

Contact Information

UTEP Graduate School
Academic Services Building, Room 223
The University of Texas at El Paso
500 W. University Avenue
El Paso TX, 79968
915 747 6961
bflores@utep.edu

US citizen, Hispanic

Education

- Ph.D. in Electrical Engineering, Arizona State University, 1990
- Master of Science in Electrical Engineering, UTEP, 1986
- Bachelor of Science in Electrical Engineering, UTEP, 1985

Appointments

- Acting Dean, Graduate School 9/1/2010 – present
- Associate Dean, Graduate School, 9/1/2009 – 8/31/2010
- Associate Dean, College of Engineering, 9/1/2006 – 5/31/2008
- Computing and Electrical Engineering Division Director, 1/16/2005 – 8/31/2006
- Interim Chair, Computer Science, 9/1/2004 – 1/15/2005
- Chair, Electrical and Computer Engineering, 9/1/2003 – 1/15/2005
- Professor, Electrical and Computer Engineering, 9/1/2003
- Associate Professor, Electrical and Computer Engineering, 9/1/1996
- Assistant Professor, Electrical and Computer Engineering, 1990

Educational Research Synopsis

In the educational arena, Dr. Flores is an expert in retention strategies for non-traditional undergraduate and graduate students in the STEM disciplines. From 1999 to 2007 he was the Project Director of the Model Institutions for Excellence Initiative which had a funding portfolio in excess of \$23M. Currently he is Director of two NSF funded programs: the UT System Louis Stokes Alliance for Minority Participation, the Bridge to the Doctorate Program, and co-Director of the STEM Talent Expansion Project. He is also the Director of the PUENTES Program, an initiative supported by the US Department of Education to promote post-baccalaureate opportunities for Hispanic Americans. Through his work on student retention issues, he has gained international recognition as an expert in the effectiveness and impact of strategies for access to higher education. He regularly consults with other institutions, nationally and abroad, on these issues.

Research Synopsis

Dr. Flores' technical expertise is in the area of radar signal processing, analysis, and design. With Ph.D. students Gabriel Thomas and Jae Sok Son, he co-authored the book *Range-Doppler Imaging and Motion Compensation*. He has also authored multiple refereed conference and journal articles with significant participation of graduate students. Over the years, Dr. Flores has developed and tested methods for estimating the translational and rotational motion parameters of maneuvering targets, and presented an integrated approach for generating radar images of multiple moving targets illuminated by a radar beam. Focusing on motion compensation of radar images, Dr. Flores has examined the development of filtering and reconstruction processes that allow for individual target motion compensation, implemented this approach using the Gabor wavelet transform, and incorporated image enhancement techniques for the generation and identification of simulated and real aircraft images that cannot be obtained using conventional radar processors. More recently, Dr. Flores has worked on the analysis and design of chaotic FM signals for wideband radar applications as well as the effect of electromagnetic plane waves diffracted by targets moving at relativistic speeds. He has done additional work in the area of chaotic laser systems applied to high resolution range and Doppler imaging.

Synergistic Activities

Radar Signal Processing. Collaborators: Patrick Debroux (Army Research Laboratory), Armin Doerry (Sandia National Labs) John E. Gray (Naval Surface Warfare Center), Gabriel Thomas (University of Manitoba), Hector Ochoa (UT Tyler)

PUNTES Program. (US Department of Education). David Trujillo (Northern New Mexico College), Ana Maria Rodriguez (UT Pan American), Laura Leal Rosales (Texas A&M Corpus Christi).

UT System LS Alliance for Minority Participation (National Science Foundation). Collaborators: Juan Gonzalez (UT Dallas), Darlene Grant (UT Austin), Tracy Gibson (UT Permian Basin), Rachel Ruiz (UT San Antonio), Tuncay Aktosun (UT Arlington), Cristina Villalobos (UT Pan Am), Stephen Rainwater (U Tyler), Guillermo Weber (UT Brownsville), Louis Dale (U Alabama)

UTEP STEP Program (National Science Foundation). Wayne Johnson, (formerly with Hewlett-Packard), Carlos Rodriguez (American Institutes for Research), Mary Besterfield-Sacre (University of Pittsburgh), Cristina Villalobos (UT Pan American), Delia Cruz (New Mexico State University)

