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RESEARCH INTERESTS: Structural Reliability, Structural Damage Assessment, Risk Analysis, Structural Health Monitoring, Lattice Domes Analysis and Design

I. EDUCATIONAL BACKGROUND

PhD	1986	Civil Engineering – Structures, University of Waterloo, Canada
MS.	1981	Structural Engineering, National Autonomous University of Mexico
BS	1979	Civil Engineering, National Polytechnic Institute, Mexico

II. EMPLOYMENT HISTORY

- Director of Global Programs for the College of Engineering, UTEP, September 2011 to date
- Associate Dean of Engineering for Graduate Studies and Research, UTEP August 2008 to August 2011
- Associate Dean of Engineering for Undergraduate Studies, UTEP, September 2006 – July 2008
- Director of Civil, Industrial, Mechanical and Metallurgical and Materials Engineering Division, UTEP, November 2004 – August 2006
- Chair of Civil Engineering, University of Texas at El Paso, September 1998-November 2004
- Associate Director, FAST Center for Structural Integrity of Aerospace Systems, UTEP, Oct 1995-Sep. 1998.
- Professor of Civil Engineering, UTEP, September 1999-present
- Associate Professor of Civil Engineering, UTEP, September 1994-August 1999
- Assistant Professor of Civil Engineering, UTEP, January 1990- August 1994
- Senior Engineer, Fleet Technology Limited, Nepean, Ontario, January 1986-December 1989.
- Research Assistant, Department of Civil Engineering, University of Waterloo, September 1981- December 1985
- Technical Advisor, Ministry of Agriculture and Water Resources, Mexico City, January 1980- August 1981
- Research Assistant, Institute of Engineering, National Autonomous University of Mexico, September 1979-December 1980
- Structural Engineer, Sistemas y Procesos para Ingeniería S.A., Mexico City, November 1978- August 1979

III. OTHER APPOINTMENTS

- Visiting Professor, Czech Technical University, February 2015 – August 2015
- Visiting Scientist, US Air Force Wright-Patterson Research Lab, June 1998-August 1998
- Director, Geometrica Inc., Houston, Texas, August 1992 – to date
- Visiting Professor, Autonomous University of Chihuahua, Jan 1992-Dec 1992

IV. PROFESSIONAL MEMBERSHIP

American Society of Civil Engineers
American Society of Engineering Education
International Association for Civil Engineering Reliability and Risk Analysis
Colegio de Ingenieros Civiles de México
Structural Engineering Association of Texas (El Paso Chapter Director 2004-to date)

V. PUBLICATIONS

Journals, Conferences and Book Chapters

Taboada, H., Espiritu, J., Chang, CM., 1, Cheu, R, Ferregut, C., Vargas-Hernandez, N., Vegas, S., Sanchez, E., Chang, G. Quevedo, V. and Marcelo, D.(20014), “Developing Global and Regional Sustainability Engineering Skills through a Successful Study Abroad Program,” To be published in the Proceedings of the Engineering Leaders Conference on Engineering Education, November 9-11, Doha, Qatar.

Aldalinsi, M., Ferregut, C., Carrasco, C., Tandon, V. and Alderette, M. (2014), “A Method to Reduce Plastic Shrinkage Cracking of Concrete Using the Re-vibration Technique”, Proceedings of Structures Congress 2014, Glen R. Bell and Matt A. Card (Eds.), American Society of Civil Engineering, April 3-5, Boston, Massachusetts, pp. 1942-1954.

Novakova, H., Bina, L., Svitek, M., Sedlackova, A., Ferregut, C., Cheu, R., Aguirre-Covarrubias, S. (2013), “Transatlantic Dual Masters Degree Program in Transportation and Logistics Systes ATLANTIS, History and the Three Years of Implementation,” Published by LIBRA-IMPORT, Uherske Hradiste, Czech Republic.

Novakova, H., Ferregut. C., Cheu, R.L., Bina, L., Horak, T. (2013) “Transportation and Logistics Systems in Framework of Transatlantic Program EU-U.S. Atlantis,” Proceedings of the 11th European Transport Congress, M. Jerabek & M. Sliacky (Eds), Prague, Czech Republic, September, pp. 331- 341.

Guirong Yan, Jianxin Yu, Ruoqiang Feng and Carlos Ferregut (2013), “Damage Location of Civil Large-scale Space Structures based on Average Axial-strain Mode Shapes”, 9th International Workshop on Structural Health Monitoring, September, 2013, Stanford, CA

Cheu, R.L., Ferregut, C., Bina, L., Novakova, H., Horak, T., Novak, A., Hudak, A. and Aguirre-Covarrubias, S., "Transatlantic Dual Master Degree Program in Transportation and Logistics Systems-First 2 Years of Implementation," Transportation Research Record: Journal of the Transportation Research Board, No.2328, 2013, Washington, D.C., pp.9-15.

Hargrove, W. L., D. M. Borrok, J. M. Heyman, C. W. Tweedie, and C. Ferregut. 2013. "Water, climate, and social change in a fragile landscape". *Ecosphere* 4:art22.
<http://dx.doi.org/10.1890/ES12-00269.1>

Ferregut, C., Campos, F.J., and Kreinovich, V., "Reducing over conservative expert failure rate estimates in the presence of limited data: A new probabilistic/fuzzy approach," presented at the Annual Meeting of the North American Fuzzy Information Processing Society, El Paso, Texas, March 18-20, 2011.

Richardson, A., N. Bassim, C. Ferregut, D. Miramontes, R. Romero, G. Miramontes, J.P. Burak, C. Zhang, G. Aguilera, "Educating Engineers for a Global 21st Century: Mentoring in a Consortium of Six North American Universities," Proceedings of 8th ASEE Global Colloquium on Engineering Education, Budapest, Hungary, October 2009.

Richardson, A., N. Bassim, C. Ferregut, C. Zhang, G. Miramontes, R. Romero, G. Aguilera, "An Innovative and Unique North American Project in Global Engineering Education and Practice," Proceedings of the 7th ASEE Global Colloquium Engineering Education, Cape Town, South Africa, October 2008.

Kreinovich, V., Beck, Jan., Ferregut, C., Sanchez, A., Keller, R.G., Averill, M., and Starks, S.A., "Monte-Carlo-Type Techniques for Processing Interval Uncertainty, and Their Potential Engineering Applications", *Reliable Computing* 13:25-69, 2007.

