

CURRICULUM VITAE

Amir Karimi, Ph.D., P.E.

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I. EDUCATION:

- Ph.D. Mechanical Engineering, University of Kentucky, Lexington, KY, August 1982.
- MS. Mechanical Engineering, University of Portland, Portland, OR, May 1973.
- BS. Mathematics, Oregon State University, Corvallis, OR, August 1971.
- BS. Metallurgical Engineering, Oregon State University, Corvallis, OR, June 1970.
- AS. Multnomah College, Portland, OR, 1968.

II. GENERAL AREAS OF EXPERIENCE AND EXPERTISE:

Investigation of thermal properties, heat transfer, condensation and phase change heat transfer, two-phase flow, thermal storage systems, heat transfer in advanced materials, energy recovery systems, heat exchanger design, thermodynamics, metastable thermodynamics, thermodynamics in medicine and biology, adsorption processes, sorption refrigeration cycles, parametric studies, and computer software development in thermal sciences.

III. PROFESSIONAL EMPLOYMENT HISTORY:

A. Academic Appointments (chronological with latest first):

- Sept. 1982-present Professor, Associate Professor, Assistant Professor, Mechanical Engineering, Division of Engineering, The University of Texas at San Antonio, San Antonio, Texas.
- March 2006-September 2013 Associate Dean of Undergraduate Studies, Office of Undergraduate Studies (University College), The University of Texas at San Antonio, San Antonio, Texas
- Jan. 2003-April 2006 Associate Dean of Academic Affairs, College of Engineering, The University of Texas at San Antonio, San Antonio, Texas
- April 1-Aug. 31, 2002 Interim Associate Dean of Academic Affairs, College of Engineering, The University of Texas at San Antonio, San Antonio, Texas
- Sept. 1998-Jan. 2003 Chair, Mechanical Engineering, The University of Texas at San Antonio, San Antonio, Texas
- Sept. 1987-Jan. 1992 Chair, Mechanical Engineering Program, Division of Engineering, The University of Texas at San Antonio, San Antonio, Texas.

B. Other Employment:

- Summer 1998 Senior Fellow, Navy-ASEE Summer Faculty Research Program, Propulsion Branch, Naval Undersea Warfare Center, Newport, Rhode Island.
- Summer 1997 Fellow, NASA-ASEE, Summer Faculty Research Program, Propulsion and Fluid Systems Branch, Johnson Space Center, Houston, Texas.
- Summer 1993 Research Associate, AFOSR-RDL, Summer Faculty Research Program, Space Thermal Technologies Branch, Phillips Laboratory, Kirtland AFB, NM.

- Summer 1992 Research Associate, AFOSR-RDL, Summer Faculty Research Program, Space Thermal Technologies Branch, Phillips Laboratory, Kirtland AFB, NM.
- Summer 1991 Fellow, NASA-ASEE, Summer Faculty Research Program, Thermal System Analysis Branch, Johnson Space Center, Houston, Texas.
- Summer 1990 Fellow, NASA-ASEE, Summer Faculty Research Program, Thermal Systems Control Branch, Johnson Space Center, Houston, Texas.
- Summer 1985 Fellow, AFOSR-UES, Summer Faculty Research Program, School of Aerospace Medicine, Brooks Air Force Base, San Antonio, Texas.
- Summer 1983 Fellow, AFOSR-SCEEE, Summer Faculty Research Program, School of Aerospace Medicine, Brooks AFB, San Antonio, Texas.

C. Consulting:

- Jan. 1987-Dec. 1988 Consultant, Rothe Development Co./Brooks Air Force Base-SAM, San Antonio, Texas.
- Jan. 1988 Consultant, Omega Point Laboratories, San Antonio, Texas.

IV. CERTIFICATION and LICENSURE:

Registered Professional Engineer in State of Texas, certificate number 57451.

V. MEMBERSHIP in TECHNICAL and PROFESSIONAL SOCIETIES

- Life Fellow, American Society of Mechanical Engineers, ASME
- Life Fellow, American Society for Engineering Education, ASEE
- Senior Member, American Institute of Aeronautics and Astronautics, AIAA
- Life Member, American Society of Heating, Refrigerating and Air-Conditioning Engineers, ASHRAE.
- Member, Sigma-XI, The Scientific Research Society

VI. HONORS and AWARDS

- Elected as a Fellow of American Society for Engineering Education (ASEE), 2013
- Nominated by the Mechanical Engineering Department and the College of Engineering for the Regent's Outstanding Teacher Award, December 2014.
- Received the Distinguished Award for Excellence in University Service, The University of Texas at San Antonio, May 2, 2001.
- Elected to the grade of Fellow by the Board of Governors of the American Society of Mechanical Engineers (ASME), 1994.
- Elected ASEE-Zone III, April 2004. Served on the Notional Board of Directors of ASEE during 2005-07.
- Received the ASME-San Antonio Section Community Service Award, April 2006, April 2009.
- Received the ASEE-Gulf Southwest Section Outstanding Teaching Award, Corpus Christie, Texas, March 2005.
- Received the ASEE-Gulf Southwest Section Campus Representative Award for the 2004-05 Membership Promotion Program, Portland, Oregon, June 2005.
- Received the ASEE-Gulf Southwest Section Outstanding Service Award, Lafayette, LA, March 2002.
- Received the ASME-San Antonio Section Special Recognition Award, May 1999 and April 2001.
- Received ASME-San Antonio Section Balleisen Award, May 2000.
- Received the ASME Region X Clifford Shumaker Award, Fayetteville, AR, March 1999.

- Received the ASEE Campus Representative National Award for the 2000-01 Membership Promotion Program, Albuquerque, NM, June 2001.
- Received the ASEE-Gulf Southwest Section Campus Representative Award for the 2001-02 Membership Promotion Program, Montreal, Canada, June 2002.
- Received the ASEE-Gulf Southwest Section Campus Representative Award for the 2000-01 Membership Promotion Program, Albuquerque, NM, June 2001.
- Received the ASEE-Gulf Southwest Section Campus Representative Award for the 1997-98 Membership Promotion Program, Seattle, WA, June 1998.
- Received the ASEE-Zone III Outstanding Campus Representative Award, Milwaukee, WI, June 1997.
- Named ASEE-Gulf Southwest Section Outstanding Campus Representative, Houston, TX, March 1997.
- Listed in the 5th edition of *Who's Who in Technology Today*, 1986.
- Listed in the 20th edition of *Who's Who in the South and Southwest*, 1986.
- Listed in the 5th-9th editions of *Who's Who in Science and Engineering*, 2000-07.
- Listed in the 17th and 24th editions of *Who's Who in the World*, 1999, 2007
- Listed in the 6th edition of *Who's Who in American Education*, 2003.
- Listed in the 61st edition of *Who's Who in American*, 2007.
- Listed in the 4th, 7th, 8th, and 9th editions of *Who's Who Among America's Teachers*, 1996, 2002, 2004, and 2005.
- Listed in the 35th and 26th editions of *Who's Who in Finance and Business*, 2006-09.
- Selected as Navy-ASEE Senior Summer Faculty Research Fellow, Propulsion Branch, Naval Undersea Warfare Center, Newport, Rhode Island, Summers 1996, 1998, 1999, and 2000. Participated in the 1998 program.
- Selected as NASA-ASEE Summer Faculty Fellow, Jet Propulsion Laboratory, Pasadena, California, Summer 1999.
- Selected as NASA-ASEE Summer Faculty Fellow, Marshall Flight Center, Huntsville, AL, Summers 1998 and 2000.
- Selected and participated as NASA-ASEE Summer Faculty Fellow, Propulsion and Fluid Systems Division, Johnson Space Center, Houston, Texas, Summer 1997.
- Selected as AFOSR-RDL Summer Faculty Research Associate, Space Thermal Technologies Branch, Phillips Laboratory, Kirtland AFB, NM, Summers 1992, 1993, and 1996. Participated in 1992 and 1993 programs.
- Selected and participated as NASA-ASEE Summer Faculty Fellow, Thermal System Analysis Branch, Johnson Space Center, Houston, Texas, Summer 1991.
- Selected and participated as NASA-ASEE Summer Faculty Fellow, Thermal Systems Control Branch, Johnson Space Center, Houston, Texas, Summer 1990.
- Selected as AFOSR-UES Summer Faculty Fellow, School of Aerospace Medicine, Brooks Air Force Base, San Antonio, Texas, Summer 1985.
- Selected as AFOSR-SCEEE Summer Faculty Fellow, School of Aerospace Medicine, Brooks AFB, San Antonio, Texas, Summer 1983.
- Received awards for outstanding work and leadership in student organizations: Engineering Club, 1987 and ASHRAE, Alamo Chapter, 1993.

