

Engineering Technology Scholarly Activity 2011-13

Anaya, Leticia – Senior Lecturer

2013	Anaya, L. and Visinescu, L., (2013), "International Engineering Education Journals: Past, Present and Potential Research Directions," 2013 ASEE Annual Conference, June 23 - 26, 2013. Atlanta, GA
2013	Alfadhli, H. and Anaya, L., "Newspaper Vendor Problem Simulation of Manufacturing Operations," ASEE Southeastern Section Conference , March 10-12, 2013, Tennessee Technological University, Cookeville, TN.
2012	Anaya, L., Evangelopoulos, N. (2012) "Classification Of Customer Complaints Using The Dirichlet Allocation Method", Decision Science Institute 43rd Annual Meeting, San Francisco, California, November 17-20, 2012. (Distinguished Track MS/OR/Statistic Paper in 2012 Decision Science Conf. out of 91 papers submitted from all over the world.)
2012	Analysis of Mechanical Engineering Technology Senior Projects Anaya, L., Foster, P., and Evangelopoulos, N. 2012 Annual Gulf Southwest Conference of the American Society for Engineering Education, University of Texas at El Paso, April 4-6, 2012
2011	"Comparing Latent Dirichlet Allocation and Latent Semantic Analysis as Classifiers," Ph.D. Dissertation Anaya, Leticia, University of North Texas
2011	"Communicating Customer Complaints in a Service Setting," Anaya, L., Evangelopoulos N. Decision Science Institute 42nd Annual Meeting, November 19-22.

Barbieri, Enrique – Professor & Chair

2012	Modeling, Simulation, and Control of Heat Integrated Distillation Columns: A Case Study F. Manzo, V. Tzouanas, and E. Barbieri. Proceedings of the ASEE Annual Conference and Exposition, San Antonio, TX, June 2012
2012	MS in Engineering Technology: Examples from Control Systems E. Barbieri and V. Tzouanas. Proceedings of the ASEE Annual Conference and Exposition, San Antonio, TX, June 2012
2012	On Engineering Technology Education: BS to PhD E. Barbieri, V. Vaidyanathan, and O. Petersen. Journal of Engineering Technology, Fall 2012, pp.20-28
2011	Evaluation Results of an E and ET Education Forum M. A. Ramos, L. Chapman, M. Cannady, and E. Barbieri. Journal of Engineering Technology, Fall 2011
2011	On Optimal Defibrillating Pulse Synthesis E. Barbieri, J. F. Eberth, and F. Attarzadeh. Proceedings of the American Control Conference, June 2011, San Francisco, CA, pp.4781-4786

Funding

2013-2013	E. Barbieri, A. Boggiano, A. Albarran (UNT: \$87,950); A. Bencomo, B. Robin (UH: \$15,900) "Inventivas de la Inventiva: Empleando KUHF -Engines of Our Ingenuity- to Increase Engineering Awareness and Education Opportunities in the Hispanic Community", Jan-Dec 2013.	United Engineering Foundation	\$103,850
2012-2012	E. Barbieri, A. Boggiano, A. Bencomo, Inventivas de la Inventiva: Empleando KUHF -Engines of Our Ingenuity- to Increase Engineering Awareness and Education Opportunities in the Hispanic Community	United Engineering Foundation	92,000
2009-2012	E. Barbieri and W. Fitzgibbon, Transformational Paradigm for the Engineering Profession (TPEP)	Department of Ed. (FIPSE)	149,000

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Bostanci, Huseyin – Assistant Professor

