IRIS VIOLETA RIVERO

Associate Professor of Industrial and Manufacturing Systems Engineering

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EDUCATION

Ph.D. 2002 The Pennsylvania State University
Industrial & Manufacturing Engineering
Advisor: Dr. Clayton Ruud
Dissertation: *Investigation of Mechanisms Contributing to Fatigue Endurance of 52100*

M.S. 1998 The Pennsylvania State University
Industrial & Manufacturing Engineering

B.S. 1996 The Pennsylvania State University, with Honors
Industrial & Manufacturing Engineering

RESEARCH INTERESTS

Biomedical Manufacturing, Nanomaterials, Carbon Nanotubes, Manufacturing Processes, Materials Characterization, Nondestructive Testing (NDT)-X-ray Diffraction, and Fatigue/Failure Analysis

CURRENT APPOINTMENTS

2012-present *Associate Professor of Industrial & Manufacturing Systems Engr.* Iowa State University, Ames, IA

2012-present *Adjunct Associate Professor*
School of Medicine, Department of Surgery
Texas Tech University-Health Sciences Center, Lubbock, TX

2013-present *Adjunct Associate Professor of Industrial Engineering*
Texas Tech University, Lubbock, TX

2013-present *Director of Research,* Industrial and Manufacturing Systems Engineering Department, Iowa State University, Ames, IA

2014- present *Director of Graduate Education,* Industrial and Manufacturing Systems Engineering Department, Iowa State University, Ames, IA

PAST ACADEMIC POSITIONS

2008-2012 *Associate Professor of Industrial Engineering*
Texas Tech University, Lubbock, TX

2008-2009 *Visiting Associate Professor*
Edward P. Fitts Dept. of Industrial & Systems Engineering
North Carolina State University, Raleigh, NC
Areas of Investigation: Nano- and Biomaterials, Orthopedics, Medical Device Manufacturing, Tissue Engineering

2002-2008 *Assistant Professor of Industrial Engineering*
Texas Tech University, Lubbock, TX

2000-2002 *Graduate Research Assistant*, Applied Research Laboratory
The Pennsylvania State University, University Park, PA

1994-1996 *Undergraduate Research Assistant*
The Pennsylvania State University, University Park, PA
Harold and Inge Marcus Dept. of Industrial & Mfg. Engineering

HONORS AND AWARDS

- 2012 Woman of the Year in the Education category by the Hispanic Association of Women
- 2009 recipient Outstanding Young Manufacturing Engineer Award, Society of Manufacturing Engineers

- Alumni Association's New Faculty Award, Texas Tech University, 2007-2008
- NSF ADVANCE Summit – Selected participant, 2007
- Faculty Academic Contribution Exhibit- Texas Tech University, 2006 and 2007

HONORS AND AWARDS (CONTINUED)

- Applied Research Laboratory's Exploratory and Foundational Research Program Fellow, 2000-2002
- GM (General Motors) Financial Support for M. S. program, 1996-1997
- Alpha Pi Mu – Industrial Engineering Honor Society, inducted 1995
- Honors Scholar's Program, Penn State University, 1991-1995
- Engineering Academic Excellence Scholarship, 1992-1996

PROFESSIONAL DEVELOPMENT

- BRIDGES Academic Leadership for Women Program, UNC Chapel Hill, Selected participant, (4 sessions) Fall 2008
- ADVANCE
  Cross-Disciplinary Initiative for Minority Women Faculty, Tucson, AZ
  Selected participant, September 28-October 2, 2009
- ADVANCE
  Succeeding & Thriving in Academic Engineering, Georgia Tech, Atlanta, GA
  Selected participant, April 2-5, 2008
- Educating Industrial and Systems Engineering Students to Meet the NAE Grand Challenges, Raleigh, NC
  Selected participant, December 16-18, 2009.
- WIRES
  Women's International Research Engineering Summit, Orlando, FL
  Presenter & Selected participant, March 29-April 1, 2011.
- ADVANCE-ENG
  Coast to Coast Summit for Underrepresented Minority (URM) Women Engineering and Science Faculty, Raleigh, NC
  Speaker & Selected participant, June 15-17, 2011.
- ADVANCE-ENG Research Workshop
  Leading Change Through Large Scale Research Initiatives, Raleigh, NC
  Panel facilitator & Selected participant, October 28, 2011.
- Minority Faculty Development Workshop
  Georgia Tech University, Atlanta, GA
  Speaker & Selected participant, March 15-18, 2012.
- Women in Industrial Engineering Academia (WIEA) 2012 Workshop
  Istanbul, Turkey
  Roundtable speaker & Selected participant, May 30-June 1, 2012.

INDUSTRIAL EXPERIENCE

- **Project Manager Assistant,** Advanced Materials (Engineering)
  *Honeywell Engines & Systems***,** Phoenix, Arizona. Summer 2000.
- **Project Manager Assistant**, Advanced Technology
  Allied Signal Engines & Systems, Phoenix, Arizona. Summer 1999.
- **Project Manager Assistant,** Manufacturing Department
  *Allied Signal Engines & Systems***,** Phoenix, Arizona. Summer 1998.
- **Materials Planning Assistant**, Materials Planning Department
  Detroit Diesel Corporation, Detroit, Michigan. Summer 1995.
- **Manufacturing Engineer Trainee**
  *ARRIV Manufacturing Company***,** Juana Diaz, Puerto Rico. Summer 1994.
- **Time Studies Analyst**
  *ARRIV Manufacturing Company***,** Juana Diaz, Puerto Rico. Summer 1993.

PROFESSIONAL AFFILIATIONS

- Member – Institute of Industrial Engineers, 1993 and since 2004
- Member - Society of Manufacturing Engineers**,** since 1999
- Member – American Society for Engineering Education, 2005-2011
- Member – National Society of Professional Engineers, 2001-2011
- Member – The American Society for Nondestructive Testing, 2005-2009
- Member - Society of Tribologists & Lubrication Engineers**,** 1999-2009
- Member - Society of Automotive Engineers, 1996
- Member - Society of Hispanic Professional Engineers**,** 1992-1996

PUBLICATIONS

[18] Spearman, S.S., Irin, F., Rivero, Iris V., Green, M.J. (2015), "Effect of dsDNA Wrapped Single-Walled Carbon Nanotubes on the Thermal and Mechanical Properties of Polycaprolactone and Polyglycolide Fiber Blend Composites," Polymer, 56: 476-481, doi:10.1016/j.polymer.2014.11.016.

[17] Jonnalagadda-Thimothy, J., and Rivero, Iris V. (2014), "Effect of Cryomilling Times on the Resultant Properties of Porous Biodegradable Poly(e-caprolactone)/Poly(glycolic acid) Scaffolds for Articular Cartilage Tissue Engineering," J. Mech. Behavior of Biomedical Mtls., 40: 33-41.

[16] Spearman, S., Rivero Iris V., and Abidi, N. (2014), "Influence of Polycaprolactone/Polyglycolide Blended Electrospun Fibers on the Morphology and Mechanical Properties of Polycaprolactone." J. of Applied Polymer Science, 131(9), 40224, doi: 10.1001/app.40224.