Nominations:

- Nominated for the position of ASEE-Vice President for Member Affairs, February 2007
- Nominated for the 1985 Ralph R. Teeter Educational Award.

- Division of Engineering nominee for the Piper Professor Award (1984), the AMOCO Outstanding Teaching Award, (1986), and Teaching Excellence Award, (1994).
- Finalist, Most Outstanding Faculty Member at UTSA, 21st Annual University Life Awards, April 9, 1998.

Certificates of Appreciations:

- Certificate of Appreciation by UTSA President and Provost for contribution to SACS Compliance Report as one of the authors
- Certificate of Appreciation for contribution to the Exxon Mobil Texas Engineering and Science Fair, 2005, 2006, 2007, and 2008.
- Regional Academy of Science, 2005, 2006, 2007.
- In recognition of diligent service as the chair of ASME-San Antonio Section Scholarship Committee, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013.
- Certificate of Appreciation in recognition of valuable contribution and leadership as Chair of Successful ABET Re-Accreditation, College of Engineering, November 2004.
- Certificate of Appreciation in recognition of valuable as Interim Associate Dean, College of Engineering, September 2002.
- Certificate of Appreciation for dedication and Support as the Coordinator of the ABET Site Visit, College of Engineering, 2001.
- Certificate of Gratitude for 1st Annual Welcoming Engineering Seminar, The Society of Women Engineers at UTSA, September 2000.
- UTSA Registered Student Organization Certificate of Appreciation as the Faculty Advisor of ASHRAE, 1996 and 1998.
- In appreciation of service to ASHRAE, Alamo Chapter as Faculty Liaison, 1996-97.
- In recognition of diligent service as the Chair, Professional Development Committee, San Antonio Section of ASME, 1994-95.
- In recognition of diligent service as the Chair, Technical Activities Committee, San Antonio Section of ASME, 1993-94.
- In recognition of diligent service as the Chair, Membership Interest Committee, San Antonio Section of ASME, 1991-93.

VII TEACHING

A. Classroom/Laboratory:

Undergraduate Courses

1. EGR 1103/1303, Introduction to Engineering
2. EGR 4993, Honors Research
3. ME 3241, Materials Engineering Laboratory
4. ME 3243, Materials Engineering
5. ME 3263, Materials Processing
6. ME 3283, Fundamentals of Thermal Sciences
7. ME/AS 3293, Thermodynamics I
8. ME 3503, Alternative Energy Sources
9. ME 3663, Fluid Mechanics
10. ME 3713, Numerical Methods
11. ME 4293, Thermodynamics II
12. ME 4313, Heat Transfer
13. ME 4323, Thermal Systems Design I

14. ME 4613, Power Systems Design (Power Plant Design)
15. ME 4613, Power Systems Design (Internal Combustion Engines)
16. ME 4703, Computer Applications in ME, 1988
17. ME 4953, Special Topics: Heat Exchanger Design

Graduate Courses

1. ME 5303-Advanced Heat Transfer
2. ME 5123, Topics in ME --- Liquid Vapor Phase Change Phenomena
3. ME 5123, Topics in ME --- Introduction to Heat Pipes
4. ME 5313/5333, Advanced Topics in Heat Transfer -- Conduction
5. ME 5313, Advanced Topics in Heat Transfer -- Convection
6. ME 5233/4243, Advanced Thermodynamics
7. ME 5663, Advanced Topics in Fluid Dynamics -- Two-Phase Flow
8. ME 5973, Special Project
9. ME 6953, Independent Studies
10. ME 6983, Masters Thesis

Course Coordinator

1. EGR 4183, Propulsion, 1998-2000.
2. ME 2013, Introduction to Mechanical Engineering Problem Solving, 1998-2000.
3. ME 3243, Materials Engineering, 1982-85.
4. ME 3263, Materials Processing, 1982-83.
5. ME 3312, Electronic Circuit and Data Acquisition Lab, 2000, 2003.
6. ME 3313, Measurements and Instrumentation, 1982, 1998-2001.
7. ME 3503, Alternative Energy Sources, 1986-2005.
8. ME 3663, Fluid Mechanics, 1983-85.
9. ME 3293, Thermodynamics I, 1983-84, 1986-2005, 2011-present.
10. ME 4293, Thermodynamics II, 1984-2005.
11. ME 4313, Heat Transfer, 1984-2005, 2012-present.
12. ME 4223, Thermal Systems Design I, 1985-97.
13. ME 4333, Thermal Systems Design II 1986-97.
14. ME 4363, Intermediate Heat Transfer, 1986-2005.
15. ME 4702, Mechanical Systems and Controls Laboratory, 2000-2005.
16. ME 4703, Computer App. in ME, 1986-95.
17. ME 4802, ME Senior Laboratory, 1987-2005.
18. ME 4803, ME Senior Laboratory, 1986.
19. ME 4811, ME Project Planning, 1998-2002.
20. ME 4813, ME Senior Design, 1987-98, and 1998-2002.

