WESLEY LLOYD STONE

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OBJECTIVE

Continue to develop teaching and research skills in a tenured engineering faculty position.

EDUCATION

Georgia Institute of Technology (Mar 99 - Aug 02)
Doctor of Philosophy in Mechanical Engineering; GPA 3.84/4.00
Graduate Research Assistant (Mar 99 - Aug 02)
Dissertation: *Thermal Effects on Subsurface Damage During the Surface Grinding of Titanium Aluminide*
Group: Precision Machining Research Consortium
Minor: Industrial and Systems Engineering
Advisor: Dr. Thomas Kurfess

The Pennsylvania State University (Aug 88 - Aug 90)
Masters of Science in Mechanical Engineering; GPA 3.76/4.00
Research Assistant (Jan 89 - Jul 90)
Thesis: *The Design and Evaluation of a Chain Drive Test Stand to Investigate the Sources of Chain Noise*
Advisors: Dr. M. W. Trethewey & Dr. K. W. Wang
Teaching Assistant (Aug 88 - May 89) Vibrations Laboratory

The University of Texas at Austin (Sep 84 - May 88)
Bachelor of Science in Mechanical Engineering; GPA 3.55/4.00
Mechanical Systems emphasis, Graduation with Honors

WORK EXPERIENCE

Western Carolina University – College of Engineering and Technology,
School of Engineering + Technology, Cullowhee, NC

Professor – Quality/Manufacturing/Outdoor Gear Design — Jul 19 - present

- Teaching: mechanical/manufacturing topics; lab instruction & maintenance (see TEACHING)
- Scholarship/Engagement: Industry projects with regional industry (CORA, Industry 9, Nantahala Outdoor Center, Challenge Towers, OMG Edge Systems), Wood-fueled camp stove comparisons
- Service: Engineering Technology Program Director, School Assessment Committee, Project-Based Learning Committee, University Athletics Committee
- Advising for 43 Engineering and Technology students

Faculty Liaison to the Outdoor Industry — Sep 18 - present

- Funded by $940,000 grant from Appalachian Regional Commission
- Advisory board member of Growing Outdoors Partnership
- Outdoor Economy Conference planning, Outdoor Gear Summit, Curricular planning

Program Director – Engineering Technology Aug 12 - present
- Curriculum Development and Maintenance, Schedule Development
- Open Houses, Lab Tours, Student Athlete Recruitment

Associate Professor – Quality/Manufacturing/Outdoor Gear Design Aug 09 - Jul 19
- Teaching: mechanical/manufacturing topics; lab instruction & maintenance (see TEACHING)
- Scholarship/Engagement: Industry projects with regional industry (CORA, Advanced Superabrasives, Eaton, TUTCO-Farnam, BorgWarner, HomTex, Stanley Furniture, Moog, Meritor, Edmonds Consulting, FLS Energy, Curtiss Wright Controls, General Electric - Gas Turbines)
- Service: Chancellor Search Committee, LEAD Conference Steering Committee (Outdoor Economy), QEP/DegreePlus, 2020 Strategic Plan Committee, version 2.0, Athletics Committee (chair), 2020 Commission, Provost Search Committee, Kimmel School Dean Search Committee, Faculty Senate, Collegial Review Council, Academic Integrity Panel, ABET preparation, faculty search committees, E&T Dept. scholarship contact, Board of Governors Excellence in Teaching committee, faculty advisor to Epsilon Tau Pi (Eagle Scout service organization), Microgrants committee (chair), Committee to Institutionalize Undergraduate Research and Creative Scholarship (CIURCS)
- Advising for 28 to 84 Engineering and Technology students

Interim Department Head – Engineering & Technology Jul 14 - Jun 15
- Supervised 15 faculty and 3 staff in a department of approximately 550 undergraduate and graduate students
- Presided over department offering 1 graduate and 4 undergraduate programs – Master of Science in Technology, Bachelors of Science in Electrical Engineering, Electrical and Computer Engineering Technology, Engineering (Mechanical Engineering Concentration), and Engineering Technology
- Managed programs on site in Cullowhee and at the Biltmore Park (Asheville) instructional site
- Recruited students on a regular basis through travel across North Carolina, on-campus open houses, high school student tours, and individual consultations
- Oversaw ABET reaccreditation for ECET and ET programs (George DeSain, lead consultant)