UTEP Model Institutions for Excellence Initiative (National Science Foundation). Collaborators: Juan Arratia (Universidad Metropolitana de Puerto Rico), Elaine Davis (Bowie State University), Jason Kim (Systemic Research), Jamie Merisotis

(Institute for Higher Education Policy), Stacy Phelps (Oglala Lakota College), Al Thompson (Spelman College)

MECESUP 2, Gobierno de Chile. Collaborators: Mireya Abarca (Universidad de Antofagasta), Alfonso Diaz (Universidad de Tarapacá), Susana Gonzalez (Universidad del Bío Bío), Celín Mora (Universidad Técnica Federico Santa Maria), Eduardo Salazar (Universidad de Concepción), Manuel Salinas (Universidad de Santiago), Vicente Sandoval (Universidad Católica de Temuco).

Funded Projects

Student Success

Louis Stokes Bridge to the Doctorate (Cohort IX)
PI, with Helmut Knaust and Patricia Nava
Funding Agency: National Science Foundation
Amount: \$1M
Period: Fall 2011 – Summer 2013

S-STEM: Graduate Bridge Program for Highly Achieving Engineering and Computer Science Students
PI, with Carlos Ferregut
Funding Agency: National Science Foundation
Amount: \$600k
Period: Fall 2011 – Summer 2016

A Model for Improving Doctoral Degree Completion at Emerging Research Institutions with Growing Hispanic Populations
PI, with Patricia Witherspoon, Josefina Tinajero, and Harry Meeuwssen
Funding Agency: US Department of Education
Amount: \$1M
Period: Fall 2010 – Fall 2015

Louis Stokes Bridge to the Doctorate (Cohort VIII)
PI, with Dr. Tuncay Aktosun (UT – Arlington)
Funding Agency: National Science Foundation
Amount: \$1M
Period: Fall 2010 – Summer 2011

A Novel Applied Quantum Mechanics Course Aligned with the EE Curriculum
Co-PI, with Stella Quinones (PI)
Funding Agency: National Science Foundation
Amount: \$193,520
Period: Fall 2009 – Summer 2011

2009 NSF Presidential Award for Excellence in Science and Engineering (PAESMEM)
Mentoring

Funding Agency: National Science Foundation and White House

Amount: \$10,000

Period: Fall 2009 – Summer 2011

Louis Stokes Bridge to the Doctorate (Cohort VII)

PI and Director, with Helmut Knaust

Funding Agency: National Science Foundation

Amount: \$1M

Period: Fall 2009 – Summer 2011

Louis Stokes Bridge to the Doctorate (Cohort VI)

PI and Director, with Helmut Knaust

Funding Agency: National Science Foundation

Amount: \$1M

Period: Fall 2008 – Summer 2010

Louis Stokes UT System Alliance for Minority Participation (Phase IV)

PI and Director, with Helmut Knaust

Funding Agency: National Science Foundation

Amount: \$5M

Period: Summer 2007 – Spring 2012

Louis Stokes UT System Alliance for Minority Participation (Phase III)

PI and Director

Funding Agency: National Science Foundation

Amount: \$1M

Period: Spring 2003 – Fall 2008

Louis Stokes Bridge to the Doctorate (Cohort III)

PI and Director

Funding Agency: National Science Foundation

Amount: \$1M

Period: Fall 2005 – Summer 2008

STEM Talent Expansion Program

Co-PI, with James Becvar (PI), Helmut Knaust, Jorge Lopez, Josefina Tinajero

Funding Agency: National Science Foundation

Amount: \$2M

Period: Fall 2007 – Summer 2012

Model Institutions for Excellence Initiative (Phase III)

PI and Director, with Helmut Knaust

Funding Agency: National Science Foundation

Amount: \$2.5M

Period: Fall 2005 – Summer 2007

UTEP's Virtual Development Laboratory

Co-PI, with Dr. Patricia Nava (PI)

Funding Agency: Women and Technology Institute and Hewlett Packard,

Amount: \$120,000

Period: 2002-2003

Biology Research Experience for Undergraduates

Co-PI, with Dr. Kristine Garza (PI)