B. Instructional Development:

1. Courses Developed

Undergraduate Courses

1. EGR 1103/1303, Introduction to Engineering, 1982
2. ME 3241, Materials Engineering Laboratory, 1982
3. ME 3243, Materials Engineering, 1982
4. ME 3263, Materials Processing, 1983
5. ME/AS 3293, Thermodynamics I, 1983
6. ME 3503, Alternative Energy Sources, 1989
7. ME 4293, Thermodynamics II, 1983
8. ME 4313, Heat Transfer, 1983

9. ME 4613, Power Systems Design (Power Plant Design), 1992
10. ME 4623, Internal Combustion Engines, 2009
11. ME 4703, Computer Applications in ME, 1986
12. ME 4953, Special Topics: Heat Exchanger Design, 1985

Graduate Courses

11. ME 5123, Topics in ME --- Liquid Vapor Phase Change Phenomena, 1993
12. ME 5123, Topics in ME --- Introduction to Heat Pipes, 1996
13. ME 5303, Advanced Heat Transfer, 2006
14. ME 5313/5333, Advanced Topics in Heat Transfer – Conduction, 1989
15. ME 5313, Advanced Topics in Heat Transfer -- Convection, 1990
16. ME 5233/5243, Advanced Thermodynamics, 1994
17. ME 5663, Advanced Topics in Fluid Dynamics -- Two-Phase Flow, 1994

Course Coordinator

1. EGR 4183, Propulsion, 1998-2000.
2. ME 2013, Introduction to Mechanical Engineering Problem Solving, 1998-2000.
3. ME 3243, Materials Engineering, 1982-85.
4. ME 3263, Materials Processing, 1982-83.
5. ME 3312, Electronic Circuit and Data Acquisition Lab, 2000, 2003.
6. ME 3313, Measurements and Instrumentation, 1982, 1998-2001.
7. ME 3503, Alternative Energy Sources, 1986-2005.
8. ME 3663, Fluid Mechanics, 1983-85.
9. ME 3293, Thermodynamics I, 1983-84, 1986-2005, 2011-present.
10. ME 4293, Thermodynamics II, 1984-2005.
11. ME 4313, Heat Transfer, 1984-2005, 2012-present.
12. ME 4223, Thermal Systems Design I, 1985-97.
13. ME 4333, Thermal Systems Design II 1986-97.
14. ME 4363, Intermediate Heat Transfer, 1986-2005.
15. ME 4702, Mechanical Systems and Controls Laboratory, 2000-2005.
16. ME 4703, Computer App. in ME, 1986-95.
17. ME 4802, ME Senior Laboratory, 1987-2005.
18. ME 4803, ME Senior Laboratory, 1986.
19. ME 4811, ME Project Planning, 1998-2002.
20. ME 4813, ME Senior Design, 1987-98, and 1998-2002.

2. Laboratory Development

- Devoted significant effort and leadership to laboratory developments at UTSA.
- Supervised laboratory upgrade and improvements for the Mechanical Engineering, 1998-2003.
- Developed (1982-84) initial laboratory capabilities in Measurement and Instrumentation, Fluid Mechanics and Hydraulics, and Thermal Sciences with a \$250,000 funding.
- Upgraded the Materials Engineering in 1985.
- Served as the ME representative on the new Engineering Building Committee (1987-90), overseeing the specifications for eight laboratory areas and was directly involved in the design of two laboratories (Thermal Systems and Fluid/Hydraulics).
- Chaired the Laboratory Equipment Committee, which directed the apportionment of \$1,000,000 in funds for 19 laboratories. Portion of the fund was used by the

engineering faculty and leveraged into five successful National Science Foundation Instrumentation and Laboratory Improvement (ILI) grants.

- Supervised Mechanical Engineering laboratory development and planning (1998-present)
Developed laboratory procedures and wrote a Laboratory Manual for ME 3241 Materials Engineering Laboratory.

3 . Media and Software Developed

Manuals:

- Karimi, A., "Materials Engineering Laboratory Manual," ME 3241 Materials Engineering Lab, UTSA, 1983.
- Karimi, A., "A Guide for Preparation of Technical Reports", 1983.
- Karimi, A., "Guidelines in Preparation of Engineering Problem-Set," Fall 1982.

Software Development:

- Software package for the Fluid Mechanics course, "Flow Characteristics in Ducts, Pipes and Channels," 1985.
- Software package for the Heat Transfer course, "Numerical Analysis of Transient Heat Transfer Problems and the Evaluation of Thermophysical Properties of Substances," 1985.
- Software package for the Thermodynamics courses, "Evaluation of Thermodynamic Properties of Gases, Generalized Compressibility Factor and the Analysis of Power and Refrigeration Cycles," 1986.
- Heat Exchanger Design, "Determination of Heat Exchanger Effectiveness," 1986.
- Heat Exchanger Design, "Evaluation of Correction Factor in Heat Exchangers," 1986.

C. Graduate Research Directed

a. Masters Thesis

1. Mikko P. Ahola, "A Heat Transfer Analysis of Laminar Flow Over A Flat Plate With Unheated Starting Region for Low Prandtl Number Fluids," degree awarded in December 1993.
2. Steven E. Griffin, "A Numerical Approach to Evaluating Phase-Change Material Performance in Infrared Sensor Satellite Thermal Control," degree awarded in December 1993.
3. Luis Pedro Sanchez, "Adsorption Capacity of Hydrocarbons on Activated Carbon," degree awarded in May 1995.
4. Garry E. Simmons, "Adsorption of Refrigerants on Silica Gel" degree awarded in May 1995.
5. Edward A. Bass, "Thermodynamics and Heat Transfer in a Tubular Fuel Cell," degree awarded in May 1996.
6. Brian J. Barton, "A Study of Liquid-Solid Phase Change Process in Eutectic and Binary Alloy Systems," degree awarded in May 1996.
7. Phillip P. Brown, "A Numerical Analysis of Liquid-Solid Phase-Change Involving Natural Convection in a Two-Dimensional Enclosure," degree awarded in May 1998.
8. Barbara Snyder, "Two-Phase Cryogenic Oxygen Flow in Distribution Lines for Mars In-Situ Propellant Production," degree awarded December 1999.
9. Chau Kim Tran, "An Investigation of Superheated Liquids and Subcooled Vapors in Metastable Regions," degree awarded in December 2003
10. Isa Tan, "An Investigation of Internal Energy and Enthalpy of Fluids in the Compressed Liquid Region.," degree awarded May 2008.

11. Jack A. Smith, "Three dimensional CFD Simulation of Gas-Liquid Separation in a Two-Phase Separator with a Vane Pack Mist Eliminator," degree awarded May 2018.

b. Projects

1. Shelia P. Scott, Project Title: "Sodium Sulfur Battery System," degree awarded in December 1993.
2. Timothy J. Nikolai, Project Title: "Heat Pipe Design," degree awarded in December 1993.
3. Majid Mehrafza, degree awarded in May 1994.
4. Steven D. Marty, degree awarded in December 1994.
5. John H. Ohlhausen, degree awarded in December 1994.
6. Andrew Matheaus, Project Title: "Heat Rejection Distribution and Component Friction in Gasoline and Diesel Engines with a Discussion of Low Heat Rejection Engines," degree awarded in December 1995.
7. Robert Montoya, Project Title: "Evaluation of Efficiency and Coefficient of Performance for Thermodynamic Cycles Based on Reduced Properties," degree awarded in December 1995.
8. Gerard Mark Skibinski, degree awarded in December 1995.
9. Rebeca Hall, degree awarded in May 1996.
10. Daniel V. Burgess, Project Title: "An Experimental Study of Water-Solidification Process," degree awarded in December 1997.
11. Martin, J. Towey, Project Title: "Thermal Analysis of Cryogenic Oxygen Transport System in a Martian Environment," degree awarded in December 1997.
12. John B. Solberg, "A Similarity Solution for Heat Transfer Analysis of Laminar Flow Over A Flat Plate With Unheated Starting Region," degree awarded in December 2000.
13. Deborah E. Bogart, Project Title: "Controlling the Condensation Problems in Design of Scrubber Systems."
14. Thomas, L. Narendorf, Project Title: "An Experimental Study of Natural Convection Involving Water at Maximum Density."
15. Yasin Ozcan, "Thermal Energy Storage for Buildings: Thermodynamic and Heat Transfer Analysis for Integration of PCM in Building Walls," degree awarded May 2015
16. Pkepong Longkumer, "An Investigation of Behavior of Specific Heats in the Compressed Liquid Region," degree awarded May 2015.