Assistant Professor – Quality/Manufacturing/Solid Mechanics Aug 04 - Aug 09
- Teaching: mechanical-oriented topics; lab instruction & maintenance (see TEACHING)
- Engagement: Industry projects with regional industry (Team Industries, ConMet, Liberty Wood Products, Haldex Hydraulics, Great Smoky Mountains Railroad, MARC Industries)
- Service: Academic Appeals Committee member, ABET preparation, faculty search committees, Kimmel School safety committee chair, Board of Governors Excellence in Teaching committee, SAI-CoursEval task force, faculty advisor to Epsilon Tau Pi (Eagle Scout service organization), Microgrants committee, Committee to Institutionalize Undergraduate Research and Creative Scholarship
- Academic Advising for 32 to 45 Engineering and Technology students

Valparaiso University - Department of Mechanical Engineering, Valparaiso, IN

Assistant Professor – Manufacturing/Solid Mechanics Aug 02 – Jun 04
- Teaching: topics in manufacturing/solid mechanics; lab instruction/ maintenance (see TEACHING)
- Research: workpiece temperatures during machining (see RESEARCH)
- Service: ABET preparation, faculty search committee, recruitment committee
- Academic Advising for 40 ME students

Georgia Institute of Technology - Dept. of Mechanical Engineering, Atlanta, GA

Graduate Research Assistant – Precision Machining Research Consortium Mar 99 - Aug 02

- Analytical, numerical, & experimental approach to analyze subsurface damage in grinding titanium aluminide
- CAD/CAM, CNC programming; multi-machine exposure (VMC, surface grinder, wire EDM)
- High-temperature material property analysis at Oak Ridge National Lab

General Electric - Gas Turbines, Greenville, SC

Black Belt (certified) – Airfoils/Rotors Center of Excellence Nov 96 - Mar 99

- Six Sigma Training & Projects - Measure-Analyze-Improve-Control methodology, SPC
- Quality Data Collection - plant-wide team conversion to on-line system of data recording
- Train operators & support personnel in use of Six Sigma statistical & quality tools

Cell Engineer/Team Leader – Buckets Cell Nov 94 - Nov 96

- Process exposure: Grinding, Casting, CMMs, Milling, Wire EDM, NDT
- Supervised 25 hourly, Team Development for 75 hourly employees across 3 shifts
- DFT (Demand Flow Technology) - implemented to reduce cycle & inventory
- Howmet 1-week casting school (Hampton, VA)
- CMM 1-week training course, DEA (Charlotte, NC)

Process Flow Engineer – Final Assembly Aug 92 - Oct 94

- ISO 9001 - facilitated certification as Final Assembly point person
- Supplier Integration to manage small hardware; JIT, point-of-use delivery
- Facilitated Continuous Improvement Team to drive Cycle Reductions & Team Building

General Electric - Aircraft Engines, Evendale, OH (Manufacturing Management Program)

Process Engineer/Supervisor – Front Casings Machining Jan 92 - Aug 92

Process Engineer/Quality – Large Engine Assembly Aug 91 - Jan 92

General Electric - Aerospace, Burlington, VT (Manufacturing Management Program)

Supervisor/Facilitator – Tool Crib & Stockroom Feb 91 - Aug 91

Material Planner – Electrical Components Aug 90 - Feb 91

Microelectronics & Computer Technology Corporation (MCC), Austin, TX

Electromechanical Designer – Packaging Group, CAD responsibilities May 88 - Aug 88

RESEARCH EXPERIENCE

Outdoor Gear Design

- Applied research: work with grad student to assess current state-of-the-art in trekking poles and wood-fired camping stoves
- Develop new design to improve a key feature in trekking poles

Coordinate Measuring Machines

- Research performed at Western Carolina University's Center for Rapid Product Realization
- Applied research: develop techniques to measure complicated geometries for hydraulic pumps
- Results enabled Haldex Hydraulics (Statesville, NC) to verify progress toward Six Sigma quality

Laser Micro-Machining

- Research performed at Western Carolina University on the Oxford Laser Micro-Machining Center
- Experimental investigations into the quality of data matrices and the volume of material removed
- DOEs (design of experiments) to investigate the factors that most affect the quality of 1-mm x 1-mm data matrices and the amount of material removed during laser machining
- Laser micro-machining of piezoelectric materials