Funding Agency: National Science Foundation, Department of Biological Sciences

Funding: \$140,000

Period: 2002-2004

UTEP: A Model Institution for Excellence (Phase II)

PI and Project Director, with Thomas Brady, and Andrew Swift

Funding Agency: National Science Foundation

Funding: \$7.5 million

Period: 2000-2003

Technical Research

Task Order: A Transmission Line Model for Ground Penetrating Radar

PI and Director

Funding Agency: Army Research Laboratory

Amount: \$44,000

Period: 2010- 2011

Task Order: Modulated LASER

PI and Director

Funding Agency: Army Research Laboratory

Amount: \$30,000

Period: 2007- 2008

Task Order: Waveform Reflection at Relativistic Speeds

Funding Agency: Army Research Laboratory

Amount: \$75,000

Period: 2006-2008

Multiple Task Orders

PI and Director

Funding Agency: Army Research Laboratory

Amount: \$250,000

Period : 2005 - 2007

Creating LCs in the EE Curriculum to Increase Student Throughput

PI and Director

Funding Agency: THECB, Technology Workforce Development

Amount: \$139,000

Period: 2004 - 2006

Task Order: Automated Infrared Image Manipulation Methods

PI and Director

Funding Agency: Army Research Laboratory

Amount: \$25,201

Period: 2004-2005

Task Order: Non-Gaussian Noise Generator

PI and Director

Funding Agency: Army Research Laboratory

Amount: \$44,072

Period: 2003-2004

PublicationsBooks and Chapters

Ashtari, G. Thomas, H. B. Garcés, and B. C. Flores, Radar Signal Analysis and Design Using Frequency Modulation of Chaotic Signals, in *Principles of Waveform Diversity and Design*, SciTech Publishing, Inc., 2009.

Benjamin C. Flores, Ann Darnell, and Jana Renner, The Emergence of Undergraduate Research in the Course of Institutional Change, in *Broadening Participation in Undergraduate Research: Fostering Excellence and Enhancing the Impact*, Mary K. Boyd and Jode L. Wesemann, Eds., Council on Undergraduate Research, 2009, pp. 295-306.

Jae Sok Son, Gabriel Thomas, and Benjamin C. Flores, *Range-Doppler Imaging and Motion Compensation*, Artech House, 2001.

Benjamin C. Flores and Roberto Vasquez, Compression of Wideband Returns from Overspread Targets, in *Ultra-Wideband Radar Technology*, Edited by James D. Taylor, CRC Press, 2000.

Journal Articles

A. Ashtari, Gabriel Thomas, W. Kinsner, and Benjamin C. Flores, Sufficient condition for chaotic maps to yield chaotic behavior after FM, *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 44. No. 3, pp 1240-1248, July 2008.

Benjamin C. Flores, E. A. Solis, and Gabriel Thomas, Assessment of chaos-based FM signals for range-Doppler imaging, *IEE Proc. Radar Sonar Navig.*, Vol. 150, No. 4, August 2003.

Conference Papers and Abstracts

Benjamin C. Flores, Chandra S. Pappu, and Berenice Verdin, Generation of FM signals with quasi-chirp behavior using three dimensional chaotic flows, Proc. of SPIE – Vol. 8021, Radar Sensor Technology XV, edited by Kenneth I. Ranney, Armin W. Doerry, April 2011.

Ariana Arciero, Benjamin Flores, and Helmut Knaust, “International Conference Participation for Undergraduate Scholars through the University of Texas System Louis Stokes Alliance for Minority Participation, 40th ASEE/IEEE Frontiers in Education Conference, October 27-30, 2010, Washington, D.C.

Patricia Witherspoon, Benjamin C. Flores, Yvonne Lopez, and Helmut Knaust, “The University of Texas at El Paso: Promoting STEM Doctoral Student Success through

Mentoring and Professional Development Activities," 2010 NSF EHR Joint Annual Meeting, June 2010, Washington, DC.