[15] Allaf, R.M., Rivero, Iris V., Abidi, N. and Ivanov, I.N. (2013), "Porous Poly(ε-caprolactone) Scaffolds for Load-Bearing Tissue Regeneration: Solventless Fabrication and Characterization." Journal of Biomedical Materials Research B, 101B(6): 1050-1060.

[14] Das, S., Wajid, A.S., Wilting, M.D., Rivero, Iris V., Green, M.J., (2013) "Electrospinning of Polymer Nanofibers Loaded with Noncovalently Functionalized Graphene," J. of Applied Polymer Science, 128(6): 4040-4046.

[13] Allaf, R.M. and Rivero, Iris V., (2011), "Fabrication and Characterization of Interconnected Porous Biodegradable Poly(ε-caprolactone) Load Bearing Scaffolds." Journal of Materials Science: Materials in Medicine 22(8): 1843-1853.

[12] Allaf, R.M., Rivero, Iris V., Spearman, S.S., and Hope-Weeks, L.J., (2011), "On the Preparation of As-Produced and Purified Single-Walled Carbon Nanotube Samples for Standardized X-ray Diffraction Characterization." Materials Characterization. 62(9): 857-864.

[11] Levitas, V., Pantoya, M. Chauhan, G., and Rivero, Iris V., (2009), "Effect of the Alumina Shell on the Melting Temperature Depression for Aluminum Nanoparticles," Journal of Physical Chemistry C. 113 (32): 14088-14096.

[10] Hatamleh, O., Rivero, Iris V., and Swain, S.E., (2009), "An Investigation Residual Stress Characterization and Relaxation in Peened Friction Stir Welded Aluminum-Lithium Alloy Joints," Materials & Design. 30 (9): 3367-3373.

[9] Rivero, Iris V., Pantoya, M., Rajamani, K., and Hsiang, S., (2009), "Correlation of Reactant Particle Size on Residual Stresses of Nanostructured NiAl generated by Self Propagating High-Temperature Synthesis," Journal of Materials Research. 24 (6): 2079-2088.

[8] Hatamleh, O., Rivero, Iris V., and Maredia, A., (2008), "Residual Stresses in Friction Stir Welded 2195 and 7075 Aluminum Alloys," Metallurgical and Materials Transactions A. 39 (12): 2867-2874.

[7] Rivero, Iris V., and Ruud C. O., (2008), "Determination of the Accuracy of Phase Analysis Measurements on Spherical Surfaces through X-Ray Diffraction," NDT & E International. 41 (6): 434-440.

[6] Karabelchtchikova, O., Rivero, Iris V., and Hsiang, S., (2008), "Modeling of Residual Stress Distribution in D2 Steel via Grinding Dynamics Using a Second-Order Damping System," Journal of Materials Processing Technology. 198 (1-3): 313-322.

[5] Hatamleh, O., Rivero, Iris V., and Lyons, J., (2007), "Residual Stresses in Friction Stir Welds Due to Laser and Shot Peening," *Journal of Materials Engineering and Performance*. 16 (5): 549-553.

[4] Rivero, Iris V., (2006), "Fundamentals of Nondestructive Testing at Texas Tech University," *Materials Evaluation*. 64 (8): 765-768.

[3] Karabelchtchikova, O., and Rivero, Iris V., (2005) "Variability of Residual Stresses and Superposition Effect in Multipass Grinding of High-Carbon High-Chromium Steel," *Journal of Materials Engineering and Performance*. 14 (1): 50-60.

[2] Rivero, Iris V., and Ruud, C. O., (2004), "Deviation of Residual Stress Patterns in 52100 Bearing Steel Due to Inherent Microstructural Transformations After Rolling Contact," *Materials Characterization*. 53: 381-393.

[1] Rivero, Iris V., and Ruud, C. O., (2002), "Residual Stresses and Patterns in 52100 Bearing Steel: Preliminary Analysis of Strain Hardening vs. Microstructural Transformation by XRD Analysis," *Lubrication Engineering.* 58 (10): 30-40.

Book Chapters

[1] Grass, S., Rivero, Iris (2015). "Managing Kidlessness." In: How to Build a Life in the Humanities – Mediations on the Academic Work-Life Balance. Eds. Colon-Semenza, G., and Sullivan, Jr., G.A. Palgrave Macmillan.

Peer-Reviewed Conference Proceedings

[17] Manogharan, G.P., Samayoa, M., Harrysson, O., Rivero, Iris, and Cohen, P., 2011, May, "Effect of Dynamic Spindle Speed on Bone Surface during Machining." *Industrial Engineering Research Conference*, Reno, Nevada, IIE, CD-ROM Proceedings.

[16] Samayoa, M., Manogharan, G.P., Harrysson, O., Cohen, P., and Rivero, Iris, 2011, May, "The Dynamic Effects of Pneumatic Power Instruments on Machining of Bone." *Industrial Engineering Research Conference*, Reno, Nevada, IIE, CD-ROM Proceedings.

[15] Allaf, R. and Rivero, Iris V., 2011, April, "Solid-State Cryomilling for PorogenMixing and Porous Scaffold Fabrication." *48th Annual Rocky Mountain Bioengineering Symposium*, Denver, Colorado.

[14] Allaf, R., Swain, S., and Rivero, Iris V., 2010, June, "Thermal Behavior of Raw and Purified SWNT Samples: XRD Studies." *Industrial Engineering Research Conference*, Cancun, Mexico, IIE, CD-ROM Proceedings.

[13] Hernandez, R., and Rivero, Iris V., 2008, May, "Manufacturing Process Design to Ensure the Repeatability of Nanocomposite Properties." *Industrial Engineering Research Conference*, Vancouver, British Columbia, Canada, IIE, CD-ROM Proceedings.

[12] Hernandez, R., and Rivero, Iris V., 2007, May, "Manufacturing Process of SWNT-Polymer Nanocomposites: Quality and Performance in a High Volume Production." *Industrial Engineering Research Conference*, Nashville, Tennessee, IIE, CD-ROM Proceedings.

[11] Muthya, S., Rivero, Iris V., and Hope-Weeks, L., 2006, May, "Silver Nanorods in Polyaniline Nanocomposites for Superior Electrical Conductivity." *Industrial Engineering Research Conference*, Orlando, Florida, IIE, CD-ROM Proceedings.

[10] Rajamani, K., Rivero, Iris V., and Pantoya, M., 2005, May, "XRD Evaluation of Nano-Micro Structured Al-Ni Composites on Residual Stresses." *Industrial Engineering Research Conference*, Atlanta, Georgia, IIE, CD-ROM Proceedings.

[9] Karabelchtchikova, O., and Rivero, Iris V., 2005, February, "Investigation of Residual Stresses Superposition of D2 Dies Due to Heat Treatment and Multipass Grinding." Proceedings of the *TMS Annual Meeting, EPD Congress 2005-Extraction and Processing Division*, 2005, p. 175-183.

