

Janie “Elaine” Seat

Department of Management
Haslam College of Business
University of Tennessee

Lecturer
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EDUCATION

Ph.D., Education; Specialty – Performance/Sport Psychology; Cognates - Counseling Psychology, Industrial/Organizational Psychology; University of Tennessee, Knoxville, Tennessee, 1994-1996
MS, Mechanical Engineering; University of Tennessee, Knoxville, Tennessee, 1979-1983
BS, Mechanical Engineering; University of Tennessee, Knoxville, Tennessee, 1974-1979

ACADEMIC EXPERIENCE

January 2008 – Present: Faculty, Management Department, Haslam College of Business, University of Tennessee, Knoxville

- Leadership Development training/coaching for MS-Business Analytics 2nd year students
- Instructor/Class Developer MGT 331 – includes teaching graduate students and other faculty in how to run the class
- Leadership Coach – ADMBA
- Action Research Advisor for yearlong project – ADMBA
- Instructor/Class Developer – MGT 595: online Leadership Skills course
- Executive Education Course Developer/Instructor – Leadership Skills customized for Managers, technical professionals
- Workshop Facilitation for Human-Centered Design for Executive clients

November 2003 – December 2007: Director, Aerospace Executive MBA Program, College of Business, University of Tennessee, Knoxville.

November 2003 – June 2006: PI – NSF *engage1st* grant for the College of Engineering.

October 1999 – November 2003: Research Associate Professor, Engineering Fundamentals Division, College of Engineering, University of Tennessee, Knoxville.

August 2001 – December 2008: Coordinator of the University of Tennessee MBA team facilitation program

January 1 – Dec 31, 1999: Adjunct Assistant Professor, Sport Management Unit, College of Education, University of Tennessee, Knoxville

January 1, 1998 – May 2004: Adjunct Assistant Professor, Counselor Education and Counseling Psychology Unit, College of Education, University of Tennessee, Knoxville

July 15, 1998 – July 31, 2001: Appointment to position of Research Associate Professor as National Science Foundation POWRE Visiting Professor at the University of Tennessee, Knoxville

SMALL BUSINESS OWNER

CircleSpring LLC

CircleSpring LLC is a privately-held company that specializes in improving interpersonal and self-management skills for the general and professional workforce. CircleSpring provides consulting services along with a commercially available assessment tools and curriculum for improvement.

August 2005 – Present: Product inventor; CEO of CircleSpring LLC.

- Developer, Instructor – multi-day Leadership training plus project High Potential program for Volkswagen Group of America, Chattanooga facility. (2012-present)
- Developer, Instructor – Management level Leadership Skills Training/facilitation Department of Energy, Oak Ridge (2018)
- Administrator and survey developer for the Ambio360 family of assessments

ENGINEERING PROFESSIONAL CAREER

June 1979 – Oct 2000: Y-12 Plant, a US Department of Energy facility in Oak Ridge Tennessee. (operated by Union Carbide Corporation, Martin Marietta Energy Systems and Lockheed Martin Energy Systems, Inc. during this time period)

Senior Technical Engineer Activities

- 1/98 – 9/2000:** PI for a US Department of Energy CRADA grant to develop simulation technology for a machinist's training tool. Patent applied for by Department of Energy.
- 2/97-12/97:** Offsite assignment at Hughes Missile Systems, Tucson, AZ, as technical advisor and business development liaison..
- 10/96-5/97:** Participant on a successful JSF Proposal (Joint Strike Fighter Airplane for the combined military branched). Scope of work included Principal Investigator for U. S. Air Force MANTECH SAVE Project scope evaluation team.
- 6/90-12/90:** Research in development of manufacturing machining simulation for Deneb Robotics, Inc., Troy, Michigan, resulting in creation of Deneb's commercial product numerical control simulation software – *Virtual-NC*.
- 1990-1992:** Senior Principal Engineer for development of new machining process for complex component manufacture. This process revolutionized a manufacturing process and included simulation technology, multi-axis machine technology, and common fixturing techniques.
- 6/85-6/88:** Principal Engineer and technical lead for precision machine tool retrofit.

Management Experience

- 4/92-2/97:** Engineering Manager of the 3D Graphics and Visualization Group.

Design

- 6/79-4/92:** Mechanical engineering manufacturing role with specialization in machine tool design, testing, fabrication, and analysis.