D. Membership on Graduate Committees

a. Masters Thesis

1. Charles E. Laljer, "A Personal Computer Based Model for The Prediction of Oxygen Concentrations From a Molecular Sieve Oxygen Concentrator," degree awarded in May 1994.
2. Balaraman Venkatesan, "Enumeration of Human Knee Prostheses and Design of Three-Bar Prosthetic Knee Mechanism," degree awarded in December 1994.
3. Satya P. Paruchuru, "Development of a New Technique to Determine the Critical Strain Energy Release Rate of Bone and Other Biological Materials," degree awarded in May 1995.
4. Sonny Leppala, "Vaporization and Removal of Groundwater by Heating and Venting," degree awarded in May 1998.
5. Winston Campbell, "Hypersonic Airflow Around A Tether Suspended from Low Earth Orbit Platform," degree awarded December 1998
6. Scott T. McBroom, "Analysis and Design of Propane Gas/Electric Parallel Hybrid Vehicle," degree awarded December 1998.
7. Alfredo Riera, "Application of Biological Phosphorus Removal Screening Test to Kerville (TX) Wastewater," degree awarded May 1999.

8. Mark Thomas Jurena, "Structural Reliability Using Finite Element Analysis and Probabilistic Material Strength Degradation Model," degree awarded December 1999.
9. Eser Camcioglu,, "Transient Thermal Response of a Fluidized Bed," Fall 2005.
10. Carl B. Allsup, "Dynamic Psychrometric Testing and Synthetic Rating of a Room Air Conditioner," degree awarded in May 2008.
11. Adelina Davis, "Geothermal Power Production from Abandoned Oil Wells", degree awarded in May 2009
12. Jeanette DeLeon, "Development of Micromechanical Computational Finite Element Model of a Brain Axon," degree awarded in August 2009
13. Mey Lin Dewey, "The Effect of the History Term on the Energy Equation for a Spherical Particle at Peclet Number Less Than One, ".degree awarded in August 2010.
14. Erem Ugras, "Simulation of Solar Pond for Production of Power in San Antonio," degree awarded in December 2010.
15. Maria Andersson, "Alternative Solution for Geothermal Energy Production from Abandoned Oil and Gas Wells for an Extended Lifetime of Operation." Degree awarded in August 2012.
16. Christopher G. Greene, "Relative Importance of Conductive Resistance in Five Liquid Heat Sinks for Electronics Cooling, Degree awarded in December 2012.
17. Stillman D. Jordan III, "Comparison of Air Distribution System Alternatives Serving A Classroom Office Portion of A School Building," Degree awarded in December 2012.
18. Bryan Rivas, "Simulation and Optimization for a Small Commercial Building Through Modelica," Completed in May 2015
19. Matthew Rivera, "Experimental Determination and Solution of Ice Formation with Vacuum Drying Process of Long Term on-Site Storage of Spent Nuclear Fuel," In Progress
20. Sabah Mahmood, "Performance Evaluation of Grid-Connected Photovoltaic Solar Farm," Completed August 2015
21. Edward Hooks Jr. "Baseline and Benchmark Development for Hotels," completed August 2016.
22. Matthew Coleman, "Zonal Modeling: Using a Zonal Model to Control a Thermostat," completed December 2017.
23. Krutika Kanfade, "Minute by Minute Analysis of AC Electricity Consumption for Single Story, Single Family Residential Home, December 2017.
24. William Dennis, "Comparison of Summer AC Electrical Energy Computation for Residential Buildings with Radiant Barriers and Varying Ceiling and Infiltration Loads in San Antonio, Texas," completed May 2018
25. Dinesh Ramachandran, "Numerical Analysis of Single-Phase Heat Transfer on Micro Pin Fin Arrays for Liquid Electronic Colling Application, Completed May 2018

b. Comprehensive Exams/Special Projects

1. Yo Yung-Sheng, degree awarded in December 1994.
2. Wayne Mark Isdahl, degree awarded in December 1995.
3. Raymond H. Ryan, degree awarded in May 1997.
4. Paul Barham, degree awarded in December 1998.
5. Sufian Suwarman, degree awarded May 1999.
6. Use of Property Uncertainties to Size Shell and Tube Refrigerant Oil Coolers
7. Yamel J. Saade, "Uncertainty Analysis for Convection Heat Transfer Correlations, degree awarded in May 2012.
8. Ildar F. Akhmadullin, "Experimental Uncertainty Analysis for Single-Phase Liquid CPU Cooling Heat Sinks, degree awarded in May 2012.
9. Alfredo Perez, "Use of Property Uncertainties to Size Shell and Tube Refrigerant Oil Coolers," degree awarded in May 2012.

10. Krutika Kanfade, "Minute by Minute Analysis of AC Electricity Consumption for Single Story, Single Family Residential Homes," degree awarded in December 2017.

Ph.D. Dissertation Proposal Committee Member

1. Ramin Soujoudi, "Thermodynamic Performance of Ammonia in Dual Mixed Refrigerant Cycle of Natural Gas," April 2020
2. Mohammad Mehrbod, Fischer-Tropsch Synthesis: Direct Reduction of Cobalt Nitrate Incorporating Reduction Promoters Over Supports Having Different Interactions," April 2020

Ph.D. Dissertation Committee Member

- Arturo Riojas, Doctoral Committee, The University of Texas at Austin, Dissertation Title: "Oxygen Transport in Near-Critical Media," degree awarded in December 1996.

E. Undergraduate Students (Research) Supervised

1. Matthew A. Garcia, UTSA-NSF-CSMS Scholar Program, 2001-02.
2. Angel Rivera, Jr., UTSA-NASA Undergraduate Researcher Program, 1994-96.
3. Matthew Smith, UTSA-ONR Undergraduate Researcher Program, 1994-96.
4. Ricardo Diaz, UTSA-AMP Program, 1995.
5. Valeriano Herrera, UTSA-AMP Program, 1994.
6. Jeff Page, UTSA-AMP Program, 1993.
7. Michael A. Rivera, UTSA-AMP Program, 1993-96.

F. Mentoring Student Publications:

Graduate students are denoted by * and undergraduate students are identified by **

- Smith**, M., "Adsorption Compression in Heat Pump Applications," Proceedings of the 1996 Annual Meeting of the Gulf-Southwest Section of ASEE, March 27-29, 1996 San Antonio, Texas, pp. 885-887.
- Gutierrez**, M. A., Rodriguez**, V. S., and Williams**, J. V., "Design of Heat Exchanger for Use on the Planet Mars," Proceedings of the 1998 Annual Meeting of the Gulf-Southwest Section of ASEE, March 25-27, 1998, New Orleans, Louisiana, pp. 567-572.