Ferregut, C., Beck, J., Sanchez, A. and Kreinovich, V., "Economics of Engineering Design under Interval (and Fuzzy) Uncertainty: Case Study of Building Design," Proceedings of The Second International Conference on Fuzzy Sets and Soft Computing in Economics and Finance (FSSCEF 2006), Saint-Petersburg, Russia, June 28-July 1, 2006, pp. 39-46.

Kreinovich, V., Beck, J., Ferregut, C., Sanchez, A., Keller, G.R., Averill, M. and Starks, S. A., "Monte-Carlo-type techniques for processing interval uncertainty, and their engineering applications", Proceedings of the Workshop on Reliable Engineering Computing, Savannah, Georgia, September 15-17, 2004, pp. 139-160.

Cesar J. Carrasco, Carlos M. Ferregut, Robert Warke and Ben H. Thacker, "A Monte Carlo Approach to Sampling-Frequency Optimization and its Application to Pipeline Inspection" Proceedings of the 9th ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability, July 2004, Albuquerque, New Mexico

Nazarian, S., Abdallah, I., Melchor, O. and Ferregut C., "A Probabilistic Method for Estimating Pavement Performance Using Falling Weight Deflectometer," 6th International Conference on

Bearing Capacity of Roads, Railways and Air fields, Lisbon, Portugal, 2002.

Ferregut, C., Osegueda, R.A., Mendoza, Y., Kreinovich, V., Ross, T.J., Chapter 10 "Aircraft Integrity and Reliability," in Fuzzy Logic and Probability Applications, Ross, Booker, and Parkinson (Eds.), Society for Industrial and Applied mechanics, 2002.

Worden, K., Osegueda, R., Ferregut, C. Nazarian, S., George, D.L., George, M.J., Kreinovich, V., Kosheleva, O. and Cabrera, S., "Interval Methods in Non-Destructive Testing of Material Structures," Reliable Computing, 7: 341-352, 2001.

Ferregut, C., Nazarian, S. Abdallah, I.N. and Melchor-Lucero, O., "Estimating Remaining Life of Flexible Pavement Systems Using Artificial Neural Networks," Proceedings of the 2nd International Workshop on Artificial Intelligence and Mathematical Methods in Pavement and Geomechanical Systems, N.O. Attoh-Okine Ed., Newmark, Delaware, August 11-12, 2000, pp. 121-132.

Osegueda R.A., Ferregut, C., Kreinovich, V., Seetharami, S., Schulte, H., "Fuzzy (Granular) Levels of Quality with Applications to Data Mining and to Structural Integrity of Aerospace Structures," 19th International Conference of the North America Fuzzy Information Processing Society-NAFIPS, T. Whalen (Ed.), Atlanta, Georgia, USA, July 13-15, 2000, pp. 348-352.

Osegueda, R.A., Macias, M., Andre, G., Ferregut, C. and Carrasco, C., "Fusion of Modal Strain Energy for Health Monitoring of Aircraft Structures," SPIE Smart Structures and Materials, Newport Beach, CA, March 5-9, 2000.

Osegueda, R.A., Lopez, H., Pereyra, L., Ferregut, C.M., "Localization of Damage Using Fusion of Modal Strain Energy Differences," Proc. of International Modal Analysis Conference XVIII, SEM, Vol. I, San Antonio, TX, Feb. 7-10, 2000, pp. 695-701.

Pereyra, L., Osegueda, R.A., Carrasco, C. and Ferregut, C., "Detection of Damage in a Stiffened Plate from Fusion of Modal Strain Energy Differences," Proc. of International Modal Analysis Conference XVIII, SEM, Vol. II, San Antonio, TX, Feb. 7-10, 2000, pp. 1556-1562.

Osegueda, R., Andre, G., Carrasco, C., Ferregut, C.M. and Pereyra, L., "Effects of Mode Pairing in Strain Energy-Based Damage Detection Methods Applied to an Aerospace Structure," Proc. of the International Modal Analysis Conference XVIII, SEM, Vol. II, San Antonio, TX, Feb. 7-10, 2000, pp. 1218-1224.

Abdallah, I., Nazarian, S., Melchor-Lucero, O. and Ferregut, C. "Validation of Remaining Life Models Using Texas Mobile Load Simulator," CD Proceedings, 1st International Conference on Accelerated Pavement Testing, Reno. October 18-20, 1999.

Warke, R. W., Wang, Y.-Y., Ferregut, C. M., Carrasco, C. J. and Horsley, D. J., "A FAD-Based Method for Probabilistic Flaw Assessment of Strength-Mismatched Girth Welds," Proceedings of the 1999 Pressure Vessels and Piping Conference, PVP-Volume 386, Probabilistic and

Environmental Aspects of Fracture and Fatigue, ASME, 1999.

Ross, T.J., Ferregut, C., Osegueda, R. and Kreinovich, V., "System Reliability: A Case When Fuzzy Logic Enhances Probability Theory's Ability to Deal With Real-World Problems," in 18th International Conference of the North American Fuzzy Information Processing Society – NAFIPS, R.N. Dave and T. Sudkamp (Eds.), IEEE Neural Networks Council, June 10-12 1999, New York, NY, pp. 81-84.

Abdallah, I., Ferregut, C., Nazarian, S. and Melchor-Lucero, O., "Prediction of Remaining Life of Flexible Pavements with Artificial Neural Networks Models," Nondestructive Testing of Pavements and Backcalculation of Moduli: Third Volume, ASTM STP 1735, S.D. Tayabji and E.O. Lukanen, Eds., American Society for Testing Materials, West Conshohocken, PA, 1999.

Andre, G., Osegueda, R.A., Ferregut, C.M., Carrasco, C., Pereyra, L., James, G. and Grygier, M., "Comparison of Strain Energy-Based Vibrational NDE Methods Applied to a Complex Aerospace Structure," in Nondestructive Characterization IX, R. Green Ed., American Institute of Physics, AIP Conf. Proceedings 497, Sydney, Australia, June/July 1999, pp. 561-568.

Pereyra, L.R., Osegueda, R.A., Carrasco, C. and Ferregut, C., "Damage Detection in a Stiffened-Plate Using Modal Strain Energy Differences", in Nondestructive Evaluation of Aging Aircraft, Airports and Aerospace Hardware III, A. K. Mal (Ed.), Proceedings of SPIE, Vol. 3586, Paper 3586-29, March 1999.