Surface Grinding Titanium Aluminide

- Research performed at Georgia Tech's Precision Machining Research Consortium – NSF funding
- Theoretical, numerical, & experimental approach to investigate thermal effects on subsurface plastic deformation during the surface grinding of titanium aluminide (TiAl)
- Force-control grinding with thermocouples instrumented to monitor internal workpiece temperatures

Material Property Characterization of TiAl

- Research performed at Oak Ridge National Laboratory, Oak Ridge, TN through the Users Program
- High-temperature material property determination for TiAl alloy – establishing the following properties as a function of temperature from ambient conditions to 800°C: elastic modulus, Poisson's ratio, thermal diffusivity, thermal expansion, specific heat, Vicker's hardness

3D CNC Milling of Airfoil

- Research performed at Georgia Tech's Precision Machining Research Consortium – GE funding
- 3-dimensional CNC milling of gas turbine airfoil
- Fixture design, CAD/CAM, tooling, on-machine probing

Noise Control in Roller Chains

- Research performed at Penn State – GM funding
- Design & construction of test stand with multiple sensors to evaluate roller chain noise
- Dynamic strain gage & accelerometer signals extracted from sprocket rotating at speeds up to 3000 rpm via slip ring

TEACHING EXPERIENCE & DEVELOPMENT

Full, Associate, and Assistant Professor – Western Carolina University:

- Summer 2020 – Online Course Development Institute
- Spring 2020 – Engineering Practices and Principles III (project-based), Engineering Analysis (lecture), academic advising
- Fall 2019 – Engineering Practices and Principles III (project-based), mentor to 4 capstone teams, academic advising
- Spring 2019 – Engineering Practices and Principles III (project-based), Engineering Analysis (lecture), academic advising
- Fall 2018 – Quality Systems (lecture), Engineering Practices and Principles III (project-based), academic advising
- Spring 2018 – Engineering Practices and Principles III (2 sections, project-based), academic advising

- Fall 2017 – Quality Systems (lecture), Engineering Practices and Principles III (project-based), academic advising
- Spring 2017 – Lean Six Sigma (lecture), Engineering Practices and Principles III (2 sections, project-based), academic advising
- Fall 2016 – Quality Systems (lecture), Engineering Economic Analysis (lecture), Engineering Practices and Principles III (project-based), academic advising
- Spring 2016 – Lean Six Sigma (lecture), Engineering Analysis (lecture), Engineering Statics (lecture), academic advising
- Fall 2015 – Quality Systems (lecture), Engineering Economic Analysis (lecture), Engineering Graphics (lecture/lab), academic advising
- Spring 2015 – Lean Six Sigma (lecture), academic advising *(Interim Dept. Head)*
- Fall 2014 – Quality Systems (lecture), academic advising *(Interim Dept. Head)*
- Spring 2014 – Lean Six Sigma (lecture), Engineering Analysis (lecture), Engineering Practices and Principles III (project-based), academic advising
- Fall 2013 – Quality Systems (lecture), Engineering Economic Analysis (lecture), academic advising, program director release time
- Spring 2013 – Special Topics: Lean Six Sigma (lecture), Engineering Analysis (lecture), graduate-level Quality Assurance (lecture), academic advising
- Fall 2012 – Quality Systems (lecture), Engineering Economic Analysis (lecture), graduate-level Research & Analysis (lecture), academic advising
- Spring 2012 – Special Topics: Lean Six Sigma (lecture), Engineering Analysis (lecture), Engineering Statics (lecture), academic advising
- Fall 2011 – Quality Systems (lecture), Engineering Economic Analysis (lecture), Power Transmission Systems (lecture/lab), academic advising
- Spring 2011 – Engineering Analysis (lecture), graduate-level Applied Research Methods & Experimental Design (lecture), Quality Systems (lecture, distance program), academic advising
- Fall 2010 – Quality Systems (lecture), Engineering Economic Analysis (lecture), Power Transmission Systems (lecture, distance program), academic advising
- Spring 2010 – Engineering Analysis (lecture), graduate-level Quality Assurance (lecture), How Things Work (lecture/lab), academic advising
- Fall 2009 – Quality Systems (lecture), Engineering Economic Analysis (lecture), How Things Work (lecture/lab), academic advising
- Summer 2009 – Engineering Analysis (lecture)
- Spring 2009 – Engineering Analysis (lecture), Statics & Strength of Materials (lecture), Engineering Economic Analysis (lecture, distance program), academic advising
- Fall 2008 – Advanced Quality Systems (lecture), Quality Systems (lecture), Quality Systems (lecture, distance program), academic advising
- Spring 2008 – Engineering Analysis (lecture), Integrated Systems Project (lecture/lab), graduate-level Quality Assurance (lecture), academic advising
- Fall 2007 – Statics & Strength of Materials (lecture), Quality Systems (lecture), academic advising
- Spring 2007 – Engineering Analysis (lecture), Integrated Systems Project (lecture/lab), graduate-level Quality Assurance (lecture), academic advising
- Fall 2006 – Statics & Strength of Materials (lecture), Engineering Analysis (lecture), Quality Systems (lecture), academic advising
- Spring 2006 – Statics & Strength of Materials (lecture), Engineering Analysis (lecture), Integrated Systems Project (lecture/lab), academic advising

