-System Bridges," \$282,248.00, Texas Department of Transportation, 2001-2003. (Co-Principal Investigator)

6. "Alternate Vertical Shear Reinforcement in Prestressed Concrete Beams," \$399,500.00, Texas Department of Transportation, 1998-2002. (Research Supervisor / Co-Principal Investigator)

7. "Review of Sandia Report Sand 93-2517, 'Evaluation of the Electromagnetic Effects Due to Direct Lightning to Nuclear Explosive Areas at Pantex'," \$10,000.00, Amarillo National Resource Center for Plutonium, 1997. (Co-Principal Investigator)

8. "Development Length of 15-mm (0.6") Diameter Prestressing Strand at 50-mm (2") Grid Spacing in Standard I-shaped Pretensioned Concrete Beams," \$100,500.00, Texas Department of Transportation, 1995-1998. (Research Supervisor / Principal Investigator)
9. "Evaluation of Structural Strength Characteristics for Light Pole Transformer Bases," \$169,000.00, Texas Department of Transportation, 1995-1997. (Co-Principal Investigator)
10. "Investigation of Portland Cement Concrete Coarse Aggregate Performance," \$9,000.00, City of Lubbock Street/Drainage Engineering Department, Lubbock, Texas, 1994-1995. (Research Supervisor / Principal Investigator)
11. "Dynamic Nonlinear Finite Element Modeling of Reinforced Concrete Elements Subjected to Impact Loading of Tornado Induced Missiles," \$7,000.00, College of Engineering, Texas Tech University, 1994. (Research Supervisor / Principal Investigator)
12. "Sludge Beds: Geotechnical Properties of Materials & Analysis of Stability," \$2,400.00, Center for Applied Research in Automation and Robotics, Texas Tech University, 1994. (Co-Principal Investigator)

### **Research Proposals (unfunded):**

1. "Bursting and Shear Behavior of Prestressed Concrete Beams with End Blocks," \$733,099.00, Texas Department of Transportation, March, 2007. (Burkett, Newhouse, & Budek)
2. "Evaluation and Repair Procedures for Precast/Prestressed Concrete Girders with Longitudinal Cracking," \$289,702.00, National Cooperative Highway Research Program, November, 2006. (Burkett & Newhouse)
3. "Steel Fiber Replacement of Mild Steel in Prestressed Concrete Beams," \$463,391.00, Texas Department of Transportation, March, 2006. (Burkett, Newhouse, & Budek)
4. "Impact of Overhang Construction on Girder Design," \$187,453.00, Texas Department of Transportation, March, 2006. (Newhouse, Budek, & Burkett)
5. "Temporary Bridging to Avoid or Minimize Impacts to Waters and Wetlands During Highway Construction," \$100,000.00, National Cooperative Highway Research Program, November, 2005. (Burkett & Audra Morse)
6. "Improved Loss and Camber Predictions for Prestressed Concrete Girders," \$340,858.00, Texas Department of Transportation, March, 2005. (Burkett & Senadheera)
7. "Blast-Resistant Highway Bridges: Design and Detailing Guidelines," \$950,000.00, National Cooperative Highway Research Program, October, 2004. (Nash, Norville, Burkett, Budek, & Phelan)
8. "Performance Testing of Anchors for Retrofitting and Repair of Bridge Rails," \$446,022.00, Texas Department of Transportation, March, 2003. (Co-Principal Investigator)