Benjamin C. Flores, Ann Darnell, James Becvar, Helmut Knaust, Jorge Lopez, and Josefina Tinajero, "Implementing peer led team learning in gateway science and mathematics courses for engineering majors," 2010 ASEE Annual Conference and exposition, June 20 -23, 2010, Louisville, KY.

Benjamin C. Flores and Chandra Pappu, Generation of High Range Resolution Radar Signals Using the Lorenz, Proceedings of SPIE – Vol. 7669, Radar Sensor Technology XIV, edited by Kenneth I. Ranney, Armin W. Doerry, April 2010.

Benjamin C. Flores and Berenice Verdin, "Characterization of high resolution range and Doppler LADAR," Proceedings of SPIE – Vol. 7460, Lidar Remote Sensing for Environmental Monitoring, Upendra N. Singh, Editor, August 3, 2009, San Diego, CA.

James E. Becvar, A.E. Dreyfuss, Benjamin C. Flores, W.E. Dickson ; 'Plus Two' peer-led team learning improves student success, retention, and timely graduation, 38th Annual Frontiers in Education Conference, October 22-25, 2008, Saratoga Springs, NY.

Ariana Arciero, Benjamin C. Flores, and Miguel Paredes, Work in Progress: "Perceptions of scholars in the UT System LSAMP Bridge to the Doctorate project," 37th ASEE/IEEE Frontiers in Education Conference, October 10 – 13, 2007, Milwaukee, WI.

Ali Ashtari, Gabriel Thomas; Hector Garcés, and Benjamin C. Flores, "Radar signal design using chaotic signals," 2007 International Waveform Diversity and Design Conference, June 4-8, 2007, Pisa, Italia.

Ricardo von Borries, Richard Baraniuk, C. Sidney Burrus, Benjamin C. Flores, "DSPANish: Community-based, Multilingual DSP Education in English and Spanish," 12th Digital Signal Processing Workshop, - 4th Signal Processing Education Workshop, September 24-27, 2006.

Benjamin C. Flores and Ann Darnell, "A Ten Year Perspective on Changes in Engineering Education," 2006 ASEE Annual Conference, June 18-21, 2006, Chicago, IL.

Ariana Arciero and Benjamin C. Flores, Work in Progress: Expanding the Ph.D. STEM student pool along the US-Mexican border, 36th ASEE/IEEE Frontiers in Education Conference, October 28 – 31, 2006, San Diego, CA.

Scott Starks, Benjamin C. Flores, and Gerardo Rosiles, "Implementing Active, Collaborative and Team-Based Learning in a Probability Course for Engineers," International Conference on Engineering Education, 2006.

Hector Ochoa and Benjamin C. Flores, "Doppler correction for high-velocity targets using a relativistic approach," Proceedings of SPIE – Volume 6210, Radar Sensor Technology X, Robert N. Trebits, James L. Kurtz, Editors, May 8, 2006.

Hector Garcés and Benjamin C. Flores, "Statistical analysis of Bernoulli, logistic, and tent maps with applications to radar signal design," Proceedings of SPIE – Volume 6210, Radar Sensor Technology X, Robert N. Trebits, James L. Kurtz, Editors, May 8, 2006.

Berenice Verdín and Benjamin C. Flores, "Wideband radar imaging using chaotic-based Gaussian frequency modulation," Proceedings of SPIE – Volume 6210 Radar Sensor Technology X, Robert N. Trebits, James L. Kurtz, Editors, May 8, 2006.

Rebecca Sullivan, Benjamin C. Flores, and Berenice Verdín, "Modeling of FM broadcast signals with applications in bistatic radar imaging," Proceedings of SPIE – Volume 6210, Radar Sensor Technology X, Robert N. Trebits, James L. Kurtz, Editors, May 8, 2006.

Benjamin C. Flores, Berenice Verdin, Gabriel Thomas and Ali Ashtari, "Generation of Quasi-normal Variables using Discrete Chaotic Maps", Proceedings of SPIE, Volume 5788, Radar Sensor Technology IX, Robert N. Trebits, James L. Kurtz, Editors, May 2005.

Benjamin C. Flores, Ann Darnell, Janna Renner, and Aida Rubio, "A Comprehensive Program Assessment of the Persistence and Pursuance of Graduate Degrees of Undergraduate Research Students," Proceedings of the American Society for Engineering Education, 2005.