2013	Bostanci, H., Singh, V., Rini, D.P., Kizito, J.P., Seal, S., Chow, L.C. "Micro Scale Surface Modifications for Heat Transfer Enhancement", ACS Applied Materials and Interfaces, vol 5 (19), pp. 9572-9578, 2013
2013	Wu, W., Bostanci, H., Chow, L.C., Hong, Y., Ding, J.S., Su, M., Kizito, J.P. "Heat Transfer Enhancement of PAO in Microchannel Heat Sink using Nano-Encapsulated Phase Change Indium Particles", International Journal of Heat and Mass Transfer, vol. 58, pp. 348-355, 2013
2013	Wu, W., Bostanci, H., Chow, L.C., Hong, Y., Ding, J.S., Su, M., Kizito, J.P., "Jet Impingement of Air-particle Suspension with Nanoencapsulated Phase Change Materials", ASME Journal of Heat Transfer, vol. 135, pp. 052202-, 2013
2012	Thermal Management of Power Inverter Modules at High Fluxes via Two-Phase Spray Cooling Bostanci, H., Van Ee, D., Saarloos, B.A, Rini, D.P., Chow, L.C; IEEE Transactions on Components, Packaging and Manufacturing Technology, vol. 2 (9), pp. 1480-1485
2012	High Heat Flux Spray Cooling with Ammonia: Investigation of Enhanced Surfaces for CHF Bostanci, H., Rini, D.P., Kizito, J.P., Singh, V., Seal, S., Chow, L.C.; International Journal of Heat and Mass Transfer, vol. 55 (13), pp. 3849-3856
2012	A 277W Cryogenic Ceramic Yb:YAG Thin-Disk Laser; Vretenar, N., Newell, T.C., Carson, T., Peterson, P., Lucas, T., Latham, W. P., Bostanci, H., Lindauer, J.J., Saarloos, B.A., Rini, D.P. Optical Engineering, vol. 51(1), pp. 014201
2011	Pool Boiling Critical Heat Flux in Dielectric and Nano Fluids; Arik, M., Kosar, A., Bostanci, H., Bar-Cohen, A.; Advances in Heat Transfer Vol. 43, Elsevier
2011	Jet Impingement and Spray Cooling Using Slurry of Nanoencapsulated Phase Change Materials; Wu, W., Bostanci, H., Chow, L.C., Ding, J.S., Hong, Y., Su, M., Kizito, J.P., Gschwender, L., and Snyder, E.; International Journal of Heat and Mass Transfer, vol. 54, pp. 2715-2723
2011	Evaluation of Compact and Effective Air-cooled Carbon Foam Heat Sink; Wu, W., Du, J.H., Lin, Y.R., Chow, L.C., Bostanci, H., Saarloos, B.A, Rini, D.P; ASME Journal of Heat Transfer, vol.133, pp. 054504-
2011	Cryogenic Yb:YAG Thin-Disk Laser ; Vretenar, N., Carson, T., Lucas, T., Newell, T.C., Latham, W. P., Peterson, P., Bostanci, H., Lindauer, J.J., Saarloos, B.A., Rini, D.P. ; Proc. SPIE 8187, 818706 , Prague, Czech Republic
2011	Jet Impingement Heat Transfer with Air-borne Nanoencapsulated Phase Change Materials; Wu, W., Bostanci, H., Chow, L.C., Hong, Y., Su, M., and Kizito, J.P.; Proc. MRS Spring Meeting, San Francisco, CA, April 25-29, 2011

Funding

2013-2014	H. Bostanci, A. Nouri, E. Barbieri, "Phase I: Automated Heat Shrink Harnessing Device"	Safran/Labinal Inc., Denton	14,356
2013-2014	H. Bostanci, "Spray Cooling: An Advanced Thermal Management Technique for Space Applications"	NASA Texas Space Grant Consortium New Investigator Program	10,000
2013-2014	H. Bostanci, "Advanced Thermal Management of Hybrid Vehicle Electronics"	UNT Research Opportunity Program (ROP)	7,500
2013-2013	H. Bostanci, "Development of Novel Surfaces for Enhanced Thermal Management of High Power Devices"	UNT Research Initiation	7,500
2013-2014	H. Bostanci, "Energy Assessment on a Small-Scale House via Air Infiltration and Thermography Tests"	ASHRAE	5,000

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Boubekri, Nourredine – Professor

2013	N. Boubekri, Vasim Shaikh, "Minimum Quantity Lubrication (MQL) in Machining"; Journal of Management and Engineering Integration, Vol 6, No2, pp 51-61, 2013
2013	Shaikh, V., Boubekri, N., and Scharf, T. W., (2013), Microlubrication effects in milling AISI 1018 steel: An approach towards Green Manufacturing, 120th ASEE Annual Conference and Exposition
2013	Shaikh, V., and Boubekri, N., Wear analysis during end milling AISI 1018 steel using microlubrication, European International Journal of Science and Technology, Vol: 2, Number: 8, (2013), pp. 216-225
2013	N. Boubekri, Vasim Shaikh "Management of Lubricants in Machining"; 19 Annual International Conference on Industry, Engineering, and Management Systems; FI March 2013
2011	"An Investigation in Drilling 1020 Steel Using Minimum Quantity Lubrication"; International Journal of Applied Science and Technology; Vol1, No5, 2011