9. "Rational Shear Provisions for AASHTO-LRFD Specifications," \$274,365.00, Texas Department of Transportation, March, 2003. (Co-Principal Investigator)
10. "Fiber Reinforcement in Prestressed Concrete Beams," \$583,356.00, Texas Department of Transportation, March, 2003. (Research Supervisor / Co-Principal Investigator)
11. "Development of a Masters Degree Program in Construction," \$442,000.00, Texas Tech University – College of Engineering Excellence Funds, August, 2001. (Co-Principal Investigator)
12. "Low Profile Bridge Overpass Design and Implementation," \$538,473.00, Texas Department of Transportation, March, 2001. (Co-Principal Investigator)
13. "A Study of the Feasibility of Vibration Measurements and Analysis for Damage Identification in Bridges," \$398,164.00, Texas Department of Transportation, March, 2001. (Co-Principal Investigator)
14. "Allowable Stresses and Resistance Factors for High Strength Concrete," \$175,500.00, Texas Department of Transportation, October, 1999. (Co-Principal Investigator)
15. "New Design Method for Inverted "T" Bents," \$229,000.00, Texas Department of Transportation, March, 1998. (Co-Principal Investigator)
16. "Explore New Uses for T-Headed Bars in Structural Concrete Reinforcement Applications," \$200,000.00, Texas Department of Transportation, March, 1998. (Co-Principal Investigator)
17. "Study of Flexural Cracking (from unknown sources) in Cantilever Standard Design Interior Bent Caps," \$286,000.00, Texas Department of Transportation, March, 1998. (Research Supervisor / Co-Principal Investigator)
18. "Nonlinear Finite Element Modeling of Wind Generated Missile Impact on Concrete Structures," \$84,000.00, Advanced Research Program, Texas Higher Education Coordinating Board, July, 1997. (Research Supervisor / Principal Investigator)
19. "Develop Methods to Strengthen Existing Structures," \$415,000.00, Texas Department of Transportation, March, 1997. (Co-Principal Investigator)
20. "Applicability of 151.7 MPa (22 ksi) Dead Load Stress Limit on Bent Cap Reinforcing," \$307,222.00, Texas Department of Transportation, April, 1996. (Co-Principal Investigator)
21. "Design and Detailing of Precast Bent Cap System," \$196,438.00, Texas Department of Transportation, April, 1996. (Co-Principal Investigator)
22. "Compressed Rubber Block Subgrade Stabilization," \$24,919.00, U. S. Army Corps of Engineers Construction Engineering Research Laboratory, December, 1994. (Co-Principal Investigator)

23. "Investigation of Early Moment Capacity in Column Foundations for Pre-Engineered Steel Structures," \$8,000.00, College of Architecture, Texas Tech University, November, 1994. (Co-Principal Investigator)

24. "Investigation of Large Tornado Missile Impact of Reinforced Concrete Panels," \$60,000.00, Institute for Disaster Research, Texas Tech University, August, 1994. (Research Supervisor / Principal Investigator)

### **Equipment Grants:**

1. Dallas Chapter AGC, Education and Research Foundation, \$10,000.00 Equipment Grant, Upgrade CTEC Materials and Soils Laboratories, August, 2000.

2. Texas Tech University, Teaching, Learning, and Technology Center (TLTC), \$3,300.00 Equipment Grant, "Multimedia Development Hardware for Web-based Courses and Presentations," March, 1999.

3. Dallas Chapter AGC, Education and Research Foundation, \$5,000.00 Equipment Grant, Upgrade Surveying Laboratory, November, 1998.

### **Academic and Industrial Experience:**

**Texas Tech University: Undergraduate Faculty – Department of Engineering Technology  
(Construction Option)  
Graduate Faculty – Department of Civil Engineering**

ET Chairman:	June 2007 – Present
Professor:	September 2005 – Present
Associate Professor:	September 1999 – August 2005
Tenure Granted:	1999
Assistant Professor:	September 1993 – August 1999
Graduate Faculty:	1994 – Present
Construction Option Coordinator:	September 1994 – June 2007

#### **Undergraduate Courses Taught:**

- GTEC 2311, Applied Mechanics I – Statics (7 semesters)
- GTEC 2411, Applied Mechanics I – Statics & Dynamics (6 semesters)
- GTEC 3311, Applied Mechanics II – Strength of Materials (18 semesters)
- GTEC 4121, Fundamental Review (Team taught) (18 semesters)
- GTEC 4131, Special Topics (3 semesters)
- GTEC 4300, Internship (42 semesters)
- GTEC 4331, Special Topics – Masonry (2 semesters)
- CTEC 2301, Surveying (4 semesters)
- CTEC 4311, Concrete Structures (18 semesters)
- CTEC 4312, Steel Structures (18 semesters)
- CTEC 4313, Masonry Structures (6 semesters)
- CTEC 4331, Special Topics – Concrete (1 semester)
- CONE 1100, Introduction to Construction (2 semester)



CONE 4312, Construction Concrete Structures

Student course evaluations average 4.28 on 5.0 scale. ??

Graduate Courses Taught:

- CE 5331, Special Topics – Prestressed Concrete (2 semesters)
- CE 5331, Special Topics – Masonry (2 semesters)
- CE 6330, Masters Report (1 semester)
- CE 7000, Research (16 semesters)
- CE 8000, Doctoral Dissertation (11 semesters)

Graduate Student Involvement:

Name	Degree	Date	Department	Committee Position
Manohar Matta	MS	1995	Civil Engineering	Chairman
Cihangir Gultek	MS	1995	Civil Engineering	Member
Krishnan Viswanathan	MS	1996	Civil Engineering	Member
Ashek Rana	MS	1996	Civil Engineering	Member
Mohammed Haque	MS	1997	Civil Engineering	Member *
Adinarayana Mukkamala	MS	1997	Civil Engineering	Member
Ritesh Kumar	MS	1997	Civil Engineering	Member *
Anis Sury	MS	1999	Civil Engineering	Member
Selim Turkyilmaz	MS	2001	Civil Engineering	Member *
Adel A. Hezam	MS	2002	Civil Engineering	Member
Cal W. Hays	MS	withdrew	Civil Engineering	Member *
Metin Kose	Ph.D.	1999	Civil Engineering	Chairman
Rafael Cedeno-Rosete	Ph.D.	2001	Civil Engineering	Member *
Hector Garcia-Monzon	Ph.D.	2006	Civil Engineering	Graduate Dean's Rep.
Prashanth Badrinarayanan	Ph.D.	2007	Chem. Engineering	Graduate Dean's Rep.
Adam Kyle Davidson	MS	2009	Civil Engineering	Member
Scott Bole	Ph.D.	2010	Civil Engineering	Co-Chair
Emrah Gumus	Ph.D.	2010	Mech. Engineering	Graduate Dean's Rep.

\* Provided significant supervision and guidance as committee member.

Construction Option Coordinator (Admin. ¼-time) (1994 – 2007)

- Undergraduate CTEC Advisor
- Coordinate CTEC course schedules and CTEC faculty assignments
- Solicit and work with CTEC Industrial Advisory Board Members
- Coordinated and worked with Construction companies: student job placement
- Departmental support and preparation for ABET / TAC visits (2 visits)

Departmental growth:

- CTEC Majors: 60 in 1993 to 200<sup>+</sup> in 2009
- Significant increase in CTEC minors from 1993 - 2007
- Significant increase in number / type of companies recruiting CTEC graduates
- Increase in externally funded CTEC scholarships

ET Department Chair (Admin. ½ -time) (2007 – Present)

1. ABET – TAC:
  - Developed and implemented ET-ABET continuous improvement process
  - Timely submission of ABET Reports & Correspondence
  - Programs re-accredited by ABET until next normal 6-year cycle, 2012.
2. Construction Engineering program:
  - Developed ConE Program and proposal
  - Approved by THECB in June 2009
  - Work on transition of existing programs to new programs
  - Working on Mech./Elect. Subcontractor option for ConE
3. SACS:
  - Timely completion of SACS reports
  - Upgrading ET Strategic Plan and Goals in 2008 & 2011
  - Input data into new system, TracDat
4. General Admin.:
  - Worked with other departments in consolidation of labs and workspaces
  - Renovation of ET Office spaces, 2008
  - Updating and developing ET Department Operating Procedures
  - Developed curriculum for CONE Mech./Elect. Subcontractor option
  - Implemented “Partners in Excellence” to raise available soft money
  - Significant increase in departmental soft funds and scholarship funds
  - Increase in number and funding values of research proposals and publications with the CEET Department
5. Graduate Courses / Faculty
  - Two new CEET faculty approved to Graduate Faculty under CONE
  - CONE 5331, Special topics approved (First CONE graduate course)
  - Additional CONE 5xxx courses under development
  - Working on plans for CONE Graduate Certification

Departmental Service: Engineering Technology (ET):

<b>Title</b>	<b>Date</b>	<b>Remarks</b>
Student Chapter of Association of General Contractors	1994 – 2000 2006 – 2007	Faculty Advisor
ET Scholarship Committee	1994 – 2007	Chairman
ET Steering Committee: Curriculum & Policies	1995 – 2007	Member
ET Industrial Advisory Board Work-group: Problem Solving for Industry	1995	Chairman
ET Industrial Advisory Board Continuous Improvement Work-group: Communications	1998	Chairman
CTEC Faculty Search Committee (Gilman)	1998 – 1999	Member
CTEC Faculty Search Committee (Gransberg)	1999	Member
ASC Design/Build Student Competition Team	1999, 2000 & 2003 – 2008	Coach
ET Workgroup, Continuous Improvement of Student Communication Skills	1999	Member
ET Promotion and Tenure Committee	1999 – Present	Member
ET Post-tenure Review Committee	2000 – Present	Member
ET HEAF Allocation Committee	2001 – 2007	Member
CTEC Scholarship Committee	2002 – 2004	Chair
CTEC Faculty Search Committee (Bai)	2003 – 2004	Chair
Masonry Day at TTU (60 to 100 CTEC students)	2004 – 2007	Sponsor
ET Staff Advisor Search Committee	2005	Member
Construction Engineering, Ad Hoc Committee	2006	Chairman

College of Engineering (COE) Service:

<b>Title</b>	<b>Date</b>	<b>Remarks</b>
M S Environmental Engineering Advisory Comm.	1995 – 1998	Member
COE Co-Op Education Advisory Committee	1997 – 2006	Member
COE Dean Search Committee	1998 – 1999	Member
Civil Engr. Post Tenure Review Committee	2002 & 2006	External Member
2005 ABET Visit COE Steering Committee	2004	ET Representative
COE Promotion & Tenure OP Review Committee	2005 – 2006	Member
COE Graduate Programs, Ad Hoc Committee	2005	Member
COE Academic Program Committee	2006 – 2007	Member
COE Executive Committee	2007 – Present	Member
COE Dean's Search Committee	2010	Member

Texas Tech University (TTU) Service:

<b>Title</b>	<b>Date</b>	<b>Remarks</b>
Faculty Senate	1997 – 2000	COE Representative
- Study Group B	1997 – 1998	Member
- Faculty Status & Welfare Committee	1998 – 1999	Member
- Ad Hoc Committee: Election Procedures	1999	Member
- Study Group C	1999 – 2000	Member
University Discipline Appeals Committee	1997 – 1998	Member
University Convocations Committee	2000 – 2009 2005 – 2006 2006 – 2007	Member Vice-Chair Chair
TTU – Masonry Day (300 Architecture and Engineering students)	2003	Co-sponsor

Professional Service:

<b>Title</b>	<b>Date</b>	<b>Remarks</b>
Texas Section American Society of Civil Engineers:		
- Structural Technical Group	1997 – 2005	Member
- Structural Technical Group	1997 – 1998	Secretary
- Structural Technical Group	1998 – 1999	Vice-Chair
- Structural Technical Group	1999 – 2001	Chair
Texas DOT, Technical Assistance Panel 5	1999 – 2007	Member
Associated Schools of Construction:		
- Region 5	1999 – Present	TTU – CTEC Rep.
- <i>Proceedings of International Annual Conf.</i>	2005 – 2006	Article Reviewer
<i>The Masonry Society Journal</i>	2001 – 2006	Article Reviewer
National Council of Examiners for Engineering and Surveying, Civil Engineering Examination Committee, Structures Group	2001 – Present	Member
<i>ASCE Journal of Professional Issues in Engineering Education &amp; Practice</i>	2005	Article Reviewer
Texas Building Branch AGC Outstanding Construction Awards	2006 – Present	Judge
American Institute of Steel Construction	2006 – Present	Member
American Society of Engineering Education	2007 – Present	Member
American Society of Civil Engineers	2007 – Present	Member
American Society of Civil Engineers, Construction Institute, Construction Engineering Education Committee	2007 – Present	Member
External Reviewer of Promotion and Tenure Dossiers:		External Reviewer
- Dr. Song (P & T), University of Houston, ET	2009	
- Dr. Morcous, (P & T), University of Nebraska, Omaha, ConE	2009	
- Dr. Cottrell, (P & T), University of North Carolina @ Charlotte, CTEC	2010	

Community Service:

<b>Title</b>	<b>Date</b>	<b>Remarks</b>
Calvary Baptist Church, Lubbock, Texas: - Adult Choir - Calvary Chorale - Music Minister Search Committee - Sunday Bible Study Director - Nominating Committee - Church Council - College Department Sunday Bible Study - New Worship Center Task Force - World Changers Mission Projects (5) - Personnel Committee	1994 – Present 1994 – 2004 1995 – 1999 1995 1996 – 1998 1996 – 1998 1996 – 1998 1998 – 2006 2000 – 2004 2002 – 2006 2007 – 2009	Member Member Member Chairman Director Member Member Director / Teacher Member Crew Chief / Support Member
Baptist Student Ministry, Texas Tech Univ.: - Board of Trustees - Director Search Committee - Faculty Advisor	2000 – 2002 2002 2004 - Present	Member Member Advisor
Frenship Independent School District, Building Trades Advisory Committee	2004 – 2005	Member

**Consultant for Randy Hickle of Scott Laboratory:**

Preliminary designs and guidance on innovative fence design being developed by Randy Hickle for Grace Clinic near Quaker Avenue and Brownfield Road, Lubbock, Texas, July-September 2006.

**Expert Witness for State of Texas:**

Office of the Attorney General – Transportation Division and the Texas Department of Transportation in Cause No. 601-01-3107, *Texas Department of Transportation vs. Component Products, Inc.*, 2001 – 2002.