- Fall 2005 – Fluid Power (lecture), Statics & Strength of Materials (lecture), graduate-level Quality Assurance (lecture), academic advising
- Spring 2005 – Statics & Strength of Materials (lecture), Reverse Engineering (lecture & lab), Engineering Analysis (lecture), academic advising
- Fall 2004 – Fluid Power (lecture), Freshman Seminar–Technology Systems (lecture), graduate-level Directed Projects, academic advising

Assistant Professor – Valparaiso University:

- Spring 2004 – Machine Design II (lecture & lab), Materials Science (lecture & lab), Senior Design, academic advising
- Fall 2003 – Mechanics of Materials (lecture), Manufacturing Processes (lab), Manufacturing System Design (lecture), Senior Design (instruction & advising), academic advising
- Summer 2003 – Valparaiso University new faculty workshop on vocation at Cambridge University (May 03); NSF Project Catalyst Workshop on engineering education at Bucknell University (July 03); Dale Kempf curriculum development award to restructure capstone Senior Design course
- Spring 2003 – Machine Design II (lecture & lab), Materials Science (lecture & lab), Senior Design (advising), academic advising
- Fall 2002 – Mechanics of Materials (lecture), Manufacturing Processes (lab), Machine Design I (lecture), Senior Design (advising), Exploring Engineering (freshman intro course, lab), academic advising

Guest Lecturer – Georgia Tech, guest lectures on grinding and non-traditional processes; Summer 2001; Course: Manufacturing Processes and Engineering; Instructor: Dr. Cheng Zhang

Teaching Practicum – Georgia Tech, 1-semester program to develop teaching skills in Ph.D. students; Fall 2000; Course: System Dynamics and Controls; prepare & deliver lectures, design & grade homework & exams, hold office hours; Advisor: Dr. William Singhose

Teaching Assistant – Penn State; Fall 88 – Spring 89; Course: Vibrations Lab; prepare & deliver all lectures, monitor experiments, grade reports, determine final grades; Advisor: Dr. Martin W. Trethewey

General Electric – Various roles as facilitator/instructor, teaching subjects such as Six Sigma, Demand Flow Technology, and Continuous Improvement to groups of hourly & salaried employees on all 3 shifts

PUBLICATIONS, GRANTS, & PRESENTATIONS

Coburn, A. and Stone, W. (2020). Planning for an Outdoor Recreation Economy Initiative at Western Carolina University. *Appalachian Regional Commission (ARC) Grant Proposal*. Submitted April 2020. ($100,000) (proposal not funded).

Yanik, P. M., Ferguson, C., Stone, W., and Cagle, W. (2020). FLiTE: Fostering Leaders in Technology Entrepreneurship. *NSF Scholarships in Science, Technology, Engineering, and Mathematics Grant*. Submitted April 2020. ($986,521) (proposal under review).

Endara, J., Stone, W., Sezer, H. (2019). Performance Characterization of Biomass-Fueled Camp Stoves. *11th U. S. National Combustion Meeting, Organized by the Western States Section of The Combustion Institute* (peer-reviewed paper).

Stone, W. L., Pierce, R. S., Kaul, S. (2019). Assessing the Effectiveness of a Large, Open-Ended Design Project in a Junior-Level Engineering Technology Course. *Proceedings of the 2019 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Salido, A., Stone, W., and Coburn, A. (2018). Growing Outdoors: A regional approach to expanding WNC outdoor industry jobs and businesses. *ARC POWER (Appalachian Regional Commission, Partnerships for Opportunity and Workforce and Economic Revitalization) Grant*. Submitted May 2018. ($1,727,000 total budget, WCU's portion $85,887) (awarded).