Osegueda, R., Ferregut, C. George M., Gutierrez, J.M., and Kreinovich, V. "Maximum Entropy Approach to Optimal Sensor Placement for Aerospace Non-destructive Testing", In: G. Erickson (Ed.), Maximum Entropy and Bayesian Methods, Kluwer, Dordrecht, 1998.

Castano, F.C. , Ferregut, C. and Wright D.T., "Un Nuevo Tipo de Estructura: El Domo Libre," XI Congreso de Ingeniería Estructural, Noviembre 18-21, 1998, Monterrey, México.

Pereyra, L.R., Osegueda, R. A., Carrasco, C. and Ferregut, C., "Structural Defects Detection Using Low Frequency Modal Testing With a Laser Vibrometer," Proceedings of the 1998 ASNT Fall Conference, ISBN 1-5711-830, American Society of Nondestructive Testing, Nashville, Tennessee, October 19-23, 1998, pp. 63-66.

Alvarez, W., Ferregut, C. and Osegueda, R., "Detección y Clasificación de Daños en Estructuras Sujetas a Cargas Estáticas Usando Redes Neuronales Artificiales," Memorias del IV Congreso Anual de la Sociedad Mexicana de Ingenieros Mecánicos, October 21-23, Cd. Juarez, Chihuahua, Mexico, 1998, pp. 259-266.

Melchor-Lucero, O., Abdallah, I, Ferregut, C. and Nazarian, S., "Nondestructive Integrity Evaluation of Pavements Using Artificial Neural Networks," Proceedings of First International Conference on New Information Technologies for Decision Making in Civil Engineering, Vol. 1, Montreal, Canada, October 11-13, 1998, pp. 539-550.

Kosheleva, O., Cabrera, S., Osegueda, R., Ferregut, C., Nazarian, S., George, D.L., George, M.J., Kreinovich, V. Worden, K., "Case Study of Non-Linear Inverse Problems: Mammography and Non-Destructive Evaluation," Bayesian Inference for Inverse Problems, A. Mohammad-Djafari (Ed.), San Diego, CA, July 1998, SPIE Volume 3459, pp. 128-135.

Andre, G.C., Carrasco C.J., Osegueda, R.A., Ferregut, C.M., James III, G.H. and Grygier, M., "Comparison of Accelerometer and Laser Modal Tests of a Vertical Stabilizer Assembly," SPACE 98, ASCE, April 1998, pp.132-139.

Keith Worden, Roberto Osegueda, Carlos Ferregut, Soheil Nazarian, Debra L. George, Mary J. George, Vladik Kreinovich, Olga Kosheleva, and Sergio Cabrera, "Interval Methods in Non-Destructive Testing of Aerospace Structures," International Conference on Interval Methods and their Application in Global Optimization (INTERVAL'98), April 20-23, Nanjing, China, Abstracts, 1998, pp. 152-154.

Bar-Cohen, Y., Marzell, N., Osegueda, R and Ferregut, C. "Smart Sensor System for NDE Corrosion in Aging Aircraft," ASNT'98 Spring Conference, Joint with 9th Asia-Pacific Conference on NDT, and 7th Annual Research Symposium, Anaheim, CA, March 24-26,1998.

Carrasco, C., Osegueda, R., and Ferregut, C. "Localización y Cuantificación de Daños en una Estructura Tridimensional Usando la Energía de Deformación Modal," Memoria del XI Congreso Nacional de Ingeniería Sísmica, Volume II, Veracruz, México, November 26-29, 1997, pp. 851-860.

Castano, F.C., Ferregut, C. and Wright D.T. "New Type of Long Span Roofs: Freedom Structures," Proceedings of the International Symposium on Shell and Spatial Structures, S.P. Chiew (Ed.), IASS, Singapore, November 10-14, 1997, pp. 197-202.

Doran, D., Ferregut, C., Tirado, C. "Experimental Strength Characterization of Geometric Connections Subjected to Tension, Compression and Bending," Proceedings of the International Symposium on Shell and Spatial Structures, S.P. Chiew, (Ed.), IASS, Singapore, November 10-14, 1997, pp. 227-236.

Kreinovich, V., Osegueda, R., Ferregut, C., George, M.J., and Gutierrez, J.M. "Computational Geometry and Artificial Neural Networks: A Hybrid Approach to Optimal Sensor Placement for Aerospace NDE," in Workshop on Intelligent NDE Sciences for Aging and Futuristic Aircraft, C. Ferregut, R. Osegueda and A. Nunez (Eds.), El Paso, TX, Sep 30-Oct 2, 1997, pp. 59-72.

Osegueda, R., Ferregut, C., George, M.J., Gutierrez, J.M. and Kreinovich, V., " Non-Equilibrium Thermodynamics Explains Semiotic Shapes: Applications to Astronomy and to Non-Destructive Testing of Aerospace Systems," Proceedings of the 1997 International Conference on Intelligent Systems and Semiotics, Gaithersburg, Maryland, September 22-25, A.M. Meystel, (Ed.), NIST Special Publication 918, 1997, pp. 378-382.

Warke, W.R., Ferregut, C., Glover A.G. and Horsley D.J., "A Reliability-Based Method for Assessing the Fitness for Service of Pipeline Girth Welds," 11th Biennial Joint PRCI-EPRG Conference, Washington, DC, May 1997.

Ortiz, J., Ferregut, C. and Osegueda, R., "Damage Detection from Vibrational Measurements Using NN Technology," Chapter IV of Artificial Neural Networks for Civil Engineers: Fundamentals and Applications, N. Kartam, I. Flood & J.Garret, (Eds.), ASCE, 1997, pp. 65-91.

Melchor-Lucero, O. and Ferregut, C., "Sistema Experto para La Evaluación de Elementos Estructurales de Concreto Dañados por Sismo," Revista de Ingeniería, Vol. LXVIII, No.2, Abril/Junio, UNAM, 1997, pp.87-106.

Perez, L.E., Ferregut, C., Carrasco, C., Paez, T.L., Barney, P. and Hunter, N.F., "Statistical Validation of a Plate Finite-Element Model for Damage Detection," in Smart Structures and Materials: Smart Systems for Bridges, Structures and Highways, 1997.

Carrasco, C.J., Osegueda, R.A., Ferregut, C.M., and Gryger, M. "Localization and Quantification of Damage in a Space Truss Model Using Modal Strain Energy," in Smart Structures and Materials: Smart Systems for Bridges, Structures and Highways, 1997.