**Consultant for Ameron International, Pole Products Division, Tulsa, Oklahoma:**

Reviewed “Roadway Lighting Poles,” fabrication details and drawings and evaluated light pole / transformer base system strength capacities, 1997 – 1998.

**Consult for Valmont Industries, Valley, Nebraska:**

Conducted finite element analyses on light pole base plates, 1997.

**Contract Engineer for Espey, Huston, & Associates, Austin, Texas:**

May – August 1995: Designed a large portion of the reinforced concrete superstructure for the Winchester Road Tunnel (Phase I) near the Nashville, Tennessee airport.

April – August 1993: Designed a large portion of the reinforced concrete structure for Applied Materials - Phase II; a 2 story, 168,000 square foot manufacturing facility. Duties included the design of the reinforced concrete columns, floor system, crawl space perimeter wall, and elevator supports.

**Officer, United States Navy, Civil Engineer Corps:**

Project Officer: Assigned to HQ Air Force Engineering and Services Center, Tyndall AFB, FL. Principal duty was to develop and manage Air Force Research, Development, Test, and Evaluation programs. Areas of responsibility included base survivability and recovery, protective structural systems, conventional weapons effects, and computer modeling of structures. Collateral duty was serving as secretary of Joint Services Civil Engineering Research and Development Coordinating Group - Base Survivability Subcommittee. Promoted to rank of Lieutenant, October 1987. August 1986 – August 1988

Assistant Resident Officer in-charge-of Construction: Assigned to Northern Division Contracts Office, Naval Facilities Engineering Command, Brunswick Naval Air Station, Maine. Principal duty was administering over 20 general construction contracts, new construction and renovation of base facilities. Promoted to rank of Lieutenant (Junior Grade), March 1986. October 1984 – August 1986

**Instructor, College of Technical Arts, Lamar University, Beaumont, Texas:**

Principal duty was teaching and developing undergraduate courses in drafting technology and applied mathematics and student advisor. Collateral duties were faculty advisor for 2 student organizations, Faculty Senate, Faculty Senate Developmental Leave Committee, Department Promotion Committee, and Faculty-Student Relations Committee. Promoted to Instructor II in spring of 1981. August 1977 – August 1982

**Structural/Mechanical Draftsman, Dresser Ideco, Beaumont, Texas:**

Principal duty was drawing and checking structural and mechanical shop drawings used in manufacturing oil field equipment. May 1974 – August 1977

**Honors and Awards:**

1. TTU, College of Engineering, Honors Convocation, recognized for “Outstanding Teaching,” February, 2007.
2. Coached TTU-CTEC Design/Build Team to 1<sup>st</sup> Place position in the Region 5 Associated Schools of Construction Student Competition, Design/Build Division, February, 2006.
3. TTU, College of Engineering, Honors Convocation, recognized for “Outstanding Teaching,” February, 2006.
4. TTU, College of Engineering, Honors Convocation, recognized for “Outstanding Teaching,” February, 2005.
5. TTU, College of Engineering, Honors Convocation, recognized for “Outstanding Teaching,” February, 2004.
6. "Best of Session," Texas Section, American Society of Civil Engineers, Award in recognition of the paper titled, "Digital Analysis of Prestressed Concrete Beam Cracks," Paper presented at Spring 2002 Meeting, Award presented at Spring 2003 Meeting.

7. Paper titled, "Welded Wire Fabric (WWF) Shear Reinforcement in Normal Strength Concrete (NSC) Prestressed Beams," submitted to the Hawley Fund Trustees for consideration for the 2002 Major John B. Hawley Memorial Fund Outstanding Paper Award by the Texas Section, American Society of Civil Engineers, February, 2002.
8. "Best of Session," Texas Section, American Society of Civil Engineers, Award in recognition of the paper titled, "Welded Wire Fabric (WWF) Shear Reinforcement in Normal Strength Concrete (NSC) Prestressed Beams," Paper presented at the Spring 2001 Meeting, Award presented at Spring 2002 Meeting.
9. "Best of Session," Texas Section, American Society of Civil Engineers, Award in recognition of the paper titled, "Digital Imaging to Quantify Concrete Cracks," Paper presented at the Spring 2000 Meeting, Award presented at Spring 2001 Meeting.
10. "Best of Session," Texas Section, American Society of Civil Engineers, Award in recognition of the paper entitled, "Moment Capacity of Light Pole Transformer Base," Paper presented at the Fall 1998 Meeting, Award presented at Spring 1999 Meeting.
11. "Burford Teaching Award," College of Engineering, Texas Tech University, 1997.
12. "Engineering Technology Outstanding Instructor," Tau Alpha Pi, Texas Tech University, 1994.
13. Air Force Office of Scientific Research – Laboratory Graduate Fellowship, 1989-1992.
14. "Award of Excellence," Halliburton Education Foundation, Lamar University, 1980.
15. Chi Epsilon National Honorary Civil Engineering Fraternity, 1980.