VIII. RESEARCH

A. Journal Papers

- Juhasz, S., Preston, P., and Karimi, A. "Report Binding Using the Tri-S-Port (Tri-Spine-re-Port) Method," IEEE Professional Communication Society, Vol. 35, No. 1, 1991, pp. 4-7.
- Karimi, A. and Lienhard, J., "A Fundamental Equation Representing Water in Stable, Metastable and Unstable States," *EPRI NP-3328, RP 1438-2*, Final Report, December 1983, 322 pp.
- Ph.D. Dissertation: "A Fundamental Equation Representing Water in Stable, Metastable and Unstable States," 1982.
- Lienhard, J. and Karimi, A., "Homogeneous Nucleation and the Spinodal Line," J. Heat Transfer, Vol. 103, No. 1, 1981, pp. 61-64.
- Karimi, A. and Lienhard, J., "Toward a Fundamental Equation for Water in the Metastable States," High Temperature-High Pressure, Vol. II, 1979, pp. 511-517.
- Lienhard, J. and Karimi, A., "Corresponding States Correlations of Extreme Liquid Superheat and Vapor Subcooling," J. Heat Transfer, Vol. 100, No. 3, 1978, pp. 492-495.
- Karimi, A. and Lienhard, J., "Toward a Fundamental Equation for Water in the Metastable State," 6th European Thermophysical Properties Conference, Dubrovnik, Yugoslavia, June 26-30, 1978.
- Karimi, A., "Laminar Film Condensation on Helical Reflux Condensers and Related Configurations," Int. J. Heat Mass Transfer, Vol. 20, 1977, pp. 1137-1144.

B. Conference Papers

Graduate students are denoted by * and undergraduate students are identified by **

- Karimi, A. and Manteufel, R. “*Performance Balanced Team Formation for Group Study and Design Projects,*” *Proceedings of 2020 ASEE Virtual Annual Conference and Exposition*, June 2020.
- Manteufel, R., Karimi, A., “*Shifting Perspectives on Acceptable Classroom Behavior,*” *Proceedings of 2020 ASEE Virtual Annual Conference and Exposition*, June 2020.
- Karimi, A., “*Instructor Initiated Drop Policy Effect on Student Success,*” *Proceedings of 2020 ASEE-GSW S Section Virtual Annual Conference and Exposition*, April 2020.
- Amir Karim A. and Manteufel, “*A Most Recent Updates to ABET-EAC-Criteria 3, 4 and 5,*” *Proceedings of 2020 ASEE-GSW S Section Virtual Annual Conference and Exposition*, April 2020.
- Manteufel, R., Karimi, A, and Bhounsule, P., “*Use of Phones and Online Tutors to Cheat on Engineering Exams,*” *Proceedings of 2020 ASEE-GSW S Section Virtual Annual Conference and Exposition*, April 2020.
- Karimi A, “*Advantages and Challenges in Employing Peer Evaluation for Assigning Grades to Team Projects.*” IMECE2019-10812, *ASME International Mechanical Engineering Congress and Exposition*, Salt Lake City, UT, November 11-14, 2019.
- Karimi A, An Examination of Instructor Initiated Drop Policy,” IMECE2019-138767, *ASME International Mechanical Engineering Congress and Exposition*, Salt Lake City, UT, November 11-14, 2019.
- Manteufel. R. and Karimi A., “*Impact of Departmental-Level Teacher Workshop on Reducing Student Complaints,*” *Proceedings of the 2019- ASEE Annual Conference and Exposition*, ID #: 26575, June 15-19, 2019, Tampa, FL.
- Karimi A., Finol, and Manteufel R, “*Bringing Uniformity in Assessing Student Knowledge in Two Sections of an Undergraduate Course in Thermodynamics,*” *ASEE-GSW Section Conference*, Paper ID number 4C.3, March 10-13, 2019, Tylor, Texas.
- Karimi A. and Fernandez, J.*, “*Examples of Undergraduate Research Project in Thermodynamics: Generalized Correlations of Vapor Pressure and Enthalpy of Vaporization,* IMECE2018-89747, *ASME International Mechanical Engineering Congress and Exposition*, Pittsburgh, PA, November 11-15, 2018.
- Karimi A., Finol, and Manteufel R, “*Cooperation of Three Faculty Members in Assessment of Student Knowledge in Two Sections of an Undergraduate Course,*” IMECE2018-89562, *ASME International Mechanical Engineering Congress and Exposition*, Pittsburgh, PA, November 11-15, 2018.
- Karimi A. and Manteufel. R., “*Alternatives to Textbook Homework Assignment,*” *Proceedings of the 2018- ASEE Annual Conference and Exposition*, ID #: 23651, June 24-27, 2018, Salt Lake City, UT
- Karimi A., and Manteufel R., “*An Experiment with Flipped Classroom Concept in a Thermodynamics Course,*” *Proceedings of the 2018- ASEE-GSW Section Conference*, Paper ID number 3B.3, April 4-6, 2018, Austin, Texas.
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- Karimi, A., "Fundamentals of Psychometrics," ASHRAE-Alamo Chapter Technical Session, October 16, 2001.
- Invited Speaker, Wm. Maxwell Reed Mechanical Engineering Seminar, "A Fundamental Equation for Thermodynamic Properties of Water in Stable and Metastable Regions," University of Kentucky, November 17, 1983.
- Karimi, A. "Lessons Learned in the Assessment of Course and Program Outcomes Processes," *ASEE-GSW-2005-T3B2*, Annual Meeting of the Gulf-Southwest Section of ASEE, Corpus Christi, Texas, March 23-25, 2005.
- Shih, R.C. and Karimi, A. "National Research and Technology Priorities and Engineering Education," Presentation at the 1996 Annual Meeting of the Gulf-Southwest Section of ASEE, March 27-29, 1996 San Antonio, Texas.

F. Areas of Research Interest

- Investigation of thermal properties, heat transfer, condensation and phase change heat transfer, two-phase flow, thermal storage systems, heat transfer in advanced materials, energy recovery systems, heat exchanger design, thermodynamics, metastable thermodynamics, thermodynamics in medicine and biology, adsorption processes, sorption refrigeration cycles, parametric studies, computer software development in thermal sciences, and engineering .