Foster, Phillip – Associate Professor

2013	P. R. Foster, "Liquid Cooled Stirling Engine with a Segmented Rotary Displacer", United States Patent No: US 8,495,873 B2; July 2013
2012	Foster, P.R. "Evolution of the Stirling Cycle: Emphasis on Reliability, Durability, and Long-term Unattended Operation." 2012 American Society for Engineering Education Annual Conference and Exposition at the San Antonio Convention Center, San Antonio, TX 6/10/12 through 6/13/12.
2012	Anaya, L., Foster, P.R., and Evangelopoulos, N. "Analysis of Mechanical Engineering Technology Senior Projects." 2012 Annual Meeting of the Gulf-Southwest Section of the American Society for Engineering Education, Tomas Rivera Conference Center, University of Texas at El Paso, El Paso, TX 4/4/12 through 4/6/12.
2011	Foster, P.R. "Structuring the Capstone Course Sequence to Demonstrate Unquestionable Achievement of All ABET and Lead Technical Society Program Outcomes." 2011 Annual Meeting of the Gulf-Southwest Section of the American Society for Engineering Education at the Weston Oaks-Galleria, Houston, TX 3/9/11 through 3/11/11.
2011	Foster, P.R. "Innovative Rotary Displacer Stirling Engine: Sustainable Power Generation for Private and Fleet Vehicle Applications." Journal of Technology Studies, 37, (2), 35-47, (2011).

Huang, Zhenhua – Assistant Professor

2013	Adeleye, T.*, Huang, M., Huang, Z., and Sun, L. (2013) Predicting loss for large construction companies, ASCE Journal of Construction Engineering and Management, 139(9), 1224-1236
2013	Dai, K., Huang, Y., Huang, Z., Zong, G. and Shi, W. (2013). Experimental case studies on wireless and wired sensors, Proceedings of 2013 SPIE Smart Structures/NDE SSN09, San Diego, California.
2013	Huang, Z. and Wu H.F. (2013). Full-scale testing of civil structures using wireless sensing technologies, Proceedings of 2013 SPIE Smart Structures/NDE SSN09, San Diego, California
2012	Dai, K. and Huang Z. (2012). Novel sensing techniques for full-scale testing of civil structures, Frontier Structural and Civil Engineering, 6(3), 240-256
2012	Huang, Z., Hedric, A.C.*, and Yanagi, N.* (2012). Experimental evaluation of wood beam-column connection strength equations and failure modes in NDS 2005, presentation at 2012 Structures Congress, Chicago, Illinois
2011	Hedric, A. C.*, Yanagi, N.*, Huang, Z., and Yu, C. (2011). A pilot research on seismic performance factors for CFS shear walls with steel sheet sheathing, Proceedings of Texas Section ASCE Spring 2011 Meeting, College Station, Texas

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2011	Yanagi, N.*, Hedric, A.C.*, and Huang, Z. (2011). Experimental evaluation of wood beam-column connection moment strength in NDS 2005, Proceedings of Texas Section ASCE Spring 2011 Meeting, College Station, Texas
2011	Huang, Z. (2011). Monotonic and cyclic pushover tests of wood beam-column connection: traditional Chinese tenon joint vs typical and simplified US connections, Proceedings of 2nd National Conference on Structural Experiment, Detecting Technology and Experimental Education in Civil Engineering, Shanghai, China
2011	Huang, Z and Jones, N.P. (2011). Damping of taut-cable systems: effects of linear elastic spring support, ASCE Journal of Engineering Mechanics, 137(7), 512-518
2011	Huang, Z., Monotonic and Cyclic Pushover Tests of Wood Beam-Column Connection: Traditional Chinese Tenon Joint vs Typical and Simplified US connections, Structural Engineer, 342-349