CURRENT ANNUAL TEACHING RESPONSIBILITIES

For Credit Teaching Each Academic Year

- Deliver high quality instruction for four sections of MGT 331 each academic year
- Deliver high quality instruction that is one course equivalent in Leadership content and Design Thinking content for the ADMBA
- Coach 6-9 ADMBA professionals in Leadership Development
- Serve as project advisor for 2 Organizational Action Projects for ADMBA students
- Deliver MGT 595 on-line each summer
- Develop and deliver 10 sessions of Leadership Skills and Project Management skills to BZAN 550

Responsibilities for GEE (Haslam College of Business Graduate and Executive Education)

Develop new courses for non-credit use.

- Innovation by Design (a three-day course was developed in 2017 and delivered to the Air Transport Command at Scott AFB)
- Creating Extraordinary Performance (a two-day course developed in 2017 for USAF mid-career civilian professionals)
- Leading the 3-Pros (a three-day course and also a four-day course with subsequent coaching developed in 2013)
- Emerging Leaders (a multi-session program for regional business and leadership skills training)
- Develop the original grids for BWX/T Leadership Development Program for high performers

Lead consulting workshops for GEE clients

- AMRDEC Design Thinking for business processes
- Workforce Development with Tinker AFB Software Division

Teach non-credit courses

- Teach existing courses developed by Elaine Seat at client facilities
- Teach existing courses developed by Elaine Seat for GEE in HBB
- Teach sessions on Leadership topics such as Negotiation, Power & Influence, Groupthink, Change Management, Communication, Working Across the Generations, Positive Leadership

Additional Teaching-Related Responsibilities

- Coach new faculty and graduate students on teaching MGT 331
- Provide insights into teaching and using the design thinking methodology

TEACHING EXPERIENCE – FOR CREDIT COURSES

- MGT 331 – Developing Leadership Skills (every Fall and Spring semester 2008-2017)

- EF 337 – Developing Leadership Skills (cross listed with MGT 331) (every Fall and Spring semester 2012-2017)
- MGT 595 – Leading the 3-Pros (Programs, Projects, Professionals) (Summer Semester 2012-2017)
- ADMBA Leadership Sessions (2003-2017)

TEACHING EXPERIENCE – NON-CREDIT COURSES DELIVERED VIA GEE

Leadership Content

- Leading the 3-Pros 4-day course with follow-on coaching – 2012-2017 Tinker Air Force Base; 2017 FAA-OKC
- Leading the 3-Pros 3-day Course
 - Open enrollment 2012-2014
 - 2013 Hill-Phoenix
 - 2015 - Hill Air Force Base customized for manufacturing planners
 - 2016-2017 – NASA Professionals and mid-level managers
 - 2016-2017 – Anthony International manufacturing supervisors
 - 2017 - Tinker Air Force Base software development group; Robins Air Force Base
- Phase II, Leading the 3-Pros for FSS – 2012-2017 taught on campus for GS13/14/15 managers from USAF Force Support
- Emerging Leaders – course designer, instructor 2014-2017
- BWX/T High Potential Leadership – 2017
- APP/L Nursing Leadership Program – 2016-2017
- Front Line Supervisors Leadership Program – taught on campus and at industry sites, 2011-2017
- Managing in the Technical Environment – taught on campus, 2012-2017
- Leadership content – Duraline Leadership Program, Olin new employees 2014
- ½ day workshops on Positive Leadership
 - 2015 Roane Medical
 - 2016 Methodist Medical Center, Oak Ridge

Human-Centered Design Content

- Innovation by Design, Sept 2017, Air Transport Command

SYNERGISTIC ACTIVITIES RELATED TO ACADEMIC CAREER

Development of multi-day non-credit course for teaching Human-Centered Design (Design Thinking applied to business processes) via a simulation and then skills development. This course has been used in the ADMBA, US-DOD Air Transportation Command, and ARMDEC/Redstone Arsenal as a basis for creating innovative solutions.

Leadership Development Activities include executive coaching, creation of curriculum designed to teach interaction and leadership skills to junior and rising managers. Development of on-line tools for custom 360 feedback and automatically generated action plans is a specialty and has resulted in commercially available products.

ADMBA Organizational Action Project (OAP) advisor.

Developer of custom curriculum for undergraduate teaching of management and leadership skills.

Developer of custom Leadership skills curriculum for training of manufacturing managers.