G. Funding Support (Recent)

- Co-PI with Joseph Lazor (PI), Betty Travis, Richard Diem, and Stuart Birbaum, “Robert Noyce Scholarship Program,” \$97,000 NSF supplemental award 10/1/08-9/30/09.
- Co-PI with Joseph Lazor (PI), Betty Travis, Richard Diem, and Stuart Birbaum, “Robert Noyce Scholarship Program,” \$485,280 awarded by NSF 10/1/04-9/30/07.
- Co-PI with Alberto Arroyo (PI), and Manual Diaz (Co-PI) “Eisenhower Transportation Fellowship Grants,” \$35,000 awarded by U.S. Department of Transportation, 9/1/07-5/15/08.
- Co-PI with Alberto Arroyo, Manual Diaz, and Enos Innis “Eisenhower Transportation Fellowship Grants,” \$70,000 awarded by U.S. Department of Transportation, 9/1/06-5/15/07.
- Co-PI with Alberto Arroyo (Co-PI), and Manual Diaz (PI), “Eisenhower Transportation Fellowship Grants,” \$50,000 awarded by U.S. Department of Transportation, 9/1/05-5/15/06.
- PI with Jahan Eftekhari as Co-PI, “Design and Development of a Pilot Anthropometric Device,” Awarded by US Air Force, \$40,000, 10/1/02 - 2/30/04.
- Co-PI with Jahan Eftekhari as PI, “A Protocol for Evaluating the Occupant Cervical Injury Risk in Low Speed Collisions,” \$102,000 awarded by NMR, 7/15/02-7/15/04.
- Co-PI with Alberto Arroyo (Co-PI), and Manual Diaz (PI), “Eisenhower Transportation Fellowship Grants,” \$49,765 awarded by U.S. Department of Transportation, 9/1/04-5/15/05.
- Co-PI with Alberto Arroyo as PI, and Manual Diaz, Co-PI “Eisenhower Transportation Fellowship Grants,” \$49,452 awarded by U.S. Department of Transportation, 9/1/03-5/15/04.
- Co-PI with Alberto Arroyo as PI, “Eisenhower Transportation Fellowship Grants,” \$34,968 awarded by U.S. Department of Transportation, 9/1/02-5/15/03.
- (PI). “Mars Cryogenic Storage and Distribution Thermal Modeling,” \$15,500 Awarded by NASA, Johnson Space Center, 1/15/1997-5/15/1999.

VIII. SERVICE

B. External Service Activities

1. ASME

- Fellow, ASME, 1994-present.
- Member, ASME, 1975- 1994.
- Member of ASME-Education Track Organizing Committee, 2004-present
- Member of ASME-Education Research and Innovation Committee (ERC), 2008-present
- Chair, San Antonio Section of ASME, 1997-98, San Antonio Section won the Thompson Traveling Trophy as the best section in the Region X of ASME.
- Chair, Scholarship Committee, San Antonio Section of ASME, 1996-97 and 1999-present.
- Chair, Nomination Committee, 1998-01
- Chair, Professional Practice Committee, San Antonio Section of ASME, 1995-96.
- Chair, Professional Development Committee, San Antonio Section of ASME, 1994-95.
- Chair, Technical Activities Committee, San Antonio Section of ASME, 1993-94.
- Chair, Membership Interest Committee, San Antonio Section of ASME, 1991-93.
- ASME faculty advisor at UTSA, 1985-88, and 1990-2001. Organizer of SA-ASME meeting at UTSA, November 1983.

2. ASEE

- Fellow, American Society for Engineering Education (ASEE), 2013-present
- Member, 1985- present.
- Zone-III Chair, 2005-07.

- Member of ASEE Board of Directors, 2005-2007
- Member of ASEE Nomination Committee, 2007-2009
- Chair of ASEE Awards Policy Committee 2011-2012
- Member of ASEE Awards Policy Committee 2005-2011
- Member of ASEE National Outstanding Award Committee 2011-present
- ASEE Division of Mechanical Engineering Nomination Committee, June 2002-2005, 2012-present
- Member of ASEE Long Range Planning, 2006-07
- Member of ASEE Committee on Year of Dialog on "Advancing the Scholarship of Engineering Education," 2006-2008.
- Member of ASEE Best Zone Paper Selection Committee, 2004-2007.
- Past Chair, ASEE-Gulf Southwest (GSW) Section, 1997-98.
- ASEE-GSW Section Archivist, 2006-present.
- Section Campus Representative, ASEE-GSW Section, 1997-2006.
- Chair, ASEE-GSW Section, 1996-97.
- Member of Nomination Committee, ASEE-Zone III, 1997.
- Member of Awards Committee, ASEE-GSW Section, 1997.
- Vice Chair, ASEE-Gulf Southwest Section, 1995-96.
- ASEE Campus Representative at The University of Texas at San Antonio, 1989-2010, 2013-present.

3. ASHRAE

- Member, American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc. ASHRAE; 1985-present.
- Member of Student Activities Committee, Accreditation Rep/ ABET EAC, 2011-present.
- Member of K-12/STEM Sub-committee, 2010-11, 2013- present
- Member of Post-High School Sub-committee, 2013- present
- Member of Student Design Sub-committee, 2011-2013
- Chair, Student Activity Committee, ASHRAE-Alamo Chapter, 1996-97.
- Corresponding Member of ASHRAE TC 1.1, *Thermodynamics and Psychrometrics*; 1990-94.
- Faculty Liaison, ASHRAE, Alamo Chapter, 1990-98.
- Founder of the student chapter of ASHRAE at UTSA, 1990.
- ASHRAE faculty advisor at UTSA, 1985-88, and 1990-2001.
- ASHRAE co-faculty advisor at UTSA, 2001-present.
- Establisher of the Alamo Chapter of the ASHRAE Scholarship for ME students at UTSA, 1985.

4. ABET

- ABET EAC Commissioner (ASHRAE), July 2011- July 2016
- Member of ABET-EAC Materials Committee, July 2013-July 2016
- Member of ABET-EAC Criteria Committee, July 2011-July 2013
- Alternate member of ABET-EAC, 2006-2011.
- Team Chair, United Arab Emirates University (7 programs), Al-Ain, United Arab Emirates, November 3-5, 2015.
- Team Chair, University of Oklahoma (3 programs), 2015

- Team Chair, Tomsk Polytechnic University (one program), Tomsk, Siberia, Russia, November 11-13, 2014
- Team Chair, California State University, Long Beach- Antelope Valley Engineering Programs (two new program), Lancaster, CA, October 12-14, 2014
- Team Chair, Morgan State University (3 programs), Baltimore, Maryland, October 20-22, 2013.
- Team Chair, Morgan State University (3 programs), Baltimore, Maryland, October 20-22, 2013.
- Team Chair, Marshal University, (one program) Huntington, WV, 2013
- Team Chair, Weber State University (one new program), Ogden Utah, September 23-25, 2012.
- Team Chair, University of New Orleans (4 program), New Orleans, Louisiana, October 14-16, 2012.
- Interim report Review, Universidas Autonoma de San Luis Potosi, (one program) San Luis Potosí, México, 2012
- Team Chair, Indiana University, Purdue University-Fort Wayne (4 programs), Fort Wayne Indiana, October 2-4, 2011.
- Team co-Chair, University of Cincinnati (7 programs), Cincinnati, Ohio, October 16-18, 2001.
- Program Evaluator, Mechanical Engineering, Vanderbilt University, Nashville, TN, October 27-29, 2019.
- Program Evaluator, Mechanical Engineering, University of Maryland, College Park, MD, October 28-30 2017.
- Program Evaluator, Mechanical Engineering, State University of New York (SUNY) Maritime College, Bronx, NY, October 23-25, 2016.
- Program Evaluator, Mechanical Engineering, Brigham Young University, Provo. Utah, September 28-30 2014.
- Program Evaluator, Mechanical Engineering, Daniel Webster College, Nashua, New Hampshire, September 26-28, 2010.
- Program Evaluator, Mechanical Engineering, University of Memphis, September 13-16, 2009.
- Program Evaluator, Mechanical Engineering Program, University of Buffalo, Buffalo, NY, 2008.
- Program Evaluator, Mechanical Engineering Program, University of Alaska Fairbanks, Fairbanks, AK, October 7-9, 2007.
- Program Evaluator, Mechanical Engineering Program, Iowa State University, Ames, IA, October 29-31, 2006.
- Program Evaluator, Engineering Program, Dordt College, Sioux Center, IA, October 30-November 1, 2005.
- Program Evaluator, Mechanical Engineering, University of Seattle, Seattle, WA, October 16-18, 2005.
- Program Evaluator, Mechanical Engineering, Ohio University, Athens, OH, October 17-19, 2004.
- Program Observer, Mechatronics program, California State University at Chico, Chico, CA, October 19-21, 2003.