Funding

2013-2016	Z. Huang, E. Kougianos, and S. Wang, "A New Interdisciplinary Technology Education Strategy Using State-of-art Wireless Sensor Network"	NSF	199,000
2013-2014	NSF-RAPID: Investigation of the Blast Loading for the Fertilizer Plant Explosion at West, Texas	NSF-RAPID	\$10,000
2012	Demonstration Project: Identification of concrete beam deficiencies through wireless sensor network	NIST-seed grant	1,800
2012	<ul style="list-style-type: none"> • NSF-AFOSR-USDOT group visit • Research collaboration discussion with NIST on wireless sensing technology in structural testing • Research proposal discussion with NSF-TUES director 	UNT-PEST	2,059
2012	Mentoring co-chaired Ph.D. student, Hao Wang, at Tongji University in Shanghai, China during summer of 2012	UNT-GRDF	500

Kougianos, Elias – Associate Professor

2013	U. Choppali, E. Kougianos, S. P. Mohanty and B. Gorman, "Influence of Annealing on Polymeric Precursor ZnO Thin Films on Sapphire", Elsevier Journal of Thin Solid Films (TSF), Vol. 545, October 2013, pp. 466-470.
2013	*O. Okobiah, S. P. Mohanty, and E. Kougianos, "Geostatistical-Inspired Fast layout Optimization of a Nano-CMOS Thermal Sensor", IET Circuits, Devices & Systems (CDS), Vol. 7, No. 5, September 2013, pp. 253-262.
2013	*O. Okobiah, S. P. Mohanty, and E. Kougianos, "Fast Statistical Process Variation Analysis Using Universal Kriging Metamodeling", in proceedings of the 56th IEEE International Midwest Symposium on Circuits & Systems (MWSCAS) 2013, pp. 277-280.
2013	*G. Zheng, S. P. Mohanty, E. Kougianos, and *O. Okobiah "Polynomial Metamodel Integrated Verilog-AMS for Memristor-Based Mixed-Signal System Design", in proceedings of the 56th IEEE International Midwest Symposium on Circuits & Systems (MWSCAS) 2013, pp. 916-919
2013	O. Okobiah, S. P. Mohanty, and E. Kougianos, "Geostatistics Inspired Fast Layout Optimization of a Nanoscale CMOS Phase Locked Loop", 14th IEEE International Symposium on Quality Electronic Design (ISQED) 2013, pp. 562 -567, 2013.