Developer of custom fully on-line Leadership Skills class for delivery. Although developed for MBA students on their summer internship, this course now has Masters and PhD students from a variety of disciplines.

Appointed Director of the Aerospace Executive MBA program at its inception. This position required start-up activities to coordinate faculty to develop and lay out the curriculum, develop and deliver a unique international residency period, recruit new students, develop marketing/tradeshows materials, develop a marketing strategy, develop a website, manage finances, insure accreditation practices, and administrate all the components of a graduate degree program. This on-going program is directed at adult learners who continue to work while going to school. It uses a combination of Cyber-classes, face-to-face instruction, and an emphasis on active learning techniques. This program is not supported by state funding, but operates as a private business entity. Central to its long-term viability is financial stability and the application of good business practice with state of Tennessee purchasing and procurement regulations. During my tenure as Director, students from all over the United States participated in six 9-day on-site sessions where the program arranged food, lodging, and extra programming in addition to curricular programming. Management responsibilities were 1 direct report, and matrixed to 15 faculty, 10 logistics staff, and 3 professional staff. (2003-2008)

A founding member of a program to re-create the freshman year of engineering at the University of Tennessee – the *engage* program. This program addressed differences in preparedness, learning style, and technical competencies for first year engineering students. Retention was improved from 45% to over 60% thru the freshman year. Along with innovations in teaching first year material, the program was redesigned to include a team component. My primary responsibility was to work with learning style teaching methods, recruitment and special considerations necessary for success in under-represented groups, and developing a team component in the curriculum. (1998-2003)

As faculty member in the Aerospace Executive MBA, develop and teach communications and leadership development. Other teaching sessions include student report-out sessions for project cost impacts. A significant role was to develop and execute a curriculum that provided a structured format for international business opportunity evaluation. (2003-present)

Development and implementation of international trip and curriculum for Aerospace MBA program. This activity required contacting international companies and sponsors to set up seminars and tours, negotiating contracts with travel agents, arranging all supporting services for 18-35 persons for trips to London (July 2004), Melbourne, Australia (March 2005), London/Berlin (2006), Beijing/Guangzhou/Hong Kong/Shanghai/Suzhou (2007-2008).

Faculty lead for team coaching and support for the Full Time MBA program (2001-2008). Team facilitators were introduced that worked with each team to improve performance. This role also included designing, assessing, and running the intro half-day teambuilding sessions and teaching topics such as giving feedback and understanding individual difference.

Development and implementation of behavior-based prescriptive team training that was embedded in the freshman year for all engineering students (1998-2004).

Development and implementation of the Engineering Communication and Performance (ECAP – Leadership/Service) program at the University of Tennessee. This program used custom designed curriculum to teach engineering students (problem solvers) the higher order skills of communication, leadership, team process and dynamics, and conflict resolution. The program taught these skills in a voice and a system that makes sense to problem solvers. Two custom courses were designed and offered to engineering students as general education electives. Students in these classes facilitated on-campus freshman engineering teams, received supervision and feedback on their performance in this role, and participated in active learning to develop these skills. (1998-2003)

Development of a third course in ECAP where students were placed in *service learning* scenarios, supervised and encouraged to take their ability to communicate and problem-solving skills to the community-at-large. This course was provided in partnership with the College of Education.

Development and research in team composition algorithms for assigning team members.

Development and research in analysis of the team experience for ABET accreditation purposes. A five-year longitudinal study clearly demonstrated the effectiveness of the freshman team training in attitudes toward learning in a team environment and the positive effect of being on teams in Engineering School and provides the entire college with supporting evidence of meeting ABET criteria regarding team skills.

Team member in preparation for ABET 2000 evaluation of the freshman program. Activities included preparation of student portfolios, supporting documentation regarding team skills, participation in ABET reviewer interviews.

Consultant to Chemical Engineering in team selection and composition for classes having a team component, 2000-2001.

Lead curriculum and program developer for a transition program aimed at preparing entering UT freshmen who do not have necessary secondary school background for engineering school. This program began a pilot year in the Fall semester, 2001.

As *NSF POWRE Visiting Professor* (1998-2001), developed and implemented a minor for engineering students in Engineering Communication and Performance. The minor is offered by the College of Education's Counseling Psychology Department. Three undergraduate and one graduate new courses were designed to teach facilitation, teamwork, leadership in both a technical and community service context to engineering students. The minor and associated new courses were approved with the first graduates in the Spring semester, 2001.