Benjamin C. Flores, Gabriel Thomas, and Hector Ochoa, "Resolution Issues in the Analysis of Radar Signals," Robert Trebits et al, Eds., SPIE Proceedings 5410, Radar Sensor Technology VIII and Passive Millimeter-Wave Imaging Technology VII, pp. 53-63, April 2004.

Benjamin C. Flores, Jana Renner, Helmut Knaust, Ann Darnell, Lilly Romo, and Connie Kubo Della-Piana, "The Effectiveness of a Mathematics Review for Student Placement into College-Level Mathematics," *Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition*, 2003.

Patricia Nava, V. Granda, and Benjamin Flores, "Increasing Women's Impact on Technology: UTEP-VDC Site," *Proceedings of Frontiers in Education 2003: Engineering as a Human Endeavor Conference*, 2003, pp. F1D14-F1D17.

Rosa Gomez, A. Arciero, P. Nava, E. Martin Del Campo, and Benjamin Flores, "Giving Women in Science, Engineering, and Mathematics Support and Leadership Experience through a Women in Science and Engineering Program at the University

of Texas at El Paso," *Proceedings of the 2003 American Society for Engineering Education Annual Conference & Exposition*, June 2003

Summary of Publications (1990 -2010)

1 Book (Artech House)

1 Software packet (Artech House)

4 Chapters (Council on Undergraduate Research, SciTech Publishing, CRC Press)

36 Conference articles in SPIE Proceedings

9 Conference articles in ASEE Proceedings

9 Conference articles in FIE Proceedings

4 Journal articles (Optical Engineering, IEEE AES Transactions, IEE Proceedings)

Presentations

LSAMP PI/PD Meeting and Poster Session on the Hill, Rayburn House Building, Washington, DC, July 22, 2010.

Assessment to document good teaching, Center for Effective Teaching and Learning workshop, El Paso, Texas, February 23, 2010

Going to graduate school: your best option, EE Senior Professional Orientation Seminar, University of Texas at El Paso, January 2010

Optimization of the Lyapunov exponent via a parameter space search, Constraint Programming and Decision Making Workshop, University of Texas at El Paso, November 10, 2009

Mentoring and the world of postdocs, 6th Annual Institute on Postdoctoral Preparation, Howard University and University of Texas at El Paso AGEP, El Paso, TX, September 25, 2009

Identificación y evaluación del nivel de desarrollo de competencias transversales, Universidad de Tarapacá, Arica, Chile, August 13, 2009

Elaboración de instrumentos de identificación y evaluación de competencias transversales, Universidad de Tarapacá, Arica, Chile, August 12, 2009

Visión sistemática de programas para estudiantes con dificultades académicas, Universidad de Antofagasta, Antofagasta, Chile, August 5, 2009

Modularización de asignaturas de Matemáticas: Perspectivas teóricas y prácticas Universidad del Bío Bío, Concepción, Chile, July 8, 2009

Strategies for pre-engineering and pre-science student success, NSF Tribal Colleges and Universities Program workshop, Arlington, VA, February 21, 2009

A tradition of access and excellence at an urban minority serving institution, New York City Tech, New York, NY, September, 2008

Strategies for student support at an urban institution, MIE Dissemination Conference, Xavier University, New Orleans, January 26, 2008

UTEP student success stories: Danny Olivas and many more, NASA STS-122 Launch Conference, Cocoa Beach, Florida, December 5, 2007.

La evolución de la investigación y el desarrollo tecnológico en TIC en Norte América, XX Congreso Nacional y VI Congreso Internacional de Informática y Computación, Chihuahua, México, October 26, 2007

Aligning reward systems to institutional missions: balancing access and excellence, National Academy of Engineering Partnerships for Emerging Research Institutions: A Workshop, Washington, DC, September 13, 2007

Making a college-going culture real, National Association of Latino Elected Officials Third Annual Summit on the State of Latino Education, Washington DC, October 10, 2007

A model for STEM faculty enhancement, NSF Joint Annual Meeting, Washington DC, August 13, 2007