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2013	G. Zheng, S. P. Mohanty, E. Kougianos, and O. Okobiah, "iVAMS: Intelligent Metamodel-Integrated Verilog-AMS for Circuit-Accurate System-Level Mixed-Signal Design Exploration", 24th IEEE International Conference on Application-specific Systems, Architectures and Processors (ASAP) 2013, pp. 75-78, 2013.
2012	"Polynomial-Metamodel Assisted Fast Power Optimization of Nano-CMOS PLL Components", in proceedings of the Forum on specification and Design Languages (FDL) 2012, pp. 233-238, 2012 S. P. Mohanty, E. Kougianos, O. Garitselov, and J. M. Molina
2012	A Comparative Study of Metamodels for Fast and Accurate Simulation of Nano-CMOS Circuits O. Garitselov, S. P. Mohanty, and E. Kougianos, IEEE Transactions on Semiconductor Manufacturing, Vol. 25, No. 1, February 2012, pp. 317-328
2012	Kriging-Assisted Ultra-Fast Simulated-Annealing Optimization of a Clamped Bitline Sense Amplifier O. Okobiah, S. P. Mohanty, E. Kougianos and O. Garitselov 25th IEEE International Conference on VLSI Design (VLSID), pp. 310-315, 2012
2012	Fast-Accurate Non-Polynomial Metamodeling for nano-CMOS PLL Design Optimization O. Garitselov, S. P. Mohanty, and E. Kougianos 25th IEEE International Conference on VLSI Design (VLSID), pp. 316-321
2012	Ordinary Kriging Metamodel-Assisted Ant Colony Algorithm for Fast Analog Design Optimization O. Okobiah, S. P. Mohanty, and E. Kougianos 13th IEEE International Symposium on Quality Electronic Design (ISQED), pp. 458-463, 2012
2012	Metamodel-Assisted Ultra-Fast Memetic Optimization of a PLL for WiMax and MMDS Applications O. Garitselov, S. P. Mohanty, and E. Kougianos 13th IEEE International Symposium on Quality Electronic Design (ISQED), pp. 580-585, 2012
2012	Statistical DOE-ILP Based Power-Performance-Process (P3) Optimization of Nano-CMOS SRAM S. P. Mohanty, J. Sing, E. Kougianos, and D. K. Pradhan VLSI Integration Jnl. (Elsevier), Vol. 45, No. 1, January 2012, p.33-45.
2012	"Verilog-AMS-PAM: Verilog-AMS integrated with Parasitic-Aware Metamodels for Fast Process Variation Resilient Design on Nano-CMOS PLL", in proceedings of the 21st ACM/IEEE Great Lakes Symposium on VLSI (GLSVLSI) 2012, pp. 351-356, 2012. G. Zheng, S. P. Mohanty, E. Kougianos and O. Garitselov
2012	"Particle Swarm Optimization over Non-Polynomial Metamodels for Fast Process Variation Resilient Design of Nano-CMOS PLL", in proceedings of the 21st ACM/IEEE Great Lakes Symposium on VLSI (GLSVLSI) 2012, pp. 255-258, 2012. O. Garitselov, S. P. Mohanty, E. Kougianos and G. Zheng
2012	"Metamodel-Assisted Fast and Accurate Optimization of an OP-AMP for Biomedical Applications", in proceedings of the 11th IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2012, pp. 273-278, 2012. G. Zheng, S. P. Mohanty, E. Kougianos and O. Garitselov
2012	"Geostatistical-Inspired Metamodeling and Optimization of Nano-CMOS Circuits", in proceedings of the 11th IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2012, pp. 326-331, 2012. O. Okobiah, S. P. Mohanty, and E. Kougianos
2012	"Stochastic Gradient Descent Optimization for Low Power Nanoscale CMOS Thermal Sensor Design", in proceedings of the 11th IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2012, pp. 285-290, 2012. O. Okobiah, S. P. Mohanty, E.

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	Kougianos, O. Garitselov, and G. Zheng
2012	“Accurate Polynomial Metamodeling-Based Ultra-Fast Bee Colony Optimization of a Nano-CMOS PLL”, Special Issue on Power, Parasitics, and Process-Variation (P3) Awareness in Mixed-Signal Design, ASP Journal of Low Power Electronics, Vol. 8, No. 3, June 2012, pp. 451-467. O. Garitselov, S. P. Mohanty, and E. Kougianos
2012	“DOE-ILP Assisted Conjugate-Gradient Optimization of High-κ/Metal Gate Nano-CMOS SRAM”, IET Computers & Digital Techniques (CDT), Vol. 6, No. 4, July 2012, pp. 240-248. S. P. Mohanty and E. Kougianos
2012	“Optimal Design of a Dual-Oxide Nano-CMOS Universal Level Converter for Multi-Vdd SoCs”, Analog Integrated Circuits and Signal Processing Journal (Springer), Vol. 72, No. 2, August 2012, pp. 451-467. S. P. Mohanty, E. Kougianos, and O. Okobiah
2011	Fast Optimization of Nano-CMOS Mixed-Signal Circuits Through Accurate Metamodeling O. Garitselov, S. P. Mohanty, and E. Kougianos 12th IEEE International Symposium on Quality Electronic Design (ISQED) 2011, pp. 405-410, 2011
2011	Towards Robust Nano-CMOS Sense Amplifier Design: A Dual-Threshold versus Dual-Oxide Perspective O. Okobiah, S. P. Mohanty, and E. Kougianos 21st ACM/IEEE Great Lakes Symposium on VLSI (GLSVLSI) 2011, pp. 145-450
2011	Maskless Deposition of ZnO Films U. Choppali, E. Kougianos, S. P. Mohanty and B. Gorman Solar Energy Materials and Solar Cells (Elsevier), Vol. 95, No. 3, March 2011, pp. 870-876.
2011	Real-Time Perceptual Watermarking Architectures for Video Broadcasting S. P. Mohanty and E. Kougianos Journal of Systems and Software (Elsevier), Vol. 84, No. 5, may 2011, pp. 724-738