Director of the Engineering Communication and Performance minor and associated research in UT College of Engineering on teams and communication training. (1999-2003)

Development of freshman engineering program graduate teaching assistant training program modules to teach learning styles and how to accommodate them in the classroom.

Development of mathematics sessions for freshman engineering students who initially place in Pre-Calculus.

Development of a transition program for students not having the academic credentials to start the engineering sequence. (EF100). (2000)

Society of Women Engineers UT Student Chapter advisor. 2000-2003.

LICENSURE/CERTIFICATIONS

Licensed Professional Engineer, 1984 - present, Tennessee, #16697 (current status is Inactive)

Department of Energy "Q" clearance, 1979-1999.

Assessment - Myers Briggs Type Indicator Certified Instructor/Administrator

Assessment - LIFO (Life Orientations) Certified Instructor/Administrator

Experience Change Online Simulation Certified Instructor/Administrator

Experience Innovation Online Simulation Certified Instructor/Administrator

GRANTS

engage1st – Creating First Generation Engineers; PI; NSF EEC-0212225; July 15-2002-June 30, 2005; \$374,781. This grant was a pilot program to provide under-represented Appalachian students with merit but not opportunity a pathway to engineering school. This grant also had four East Tennessee community colleges as collaborators

The Student Developer: Using 360-Degree Multi-Source Assessment for Student learning and Professional Development; Co-PI; NSF ASA-0206630; 10/01/02-09/30/04, \$318,973. This project developed a tool for students to assess and improve their communication and teaming skills to improve technical performance. It was closely aligned the Team Developer™. Collaboration with Columbia University and the University of Pittsburgh.

Engaging Pre-Service Science Teachers in Engineering; PI; NSF EEC-0230617; 09/01/02-08/31/03, \$99,663. This project focused on improving the physical science preparation of pre-service science teachers with a collaboration between the UT Colleges of Engineering and Education.

The University of Tennessee Engage Program; Co-PI; NSF EEC-9972944; 1999-2002; \$598,707. The UT engage program integrates the engineering content of a common freshman year with a team experience and is designed to accommodate the variety of learning styles among students to actively promote success. This program has improved retention of students through the freshman year while providing equivalent technical competencies to a traditional program and the added initial exposure to design and working in a team atmosphere.

Technology and Sound: A Program to Explore Technology and Music, PI, 9/01-08/01: \$10,500, Society of Women Engineers for development of a music based science program for presentation by women engineering students in middle school orchestra classes.

Engaging Middle and High School Teachers into the SMET Pipeline, National Science Foundation, RET Grant, PI, 09/01-08/01, \$60,000. This grant placed six middle and high school math and science teachers from under-represented schools with the *engage* program to work on developing a pipeline into STEM.

Filling in the Gaps, National Science Foundation POWRE Award, PI, 7/15/98-12/31/99, \$150,000. This grant placed me at the University of Tennessee as a Visiting Professor to develop the Engineering Communications and Performance minor, work with team training and development within the College of Engineering, and to develop specialized curriculum for teaching performance skills to the technical student.

Simulation Education Development Project, National Science Foundation. Advisor to Mott Community College, Flint, MI, for development of new degree program for simulation operators.

Applied Instructional System for Machinists, US Department of Energy, Technology Partnership Program; PI, 9/97-2/00, \$300,000 plus \$300,000 industry matching funds. This grant funded the development of a computer-based system for training programming skills to machinists. It involved the integration of physics-based simulation with curriculum in a PC environment for technical training of machinists.

PRINCIPAL PUBLICATIONS RELATED TO ACADEMIC CAREER

Seat, J. Elaine, Parsons, Roger & Pionke, C. (2011). Work in Progress: A Grand Challenge Leadership Course for Engineering Students. *Proceedings: Frontiers In Education Conference*, October.

Parsons, Roger, McCord, Rachel, Seat, J. Elaine, Scott, Thomas (2008). Comparison of Traditional and Integrated First Year Curricula – Graduation Success and MBTI Distribution. *Proceedings: American Society for Engineering Education Annual Meeting. June 2008.*

Seat, Elaine (2007) Future of the Aerospace Industry: The Next Workforce. *Aviation Week*, SourceBook Issue, January, 2007.