Carrasco, J.C., Osegueda, R.A., Ferregut, C. and Grygier, M., "Damage Localization in a Space Truss Model Using Modal Strain Energy," Proceedings of the 15th International Modal Analysis Conference, IMAC97, V.2, Society for Experimental Mechanics, Inc., Bethel, Connecticut, pp. 1786-1792, 1997.

Hunter, N.F., Barney, P., Ferregut, C., Perez, L.E., and Paez, T.L., "Statistical Validation of Stochastic Models," Proceedings of the 15th International Modal Analysis Conference, IMAC97, V.1, Society for Experimental Mechanics, pp. 605-611, 1997.

Barney, P., Ferregut, C., Perez, L.E., Hunter, N.F., and Paez, T.L., "Statistical Validation of System Models," HICSS-30 Proceedings, Hawaii International Conference on Systems Science, University of Hawaii, Maui, Hawaii, 1997

Gutierrez, J.M., Ferregut, C., and Osegueda, R.A., "A Comparative Study of Two Types of Mode Sensitive Neural Networks for Damage Assessment," Nondestructive Evaluation of Utilities and Pipelines, M. Prager and R.M. Tilley (Eds.), Proc. SPIE 2947, 1996, pp. 224-235.

Paez, T., Barney P., Hunter, N., Ferregut, C. and Perez, L.E., " Statistical Validation of Physical Systems Models, 67th Shock and Vibration Symposium, Monterrey, California, November 18-22, 1996 .

Ferregut, C., Osegueda, R.A., Gutierrez, J., and Ortiz, J. "Detección y Clasificación de Danos Estructurales Usando Redes Neuronales Artificiales," Memorias del X Congreso Nacional de Ingeniería Estructural, Mérida, Yucatán, November 16-19, 1996, pp. 268-276.

Warke, W.R., Ferregut, C., Glover A.G. and Horsley D.J., " Structural Reliability Concepts in

Fitness-for-Service with Application to Girth Weld Plastic Collapse," Proceedings of The Ninth Symposium on Line Pipe Research, Houston, Texas, September 30-October 2, 1996, pp. 39-1 - 39-24.

Ferregut, C., Nazarian, S., Vennalaganti, K., Chang, C-C. and Kreinovich, V. " Fast Error Estimates for Indirect Measurements: Applications to Pavement Engineering," Reliable Computing, N 2 (3), 1996, pp. 219-228.

Melchor-Lucero, O. and Ferregut, C., "Earthquake Damage Assessment of Reinforced Concrete Members Using an Expert System," Proceedings of the Eleventh World Conference on Earthquake Engineering, June 23-28, 1996, Acapulco, Mexico.

Carrasco, J.C., Osegueda, R.A., Ferregut, C., Harms, B. and Meza, D., "Comprehensive Modal Tests of a Space Truss Model for Damage Assessment," Proceedings of the Fifth International Conference on Space'96, ASCE, pp. 1141-1148.

Warke, R.W. and Ferregut, C., "Reliability-Based Design of Welded Structures - An Overview," 11th Annual North American Welding Research Conference, Columbus, Ohio, November 7-9, Edison Welding Institute, 1995, pp.77-100.

Melchor-Lucero, O. and Ferregut, C., "Toward an Expert System for Damage Assessment of Structural Concrete Elements," Artificial Intelligence for Engineering Design Analysis and Manufacturing Journal, Vol. 9, 1995, pp.401-418.

Ferregut, C., Osegueda, R.A. and Ortiz,J., "Artificial Neural Networks for Structural Damage Detection and Classification," in Smart Structures and Materials: Smart Systems for Bridges, Structures and Highways, L.K. Matthews (Ed.), Proc. SPIE 2446, 1995, pp.68-80.

Ferregut, C., Osegueda, R.A. and Stephenson,T., "Probabilistic Detectability of Structural Damage Using Frequency Sensitivity Methods," in Smart Structures and Materials: Smart Systems for Bridges, Structures and Highways, L.K. Matthews (Ed.), Proc. SPIE 2446, 1995, pp.95-105.

Gowdappa, H., Ferregut, C. and Picornell, M., "Integrated System for Reliability Analysis of Drilled Piers," 10th Pan-American Conference on Soil Mechanics, Guadalajara, Mexico, 1995.

Krishnaprasad, S., Picornell, M. and Ferregut, C., "Shrinkage Crack Fabric Description - A Statistical Approach," 10th Pan-American Conference on Soil Mechanics, Guadalajara, Mexico, 1995.

Behar, J., Ferregut, C. and Picornell, M., "Experimental Program to Monitor the Behavior of Piers in Expansive Soils," International Conference on Design and Construction of Deep Foundations, Vol III, Orlando, Florida, Dec. 6-8, 1994, pp.1511-1519.

Melchor-Lucero, O. and Ferregut, C., "Sistemas Expertos para Ingeniería Civil," Edifica, No. 42, January 1994, pp.10-18.

Vennalaganti, K.M., Nazarian, S. and Ferregut, C., "Uncertainty Modeling of Remaining Life of Pavements Due to Misestimation of Pavement Parameters in NDT," Structural Safety and Reliability Schueller, Shinozuka, & Yao (Eds.), A.A. Balkema, 1994, pp.1825-1832.

Ferregut, C. and Picornell, M., "Calibration of Safety Factors for the Design of Piers in Expansive Soils," Risk and Reliability in Ground Engineering, B.O. Skipp (Ed.), Thomas Telford, 1993, pp.277-290.

Ferregut, C. and Picornell, M., "Incertidumbres en los Efectos del Hinchamiento de Suelos Sobre Pilotes," Memorias del XIX Congreso de la Academia Nacional de Ingeniería, Acapulco, September 22-24, 1993, pp.17-21.

Picornell, M., Ferregut, C., Gowdappa, H. and Behar, J., "Data Base for Reliability Analyses of Deep Foundations in Expansive Soils," Unsaturated Soils, S.L Houston and W.K. Wray (eds.), ASCE SP 39, 1993, pp.211-222.

Vennalaganti, K.M., Ferregut, C. and Nazarian, S., "Stochastic Analysis of Errors in Remaining Life Due to Misestimation of Pavement Parameters in NDT," Nondestructive Testing of Pavement Parameters and Backcalculation of Moduli (Second Volume), ASTM STP 1198, Harold L. Von Quintas, Albert J. Bush, and Gilbert Y. Baladi (Eds.), American Society for Testing and Materials, Philadelphia, 1993, pp.261-276.