Funding

2010-2013	Introduction of Nanoelectronics Courses in Undergraduate Computer Science and Computer Engineering Curricula	NSF	180,000
2009-2012	Fast PVT Tolerant Physical Design of RF IC Components	SRC/TxACE	105,000
2009-2012	Infrastructure Acquisition for Statistical Power, Leakage, and Timing Modeling Towards Realization of Robust Complex Nanoelectronic	NSF	250,000

Mirshams, Reza - Professor

2013	Reza A. Mirshams, *Ashish K. Srivastava, “Effect of Pile-Up on Nanoindentation Measurements of Polycrystalline Bulk Metals” 2013 International Conference on Materials Science, Machinery and Energy Engineering,(MSMEE 2013), pp. 145-150, December 24-25, 2013, Hong Kong.
2013	Uzochukwu. C. Okafor, Reza Mirshams, “Mechanical Properties of D2 and A2 Tool Steels Evaluated Using Nanoindentation”, 2013 ECTC Proceedings ASME Early Career Technical Conference Hosted by ASME District E and Oral Roberts University Support Provided by the ASME Old Guard and the Committee on Early Career Development April, 4 - 6, 2013, Tulsa, OK

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2011	<i>Mechanical Properties Measurement of Sand Grains by Nanoindentation</i> F. Wang, B. Fu, R.A. Mirshams, W. Cooper, R. Komanduri, H. Lu <i>CONFERENCE PROCEEDINGS OF THE SOCIETY FOR EXPERIMENTAL MECHANICS SERIES Volume 15, 2011, DOI: 10.1007/978-1-4419-9794-4</i>
2011	<i>Intraspecimen Nanomechanical Properties Across the Femoral Cortex Parallel Compositional Measures</i> Mangesh A. Nar, Nandika D'Souza ¹ , Reza Mirshams, and Victor Kosmopoulos <i>SAMPE Tech 2011 Proceedings, Fort Worth, Texas, October 2011</i>

Funding

2013	UNT-UAEM Joint Seed Funding	UNT	5,000
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Nasrazadani, Seifollah – Professor & Associate Chair

2013	S. Nasrazadani and D. Henkis*, "A Recent Experience in Utilization of Online Resources in Teaching Undergraduate Dynamics", Proceedings of the 2013 ASEE Gulf-South Annual Conference, The University of Texas at Arlington, March 21-23, 2013
2013	S. Nasrazadani, K. Kallenberger*, and H. Vaughan*, "Design and Construction of a Cost Effective Jominy Bar Testing Setup", Journal of Materials Education, Vol. 35 (3-4): pp. 57-70 (2013).
2013	S. Nasrazadani and P. White*, "Failure Analysis of a Fractured Wrench Socket", Journal of Failure Analysis and Prevention, Vol. 13: pp. 673-677 (2013).
2013	S. Nasrazadani and T. Springfield*, "Application of Fourier transform infrared spectroscopy in cement Alkali quantification", Journal of Materials and Structures (DOI) 10.1617/s11527-013-0140-3 Rilem 2013.
2012	<i>Failure Analysis of Al 356-T6 Clutch Lever, Journal of Failure Analysis and Prevention, Vol. 12, pp. 24-29</i> S. Nasrazadani and L. Reyes <i>Springer</i>
2011	<i>Practical Applications of FTIR to Characterize Paving Materials</i> Seifollah Nasrazadani, David Mielke, Tyler Springfield, and Naresh Ramasamy <i>Texas Department of Transportation and Federal Highway Administration</i>
2011	<i>Applications of Fourier Transform Infrared Spectrophotometry (FTIR) in Characterization of Construction Materials</i> <i>Proceedings of GEO-FRONTIERS 2011, March 13-16, 2011, Dallas Texas</i> Seifollah Nasrazadani <i>American Society of Civil Engineers</i>
2011	<i>Comparison of DBU, NH3, DMA, ETA, and Morpholine Interactions with Ferrous Chloride Solution and Carbon Steel Surfaces</i> Seifollah Nasrazadani, Ansel Reid, Jim Stevens, Robert Theimer, Billy Fellers <i>15th International Conference on Environmental Degradation of Materials in Nuclear Power Systems-Water Reactors, sponsored by The Minerals, Metals & Materials Society, Colorado Springs Colorado</i>
2011	New Advanced Amine for Secondary Systems in Pressurized Water Reactor Plants, Power Plant Chemistry, Vol. 13, No. 4, pp. 216-224. Jim Stevens and Seifollah Nasrazadani <i>Waesseri GmbH</i>
2011	<i>Corrosion and Flame Retardant Polymer Coatings for Oilfield Applications</i> <i>Offshore Technology Conference, May 2-5, 2011, Houston Texas</i> Nandika Anne D'Souza, Seifollah Nasrazadani, Parag Ganpole <i>Offshore Technology Conference</i>