[8] Rivero, Iris V., and Hsiang, S., 2004, May, "Characterizing the Intrinsic Variance of XRD Measurements for Grinding Processes." *Industrial Engineering Research Conference*, Houston, Texas, IIE CD-ROM Proceedings, invited submission.

[7] Karabelchtchikova, O., and Rivero, Iris V., 2004, May, "Surface Integrity Evaluation of D2 Steel Heat Treatment and Grinding." *Industrial Engineering Research Conference*, Houston, Texas, IIE, CD-ROM Proceedings.

[6] Karabelchtchikova, O., Rivero, Iris V., and Hsiang, S., 2004, March, "Evaluation of the Initial Residual Stress Distribution and Multipass Grinding Techniques on Final Residual Stress Distribution in D2 Steel." Proceedings of the *TMS Annual Meeting, EPD Congress 2004-Extraction and Processing Division,* Charlotte, North Carolina, 2004, p. 519-525.

[5] Rivero, Iris V., and Ruud, C. O., 2003, May 18-20, "Factors of variation on XRD Measurements of Bearing Balls," *Industrial Engineering Research Conference*, Portland, Oregon, IIE, CD-ROM Proceedings.

[4] Rivero, I. V., and Ruud, C. O., 2002, May 19-23. "Residual Stresses Patterns in 52100 Bearing steel: Strain Hardening vs. Microstructural Transformation," Proceedings of the *STLE Annual Meeting 2002*, Houston, Texas.

[3] Rivero, I. V., and Ruud, C. O., 2001, May 20-25, "The Effect of Retained Austenite on the Fatigue Endurance of 52100 Bearing Steel," Proceedings of the *STLE Annual Meeting 2001*, Orlando, Florida.

[2] Rivero-Diaz, I., and Kim, K.J., 2000, October 18-20, "Analysis of Fuzzy Regression for Modeling Shelf Life of Gun Propellants," Proceedings of the *Army Conference on Applied Statistics 2000*, Houston, Texas.

[1] Rivero-Diaz, I. V., and Lehtihet, E. A., 1999, May 23-24, "Process Planning Decisions and the Effect of Tool Wear in the Quality of Manufacturing Output," *Industrial Engineering Research Conference*, Phoenix, Arizona, IIE, CD-ROM Proceedings ISBN 0-89806-216-0.

Peer-Reviewed Conference Presentations

[23] Chen, Y., and Rivero, Iris V., 2014, "Fabrication of a Polymeric Drug Delivery Implant for Cancer Treatment," *Industrial and Systems Engineering Research Conference*, Montreal, Canada.

[22] Halldorson, M., and Rivero, Iris V., 2013, "Parametric Assessment of the Microencapsulation Process for Improved Bio-Substance Entrapment," *Industrial and Systems Engineering Research Conference*, San Juan, Puerto Rico.

[21] Jonnalagadda, J.B., and Rivero, Iris. V., 2013, "Biomechanical Characterization of Biodegradable Composite Polycaprolactone and Polyglycolide Cartilage Scaffolds," *Industrial and Systems Engineering Research Conference*, San Juan, Puerto Rico.

PEER-REVIEWED CONFERENCE PRESENTATIONS (CONTINUED)

[20] Jonnalagadda, J.B., and Rivero, Iris. V., 2012, "Effect of Cryomilling Time on Resultant Properties of Cartilage Scaffolds," *Industrial and Systems Engineering Research Conference*, Orlando, Florida.

[19] Wilting, M., Rivero, Iris, and Ivanov, I., 2011, May, "Electrospun Nano Composite Dressings for Enhanced Wound Care." *Industrial Engineering Research Conference*, Reno, Nevada.

[18] McAllister, M. Baker, B., Snider, A., Dunavan, C., Farris, J., Matis, T., Rivero, Iris, Grissom, M., and Siri, C., 2011, April, "Strategic Redesign of Patient Discharge for Improved Workforce and Care Delivery Outcomes." Poster, *The American Organization of Nurse Executives 44th Annual Meeting & Exposition*, San Diego, California.

[17] Farris, J., Matis, T., Rivero, Iris, Grissom, M., Siri, C., McAllister, M., Baker, B., Snider, A., Dunavan, C., 2011, February, "Classification System for Optimizing Patient Flow During Discharge." *Society for Health Systems Conference & Expo 2011*, Orlando, Florida.

[16] Swain, S., Wilting, M., Rivero, Iris V., 2010, March, "Characterization of Composites Reinforced with Electrospun Biopolymer/CNTs Fibers for Biomedical Applications." Poster, *NSF Minority Faculty Development Workshop*, Massachusetts Institute of Technology, Cambridge, Massachusetts.

[15] Swain, S., Rivero, Iris V., Harrysson, O.L.A., and Allaf, R., 2010, June, "Fabrication of Electrospun Biopolymer/SWNT Fibers for Bone Plates Applications." *Industrial Engineering Research Conference*, Cancun, Mexico.

[14] Wilting, M.D., Swain, S., Rivero, Iris V., Harrysson, O.L.A., and Marcellin-Little, D., 2009, September, "Characterization of Biodegradable Polymer Composites Bone Plates: The Effect of SWNTs." *37th Annual Conference NATAS (North American Thermal Analysis Conference)*, Lubbock,Texas.

[13] Rivero, Iris V., Harrysson, O.L.A., and Cormier, D., 2009, May, "Fabrication of Biopolymer Nanocomposites Plates for Bone Fracture Repairs." *Industrial Engineering Research Conference*, Miami, Florida.

[12] Rivero, Iris V., 2009, February, "Design and Fabrication of Nanocomposites for Biomedical Applications." *2009 TMS Annual Meeting & Exhibition*, San Francisco, California.

[11] Rivero, Iris V., and Hatamleh, O., 2008, "Laser Peening Influence on Surface Residual Stresses in Aluminum Alloys Welded Joints," *First International Conference on Laser Peening*, Houston, Texas.

[10] Rivero, Iris V., and Hatamleh, O., 2008, May, "Effect of Surface Treatments on the Resultant Integrity of Aluminum Friction Stir Welds." *Industrial Engineering Research Conference*, Vancouver, British Columbia, Canada.

[9] Calvo, J., and Rivero, Iris V., 2008, May, "Novel Quality Control Tool for the Fabrication of Laser Ablation Single-Walled Carbon Nanotubes." *Industrial Engineering Research Conference*, Vancouver, British Columbia, Canada.

[8] Matis, T.I., Rivero, Iris, and Guardiola, I., 2008, April, "Information-Based Reengineering of Tooling Operations at BWXT/Pantex." *Center for Engineering Logistics and Distribution Spring Research Conference*, Chicago, Illinois.

[7] Rivero, Iris V., 2007, May, "Determination of Influential Parameters Affecting the Resultant Quality of Carbon Nanotubes Manufactured through Laser Ablation." *Industrial Engineering Research Conference*, Nashville, Tennessee.