Ferregut, C., Picornell, M. and Pendones, J.A., "Probabilistic Analysis of Piers in Expansive Soils," Transportation Research Record, No. 1392, 1992, pp. 118-125.

Ferregut, C., Picornell, M. and Pendones, J.A., "Analysis of Uncertainties Related to the Response of Piers in Expansive Soils," Proceedings of the 7th International Conference on Expansive Soils, Volume 1, Dallas, TX, August, 1992, pp.477-482.

Malik, L., Ferregut, C., Graville, B.A., Jutla, T., Steele, M. and Tyson, W., "Significance of Local Brittle Zones in Weld Heat-Affected Zones - Statistical Model," Proceedings of the International Conference on Offshore Mechanics and Arctic Engineering, Calgary, 1992.

Jutla, T., Ferregut, C. and Glover, A., "Reliability-Based Fitness-for-Service Analyses," Proceedings of the International Conference on Pipeline Reliability, R.W. Revie and K.C. Wang (Eds.), Gulf Publishing Company, Calgary, June 2-5, 1992, pp.II6-1-15.

Rodriguez-Gomez, J., Ferregut, C. and Nazarian, S., "Impact of Variability in Pavement Parameters on Backcalculated Moduli," Pavement Response Monitoring Systems for Roads and Airfields, ASCE, 1992. pp. 261-275.

Ferregut, C. and Picornell, M., "Confiabilidad de Pilotes en Suelos Expansivos," Revista de Ingeniería, Vol. LXI, No. 4, October-December, 1991, pp.25-41.

Ferregut, C. and Picornell, M., "Reliability Analysis of Drilled Piers in Expansive Soils", The Canadian Geotechnical Journal, Vol. 28, No. 6, December, 1991, pp.834-842.

Naber, N., Ferregut, C. and Kreinovich, V., "Methodology that Combines Neural and Analytical Models and Its Application to Composite Materials," Proceedings of the International AMSE Conference Signals, Data & Systems, New Delhi, India, December 9-11, 1991, AMSE Press, Vol. 4, pp. 149-160.

Ferregut, C., "A Probabilistic Approach for Local Brittle Zones in Welded Joints," Proceedings of The Sixth International Conference on Applications of Statistics and Probability in Civil Engineering, Vol. 1, L. Esteva and S.E. Ruiz (eds.) Mexico City, June, 1991, pp.101-110.

Stephenson, T.W., Candelaria, A.M., Ferregut, C. and Osegueda, R., "Toward The Reliability Assessment of Damaged Structures from Vibration Measurements: Uncertainty Analysis Models," Proceedings of the 1991 National Engineering Symposium of the Society of Mexican-American Engineers and Scientists, Houston, Texas, April, 1991, pp. 235-248.

Daley, C. and Ferregut, C., "Structural Risk Modeling of Arctic Shipping, "IUTAM/IAHR Symposium on Ice-Structure Interaction, S.J. Jones, R.F. McKenna, J.Tillotson and I.J. Joordan (Eds.), Springer-Verlag, Berlin, 1991, pp. 507-540.

Jutla, T., Ferregut, C. and Glover, A., "Pipelines: Defect Assessment Incorporating Reliability Theory," Proceedings of The 9th International Conference on Offshore Mechanics and Arctic Engineering, Vol.5, February 18-23, ASME, 1990, pp.47-55.

Perchanok, M., Ferregut, C., and Brown, R., "A Probabilistic Ice Information System for Canadian Waterways," The Marine Technology Society Journal, Volume 23, No. 2, June, 1989, pp.28-32.

Ferregut, C., "Reliability of Structural Systems," Proceedings of The 1988 Annual Conference of the Canadian Society for Civil Engineering, Calgary, Alberta, May 23-27, 1988, pp.566-586.

Ferregut C., "Cluster Analysis as a Tool in The Classification of Structures for Safety Differentiation," The Canadian Journal of Civil Engineering, Vol. 15, August, 1988, pp.601-608.

Ferregut, C., Perchanok, M. and Daley, C., "Ship/Ice Collision Probabilities in Arctic Shipping," Port and Ocean Engineering Under Arctic Conditions, Volume I, W.M. Sackinger and M.D. Jeffries (Eds.), The Geophysical Institute, University of Alaska Fairbanks, 1988, pp.631-643.

Ferregut, C., "Methodologies for the Selection of Safety Factors and Safety Levels in the Design of Marine Structures," Proceedings of Marine Structural Reliability Symposium, Arlington, Virginia, October 5-6, 1987, pp.133-142.

Perchanok, M., Ferregut, C., and Brown, R., "Generation of a Probabilistic Climatology for Arctic Sea Ice," Proceedings of OCEANS'87, Vol. 1, Halifax, Nova Scotia, September 28 - October 1, 1987, pp.70-75.

Rosenblueth, E., Ferregut C., Ordaz, M., and Chen, X., "Processing Doubtful Information," Institute for Risk Research, University of Waterloo Press, Waterloo, Ontario, 1987.

Ferregut, C. and Perchanok, M., "On Modeling The Arctic Environment: A Bayesian Approach," Proceedings of Envirossoft'86, P. Zanneti (Ed.), Los Angeles, California, November, 1986, pp.733-743.

Ferregut, C., "Classification of Highway Bridges for Safety Differentiation," Proceedings of the Second International Conference on Short and Medium Span Bridges, August 17-21, 1986 Ottawa, pp.361-372.

Ferregut, C. and Lind, N. C., "Safety Level Differentiation in Highway Bridges," Summary Paper, Proceedings of the 10th Canadian Congress of Applied Mechanics, London, Ontario, June 2-7, 1985, pp. E99-E100.

Rosenblueth, E. and Ferregut, C., "Processing of Doubtful Information, Part 2: Gaussian Distributions," Risk, Structural Technology and Human Error, M. Grigoriu, (Ed.), University of Waterloo Press, 1984, pp.57-88.

Ferregut, C., "Reliability of Elastoplastic Systems," in Reliability Theory and its Applications in Structural Engineering and Soil Mechanics, P. Thoft-Christensen, (Ed.), Martinus Nijhoff Pub., The Hague, 1983, pp.445-451.

Abstracts

Ferregut, C., Nazarian, S., Vennalaganti, K., Chang, C. and Kreinovich, V., "Fast Interval Error Estimates for the Results on Non-Linear Least Squares Method: Application to Pavement Engineering," Abstracts for a Workshop on Interval Methods in International Conference on Interval Computations, Lafayette, LA, February 25-March 1, 1993, p.14.