**Professional Conferences, Workshops, and Meetings:**

<b>Title</b>	<b>Location</b>	<b>Date</b>	<b>Remarks</b>
Conference on Research Opportunities in Science and Engineering	San Antonio, Texas	November 1993	Attendee
Southern Forest Products Association Seminar, Engineered Wood Systems	Lubbock, Texas	February 1994	TTU Campus Sponsor
American Society of Civil Engineers, Fall Convention	Atlanta, Georgia	November 1994	Attendee
American Concrete Institute, Spring Convention	Salt Lake City, Utah	March 1995	Attendee
The Masonry Society, University Professor's Workshop	Arlington, Texas	March 1995	Participant
American Society of Civil Engineers, Texas Section Fall Meeting	El Paso, Texas	October 1995	Presenter
Strategic Highway Research Program, High Performance Concrete Showcase	Houston, Texas	March 1996	Attendee

## (Continuation: Professional Conferences, Workshops, and Meetings)

Southern Forest Products Association Seminar, Engineered Wood Systems	Lubbock, Texas	March 1996	TTU Campus Sponsor
Texas Department of Transportation, Research Management Committee 9 Meeting	College Station Texas	May 1996	Presenter
Southwestern Brick Institute, Texas Masonry Professor's Roundtable Discussion	Corpus Christi, Texas	August 1996	Participant
American Concrete Institute, Spring Convention	Seattle, Washington	April 1997	Attendee
The University of Texas at Austin, STEER '97	Austin, Texas	May 1997	Attendee
Southwestern Brick Institute, Texas Masonry Professor's Roundtable Discussion	Arlington, Texas	August 1997	Participant
Dallas Chapter, Association of General Contractors, Educator's Conference	Dallas, Texas	September 1997	Attendee
American Society of Civil Engineers, Texas Section Fall Meeting	Arlington, Texas	October 1997	Presentation Evaluator
Southern Forest Products Association Seminar, Engineered Wood Systems	Lubbock, Texas	February 1998	TTU Campus Sponsor
American Concrete Institute, Spring Convention	Houston, Texas	March 1998	Attendee
American Society of Civil Engineers, Texas Section Spring Meeting	South Padre Island, Texas	April 1998	Presentation Evaluator
Texas Department of Transportation, Research Management Committee 5 Meeting	San Antonio, Texas	June 1998	Attendee
American Society of Civil Engineers, Texas Section Fall Meeting	Dallas, Texas	September 1998	Presenter & Evaluator
American Society of Civil Engineers, Texas Section Spring Meeting	Longview, Texas	April 1999	Evaluator
Texas Department of Transportation, Research Management Committee 5 Meeting	San Antonio, Texas	June 1999	Attendee
Southwestern Brick Institute, Texas Masonry Professor's Roundtable Discussion	College Station Texas	August 1999	Participant
Dallas Chapter, Association of General Contractors, Educator's Conference	Dallas, Texas	September 1999	Attendee
Texas Department of Transportation, RMC 5 Technical Advisory Panel Meeting	Austin, Texas	October 1999	Member
American Society of Civil Engineers, Texas Section Fall Meeting	Midland, Texas	October 1999	Evaluator
Texas Department of Transportation, Research Management Committee 5 Meeting	Waco, Texas	November 1999	Attendee
American Society of Civil Engineers, Texas Section Spring Meeting	Austin, Texas	April 2000	Evaluator & Presenter
Texas Department of Transportation, Research Management Committee 5 Meeting	Houston, Texas	June 2000	Presenter
Southwestern Brick Institute, Masonry Professor's Roundtable Discussion	Lubbock, Texas	August 2000	Sponsor