[6] Hernandez, R. and Rivero, Iris V., 2007, April, "Aligning SWNTs in Polymers Using an Electrical Field: Quality and Efficiency in Mass Production," *The Best Little Nano Conference*, Austin, Texas.

[5] Matis, T.I., Rivero, Iris, and Guardiola, I., 2007, October, "Information-Based Reengineering of Tooling Operations at BWXT/Pantex," *Center for Engineering Logistics and Distribution Fall Research Conference*, Atlanta, Georgia.

PEER-REVIEWED CONFERENCE PRESENTATIONS (CONTINUED)

[4] Rivero, Iris V., Paley, M., Penn, B., Frazier, D., and Jones, K., 2006, March, "Development and Characterization of Nanocomposite Films for Extended Lunar and Mars Explorations," *2006 TMS Annual Meeting & Exhibition*, San Antonio, Texas.

[3] Rivero, Iris V., and Ruud, C., 2006, March, *Invited Presentation*: "XRD Analysis of the Correlation of 52100 Bearing Steel Fatigue Life to the Presence of Retained Austenite," *ASNT 15th Annual Research Symposium*, Orlando, Florida.

[2] Rivero, Iris V., Paley, M., Frazier, D., and Penn, B., 2006, February, "Evaluation of Thin-Film Polymer Based Materials for Support of Habitat Structures in Extended Lunar and Martian Explorations," *Habitation 2006*, Orlando, Florida.

[1] Mathur, D., Rivero, Iris V., Stone, D., Simpson, D., and Barnt, W., 2005, December, "Bridging Lean-Six Sigma to Engineering Management Model through Healthcare," *5th Annual Lean Management Solutions Conference*, Orlando, Florida.

PEER-REVIEWED ABSTRACTS

[1] Karabelchtchikova, O., Rivero, Iris V., 2004, November, "Investigation of Residual Stresses Superposition of D2 Dies Due to Heat Treatment and Multipass Grinding." *JOM*. 56 (11): 242.

INVITED TALKS

[19] Rivero, Iris V., 2013, "Multifunctional Wound Treatment Alternatives," University of Iowa Hospitals and Clinics Department of Surgery Grand Rounds, Iowa City, IA, USA.

[18] Rivero, Iris V., 2013, "Wound Healing Efficacy of Silver and Zinc Oxide," Society of Hispanic Professional Engineers Annual Conference, Indianapolis, IN, USA.

[17] Rivero, Iris V., 2012, "Design and Evaluation of Multifunctional Wound Treatment Alternatives," University of Iowa, Department of Mechanical and Industrial Engineering, Iowa City, IA, USA.

[16] Rivero, Iris V., 2012, "Tenure and Promotion to Full Professor-Roundtable," Women in Industrial Engineering Academia (WIEA), Istanbul, Turkey.

[15] Rivero, Iris V., 2012, "Promotion and Tenure," Minority Faculty Development Workshop, Georgia Tech University, Atlanta, GA, USA

[14] Rivero, Iris V., 2012, "Plans for Improving the Image of Advanced Manufacturing." White House Advanced Manufacturing Partnership-Education and Workforce Development – Conference Call, USA.

[13] Rivero, Iris V., 2010, "Career Paths in Sciences and Engineering." Emmy Noether High School Mathematics Days, Panelist. *Texas Tech University*, Lubbock, TX, USA.

[12] Rivero, Iris V., 2009, March, "Characterization of Friction Stir Welds and Surface Treatments on Aerospace Grade Aluminum." Graduate Seminar Series, Edward P. Fitts Department of Industrial and Systems Engineering, *North Carolina State University*, Raleigh, NC, USA.

[11] Rivero, Iris V., 2009, March, "Building Future Faculty Program." Discussion Panel, *North Carolina State University*, Raleigh, NC, USA.

[10] Rivero, Iris V., Morse, A., and Ridley M., 2008, August, "Promotion and Tenure: Preparing a Dossier and Navigating the Promotion Process." PoWERS Panel Discussion. *Texas Tech University*, Lubbock, TX, USA.

[9] Rivero, Iris V., 2007, August, "Balancing Research and Teaching." Expert Faculty Panel Session, Annual Arts & Sciences New TA Workshop. *Texas Tech University*, Lubbock, TX, USA

[8] Rivero, Iris V., 2007, February, "Design, Manufacturing, and Evaluation of Nanocomposites for Aerospace Structural Applications." Graduate Seminar Series, Edward P. Fitts Department of Industrial and Systems Engineering. *North Carolina State University*, Raleigh, NC, USA.

[7] Rivero, Iris V. 2006, "Graduate Studies in Industrial Engineering." University Wide Seminar. *University of Puerto Rico*, Mayaguez, PR, USA.

[6] Rivero, Iris V., 2006, October, "Diseño y Caracterización de Membranas Nanocompuestas para Exploraciones Lunares Extendidas." University Wide Graduate Seminar. *Tecnológico de Monterrey,* Monterrey, Mexico.

[5] Rivero, Iris V., 2006. "Diversity in Academic Hiring." Graduate Student Workshop. *Penn State University*, State College, PA, USA.

[4] Rivero, Iris V., and Hsiang, S.M., 2004, May, "Characterizing the Intrinsic Variance of XRD Measurements for Grinding Processes." *Industrial Engineering Research Conference*, Houston, Texas, USA, invited presentation.

[3] Rivero, Iris V., 2004, "Residual Stress Patterns in 52100 Bearing Steel After Rolling Contact & Current Research Work." *Florida State University-Florida A & M University*, Department of Industrial and Manufacturing Engineering. Tallahassee, FL, USA.

[2] Rivero, Iris V., 2004. "The Politics of Assistant Professorhood." Graduate Student Workshop. *Penn State University*, State College, PA, USA.

[1] Rivero, Iris V., 2004. "Women in Engineering." Women In Science & Engineering Program (WISE) Kickoff Event. *Texas Tech University*, Lubbock, TX, USA.

Grants Received

[22] *Intubation Medical Device Development Project (ITMDDP)*. Sparks Instruments, LLC. Richard T. Stone, PI and Iris V. Rivero, Co-PI. $139,688. August 2013-May 2015.

[21] *SBIR Phase I: Selenium Biopolymer Spacers to Prevent Biofouling of Reverse Osmosis Modules.* NSF. A. Morse and Iris V. Rivero, Senior Personnel allocation $48,958. Total Award: $149,537. January 2012-June 2012.

[20] *Design and Fabrication of Novel Porous Biodegradable Composite Scaffolds for Articular Cartilage Tissue Engineering*. FARM Orthopedics. Iris V. Rivero, PI. $10,000. March 2011-September 2012.

[19] CELDi: *Patient Discharge Process Improvement Project: Phase Two.* Medical Center Hospital (Odessa, TX). Iris V. Rivero (with J. Farris and T. Matis) $19,203. January 2010-August 2010.