Yanik, P. M., Ferguson, C., Stone, W., Ha, O., and Cagle, W. (2018). FLiTE: Fostering Leaders in Technology Entrepreneurship. *NSF Scholarships in Science, Technology, Engineering, and Mathematics Grant*. Submitted March 2018. ($996,212) (not awarded, resubmitted).

Stone, W. L., Pierce, R. S., Kaul, S. (2018). Promoting Innovation in a Junior-Level, Multidisciplinary, Electro-Mechanical Design Course. *Proceedings of the 2018 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Kaul, S., Yang, W., Pierce, R. S., Stone, W. L. (2017). Impact of Class Size on Student Perception of Learning and Learning Outcomes in Project-based Learning. *Proceedings of the 2017 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Pierce, R. S., Stone, W. L., Kaul, S. (2017). Integration of Engineering Theory and Practice in a Junior-Level Machine Design Course. *Proceedings of the 2017 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W. L., Jack, H. (2017). Project Based Learning Integrating Engineering Technology and Engineering. *Proceedings of the 2017 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W., et al (2016). Fostering Tomorrow's Advanced Manufacturing Engineers: A University, Community Colleges, and Industry Collaborative Initiative, Golden Leaf Foundation, Grant #2014-46 ($500,000), Awarded 12/5/2013, End date 5/31/2016.

Yan, Y., Yanik, P. M., Kaul, S., Ferguson, C. W., Adams, R. D., Stone, W. L., Jack, H., Ray, J. L. (2016). The Challenges and Lessons Learned in Establishing a Travel Course. *Proceedings of the 2016 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W., & June, M. S. (2016). Establishing a Six Sigma Green Belt Certification for Undergraduate Engineering Technology Students. *Proceedings of the 2016 American Society for Engineering Education Annual Conference & Exposition* (poster presentation, peer-reviewed).

Kaul, S., & Stone, W. (2015). Learning Outcomes of a Junior-Level Project-Based Learning (PBL) Course: Preparation for Capstone. *Proceedings of the 2015 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W., & Chang, G. (2013). An Evolving Capstone Course used in ABET Assessment. *Proceedings of the 2013 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Chang, G., & Stone, W. (2013). An Effective Learning Approach for Industrial Robot Programming. P*roceedings of the 2013 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W., & Ferguson, C. (2012). Tracking Capstone Course Performance in a Database that is used to Track Accreditation Documentation. *Proceedings of the 2012 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Yang, W., & Stone, W. (2011-2012), grant entitled *Micro-Plasma Turbulence Velocimetry (uPTV)*, DoD STTR Phase I, $80,000 total funding, subcontract to WCU $32,880.

Stone, W. (2011). Using Undergraduate Research as a Recruiting Tool for Graduate Study. *Proceedings of the 2011 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Zhang, J., Adams, R., Yang, W., & Stone, W. (2009). SPIRIT: Scholarship Program Initiative via Recruitment, Innovation, Transformation, *submitted to the National Science Foundation's S-STEM solicitation (NSF 09-567),* proposal not funded.

Stone, W., & Graham, J. (2009). A Laser Micro-Machining DOE to Investigate Material Removal Volumes. *Proceedings of the 2009 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Sanger, P., Ferguson, C., & Stone, W. (2009). Integrating Project Management, Product Development and Senior Capstone into a Course Sequence that Creates New Products and Patents for Students. *Proceedings of the 2009 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

McDaniel, W., Ball, A., Ferguson, C., Bumgarner, R., & Stone, W. (2009). Integrating Rapid Product Development Methods in Engineering Technology. *Proceedings of the American Society for Engineering Education Southeastern Section Annual Conference* (peer-reviewed paper).

Stone, W., Ball, A. & Howell, B. (2008). Integrating LabVIEW® into Engineering Technology Curricula. *Proceedings of the American Society for Engineering Education Southeastern Section Annual Conference* (peer-reviewed paper).

Stone, W., & Smith, L. (2008). Engaging Engineering Technology Students using a Coordinate Measuring Machine. *Proceedings of the 2008 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W., & Kurfess, T. R. (2007). Grinding Titanium Aluminide: Subsurface Damage. *International Journal of Manufacturing Technology and Management*, 12 (1/2/3), 200-224 (peer-reviewed journal paper).