Selecting indicators for STEM Program assessment and evaluation: IHEP Summer Academy, Albuquerque, New Mexico, July 25, 2007

Creating learning communities to increase EE major throughput, Second Annual Technology Workforce Development Workshop, Austin TX, March 6, 2007

A tradition of access and excellence, Hispanic Association of Colleges and Universities 20th Annual Conference, San Antonio, TX, October 29, 2006

STEM student outreach and retention, The Model Institutions for Excellence Dissemination Conference, Bowie, MD, October 12, 2006

“Un Ejemplo de Excelencia” in Education, 2006 Excelencia Symposium, Orlando, FL, September 27, 2006

Outlining research goals as part of a research plan, 3rd Annual Institute on Postdoctoral Preparation, Howard University and University of Texas at El Paso AGEP, Cloudcroft, NM, March 24, 2006

Closing the gap in education: An Overview of UTEP's MIE Program, Southwest Regional P-16 Conference - Austin, TX, April 25, 2006

The UTEP Model Institutions for Excellence initiative, Project Kaleidoscope Workshop Presentation - San Antonio, TX, February 24, 2006

The University of Texas at El Paso: A Model Institution for Excellence, MIE Dissemination Conference, Carolina, PR, February 3, 2006

Student Mentoring and TrainingPh.D. Graduates

- Berta Rodriguez Hervas, *Transmission Line Model for Ground Penetrating Electromagnetic Wave Propagation* (Est. 2015)
- Chandra Pappu, *Performance of Chaotic radar in the Presence of Electronic Countermeasures* (Est. 2014)
- Gabriel Bravo, *MoS2 gate design for ultrafast MOSFET* (Est. 2012)
- Janette Briones, *Cognitive Radar for Border Surveillance and Security* (Est. 2012)
- Berenice Verdin, *Characterization of High Resolution Range and Doppler Chaotic LADAR* (2009)
- Hector Ochoa, *Radar Signal Analysis for High Velocity Targets using the Electromagnetic Field Tensor and the Lorentz Transformation* (2007)
- Hector Garces, *Chaotic Signal Analysis and Design for Wideband Radar* (2007)

M.S. Graduates

- Pappu Chandra, *Three Dimensional Chaotic Flows as Signal Generators* (2010)
- Anuj Gupta, *Chaotic Behavior of Double Pendulum* (2008)
- Erika Jackson, *Image Interpolation and Extrapolation using Vectors and Pixel Time Series* (2005)
- Berenice Verdin, *Generation of Quasi-Normal Variables using Chaotic Maps* (2005)
- Rebecca Sullivan, *Modeling of FM Broadcast Signals for use in Bistatic Radar Applications* (2004)
- Hector Ochoa, *Resolution Issues in Radar Signal Analysis* (2003)

Total Ph.D. graduates: 5 (4 Hispanic American)

Total M.S. graduates: 20

TeachingGraduate Courses

Chaotic Signals and Systems
 LSAMP Graduate Seminar
 Radar Signal Processing
 Antenna Theory
 Tomographic Imaging
 Detection and Estimation Theory

Undergraduate Courses

Antenna Engineering
 High Resolution Radar
 Electromagnetic Field Theory
 University Seminar

ServiceNational

STEM Talent Expansion Program External Advisory Board, New Mexico State University, fall 2009 – present

STEM Talent Expansion Program External Advisory Board, Texas A&M University Corpus Christi, fall 2010 – present

ADVANCE External Advisory Board, New York City College Tech, spring 2009 – fall 2010

El Paso Community

El Paso Insights Museum Board, spring 2010 – fall 2010

El Paso Community College Diversity Programs Advisory Board, fall 2009 – fall 2010

Research Community

Journal Article Reviewer: IEEE, IEE, Chaos

NSF Proposal Panelist:

- Curriculum, Course, and Laboratory Innovation (2008, 2009, 12 proposals per year)
- Engineering Education and Centers (2008, 12 proposals)
- Presidential Award for Excellence in Science, Mathematic, and Engineering Mentoring (2011, 2008, 12 proposals per year)
- National Science Digital Libraries (2005, 2006, 12 proposals per year)
- STEM Talent Expansion Program (2011, 2009, 12 proposals)
- Tribal Colleges and Universities Program (2009, 10 proposals)