[18] *MRI: Acquisition of a Transmission Electron Microscope for Materials Research.* National Science Foundation. Iris V. Rivero, Senior Personnel (J. Chaudhuri; PI, A. Jankowski, J. Lin, D. Casadonte, and M. Ridley, PIs) $513,500. August 2009.

[17] *Patient Discharge Process Improvement Project: Phase One (March 2009-June 2009).* Medical Center Hospital (Odessa, TX). Iris V. Rivero (with I. De Farias, J. Farris, and T. Matis) $16,139. March 2009-August 2009.

[16] *Assessment of the Effect of SWNTs on the Structural Characteristics of Biodegradable Polymer Composites for Bone Plates*. DOE/Center for Nanophase Materials Sciences. Iris V. Rivero, PI (with O.L.A. Harrysson-NCSU, D. Cormier-NCSU, D. Marcellin-Little-NCSU CVM) $0 (equipment usage). March 2009 – February 2010.

[15] *Fabrication and Characterization of Biocompatible Nanocomposites for Total Hip Replacement Implants*. Research Enhancement Proposal-Texas Tech University. Iris V. Rivero. $35,000. September 2008-August 2009.

[14] *Information-Based Re-Engineering of Tooling Operations at BWXT/Pantex*. BWXT/Pantex. Iris V. Rivero (with T. Matis) $196,039. February 2008-February 2009.

[13] *Effect of Bending Loads on Resultant Stresses of Aluminum Friction Stir Welds*. NASA: Johnson Space Center. Iris V. Rivero, PI. $11,846. June 2007-September 2007.

[12] *Progressive Residual Stresses Analysis of Friction Stir Welds in Aluminum Alloys*. NASA: Johnson Space Center. Iris V. Rivero, PI. $10,420. May 2007-September 2007.

[11] *Control Software, Water Reclamation, Nanotechnology, Autonomous Inspection and Salad Crop Culture*. NASA: Johnson Space Center. (with J. Smith, PI) $2,000,000. October 2006-September 2009.

GRANTS RECEIVED (CONTINUED)

[10] *NSF Minority Faculty Development Forum*. NSF. Iris V. Rivero, PI. $1,236. July 2006-August 2006.

[9] *Development of an Efficient Manufacturing Processing Technology for Carbon Nanotubes Polymer Composite Components*. Society of Manufacturing Engineers. Iris V. Rivero, PI. $15,000. June 2006-July 2007.

[8] *Characterization of Residual Stresses Distribution in Al 7075-T7351*. NASA: Johnson Space Center. Iris V. Rivero, PI. $1,267. February 2006.

[7] *Mettler-Toledo Thermal Analysis Education Grant* (as equipment). Mettler-Toledo Corp. Iris V. Rivero (with D.J. Casadonte and S.L. Simon) $210,045. October 2005.

[6] *NASA Summer Faculty Research Opportunities Program*. NASA: Marshall Space Flight Center. Iris V. Rivero, PI. $14,000. May 2005 – August 2005.

[5] *Fundamentals for Nondestructive Testing*. The American Society for Nondestructive Testing, Inc. Iris V. Rivero, PI. $8,000. July 2005 – December 2006.

[4] *Major Research Instrumentation: Scanning Electron Microscope*. National Science Foundation. Iris V. Rivero, Senior Personnel (L. Gollahon, PI) $380,000. June 2004.

[3] *Validating Ultrasonic Output for Positional Accuracy: Phase II*. Department of Energy/BWXT Pantex, LLC. Iris V. Rivero (with E. McCombs and T. Collins) $144,087. May 2004 – September 2004.

[2] *Validating Ultrasonic Output for Positional Accuracy: Phase I*. Department of Energy/BWXT Pantex, LLC. Iris V. Rivero (with E. McCombs) $36,871. August 2003 – September 2003.

[1] *Anti Ice Flat Panel Hail Test*. Raytheon Corporation. Iris V. Rivero (with M. Smith and E. McCombs) $20,750. November 2002 – March 2003.

GRANTS PENDING

[1] *Optimization of the Osseointegration of Upper Extremity Prostheses through Rapid Healing at the Skin-Implant Interface.* Department of Defense-Congressionally Directed Medical Research Programs. Iris V. Rivero, PI (with Richard Stone, Karl Kraus-ISU Vet Med, and Kendra Rumbaugh-TTUHSC) $750,000. June 1 2015-May 31 2018.

GRADUATE STUDENT COMMITTEES –

STUDENTS DIRECTED

[14] Anirudh Ramakrishna, "Solid State Processing of Self-Assembled Nanostructures," Iowa State University. Began MS research Spring 2015.

[13] Karthik Sajikumar, "Fabrication and Validation of Biocompatible Ligament Materials," Iowa State University. Began MS research Spring 2015.

[12] Kellie McGrath, "Quantification of the Occurrence of Smoking Events," Iowa State University. Accepted to MS Program Fall 2014.

[11] Melissa Slaggle, "Design of Local Delivery Chemotherapy Devices," Iowa State University. Accepted to MS Program Fall 2013.

[10] Jianqiang Li, "Study of the Fabrication of ZnS Incorporated Electrospun Antibacterial Dressings and Related Substance Release Mechanism," Iowa State University. Accepted to MS Program Fall 2013.

[9] Yunqing Chen, "Fabrication of a Polymeric Drug Delivery Implant for Cancer Treatment," Iowa State University. Accepted to MS Program Fall 2012.

[8] Michael Halldorson, "Effects of Simultaneous Delivery of Silver and Zinc Oxide on the Efficacy of Healing Acute Wounds," Texas Tech University. MS in Bioengineering. Thesis completed 2013.

[7] John B. Jonnalagadda, "Immiscible Biodegradable Polymers Scaffold Fabrication," Texas Tech University. Accepted to PhD program Spring 2010.

[6] Shayla Swain, "Fabrication of Electrospun Biopolymer/SWNT Fibers for Bone Plates Applications," Texas Tech University. Dissertation completed May 2014.

[5] Rula Allaf, "A Novel Approach to Fabricating Interconnected Porous PCL-based Biodegradable Scaffolds for Articular Cartilage Tissue Engineering," Texas Tech University. Dissertation completed May 2011.

[4] Rocio Hernandez, "Effects of Electrical Fields in Aligning SWNTs during High Volume Production of Polymer/SWNT Nanocomposites," Texas Tech University. Thesis completed 2008.

[3] Sameera Muthya, "Silver Nanorods in Polyaniline Nanocomposites for Enhanced Electrical Conductivity," Texas Tech University. Thesis completed 2006.

[2] Karthik Rajamani, "Material Characterization of Nano-Structured Al-Ni Nanocomposites Using X-Ray Diffraction," Texas Tech University, co-director Dr. Michelle Pantoya. Thesis completed 2005.

[1] Olga Karabelchtchikova, "Modeling of Multipass Grinding Effect on Residual Stresses Distribution and Surface Integrity of D2 Thread Rolling Dies," Texas Tech University. Thesis completed 2004.