5. Meeting/Symposium Organizer/Chairmanship

- Chair, 1996 ASEE/GSW Annual Conference. Organized the well attended annual meeting where over 200 papers were presented. Published a 939 page proceedings of the annual conference.
6. Session Chair/Organizer
 - Topic Organizer, ASME International Mechanical Engineering Congress and Exposition (IMECE) conferences, 2005-Present
 - Organized and moderated a Panel session on “Scholarship in Engineering Education,” at the ASEE-Gulf South West section, South Padre Island, Texas, March 28-30, 2007.
 - Organized and moderated a Panel session on “Scholarship in Engineering Education,” at the ASEE-North- Midwest section, Menomonie, Wisconsin, October 5-7, 2006.
 7. Reviewer for Journals
 - Reviewed of technical papers for ASME Journal of Heat Transfer.
 - Reviewed of technical papers for AIAA Journal of Thermophysics and Heat Transfer.
 - Reviewed papers submitted to ASME conferences.
 - Reviewed papers submitted to ASEE national and regional meetings.
 8. Review Panels (for grants)
 - Reviewed proposal submitted to NSF and Air Force
 9. Continuing Education Seminars Given
 - Lecturer, “Fundamentals of Engineering Thermodynamics Lecture Series,” ASHRAE-Alamo Chapter, Technical Sessions, January-March, 1996.
 - Organized ASME-Engineering Practice Review Course (for the first time a mechanical engineering PE-exam review course offered in San Antonio --20 hours of instructions) and taught topics in heat transfer and thermodynamics, 1/30-2-27/99.
 10. Community Service
 - Judge, Exxon Mobil Texas Science and Engineering Fair (State Science Fair), 2005-2008.
 - Judge, Alamo Regional Academy of Science & Engineering, February 2004-2007.
 - Judge, Alamo Regional Science Fair, March 1998.
 - Judge, Alamo Junior Academy of Sciences and Engineering, Feb. 1998-2006.
 - Judge, MATH COUNTS contest, 1985-1995, 2006.
 - Judge, State Science Fair (March 1993).
 - Judge, high school debate competition, 1987-91.
 - Public television (KLRN) fundraising events, 1990-1998.
 - San Antonio Foundation for Engineering Education fund raising event, May 1984.
 - Speaker, University of Texas/Pan American Engineering Program, 1990.
 - Speaker, PREP program, Pan American University, Edinburg, Texas, 1987.
 - Organized and implemented a Youth Soccer program in Lexington (LYSA), Kentucky for the Parks and Recreation Department, 1978; conducted soccer clinics for coaching and refereeing in Lexington and surrounding communities; chaired the Rules and Appeals Committee for 3-years; served as age-group commissioner in LYSA for a 2-year term.
 - Coached youth and adult soccer, 1975-present.

C. UTSA Service Activities

1. Department/Division Committees

- Chair of Mechanical Engineering ABET Compliance Committee, January 2011- present
- Chair of Mechanical Engineering Undergraduate Studies Committee, September 1, 2012-present
- Chair, Department of Mechanical Engineering Faculty Review Advisory Committee, 2009-10, 2011-12, 2013-14.
- Chair, Mechanical Engineering Faculty Search Committee, 1987-88, 1995-96, 2004-05
- Chair, Periodic Performance Review Advisory Committee, Department of Mechanical Engineering, 2008, 2012, 2013.
- Chair, Division of Engineering Equipment Committee, 1988-91.
- Chair, ME Graduate Studies Committee, 1991-92 and 1993-1998.
- Chair, Division of Engineering Faculty Review Advisory Committee, 1991-92, 1996-97.
- Chair, Division of Engineering Electronic Technician Search Committee, 1994.
- Chair, Periodic Performance Advisory Committee, Department of Civil and Environmental Engineering, 2001-2002.
- Mechanical Engineering ABET Compliance Committee, November 07- December 2010
- Eisenhower Fellowship Selection Committee, 2002-2007
- Mechanic Engineering Ad-Hoc Committee for ME Ph.D. degree development, 2004-05
- Mechanical Engineering Graduate Advisor of Records, 1991-92 and 1993-1998.
- Mechanical Engineering Faculty Search Committee, 1983-87, 1993-97, 1998-99, 2011-12.
- Management of Technology Faculty Search Committee, 1999-2000.
- Department of Physics Periodic Performance Advisory Committee, 2001-2002.
- Division of Engineering Faculty Advisory Committee, 1999-2000.
- Division of Engineering Periodic Performance Advisory Committee, 1999-2000.
- Division of Engineering Academic Policy and Curriculum Committee, 1993-1998.
- Electrical Engineering Faculty Review Advisory Committee, 2000-2002.
- Division of Engineering Faculty Review Advisory Committee, 1987-94, 1996-2000.
- Mechanical Engineering Graduate Studies Committee, 1987-2000.
- Division of Engineering Curriculum Committee, 1982-93.
- Division of Engineering ABET Committee, 1988-89.
- Civil Engineering Faculty Search Committee, 1987-88.
- Electrical Engineering Faculty Search Committee, 1987-88, 1994-95, and 1997-98.
- Division of Engineering Faculty Search Committee, 1988 -89.
- Division of Engineering Graduate Proposal Committee, 1987-88. Duties included writing proposals to establish MS and Ph.D. engineering degree programs at UTSA.
- Division of Engineering Transcript Evaluation Committee, 1982-86.
- Division of Engineering Planning Committee, 1986-88 -- Mechanical Engineering representative to the committee in charge of coordinating a five-year plan for the Division of Engineering.

2. College Committees

- Chair, College of Engineering ABET Committee, January 2001-2006, 2013-2014
- Chair of College of Engineering Building Space Taskforce, 2005-2006
- Chair, Division/College of Engineering Scholarship Committee, 1983-2006.
- Chair, College of Engineering Student Reinstatement Committee, 2001-2006.
- College Engineering Academic Policy and Curricula Committee, 2012-2014
- College of Engineering ABET Committee, 2012-2016t.