Stone, W., & Kuhn, Z. (2007). Integrating Laser Machining Applications into a Quality Course for Engineering Technology Students. *Proceedings of the 2007 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W. L., Ferguson, C. W., & Ball, A. (2006), Engagement in Industry: Preparing Undergraduate Engineering Technology Students for Graduate Study. *Proceedings of the 2006 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W. L. (2005). The History of Robotics. In T. R. Kurfess (Ed.), *Robotics and Automation Handbook*. (pp. 1-1 to 1-12). Boca Raton, Florida: CRC Press (chapter in technical handbook, peer-reviewed).

Ferguson, C. W., Ball, A., Stone, W. L., & McCrary, P. (2005), Engaging Industry in Graduate Engineering/Technology Education. *Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Sanger, P. A., Ball, A., Ferguson, C., McDaniel, B., & Stone, W. (2005), Teaming in Engineering Technology Education: Lessons Learned and Experience that Works. *Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W., & Kurfess, T. (2004). Grinding Titanium Aluminide: Subsurface Damage. *Grinding and Abrasives Magazine*, 22-26.

Stone, W. L., & Will, J. D. (2004). Optimizing the Structure for a Multidisciplinary Senior Design Experience. *Proceedings of the 2004 American Society for Engineering Education Annual Conference & Exposition* (peer-reviewed paper).

Stone, W. L., & Kurfess, T. R. (2002). Titanium Aluminide – Material Properties as a Function of Temperature. *Proceedings of the Japan - USA Symposium on Flexible Automation*, 1, 533-536 (peer-reviewed paper).

Stone, W. L., & Kurfess, T. R. (2002). Titanium Aluminide Thermal Diffusivity, Heat Capacitance, and Coefficient of Thermal Expansion as a Function of Temperature. *Transactions of the North American Research Institute*, 30, 417-421 (peer-reviewed paper).

COMPUTER/OTHER SKILLS

Experience with PCs, Macintosh, Mainframes; FORTRAN, BASIC, Assembly; Databasing, Microsoft Office Suite, MATLAB, SurfCAM, IronCAD, AutoCAD, CNC Programming, ANSYS, LabVIEW; speak, read, write German

PROFESSIONAL HONORS, ACTIVITIES, & SOCIETIES

College of Engineering & Technology's Excellence in Mentoring & Advising Award for 2016-2017
The George Reeser Outstanding Faculty Award for 2015-2016
Kimmel School Distinguished Student Engagement Award for 2013-2014
WCU Chancellor's Distinguished Teaching Award, 2011-2012
WCU Chancellor's Distinguished Teaching Award, 1 of 5 finalists for 2010-2011

WCU Chancellor's Distinguished Teaching Award, 1 of 5 finalists for 2009-2010
WCU Chancellor's Distinguished Teaching Award, 1 of 5 finalists for 2008-2009
Kimmel School Award for Mentoring and Advising for 2008-2009
WCU Chancellor's Meritorious Award for Engaged Teaching for 2007-2008
ASME – American Society of Mechanical Engineers, member
ASQ – American Society for Quality, senior member
ASEE – American Society for Engineering Education, member

COMMUNITY AND PRE-PROFESSIONAL HONORS & ACTIVITIES

Summit Charter School – Board of Trustees, member (2012-2016), chair (2013-2015)
Jackson County Public Schools – Superintendent's Parental Advisory Board
Village of Forest Hills – Zoning Administrator
Epsilon Tau Pi (Eagle Scout Service Fraternity), Faculty advisor, (2006-present)
Tau Beta Pi (Engineering Honor Society), President (U. Texas)
Pi Tau Sigma (ME Honor Society), Treasurer (U. Texas)
Texas Society of Professional Engineers, student chapter, Vice President (U. Texas)
Georgia Tech Presidential Fellowship, 3 years
College of Engineering Scholarship (Joe D. Kubicek), 1 year (U. Texas)
ME Dept. Scholarships (Dow, Exxon), 3 years (U. Texas)
Manufacturing Training Programs Association, President (GE)
Mentoring Volunteer Program - 2 Students (Cincinnati, OH)
Tutoring Volunteer Program - 4 Students (Greenville, SC)
Soccer Coach - Volunteer for U6-U14 Teams (Greenville, SC; Valparaiso, IN; Cullowhee, NC)
Cub Scout Volunteer, Tiger & Wolf Cub Den Leader
Eagle Scout, Boy Scouts of America