## (Continuation: Professional Conferences, Workshops, and Meetings)

Dallas Chapter, Association of General Contractors, Educator's Conference	Dallas, Texas	September 2000	Attendee
Region V, Associated Schools of Construction Mid-year Conference	Dallas, Texas	September 2000	Attendee
Texas Department of Transportation, RMC 5 Technical Advisory Panel Meeting	Austin, Texas	October 2000	Member
Texas Department of Transportation, Research Management Committee 5 Meeting	Corpus Christi, Texas	November 2000	Attendee
American Society of Civil Engineers, Texas Section Spring Meeting	San Antonio, Texas	March 2001	Session Chairman
Texas Department of Transportation, Research Management Committee 5 Meeting	Arlington, Texas	June 2001	Attendee
Southwestern Brick Institute, Masonry Professor's Roundtable Discussion	Austin, Texas	August 2001	Participant
TxDOT/FHWA, Workshop on Prefabricated Bridge Systems to Eliminate Traffic Disruption	Austin, Texas	September 2001	Attendee
Texas Department of Transportation, RMC 5 Technical Advisory Panel Meeting	Austin, Texas	September 2001	Member
Associated General Contractors of America West Texas Construction Career Days	Andrews, Texas	October 2001	Recruiter
NCEES, Civil Engineering Examination Committee	Albuquerque, New Mexico	October 2001	Member
Texas Department of Transportation, Research Management Committee 5 Meeting	San Antonio, Texas	November 2001	Attendee
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	January 2002	Member
FWHA/AASHTO/TxDOT, Precast Concrete Bent Cap Demonstration Workshop	Dallas, Texas	March 2002	Attendee
CalTran/US DOT/MTA, Southern California Transportation Security Summit	Los Angeles, California	March 2002	Attendee
AASHTO Workshop on Highway Security Research Needs	Los Angeles, California	March 2002	Participant
American Society of Civil Engineers, Texas Section Spring Meeting	Arlington, Texas	March 2002	Reviewed Papers
Texas Department of Transportation, Research Management Committee 5 Meeting	Austin, Texas	June 2002	Presenter
National Meeting on Transportation Security Pooled Fund Projects	Austin, Texas	September 2002	Presenter
Texas Department of Transportation, RMC 5 Technical Advisory Panel Meeting	Austin, Texas	October 2002	Member
2002 Transportation Short Course	College Station Texas	October 2002	Presenter
American Society of Civil Engineers, Texas Section Fall Meeting	Waco, Texas	October 2002	Reviewed Papers
Texas Department of Transportation, Research Management Committee 5 Meeting	San Antonio, Texas	November 2002	Attendee

## (Continuation: Professional Conferences, Workshops, and Meetings)

NCEES, Civil Engineering Examination Committee	Phoenix, Arizona	January 2003	Member
NCEES, Civil Engineering Examination Committee	Greenville, South Carolina	April 2003	Member
American Society of Civil Engineers, Texas Section Spring Meeting	Corpus Christi, Texas	April 2003	Reviewed Papers
Texas Department of Transportation, Research Management Committee 5 Meeting	San Antonio, Texas	June 2003	Attendee
AASHTO – Subcommittee on Bridges and Structures Annual Meeting, T-1 Technical Committee for Bridges and Tunnel Security	Albuquerque, New Mexico	June 2003	Presenter
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	July 2003	Member
Southwestern Brick Institute, Masonry Professor's Roundtable Discussion	San Antonio, Texas	August 2003	Participant
QUION / Region V – Associated Schools of Construction Educators Conference	Dallas, Texas	September 2003	Presenter
American Society of Civil Engineers, Texas Section Fall Meeting	Dallas, Texas	September 2003	Reviewed Papers
Texas Department of Transportation, RMC 5 Technical Advisory Panel Meeting	Austin, Texas	October 2003	Member
NCEES, Civil Engineering Examination Committee	Greenville, South Carolina	Oct-Nov 2003	Member
Texas Department of Transportation, Research Management Committee 5 Meeting	Austin, Texas	November 2003	Attendee
American Society of Civil Engineers, Texas Section Spring Meeting	South Padre, Texas	April 2004	Reviewed Papers
NCEES, Civil Engineering Examination Committee	Greenville, South Carolina	April 2004	Member
Texas Department of Transportation, Research Management Committee 5 Meeting	Austin, Texas	June 2004	Attendee
NCEES, Civil Engineering Examination Committee	Greenville, South Carolina	August 2004	Member
Southwestern Brick Institute, Masonry Professor's Roundtable Discussion	Houston, Texas	August 2004	Participant
Associated Schools of Construction – Region V Annual Meeting	Dallas, Texas	September 2004	Attendee
QUION / Region V – Associated Schools of Construction Educators Conference	Dallas, Texas	September 2004	Attendee
Texas Department of Transportation, RMC 5 Technical Advisory Panel Meeting	Austin, Texas	September 2004	Member
American Institute of Steel Construction, Construction Management Faculty Workshop	Rosemont, Illinois	September 2004	Attendee
American Society of Civil Engineers, Texas Section Fall Meeting	Houston, Texas	October 2004	Reviewed Papers