Barraza, E. and Ferregut, C., "Reliability of Gas Pipelines Under Vehicular Crossings," Forum on Undergraduate Research Experience of Minority Students, October, 1992, p.8

Barraza, E., Ferregut, C. and Oey, H.S., "Uncertainty and Reliability Considerations in the Design of Gas Pipelines Under Vehicular Crossings," Texas Civil Engineer, August-September 1992.

Ferregut, C. and Picornell, M., "Bosquejo de un Modelo de Confiabilidad para Desplazamientos y Tensiones de Pilotes en Suelos Expansivos," Memoria del 1er Encuentro de Investigadores de la Zona Norte, Autonomous University of Chihuahua, June, 1991.

Ferregut, C., "Risk of Brittle Fracture Initiation in Heat Affected Zones of Welded Joints," Texas Civil Engineer, August-September 1991, p.17.

Rodriguez, J., Ferregut, C. and Nazarian, S., "Impact of Variability in Thickness of Pavement Layers on Backcalculated Moduli from Nondestructive testing," Texas Civil Engineer, August-September 1991, p.16.

Ferregut, C., and Picornell, M., "Uncertainty Modeling of Displacements and Tensile Stresses in Piers on Expansive Soils," Texas Civil Engineer, August-September, 1990.

Technical Reports

Optimizing Construction quality Management of Pavement Using Mechanistic Performance Analysis," (with Nazarian, Hao and Abdallah), Research Report 4046-1, Center for Highway Materials Research, UTEP, November 2002 (Submitted to TxDOT)

Abdallah, E., Melchor, O., Ferregut, C. and Nazarian, S., "Artificial Neural Network Models for Assessing Remaining Life of flexible Pavements," Report No. TX-99 1711-2, Submitted to Texas Department of Transportation, January 2000.

Ferregut, C. and Carrasco, C. "Modal Analysis of the Border Steel Plant Fan Foundation," prepared for Robert Navarro & Associates Inc., November 1999.

Ferregut, C. and Carrasco, C. "Statistical Study of the Effect of Fissures in Geometrica Aluminum Alloy 6061-T6 Tubes," prepared for Geometrica Inc, October 1999.

Ferregut, C., Abdallah, I., Melchor-Lucero, O. and Nazarian, S. "Artificial Neural Networks-Based Methodologies for Rational Assessment of Remaining Life of Existing Pavements, Report TX-99 1711-1, Submitted to Texas Department of Transportation April 1999.

Ferregut, C., Carrasco, C., "Strength Characterization of Geometrica Connector Type 6ZD-00," Report Submitted to Geometrica, Inc., December 1998.

Carrasco, C.J and Ferregut, C. "Nonlinear Finite Element Analysis of Geometrica Connector Series 6-6090, Report Submitted to Geometrica, Inc., February 1998.

Warke, R. and Ferregut, C. "Reliability-Base Fitness-for-Service Assessment of Pipeline Girth Welds," Final Report, EWI Project No. J7281, December 1997.

Carrasco C.J., Osegueda R.A., Ferregut, C.M. "Modal Tests of a Space Truss Model and Damage Localization Using Modal Strain Energy" Report FAST 96-1, FAST Center for Structural Integrity of Aerospace Systems, UTEP, July 1996.

Warke, R. and Ferregut, C. "Reliability-Based Fitness-for-Service Assessment of Pipeline Girth Welds, Phase 1: Plastic Collapse" EWI Project No.J7281, March 1996.

Ferregut, C., Osegueda, R., Stephenson, T. and Ortiz, J. "Reliability of Damaged Space Structures from Vibrational Measurements," research report for Grant No. NAG 9-483, submitted to NASA, Johnson Space Center, February, 1992.

Ferregut, C. "Probabilistic Based Ship Design Procedures - A Demonstration," UTEP-URI Final Project Report, October, 1991.

Murray, A., and Ferregut, C. "Reliability Methods for Ship Structures," DREA Report No. CR/90/441, Halifax, Nova Scotia, 1990.

Murray, A., Ferregut, C., and Ritch, R., "Analysis of Sub scour Stresses and Probability of the Scour Induced Damage for Buried Submarine Pipelines," PERD, Canadian Oil and Gas Land Administration, March, 1990, 0825-25-6-4.

Ferregut, C., Jutla, C. and Graville, B., "Probabilistic Modeling for Local Brittle Zones in the Heat Affected Zones of Welded Structures," Fleet Technology Report FTL E73330, 1990.

Comfort, G., Gilbert, G. and Ferregut, C., "Data Base for Analysis of Probability of Damage Due to Ice Scour for Two Pipeline Routes," Volumes I and II, Fleet Technology Report FTL 3235-1, March, 1989.

Ferregut, C. and Daley, C., "Towards an Understanding of Stiffener Tripping Under External Lateral Loading," Transport Canada Report 9712E, January, 1989.

Ferregut, C. and Daley, C., "ASPEN Structural Modeling Using Limit States," Fleet Technology Report FTL 3061, August, 1988.

Comfort, G., Abdelnour, R., Ferregut, C. and Murray, A., "Preliminary Review of Bercha (1988) Ice Jamming Model And Assessment of Proposed Designs for PEI Crossing," Fleet Technology Report FTL 3134c, July, 1988.

Daley, C., and Ferregut, C., "Strength and Stability of Framing for Ice Strengthening," Transport Canada Report TP9157E, March, 1988.

Daley, C.G., Perchanok, M., Ferregut, C., and Brown, R. "Arctic Shipping Probability Evaluation Network - Model Update to March 1987," Vols. I and II, Transport Canada Report No. TP8554E, March, 1987.

Daley, C. and Ferregut C., "Structural Requirements for Submarines in Brash Ice," Arctec Canada Report 1959D, November, 1986.

Perchanok, M. and Ferregut, C., "Feasibility of Under Ice Operations for a Conventional Submarine", Arctec Canada Report 1959B, October, 1986.

Esteva L., Ferregut C., Chavez M. and Tellez F., "Structural Design Criteria for Offshore Structures," Institute of Engineering, National Autonomous University of Mexico, 1981.

Editorships

Proceedings of the Workshop on Intelligent NDE Sciences for Aging and Futuristic Aircraft, C. Ferregut, R. Osegueda and A. Nunez (Eds.), El Paso, Texas, Sep 30-Oct 2, 1997.