Seat, Elaine (2007) Getting the Most Bang for your Buck. *Military Advanced Education*. 2007.

- Seat, Elaine (2007) Professional Development: Personal Development How-To's/ *Women Aviation International*. July 2007.
- Seat, Elaine (2007) Professional Development: Going Global: *Women Aviation International*. May 2007.
- Seat, Elaine (2007) Professional Development: Making Your Credentials Work. *Women Aviation International*. March 2007.
- Seat, Elaine (2007) Professional Development: Getting Your Credentials. *Women Aviation International*. January 2007.
- Seat, Elaine (2006) Professional Development: The Business of Professional Development. *Women Aviation International*. November 2006.
- Seat, Elaine (2006). Professional Development: Calling all Do-it-Yourselfer's. *Women Aviation International*. September 2006.
- Seat, Elaine (2006). Education on the Move. *Aviation Week*, January 16, 2006.
- Tichon, Mark & Seat, Elaine (2004). Team toolbox: Activities & suggestions for facilitating project teams. Proceedings, Frontiers in Education Conference, October, 2004.
- Seat, Elaine & Sundstrom, Eric (2003). Groupthink, Group Performance, Team-Based Compensation, Teamwork, Team Building, Team-Based Organization, Group Norms. Individual articles for the *Encyclopedia of Health Care Management*, M. Stahl, Ed. Sage Publications, Thousand Oaks, CA.
- Pionke, C., Seat, E. & Parsons, R. (2003). *Analysis vs. Design: Why the Versus?* Designing Engineering Education, Mudd Design Workshop IV, Claremont, CA, July, 2003.
- Parsons, J. Roger, Seat, Elaine, Bennett, Richard, et al. (2002). The engage Program: Implementing and Assessing a New First Year Experience at the University of Tennessee. *Journal of Engineering Education*, v91 n3, pp 441-446.
- Tichon, M. & Seat, E. (2002) In Their Own Words: The Experience of Older Undergraduate Students Placed on Engineering Project Teams with Traditional First-Year Students. *Proceedings, Frontiers in Education Conference*, October, 2002.
- Seat, E., Parsons, J. Roger, & Poppen, W. A. (2001). Enabling Engineering Performance Skills: A Program to Teach Communication, Leadership, and Teamwork. *Journal of Engineering Education*, v90 n1, pp. 7-12.
- Pionke, C., Parsons, J., Seat, E., Weber, F., & Yoder, D. (2001) Balancing Capability, Enthusiasm, and Methodology in a Freshman Design Program. *International Journal of Engineering Education*, v17 n4.
- McAnear, T. Paul & Seat, E. (2001). The Role of Peer Review in Engineering Task Teams. *Proceedings: Frontiers in Education Conference*, October 2001.
- Seat, E. (2001). Administering, Scoring and Debriefing Team Developer. E. Seat. *Proceedings: Frontiers in Education Conference*, October 2001.
- McAnear, P., Seat, E., & Weber, F. (2000). Predictors of Student Rating Accuracy. *Proceedings, Frontiers in Education Conference*, November, 2000.
- Clark, S., Seat, E & Weber, F. (2000). The Performance of Engineering Students on the Group Embedded Figures Test, *Proceedings, Frontiers in Education Conference*, November, 2000.
- Weber, F., Bennett, R., Forrester, J., Gilliam, F., et al. (2000). The Engage Program: Results from Renovating the First Year Experience at the University of Tennessee, *Proceedings, Frontiers in Education Conference*, November, 2000.
- Seat, E. & Lord, Susan M. (1999). Enabling Effective Engineering Teams: A Program for Teaching Interaction Skills. *Journal of Engineering Education*, v88 n4, pp. 385-390.
- Knight, D., Seat, E., Poppen, W., Parsons, J. Klukken, P., and Hector, M. (1999). An Evaluation of a Design Team Facilitator Training Program for Engineering Upperclassmen. *Proceedings: Frontiers in Education Conference*, November 1999.
- Seat, Elaine (1998). Women engineers: Preparing them for the workplace. *Proceedings: American Society of Engineering Education*. Seattle, WA, June, 1998.
- Knight, D., Poppen, W., Seat, E., Parsons, J., Klukken, G., & Glore, A. (1998). Training engineering upperclassmen to facilitate freshman design teams. *Proceedings: American Society of Engineering Education*. Seattle, WA, June, 1998.
- Gilliam, Fred T., Klukken, P. Gary, Parsons, J. Roger, Pionke, Christopher D., Scott, Tom H., Seat, J. Elaine, Symonds, Fred, Weber, Fred E., & Yoder, Daniel C. (1998). The Engage Program: Renovating the first year experience at the University of Tennessee. *Proceedings: Frontiers in Education Conference*. Tempe, AZ. October, 1998. pp. 814-819.
- Seat, J. Elaine, Poppen, William A., Boone, Kathy A., & Parsons, J. Roger (1996). Making design teams work. *Proceedings: Frontiers in Education conference*. Salt Lake City, UT. November, 1996.