GRADUATE STUDENT COMMITTEES –

COMMITTEES SERVED ON

[29] Sharifi Farrokh, , Iowa State University. Department of Mechanical Engineering. Dissertation in Progress.

[28] Mostafa Fawzy, "Biofuel Production: Stakeholders' Requirements Assessment," Iowa State University. Department of Industrial and Manufacturing Systems Engineering. Dissertation in Progress.

[27] Sara Underwood, "Tool Wear in Ultrasonic Welding," Iowa State University. Department of Agricultural and Biosystems Engineering. Thesis in progress.

[26] Ashish Joshi, "Bone Machining," Iowa State University. Dissertation in progress.

[25] Sriya Das, "Nanoparticle-Loaded Hydrogels," Texas Tech University. Department of Chemical Engineering. Dissertation completed May 2014.

[24] Kevin McLain, "Missouri DOT Quality Assessment Tools," Iowa State University. Department of Civil, Construction, and Environmental Engineering. Dissertation in progress.

GRADUATE STUDENT COMMITTEES –

COMMITTEES SERVED ON (CONTINUED)

[23] Shuangyan Lei, "Development of Algorithms for the Process Planning for Rapid Machining of Custom Shaped Bone Implants," Iowa State University. Dissertation completed 2014.

[22] Ganapathy Subramanian Natarajan, "Factors Affecting Environmentally Sustainable Practices in Small and Medium-Sized Enterprises (SMEs) in the United States: The Case of West Texas," Texas Tech University. Dissertation in progress, completion expected 2013.

[21] Keerti Sahithi Kappagantula, "Experimentally Measured Thermal Transport Properties of Aluminum-Polytetrafloroethylene with Carbon Additives," Texas Tech University. Dissertation in progress, completion expected 2013.

[20] Ahmed Wajid, "Dispersion and Processing of Pristine Graphene for High Performance Materials," Texas Tech University. Thesis completed August 2011.

[19] John Carrell, "Multi-Trigger Mechanism with Shape Memory Polymer Composite," Texas Tech University. Dissertation completed in 2012.

[18] Bingbing Li, "Sustainability Improvement of Manufacturing Processes via Industry Ecology with Application to Nanotechnology," Texas Tech University. Dissertation completed in 2012.

[17] Ryan Humphrey, "Strain-Rate Sensitivity of Strength in Macro-to-Micro-to-Nano Crystalline Nickel," Texas Tech University, Thesis completed 2010.

[16] Luis Cabrales, "Analytical and Spectroscopic Approaches to Study Cellulose Development in Cotton Fibers," Texas Tech University. Dissertation completed 2011.

[15] Yue (Jacky) Zhang, "Graphene Fabrication and Characterization," Texas Tech University. Thesis completed 2010.

[14] Bindu Tambraparni, "Manufacturing Graphene-Based Nanocomposites for Thermal Management Applications," Texas Tech University. Thesis completed 2010.

[13] Birce Dikici, "The Influence of Al Passivation on the Reaction Mechanism: Flame Propagation Studies," Texas Tech University. Dissertation completed 2010.

[12] Charles A. Crane, "Characterizing Energy Transfer from a Reacting Thermite to an Inert Target," Texas Tech University, Thesis completed 2009.

[11] Hua Li, "Energy-Saving Based Product Design," Texas Tech University, Dissertation in progress, Dissertation completed 2009.

[10] Peter John Hughes, "Decision Making Based on Hierarchical Determination of Multiple Sensor Arrays with Dynamic Weighting Factors," Texas Tech University. Thesis completed 2006.

[9] Xi Ouyang, "An Alternative Environment Benign Process for the Delaminating and Recycling of Printed Circuit Boards," Texas Tech University. Dissertation completed 2006.

[8] Abhyuday Desai, "Order Earliness/Tardiness Scheduling Problem with Family Based Setup Costs and Restrictions on the Number of Active Orders," Texas Tech University. Dissertation completed 2005.

[7] Rohit Kulkarni, "Life-Cycle Impact Assessment of Computer and Related Products,"Texas Tech University. Thesis completed 2005.

[6] Sunil Mohite, "Disassembly Analysis, Material Composition Analysis and Environmental Impact Assessment of Computer Disk Drives," Texas Tech University. Thesis completed 2005.

[5] Swapnil Pande, "Strategic Implementation of Information Technology to Improve Retail Business in India," Texas Tech University. Thesis completed 2005.

GRADUATE STUDENT COMMITTEES –

COMMITTEES SERVED ON (CONTINUED)

[4] Puneet Shrivastava, "Validation of End-of-Life Design Information System for Environmentally Benign Manufacturing Decision Support," Texas Tech University. Thesis completed 2005.
[3] Yingchun Yuan, "An Environmentally Benign Supercritical Fluid Process for Printed Wiring Board Recycling," Texas Tech University. Thesis completed 2004.
[2] Nikhil Rao, "Economic Model for End of Life Management of Printed Circuit Boards," Texas Tech University. Thesis completed 2004.
[1] John Campbell, "The Research and Development of an Air Separation Conveyor for Obsolete Electronic Products Recycling," Texas Tech University. Thesis completed 2003.

UNDERGRADUATE RESEARCH STUDENTS

[5] Xue Bai, "Bulk Fabrication of High Loaded Carbon Nanotubes Composites." Iowa State University. In progress.
[4] Charley Forey, "Fabrication of NG-Tubes." Co-advised with Dr. Rick Stone. Iowa State University. Completed Fall 2014.
[3] Sullivan Stewart, "Fabrication of Scaffolds for Promoting Artificial Cartilage Growth," Iowa State University. In progress.
[2] Morgan Hampel, "Fabrication of NG-Tubes." Co-advised with Dr. Rick Stone. Iowa State University. Completed Spring 2014.
[1] Melissa Slagle, "Fabrication of Medical Devices for the Local Delivery of Chemotherapy," Iowa State University. Completed Fall 2013.

TEACHING EXPERIENCE

GRADUATE COURSES

Iowa State University

Course	*Semester*
Engineering System Design, Mfg Proc. & Spec. (IE 248)	Fall 2014
Engineering Economics (IE 305)	Spring 2014
Biomedical Design and Manufacturing (IE 547X)	Spring 2014
Engineering System Design, Mfg. Proc. & Spec. (IE 248)	Fall 2013
Biomedical Design and Manufacturing (IE 547X)	Spring 2013
MS/PhD Research Conduct (IE502X/IE602X)	Spring 2013
Research Basics and Communication (IE 501/601)	Fall 2012

Texas Tech University

Course	*Semester*
Advanced Manufacturing Processes (IE 5351)	Spring 2011
Biomedical Design and Manufacturing (IE 5356)	Spring 2010
Lean Tools for Manufacturing (IE 5353)	Spring 2008
Advanced Manufacturing Processes (IE 5351)	Fall 2007
Fundamentals of Nondestructive Testing (IE 5331)	Fall 2006
Lean Tools for Manufacturing (IE 5353)	Spring 2006
Advanced Manufacturing Processes (IE 5351)	Fall 2005
Lean Tools for Manufacturing (IE 5331)	Spring 2005
Advanced Manufacturing Processes (IE 5351)	Fall 2004
Lean Tools for Manufacturing (IE 5331)	Spring 2004
Advanced Manufacturing Processes (IE 5351)	Fall 2003
Advanced Manufacturing Processes (IE 5351)	Spring 2003