VI. CONTRACTS AND GRANTS

“Understanding the Consequences and Costs of Climate Change to the Texas Transportation System,” Texas Department of Transportation, 4/10/2015-5/31/2017, \$249,903, Co-PI with V. Tandon, V. Kumar and S. Nazarian.

“Engineering Together Sustainable Communities: A US-Mexico Study Abroad Program,” Partners for the Americas Organization, 10/1/2014 – 8/30/2015, \$25,000, Co-PI with H. Taboada and J. Espiritu.

“USA/Peru Study Abroad Program: Global and Regional Sustainability Engineering,” US Department of State, 9/18/2012 – 7/31/2015, \$225,000, PI with H. Taboada, J. Espiritu, N. Vargas-Hernandez, K. Cheu, C. Chang and N. Minion.

“UTEP’s Graduate Bridge Program for Highly Achieving Engineering and Computer Science Students”, NSF, 9/15/2011 – 8/30/2016, \$600,000, PI with B. Flores, S. Aguirre-Covarrubias and R. Sassenfeld.

“Structural Integrity – Study of Probabilistic Approach for ISS Structural Life Assessment,” Phase III, The Boeing Company, 6/1/2011 – 12/31/2011, \$82,313 PI with O. Melchor.

“Transatlantic Dual Degree Program in Transportation and Logistics,” Atlantis Program, FIPSE, Department of Education, 9/1/2010 – 8/31/2015, \$416,000, Co-PI with K. Cheu, C. Chang and S. Hernandez.

“Structural Integrity – Study of Probabilistic Approach for ISS Structural Life Assessment,” Phase II, The Boeing Company, 12/2010 – 4/2011, \$65,000 PI with C. Carrasco.

“WSC-Category 1 - Sustainability on the Border: Water, Climate, and Social Change in a Fragile Landscape”, NSF, 9/15/2010 – 8/30/2012, \$150,000, Co-PI with W. Hargrove, D. Borok, J. Heyman, C. Tweedie.

“Structural Integrity – Study of Probabilistic Approach for ISS Structural Life Assessment”, Phase I, The Boeing Company, 10/09-6/10, \$111,920, PI with C. Carrasco.

“ENG: ECNP - Nitrogen/Oxygen Recharge System (NORS)” - Phase 2, 10/15/2009 to 4/14/2010, The Boeing Company, \$72,159, Co-PI with C. Carrasco and Octavio Melchor.

“Building Partnerships and Pathways to Address Engineering Grand Challenges,” NSF, 9/09 - 8/10, \$174, 953, PI with A. Gates, S. Nazarian, R. Gutierrez, H. Nazeran and B. Benedict.

“Develop a Theoretically Sound Approach to Reliability Analysis of Components,” The Boeing Company, 1/2009 – 5/2009, \$38,261, Co-PI with F. Modave.

“North American Engineering Innovation and Training Project: Enhancing the future of engineering through collaboration,” U.S. Department of Education (Subcontractor to CSU-Chico), 9/07-8/11, \$87,500, PI with H. Nazeran.

“Integration of Non-destructive Testing Data Analysis Techniques,” TXDOT, 9/03–8/05, \$260,000, Co-PI with S. Nazarian and Imad Abdallah.

“Development of a Construction Management Course,” 3D/I Inc., 8/03 – 12/03, \$35, 000, PI with Vivek Tandon,

“LAMB Wave Scanning and Intelligent NDE for Wide Area Aircraft Inspections,” US AFOSR, 9/00 – 8/03, \$300,000 Co-PI with R. Osegueda and S. Nazarian.

“ Impact of Construction Quality on Life-Cycle Performance of Pavements Using Mechanistic Analysis,” TXDOT, 9/00 – 8/03, \$212,000, Co-PI with S. Nazarian and I. Abdallah.

“Data Fusion Methodologies for Damage Monitoring of Aerospace Structures,” NASA Johnson Space Center, 5/99 – 4/2003, \$162,000, PI. with R. Osegueda.

“Data Fusion Methodologies for Intelligent Nondestructive Evaluation,” US Air Force Research Laboratories, 6/99 – 5/02, \$192,000, PI. with R. Osegueda and S. Nazarian.

“Workshop on Intelligent Nondestructive Evaluation Sciences for Aging and Futuristic Aircraft,” AFOSR 5/97 – 9/97, \$29,904, PI. with R. Osegueda.

"Development of a Comprehensive Rational Method for Determination of Remaining Life of an Existing Pavement, TXDOT, 9/96 8/99, \$219,000, PI with S. Nazarian and I. Abdallah.

"Development of Analytical Tools to Process Modal Analysis Data for Damage Monitoring of Structures," NASA Johnson Space Center, 9/96 – 8/99, \$163, 746, PI with R. Osegueda.

"FAST Center for Structural Integrity of Aerospace Systems," AFOSR, 10/95 – 9/01, \$3,325,000, Co-PI with R. Osegueda, S. Nazarian, L. Murr and J. Pierluisi.

"Reliability-Based Fitness-For-Service Assessment of Pipeline Girth Welds, American Gas Association, (Subcontractor to Edison Welding Institute), 3/94 – 3/97, \$50,000, PI.

"Development of a Damage Assessment Methodology for Space Structures Using Neural Networks," NASA, 9/93 – 8/95, \$44,000, PI.

"U.T. El Paso Transportation Technology Transfer Subcenter - Continuation Agreement," Texas Engineering Extension Service, The Texas A&M University System, 9/92 – 8/93, \$53,400, Co – Carlos M. Ferregut

PI with R. Osegueda.

“Determination of Unknown Subsurface Bridge Foundations,” National Cooperative Highway Research Program, NCHRP Project 21-5, (Subcontractor to Olson Engineering, Inc.), 9/92 – 12/93, \$10,500. Co-PI with S. Nazarian and M. Baker.

“Development of an Expert System for the Design of Drilled Shafts in Expansive Soils,” Texas Higher Education Coordinating Board, 1/91 – 8/94, \$120,000, PI with M. Picornell.

"Reliability of Damaged Space Structures from Vibration Measurements," NASA Johnson Space Center, 9/90 – 12/95, \$238,575, PI with R. Osegueda.

"Evaluation of Bridge Stresses Under Unusual Vehicle Widths and Axle Configuration," Texas Department of Transport, 9/90 – 8/92, \$40,000, Co-PI with R. Osegueda.