## (Continuation: Professional Conferences, Workshops, and Meetings)

Accreditation Board for Engineering and Technology (ABET) Workshop	Nashville, Tennessee	October 2004	Attendee
Transportation Research Board Workshop on Bridge and Tunnel Security Update	Washington, D.C.	January 2005	Presenter
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	January 2005	Member
First Annual Advancing Teaching and Learning Conference	Lubbock, Texas	March 2005	Attendee
American Society of Civil Engineers, Texas Section Spring Meeting	Austin, Texas	April 2005	Reviewed Papers
Southwestern Brick Institute, Masonry Professor's Roundtable Discussion	Bryan/College Station, Texas	August 2005	Participant
Associated Schools of Construction – Region V Annual Meeting	Dallas, Texas	September 2005	Attendee
QUION / Region V – Associated Schools of Construction Educators Conference	Dallas, Texas	September 2005	Attendee
American Society of Civil Engineers, Texas Section Fall Meeting	El Paso, Texas	October 2005	Reviewed Papers
American Institute of Steel Construction, Educator Session: <i>Introduction to the new AISC 2005 Specification for Structural Steel Buildings</i>	Chicago, Illinois	October 2005	Attendee
NCEES, Civil Engineering Examination Committee	Greenville, South Carolina	October 2005	Member
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	January 2006	Member
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	July 2005	Member
Associated Schools of Construction – Region V Annual Meeting	Dallas, Texas	September 2006	Attendee
QUION / Region V – Associated Schools of Construction Educators Conference	Dallas, Texas	September 2006	Attendee
Texas Department of Transportation, RMC 5 Technical Advisory Panel Meeting	Austin, Texas	September 2006	Member
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	January 2007	Member
ASCE, CI, Construction Engineering Education Committee	Bahamas	May 2007	Member
Associated Schools of Construction – Region V Annual Meeting	Dallas, Texas	September 2007	Attendee
QUION / Region V – Associated Schools of Construction Educators Conference	Dallas, Texas	September 2007	Attendee
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	September 2007	Member

## (Continuation: Professional Conferences, Workshops, and Meetings)

American Council on Education, “Chairing the Academic Department: A Workshop for Division and Department Chairs and Deans”	Austin, Texas	November 2007	Attendee
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	January 2008	Member
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	April 2008	Member
American Society of Civil Engineers – Construction Institute, Construction Engineering Education Committee	Chicago, Illinois	June 2008	Member
American Society of Civil Engineers – Construction Institute, Construction Research Conference	Chicago, Illinois	June 2008	Attendee
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	July 2008	Member
Associated Schools of Construction – Region 5 Annual Meeting	Dallas, Texas	September 2008	Attendee
QUOIN / Associated Schools of Construction – Region 5 Educator’s Conference	Dallas, Texas	September 2008	Attendee
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	October 2008	Member
American Society of Civil Engineers, Texas Section, Caprock Branch	Lubbock, Texas	January 2009	Member
NCEES, Civil Engineering Examination Committee	Clemson, South Carolina	July 2009	Member
Kiewit Corp., Construction Professor’s Workshop	Omaha, Nebraska	August 2009	Attendee
Associated Schools of Construction – Region V Annual Meeting	Dallas, Texas	October 2009	Attendee
QUION / Region V – Associated Schools of Construction Educators Conference	Dallas, Texas	October 2009	Attendee
American Society of Civil Engineers, Texas Section, Caprock Branch Meeting, Webinar: <i>Texas Board of Professional Engineers Update, Including Professional Practice and Ethics</i>	Lubbock, Texas	May 2010	Attendee
NCEES, Civil Engineering Examination Committee Meeting	Clemson, South Carolina	July 2010	Member
TEXO / Associated Schools of Construction – Region 5 Educator’s Conference	Dallas, Texas	October 2010	Attendee
Associated Schools of Construction – Region 5 Annual Meeting	Dallas, Texas	October 2010	Attendee

### **Professional Organizations:**

<b>Organization</b>	<b>Position</b>	<b>Dates</b>
Chi Epsilon National Honorary Civil Engineering Fraternity	Member	1980 – Present
American Concrete Institute	Member	1988 – Present
American Society of Civil Engineers: - National - Texas Section: -- Structural Group - Caprock Branch	Member Member Member Member	1992 – Present 1994 – Present 1997 – 2005 1994 – Present
The Masonry Society	Member	1995 – 2006
Structural Engineering Institute of American Society of Civil Engineers	Charter Member	1996 – Present
American Institute of Steel Construction	Member	2006 – Present
Construction Engineering Institute, American Society of Civil Engineers	Member	2007 – Present
American Society of Engineering Educators	Member	2007 – Present