Undergraduate Courses

Texas Tech University

Course	*Semester*
Manufacturing Engineering I (IE 3351)	Fall 2011
Manufacturing Engineering II (IE 4352)	Fall 2011
Engineering Economic Analysis (IE 3301)	Spring 2011
Manufacturing Engineering I (IE 3351)	Fall 2010
Engineering Economic Analysis (IE 3301)	Spring 2010
Manufacturing Engineering I (IE 3351)	Fall 2009
Lean Tools for Manufacturing (IE 4331)	Spring 2008
Engineering Economic Analysis (IE 3301)	Spring 2008
Manufacturing Engineering I (IE 3351)	Fall 2007
Manufacturing Engineering I (IE 3351)	Fall 2006
Engineering Economic Analysis (IE 3301)	Spring 2006
Manufacturing Engineering I (IE 3351)	Fall 2005
Engineering Economic Analysis (IE 3301)	Spring 2005
Manufacturing Engineering I (IE 3351)	Fall 2004
Manufacturing Engineering I (IE 3351)	Fall 2003
Engineering Economic Analysis (IE 3301)	Spring 2003
Engineering Statistics (IE 3341)	Fall 2002

Senior Design Project (IE 4331) – 2002 - 2007

Faculty Advisor

- Mimi Lin, MTS Inc. (Texas Tech University), Fall 2002
- David Hill, Supachill Inc. (Texas Tech University), Spring 2003
- Javier Pineda, Caprock Manufacturing (Texas Tech University), Fall 2003
- Stephanie Glover, Blue Star Candles (Texas Tech University), Spring 2004
- Devin Wakeford, Quality Coatings (Texas Tech University), Fall 2004
- William Campbell, Shawn Davis, Ellen Popolo, and Jonathan Waggoner, SaraLee (Texas Tech University), Fall 2005.
- Bethany Ferguson, Jonathan Likarish, and Steve Sodolak, Breedlove Dehydrated Food (Texas Tech University), Spring 2006.
- Analisa Armendariz, Amy Cook, Crystal Mahon, Michael Sprunck, X-Fab (Texas Tech University), Spring 2007.

Grading Committee – Springs 2005, 2008; Fall 2006, 2009.

Teaching Assistant Courses

Penn State University – Department of Industrials & Manufacturing Engineering

Course	*Semester*
Casting Processes & Solidification of Materials (IE 311)	Spring 2000
Production Engineering (IE 328)	Fall 1999

Teaching Assistant Courses (Continued)

Course	*Semester*
Production Engineering (IE 328)	Spring 1999
Production Engineering (IE 328)	Fall 1998
Production Engineering (IE 328)	Spring 1998
Production Engineering (IE 328)	Fall 1997

Penn State University – The Learning Factory

Course	*Semester*
Machining & CAD Design Principles	Spring 1997
Machining & CAD Design Principles	Fall 1996

Course Development

New Course Development – Texas Tech University (TTU) & Iowa State University (ISU)

Graduate Courses

IE 547X/447X – Biomedical Design and Manufacturing – Introduced Spring 2013 (ISU)
IE 5356 – Biomedical Design and Manufacturing – Introduced Spring 2010 (TTU)
This course intends to introduce students to research work in the area of design and manufacturing for biomedical applications. Overall, students will be presented with an overview of the biomedical device industry, basics and issues associated with biomedical design and human factors, selection of biomaterials, fabrication/manufacturing planning and control, and ethical issues that must be considered in the field. Upon completion of this course graduate students should have increased their awareness of the multiple aspects involved in biomedical design and manufacturing. Also, the graduate students will have gained experience in developing multidisciplinary research bridging medicine and engineering in a team oriented environment.

IE 5331 – Fundamentals of Nondestructive Testing – Introduced Fall 2006 (TTU)
This course will introduce students to the basic principles of the most frequently used nondestructive techniques: radiography, x-ray diffraction, liquid penetrants, magnetic particle, eddy current, and ultrasonic testing. Overall, the course will emphasize the analytical and measurement capabilities that such techniques provide for materials characterization and flaw detection. Also, students will have the opportunity to apply the concepts learned during the lectures during scheduled laboratory sessions. Culminating the seminar, the students should have knowledge of the origins, benefits, limitations, and interpretation of signals given by the studied nondestructive testing techniques.

IE 5353 – Lean Tools for Manufacturing – Introduced Spring 2004 (TTU)
This course introduces students to the practical concepts of the Lean philosophy that has been developed in industry and that has aided companies to save billions of dollars in the last decade. These savings have been achieved by identifying potential areas of production "waste" (time and/or resources) from which upon application of lean tools coupled with six-sigma have improved lead times and process quality. Initially, the students will be exposed to the fundamental principles of the lean strategy, followed by a definition of the goals, discussion of performance improvements produced by the strategy, and the methodology to be followed for implementation. Culminating the seminar, the students should be able to demonstrate their acquired knowledge in the Lean philosophy by performing an assessment of a local industry for lean enterprise implementation or improvement, which will be presented to the company and class along with a report of their assessment and implementation immediate results.

Professional Service

- Advisory Board Member, IIE Manufacturing and Design Division, July 2013-present.
- Judge-Posters, Society of Hispanic Professional Engineers, November 2013.
- Past President, IIE Manufacturing and Design Division, July 2012-June 2013.
- President, IIE Manufacturing and Design Division, September 2010-June 2012.
- Guest Co-Editor, Special Issue on "Advances in Nano-Manufacturing: Process Repeatability, Scalability and Affordability for Nano Materials and Manufacturing." *The International Journal of Advanced Manufacturing Technology*, October 2010 – July 2012.
- Program Co-Chair, Rocky Mountain Bioengineering Symposium, October 2010 – April 2011.
- Co-Chair Manufacturing and Design Track, Industrial Engineers Research Conference 2011, IIE, August 2010 – May 2011.

PROFESSIONAL SERVICE *(CONTINUED)*

- Volunteer Leader, IIE Manufacturing and Design Division, Revitalization effort, Spring 2010-August 2010.
- Organizing Committee, Faculty Host, ADVANCE Senior Mentoring Summit–For Senior Underrepresented Minority (URM) Women Engineering Faculty, North Carolina State University, Raleigh, NC – March 12-14, 2009.
- Co-Chair Manufacturing and Design Track, Industrial Engineers Research Conference 2007, IIE, May 2006 – May 2007.
- Nominated as Co-chair, 2008 Industrial Engineers Research Conference, IIE, Summer 2006.
- Board Member, IIE Manufacturing and Design Technical Group, May 2005.
- Panel Chair - Industrial Engineering Research Conference – May 2005, 2007, 2009.
- High School Outreach Program, SME Automation & Assembly Summit, Dallas, TX, May 2004.