"Development of an Expert System for Fatigue and Fracture Evaluation of Steel Structures," UTEP-URI, 9/90 – 8/92, \$5,500.

VII. COURSES TAUGHT

At UTEP

UNIV 1301 Seminar/ Critical Inquiry
CE 3215 Engineering Mechanics
CE 3234 Mechanics of Materials
CE 3343 Structural Analysis
CE 3373 Probability and Statistics for Civil Engineers
CE 3435 Structural Design I
CE 3461 Structural Design II
CE 1595 Graduate Seminar
CE 3590 Reliability of Engineering Systems
CE 3590 Advanced Steel Structural Design
CE 3590 Advanced Concrete Design
CE 3590 Structural Load Models
CE 3525 Design of Structures for Dynamic Loads

At Universidad Autónoma de Ciudad Juárez, Mexico

Structural Analysis

At Universidad de Piura, Peru

Reliability of Transportation Systems

VIII. GRADUATE THESES DIRECTED

Mustafa Aldalinsi, "Method to Reduce Plastic Shrinkage Cracking of Concrete Using the Re-vibration Technique," Ph.D. Dissertation, December 2013.

Jose Garcia, "Study of Probabilistic Approach for Structural Health Assessment of Aerospace Structures," Master of Science in Civil Engineering, December 2011.

Mustafa Aldalinsi, "Probabilistic Fracture Modeling for Reinforced Concrete Structures," Master of Science in Civil Engineering, May 2010

Jose Adrian Vela, "Probability of Failure and Determination of Safety Factors in Dome Structures", Master of Science in Civil Engineering, May 2010.

Gabriela Garcia, "Mid-rise Building Framing Systems Comparison", Master of Science in Civil Engineering, May 2007.

Edgar Munoz, Master of Science in Civil Engineering, "Feasibility of Using Artificial Neural Networks and Analytical Data for Prediction of Damage Detectability on Aluminum Beams", Master of Science in Civil Engineering, December 2004

Lizeth Carrasco, "A Bayesian Method for Processing Modal Information for Damage Detection", Master of Science in Civil Engineering, May 2004.

Benjamin Lopez, "Quantification of Pitting Corrosion Using Fractal Theory," Master of Science in Civil Engineering, December 2001.

Hugo Pardo, "A Reliability-Based Method for Corrosion Quantification," Master of Science in Civil Engineering, December 2001.

Walter Alvarez, "Artificial Neural Network Models for Damage Detection Using Lamb Waves," Master of Science in Civil Engineering, December 1999.

Angel Urbina, "Probabilistic Analysis of Rechargeable Batteries in a Renewable Power Supply System," Master of Science in Civil Engineering, May 1999.

Thalia Yiasemis, "A Matlab Tool for Probabilistic Safety Factors Calibration," Master of Science in Civil Engineering, September 1997.

Javier Navarro, "Stanton Street Toll Plaza," (Graduate Project), Master of Science in Civil Engineering, August 1997.

David C. Doran, "Toward The Strength Characterization of Connections Employed in Reticulated Structures," Master of Science in Civil Engineering, August 1997.

Luis E. Perez, "Statistical Validation of a Plate Finite Element Model for Damage Detection," Master of Science in Civil Engineering, May 1997.

Javier Ernesto Avila, "A Geographic Information System for Expansive Soils," Master of Science in Civil Engineering, May 1996.

Jaime Ortiz, "Neural Networks in Damage Assessment Using Vibrational Measurements", Master of science in Civil Engineering, May 1996.

Jacobo Behar "Experimental and Analytical Behavior of Model Concrete Piers in Expansive Soils," Master of Science in Civil Engineering, July 1995

Susan Jutta Rosas, "Reliability-Based Calibration of Safety Factors for Fitness-for-Service Assessment of Pipeline Girth Welds", Master of Science in Civil Engineering, Master of Science in Civil Engineering, December 1995.

Hareesh Gowdappa, "Development of an Expert System for the Reliability Design of Piers in Expansive Soils," Master of Science in Civil Engineering, August 1994.

Octavio Melchor Lucero, "Development of a Prototype Expert System for Damage Assessment of Structural Concrete Elements," Master of Science in Civil Engineering, December 1993.

Thomas Stephenson, "Probabilistic Evaluation of a Vibrational NDE Damage Detection and Reliability Assessment Method," Master of Science in Civil Engineering, August 1993.

Vennalaganti Krishna Mohan. "Uncertainty Analysis of Remaining Life of Flexible Pavements," Master of Science in Civil Engineering, May 1993.

Jose Angel Pendones, "Analysis of Uncertainties Related to the Response of Piers in Expansive Soils," Master of Science in Civil Engineering, January 1992.

IX. UNIVERSITY SERVICE

Member of Mexican Engagement Task Force (Sep 2014 to date)

Member of Global Engagement Task Force (Oct 2014 to date)

Ad-Hoc Member of Student Welfare Committee (Sep 2013-May 2014)

Faculty Fellow, NSF-ADVANCE Program (2005-2009)

Admissions and Academic Standards Committee (2003-2008)

UTEP's representative to the Texas Higher Coordinating Board, Engineering Field of Study Committee (2000-2002)

Faculty Athletic Council (1999- 2004)

Faculty Senate Executive Council (1999 – 2001)

CARPE Committee (1998 – 2000, 2002 -2003)

Advisory Committee to the Entering Students Program (1998-2000)

Statistics and Probability for Engineers (MIE) Committee (1997- 2000)

Student Organizations and Activities Committee (1995-1998)

Faculty Senator (Sep 1994 – Aug 1996)

Institutional Effectiveness Advisory Committee (SACS) (1994-1996)

Member of Faculty Welfare Committee (1993 - 1996)

Carlos M. Ferregut

Student Organization and Activities Committee (1994 – 1998)
Center for Inter-American and Border Studies Advisory Committee (1993-1996)
Member of Student Publication Committee (1992-1994)
Member of Admissions and Academic Standards Committee (1992-1994)

X. RECOGNITIONS

Prof. F.J. Gerstner Medal on merit to the Faculty Development awarded by the Faculty of Transportation Sciences, Czech Technical University, Prague, 2013
Best Paper of Conference Award, SPIE Smart Structures and Materials Conference, March 2000.
Professor of the Semester Award from ASCE Student Chapter, Fall 2001
Professor of the Semester Award from ASCE Student Chapter, Spring 2000.
Outstanding Civil Engineering Graduate Award from the Mexican Society of Civil Engineers, 1980.