- College of Engineering Task Force on Work Load Policy, 2005-06
- College of Engineering Fiscal Manager Search Committee, Summer 2005
- College of Engineering Development Officer Search Committee, Summer 2005
- College of Engineering ABET Committee, September 2000-January 2001
- College of Engineering Restructuring Implementation Committee, 2000-2002.
- College of Engineering Budget Committee, 2001-2005.
- College of Sciences and Engineering Advisory Committee, 1997-99.
- College of Sciences and Engineering Scholarship Committee, 1998-2000.
- College of Sciences and Engineering Faculty Review Advisory Committee, 1987-89, and 1994-96.
- College of Sciences and Engineering Academic Policy and Curricula Committee, 1993-95.
- College of Sciences and Engineering Bylaws Committee, 1993.
- College of Sciences and Engineering Building Committee, 1987-90.
- College of Sciences and Engineering Standing Committee on Engineering Student Retention, 1992-93.
- College of Sciences and Engineering Standing Committee on Matriculation 2+2 Program Agreement with Community Colleges in Texas, 1987-89.
- College of Science and Engineering Committee on Radiation and Toxic Waste Materials, 1983-85.

3. University Committees

- UTSA Articulation Officer for Transfer credits from Community Colleges, 2006-September 2013.
- Chair, Search Committee for the UTSA Executive Director of Advising, 2006.
- Chair of BA in Public Health Feasibility Committee, October 2006-May 2008.
- Chair, University Council on Academic Advising, September 2003-August 2005.
- Chair, University Standing Committee on Radiation Safety, 1999-2000.
- ACCD/UTSA Collaboration Committee (2009-10)
- Assessment Program Steering Workgroup. August 2007-2009
- SACS/COC Reaffirmation Compliance Audit Team, April-August 2007
- University Blue Ribbon Committee on Undergraduate Experience, June 2007-2008.
- Selection Committee, President's Distinguished Achievement award-Excellence in University Service, 2010-present
- Standing Committee to Review and Recommend Policies Concerning Reuse of Course Numbering, Revision of Course Description and Titles in Catalog, June-August 2007.
- Assistant Vice Provost Assessment Interview Committee, October 2006
- Provost and Vice President for Academic Affairs Search Committee, September 2005-2006
- Standing Committee on Revision of Graduating Student Survey and Policies, August-October 2006
- University Taskforce on Student Success and Graduation Rates-November 2005-2006
- University Course On Line Policy Committee, 2006-07
- University Evaluation, Merit, Rewards, and Workload Committee, September 2005-2007
- Mentoring Subgroup of the National Academic Advising Association (NACADA). Report Review Ad Hoc Committee, 2005-06
- Provost's Workgroup on Academic Policies, 2004-05.

- University Orientation Advisory Board, September 2005
- UTSA-ACCD-Northwest Vista Collaboration Committee, 2005-2006
- University Scheduling Committee, January 2003-present.
- Noyce Scholarship Selection Committee, 2005-2010.
- University Hearing Officer for Student Judicial Affairs, 2001-present.
- University Ad-Hoc Committee on Class Scheduling Solutions, Fall 2002.
- University Ad-Hoc Committee on Undergraduate Issues, Fall 2003-2005
- University Faculty Salary Compression Studies, 2002-2003.
- University Banner Users Group Committee, Summer 2002.
- Interim Ad Hoc Leadership Team for Assessment of Core Curriculum, 2001-2002
- The University Faculty Senate, 1993-94.
- University Assembly, 1986-92, and 1993-94.
- The University Graduate Council, 1999-2002.
- The University Graduate Council Membership Committee, 2001-2003.
- University Assembly's Nominating Committee, 2000-02.
- University Faculty Development Leaves Awards Committee, 2000-02.
- University Standing Committee on Core Curriculum, 1993 –1995 and 1999-2003.
- University Standing Committee on Employee Insurance Benefits, 1999-2001.
- University Standing Committee on Radiation Safety, 1998-2000.
- University Advisory Committee on Student Retention (Division of Engineering Representative), 1997-98.
- University Assembly Committee on Academic Policy and Curricula, 1986-90.
- The University Faculty Senate Special Committee on Budget, 1993-94.
- The University Faculty Senate Special Committee on Administration Performance, 1993-94.
- The University Curriculum Committee, 1993-95.
- University Assembly Administrative and Agenda Committee, 1988-1990.
- The University Standing Committee on Fellowship, Scholarships and Loan Funds, February, 1992-94 --- Committee reviews approximately 250 petitions for reinstatement of financial aid each semester and awards scholarship applications for UTSA Study Abroad Program.
- Working Group on College and Divisional Governance, 1991-92. -- A working group appointed by the president to explore the governance and communication structures in college and divisional levels.
- Working Group on University Standing Committees, 1991-92. -- A working group appointed by the president to study the need and the role of standing committees at UTSA.
- The University Standing Faculty Grievance and Appeals Panel, 1991-93, 2018-2020.
- The University Standing Committee on Energy Budget, 1991- 93.
- Physical Resources Committee, 1989-90. University self study for the reaffirmation of accreditation by the Southern Association of Colleges and Schools.
- The University Ad Hoc Project Building Committee for the Engineering/Biotechnology, 1987-90.
- UTSA Building Advisory Committee, 1987-89.
- University Committee on Faculty Communications and Governance, 1990-91.
- Faculty Communications and Governance Subcommittee on Committee Structure, 1990-91.

- University Standing Committee on Probation and Reinstatement, 1988-90.

4. Outreach Activities

- Organized the Engineering Week Open House at UTSA, February 22, 2005
- Assisted in Organizing the Alamo Regional Academy of Science and Engineering at UTSA, February 12 and 13, 2005.
- Co-Organized the Engineering and Technology Challenge (for high school student contest), 2003-05.
- Represented College of Engineering in the 19th Career & Education Day, Houston, Texas, April 9, 2005.
- Represented College of Engineering in Alamo Area Career and Education Forum, February 5, 2005.
- Represented College of Engineering during UTSA Day, November, 2002, 2003, 2004, and 2005.
- Establisher of the Alamo Chapter of the American Society for Metals Memorial Scholarship Fund for ME students at UTSA, 1985.
- UTSA Mentor (sponsored by the UTSA Office of Student Information and Retention), 1990-92.
- Presenter of the UTSA Engineering programs to multitude of audiences, 1983- 2006.
- Organizer of the Engineering Open House at UTSA during National Engineering Week, February 1985 and 1986.
- Judge for the UTSA Sciences and Engineering Olympics events, 1983-1990.
- Instructor of review sessions for EIT exam in Thermodynamics and Heat Transfer, 1987 - 95.
- Founder of the Engineering Club (a student chapter of NSPE/TSPE), 1983.
- Engineering Club faculty advisor, 1983-87.
- Organizer of UTSA Engineering Club Annual Dinner Meeting (a joint meeting of the Engineering students with local chapters of technical societies: ASME, ASCE, IEEE, ASHRAE, etc.), 1983-87.

D. Administrative Responsibilities:

1. Department

- Chair, Department of Mechanical Engineering, 1998-January 15, 2003.
- Chair, Mechanical Engineering, 1987-92.

2. College

- Associate Dean of Academic Affairs/Undergraduate Studies, January 2003-April 2006
- Interim Associate Dean of Academic Affairs, April 1, 2002-August 31-2002.

3. University

- Associate Dean of Undergraduate Studies-Office of Undergraduate Studies, March 1, 2006-August 30, 2013.

4. Staff Supervised (not including students):

- Director of Colleges Freshman Advising Center (CFAC).