REVIEWER OF THE FOLLOWING JOURNALS

- 3D Printing and Additive Manufacturing, January 2015.
- Robotics and Computer Integrated Manufacturing, August 2013.
- Cell Proliferation, December 2011.
- Computer Methods and Programs in Biomedicine, August 2011.
- Polymer Engineering & Science, June 2010 & January 2011.
- Journal of Materials Science, Springer, December 2009.
- Journal of Manufacturing Processes, Elsevier, August 2009.
- Ultrasonics Sonochemistry, Elsevier, November 2008.
- Journal of Materials Engineering and Performance, ASM International, December 2007, March 2008 & June 2008.
- Scanning: The Journal of Scanning Microscopies, John Wiley & Sons, October 2007

PROPOSAL REVIEW ACTIVITY

- NSF, 2007, 2008 (2), 2010, 2012, 2013 (2), 2014.

BOOK REVIEWS

- “Process Oriented Analysis” by Urs Meyer, Simone Creux, and Andrea Weber Marin, World Scientific Publishing Co., December 2005
- Chapters 7 & 8 of “Engineering Statistics, 4ed” by Montgomery, Wiley Publishing, April 2005
- “Design, Layout, and Location of Facilities” by Heragu, Pearson Prentice Hall, April 2004
- “World Class Manufacturing” by Selvidge, March 2004
- “Fundamentals of Engineering Economics” by Park, January 2003
- New Book Review/Survey ,“Engineering Statistics,” McGraw-Hill, Fall 2002

CONFERENCE PROCEEDINGS REVIEWER

- Society of Manufacturing Engineers, 2015 North American Manufacturing Research Conference, December 2014.
- Industrial Engineering Research Conference, IIE, 2003 – 2007, 2011, 2014
- American Society of Engineering Management Conference, June 2004

UNIVERSITY SERVICE

- Member, Graduate School-Texas Tech University, Graduate Program Review Committee, October 2011-August 2012
- Member, Chemical Safety Committee-Texas Tech University, August 2011-August 2012
- Member, Shared Facility Task Force-Texas Tech University, June 2010-August 2012
- Member, Do the Right Thing: A Campus Conversation on Ethics Implementation Committee, Task Force: The Ethics of Diversity-TTU, Texas Tech University, August 2005-August 2008
- Member, Southern Association of Colleges and Schools Focus Group, Quality Enhancement Plan for Diversity, Texas Tech University, March 2005
- Member, Study Abroad Competitive Scholarship Committee, Texas Tech University, January 2007-August 2008
- Judge, Undergraduate Research Posters, Texas Tech University Student Research Days, April 2004

DEAN'S REPRESENTATIVE (TTU) PH.D. DEFENSES OF THE FOLLOWING CANDIDATES

- John Zanoff, Mechanical Engineering, Texas Tech University, September 2009
- Luke O Nyakiti, Mechanical Engineering, Texas Tech University, April 2008
- Jian Wang, Chemical Engineering, Texas Tech University, August 2006
- Nan Zhou, Civil Engineering, Texas Tech University, October 2005
- Anny Flory, Chemical Engineering, Texas Tech University, October 2004

COLLEGE SERVICE

- Engineering Research Institute (ERI), Iowa State University, Research Project Manager Search Committee, January 2015 – present
- Engineering Research Institute (ERI), Iowa State University, Reviewers' Lead for internal funding programs, August 2014 – December 2014.
- Member, College of Engineering, Iowa State University, Presidential Initiative in Translational Health Faculty Search Committee, October 2013 – May 2014
- Member, College of Engineering Iowa State University, Key Performance Indicators Task Force, Iowa State University, September 2012-December 2012.
- Organizer, Strategies and Best Practices to Transform the Culture and Support Female Scientists & Engineers in Academia-Workshop, Texas Tech University, April 2012-August 2012.
- Member, College of Engineering Promotion and Tenure, Texas Tech University, January 2009-August 2012
- Member, College of Engineering Diversity Committee, Texas Tech University, May 2007-August 2008
- Member, College of Engineering Recruitment Committee, Texas Tech University, September 2006-August 2012
- Organizer & Instructor, "Science: It's a Girl Thing," July 2006
- Member, College of Engineering Strategic Directions Committee, Diversity Goal Task Force, Texas Tech University, March-April 2006
- Member, College of Engineering Website Design Committee, Texas Tech University, October 2004-May 2006
- Host, Arbor Day Promoting Engineering Outreach Session, Texas Tech University, April 2005

COLLEGE SERVICE

(CONTINUED)

- Faculty Ballot Coordinator, TTU Operating Policy and Procedures: Procedure to Mediate Evaluation Disputes, Texas Tech University, December 2004
- Member, Faculty Search Committee for Department of Civil Engineering, Texas Tech University, April 2004
- Participant, Dean's Search, Texas Tech University, Fall 2003
- Proctor, Fundamentals of Engineering examination, Texas Tech University,Fall 2003
- Participant, BRIDGE Program, Texas Tech University, August 2002

DEPARTMENT SERVICE

DEPARTMENT SERVICE

(CONTINUED)

- Director of Graduate Education, Industrial and Manufacturing Systems Engineering, Iowa State University, August 2014-present.
- Member, Computer Committee, Industrial and Manufacturing Systems Engineering, Iowa State University, August 2014-present.
- Director of Research, Industrial and Manufacturing Systems Engineering, Iowa State University, October 2013-present.
- Member, 3rd Year Review Committee, Industrial and Manufacturing Systems Engineering, Iowa State University, October 2013-present.
- Member, Graduate Committee, Industrial and Manufacturing Systems Engineering, Iowa State University, August 2012-August 2014.
- Chair, Safety Committee, Texas Tech University, Fall 2011-Summer 2012.
- Graduate Advisor, Department of Industrial Engineering, Texas Tech University, Fall 2010-Summer 2011.
- Member, Industrial Engineering Graduate Studies Committee, Texas Tech University, Spring 2010-Summer 2012.
- Member, Safety Committee, Texas Tech University, Summer 2008-Summer 2011.
- Faculty Advisor, Society of Manufacturing Engineers, Texas Tech University, Summer 2002-Fall 2010.
- Member, Industrial Engineering Undergraduate Studies Committee, Texas Tech University, Fall 2006-Spring 2010.
- Member, 26 Master's Examination Committees, Texas Tech University, Fall 2002-Summer 2012
- Chair, Graduate Studies Revision Committee, Texas Tech University, Fall 2003 and Fall 2005-Spring 2006
- Member, ABET Committee, Texas Tech University, Fall 2003-Spring 2006
- Member, Industrial Engineering Faculty Search Committee, Texas Tech University, Spring 2005, Fall 2006, Spring 2008
- Member, Industrial Engineering Chairperson Search Committee, Texas Tech University, Fall 2005
- Advisor, 8 IE Senior Design Projects, Texas Tech University, 2002-2007.