Seat, Janie Elaine (1996). *Women engineers: Expectations and perceptions*. Doctoral Dissertation. University of Tennessee, Knoxville.

OTHER PUBLICATIONS

Seat, Elaine. *Playbook for Your Extraordinary Life* (2016). Self-Published via Createspace.

Seat, Janie E. & Wrisberg, Craig A. (1996). The visual instruction system. *Research Quarterly in Exercise and Sport*, Vol. 67, No. 1, pp. 106-108.

Seat J. E. (August, 1994). NC meets the virtual world. *Computer-Aided Engineering*. Penton Publishing, Cleveland, OH.

Lunsford, Janie S. (September, 1993). Manufacturing verification: A case history. *Proceedings: Defense Manufacturing Conference (DMC)*, San Francisco, CA, December 1993.

Lunsford, Janie S. (1993). Technologies for rapid prototyping. *Proceedings: Best Manufacturing Practices*, La Jolla, CA, 1993.

Lunsford, Janie S. (1988). Automatic inspection and compensation system. *Proceedings: American Society of Mechanical Engineers Manufacturing International Conference*. Atlanta, GA, April. 1988.

Seat, Janie E. (1983). *Three point mounting systems for machine tools*. The University of Tennessee, Knoxville, Department of Mechanical Engineering, in lieu of thesis November, 1983.

PRESENTATIONS/WORKSHOPS

Seat, E. Creating Extraordinary Performance, Chattanooga TONE Symposium, November 17, 2017.

Seat, E. Managing Across the Generations, Tennessee Hospital Association, Nashville, TN, October 2016.

Seat, E. Leading for Extraordinary Performance, ORAU Symposium, Oak Ridge, TN, November 12, 2015.

Seat, E. *Math of Extraordinary*, SEMC Conference, Knoxville, TN, October 21, 2014.

Seat, E. *Managing Across the Generations*, TONE meeting, Knoxville, TN, August 22, 2014.

Seat, E. *Leading the 3-Pros: Programs, Professionals, Projects*. A six-part program for development of technical professionals for Volkswagen Group of America, Chattanooga, TN. 2012 thru 2014.

Seat, E. *An Executive Development Program for Supervisors and Assistant Managers in Production*. A multi-part coaching program with multiple coaches for front line supervisors/assistant managers. Volkswagen Group of America, Chattanooga, TN. 2012 thru 2013.

Seat, E. *Managing Across the Generations*, University of Tennessee Magnet Nursing Meeting, November 2013.

Seat, E. *Generational Differences and Challenges*, American Forest & Paper Association – HR Professionals Annual Meeting, Atlanta, GA, Sept 26, 2011.

Seat, E. *Reaching Agreements that Work*. Invited Speaker. Tennessee Association of Planners and Traffic Engineers Regional Conference. Knoxville, TN. October, 2010.

Seat, E. *Power & Influence*, Invited Speaker. Plant Engineering Summit, Charleston, SC, March 30, 2009.

Seat, E. *Realizing your potential*. Keynote address, Instrument Society of America annual meeting, Knoxville, Tennessee, May 12, 2005.

Seat, E. *Developing your leadership skills*. Workshop, Tennessee Association of Secondary School Principals, Nashville, Tennessee. February, 2005.

Seat, E. *Engage-UT Mentoring for Women Engineering Students*. Invited Presentation, State of Tennessee Economic Council on Women, Knoxville, TN, November 2003.

Seat, E. *Engaging Students in Engineering: New Ways of Preparing Engineers*. Invited Presentation, Society of Women Engineers Annual Meeting, Birmingham, Alabama, October 2003.

Parsons, J., Seat, E. & Pionke, C. *Making Curricular Reform Stick: Lessons in Persistence*. Invited Presentation, ASEE/WFEO International Colloquium, June 2003.