UT System

Directed and hosted UT System LSAMP Conferences in which undergraduate students that participate in a state wide summer exchange program present their research efforts:

1. Arlington, Texas, September 15-17, 2011
2. El Paso, Texas, September 16-18, 2010
3. Austin, Texas, September 10-12, 2009
4. El Paso, Texas, September 18-20, 2008
5. San Antonio, Texas, September 26-29, 2007
6. El Paso, Texas, September 20-23, 2006

University

Academic Unit Review Process Committee (August 2011- October 2011)
Institutional Enrollment Planning Committee (December 2010 – April 2011)
Selection Committee for Achievement Award for Service (Spring 2009 – Spring 2010)
Mentoring Program Mentor (Spring 2009 – Present)
President’s Advisory Committee on Diversity, Chair (Fall 2006 – Fall 2010)
Intercollegiate Athletics Council (Fall 2006 – Present)
Foundations of Excellence Committee (Fall 2007 – Fall 2009)
Library Director Search (Summer 2007)
International Programs Office Director Search (Spring 2007)

Hosted and coordinated visits by multiple administrator/faculty teams from:

- City University of New York
- New York City Tech, Brooklyn
- Oglala Lakota College
- South Dakota School of Mines
- Universidad Autónoma de Chihuahua, México
- Universidad del Bío-Bío, Chile
- Universidad de Concepción, Chile
- Universidad de Playa Ancha, Chile
- Universidad de Santiago, Chile
- Universidad Técnica Federico Santa Maria, Chile

College

Faculty Council Member (Fall 2008- Summer 2009)
Director, Master of Science in Engineering (Fall 2006 – Summer 2007)
Hosted and coordinated MIE Engineering Education Workshop, August 24, 2007
Founding Counselor of the UTEP student chapter of National Society of Black Engineers (Fall 2003)

Department

ECE Ph.D. Program Director (September 2009 – August 2010). Reviewed all applications for admission into Ph.D. program, organized and proctored qualifying examinations, approved Ph.D. student degree plans, and verified dissertation requirements.

Undergraduate EE major transition advisor (September 2005 – December 2008). Met with every new incoming student majoring in EE to discuss degree plan and career pathways, and schedule courses.

Fields and Electronic Devices Curriculum Committee Chair (September 2008 – present). Maintained quality control of courses for accreditation purposes in the areas of electronic devices and electromagnetic field theory.

Tenure and Promotion Committee (1996 – 2010). Analyzed, deliberated, and approved faculty dossiers submitted for tenure and promotion.

EE Honor Society Counselor (2009 – present)

Consulting

Institute for Higher Education Policy

a) Summer Academy Advisor. Assisted college and university teams that worked collaboratively to create action plans for increasing access and success for students of color in higher education.

b) Model Replication Institutions Advisor. Assisted two institutions in implementing proven strategies to increase participation, retention, and graduation for students of color in science, technology, engineering, and math (STEM) fields:

New York City Tech – Undergraduate Research Program

Texas A&M Corpus Christi – Undergraduate Excellence Center

Chile's Ministry of Education

a) MECESUP. Assisted the leadership of the program in developing a call for proposals for STEM first year programs and reviewed proposals.

b) Technical Advisor on curriculum reform

Universidad Católica de Temuco

Universidad de Tarapacá

Universidad de Santiago

Universidad de Concepción

Universidad del Bío-Bío

Universidad de Playa Ancha

Universidad Técnica Federico Santa María

Awards

2009 NSF Presidential Award for Excellence in Science and Engineering (PAESMEM) Mentoring

2007 Outstanding Service to Students by a Faculty Member, UTEP

2006 ABET President's Awards for Diversity

2006 Examples of Excelencia in Education Award

2005 Texas Higher Education STAR Award

2003 Outstanding ECE Professor of the Year Award, UTEP

Professional Membership

American Society for Engineering Education (ASEE)

American Association for the Advancement of Science (AAAS)

International Society for Optical Engineering (SPIE)

Registration

National Society of Professional Engineers 3000003057