Seat, E. *Engage1st – Preparing First Generation Engineers*. Invited Presentation, East Tennessee Industrial Council, February, 2003.

Parsons, J. & Seat, E. *NSF Showcase of Outstanding Educational Grants: The Engage Program*. Invited Presentation, American Society of Engineering Education Annual Meeting, June 2001.

Parsons, J. & Seat, E. *Engineering Fundamentals at the University of Tennessee*. Invited Presentation, Leadership Knoxville. September 1999, 2000, 2001.

Seat, E. *Engineering Simulation*, Invited Keynote Address, Deneb Robotics, Inc. Annual Users meeting, Auburn Hills, MI. October, 1997.

PROFESSIONAL REVIEW ACTIVITIES

Panel Member, NSF Engineering Education Open Competition, February 2004.

Panel Member, NSF CCLI Assessment of Student Achievement in Undergraduate Education (ASA), December 2003 (scheduled).

Panel Member, NSF Assessment of Student Achievement in Undergraduate Education (ASA), October 2002

Panel Member, NSF GK-12 Program, October 2001

Panel Member, Course, NSF Curriculum and Laboratory Improvement (CCLI), Mechanical Engineering Track, July 2000

Reviewer for the Journal of Engineering Education, 2002-2005.

Reviewer for papers submitted for the *Frontiers in Education Conference*, 1999-2003.

Reviewer for papers for the American Society for Engineering Education Conference, 2000-2003.

PROFESSIONAL SOCIETIES

Chairperson, Education and Training Forum of Deneb Robotics Users to develop methodology to both train new users of simulation technology and methods of using simulation in manufacturing education, 1996-1997.

Member, American Society of Mechanical Engineers (ASME), 1979-2000

Chairperson, Oak Ridge Section, ASME, 1984-1985

Member, American Society for Engineering Education (ASEE), 1996-2003

Society of Women Engineers (SWE), 1998-2003.

HONORS/AWARDS

2015 Aerospace and Defense MBA Outstanding Faculty Award.

2011 Aerospace and Defense MBA Outstanding Faculty Award.

2009 and 2011. University of Tennessee College of Business Administration Outstanding Teacher Nominee.

Parsons, J. & Seat, E. *NSF Showcase of Outstanding Educational Grants: The Engage Program*. Invited Presentation, American Society of Engineering Education Annual Meeting, June 2001. Awarded Best of Show.

Chancellor's Citation for Extraordinary Service to the University, University of Tennessee, April, 1999.

American Society of Engineering Education, 1999, Best Paper Award, Frontiers in Education Conference, San Juan, Puerto Rico.

American Society of Engineering Education, 1998, Best Paper Award, Frontiers in Education Conference, Tempe, AZ

National Science Foundation POWRE Visiting Professor, 1998-1999

Martin Marietta Energy Systems Award for Technical Achievement, 1992, Multi-Axis Machining Process for the Seawolf Propulsion System

Martin Marietta Energy Systems Award for Technical Achievement, 1987, Development of the Automatic Testing and Compensation System for Machine Tools

CONSULTING/PATENTS

April, 2002 – Patent applied for *Applied Instructional System* as primary inventor, BWXT Y-12, Oak Ridge, Tennessee.

1998-2000. Advisor, MOTT Community College, Flint, MI, on subject matter requirements and competencies for manufacturing simulation users. Participant in their NSF Action Agenda grant. The purpose of this grant was to develop appropriate secondary and post-secondary curriculum that would prepare students for entry into a design/simulation career.

1990-1997: Developer and consultant with Deneb Robotics Inc., Troy, MI, in area of development of simulation for verification of machining

1992-2001: Original Developer of human movement computer-based analysis system for use with videotape. Consultant with Visual Technologies, Inc., Knoxville, TN.

1987: Patent Applied as primary inventor by the US Department of Energy for *Drive System for Precision Air Bearing Spindles*.

RECENT SERVICE ACTIVITIES

Pro Bono Leadership Training for the non-profit Young Williams Animal Shelter (3-days) (2017)

Pro Bono Faculty on University of Tennessee Leadership Series

Generational Presentation for American Quality Society, Knoxville. (Dec 2016)

Communication for Extraordinary Performance Presentation, Knoxville Executive Women's meeting. (Dec 2016)