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Funding

2013	S. Nasrazadani "Failure Investigation of Gas Regulator and Screw Set, Emerson Process Management"	Regulator Technologies, Inc.	6,000
2013	S. Nasrazadani "Characterization of Packaging Materials"	Pepsico	10,000
2009-12	Characterization and Mediation of Microbial Deterioration of Concrete Infrastructure	Oklahoma Transportation Center	\$300,000 (\$4500 UNT)

Vaidyanathan, Vijay – Associate Professor & Associate Dean

2011	<i>Electrical resistivity as a measure of change of state in substrates: Design, development and validation of an automated system</i> Dong Le, Vijay Vaidyanathan, Shailesh Vidhate, Jaycee Chung, Nandika D'Souza <i>Measurement, Volume 44, Issue 1, Jan 2011, Pages 159-163</i>		
2011	<i>Monitoring Plastic Biodegradation With LabVIEW and NI CompactDAQ</i> Mark Pickens, Koffi Dagnon, Vijay vaidyanathan, Nandika D'Souza <i>National Instruments, Case Studies</i>		

Wang, Shuping – Associate Professor

2012	"Thermal stability solutions for optical current sensor using thermoelectric method," S. Wang, A. Alahmari, and X. Yang, Proc. SPIE, vol. 8561, (2012)		
2011	"Fabrication and Characterization of PDMS Thin Film," S. Wang, A. Kallur, and A. Goshu, Proc. SPIE, V. 7935, 79350M1–79350M6, 2011		
2011	"Fabrication and Characterization of PDMS Thin Film," .S. Wang, A. Kallur, and A. Goshu Proc. of SPIE vol. 7935, 7935-21		

Funding

2013	S. Wang, "The Development of Innovative Optical Metrology Techniques and Apparatus"	SANMINA-SCI, Carrolton, TX	38,000
2013-2014	Ami Moore, Sanjukta Pookulangara, Manjula Salimath, Shuping Wang, and Zuoming Wang "Interdisciplinary Mentoring of Foreign-born Female Academics,"	UNT Provost Office	4,000

Yu, Cheng – Associate Professor

2013	Yu, C., Panyanouvong, M.X.* (2013). "Bearing Strength of Cold-Formed Steel Bolted Connections with a Gaps", Elsevier, Thin-Walled Structures. Volume 67, June 2013, Pages 110-115		
2013	De Leon, D, Reyes, A., Yu, C. (2013). "Probabilistic Assessment of the Structural Safety of Bolted And Welded Connection for Seismic Zones", Elsevier, Journal of Constructional Steel Research. 88 (2013) 15-20.		
2013	Yanagi, N.* and Yu, C. (2013). "Effective Strip Method for the Design of Cold-Formed Steel Framed Shear Wall with Steel		

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	Sheet Sheathing." J. Struct. Eng. , 10.1061/(ASCE)ST.1943-541X.0000870 , 04013101.
2013	Yanagi, N.*, Yu, C. (2013). "Effective Strip Model for Cold-Formed Steel Shear Wall using Steel Sheet Sheathing", Proceedings of the 21st International Specialty Conference on Cold-Formed Steel Structures, St. Louis, MO, April 2013.
2012	<i>Cold-Formed Steel Flexural Member with Edge Stiffened Holes: Behavior, Optimization, and Design</i> Yu, C. <i>Journal of Constructional Steel Research</i> , doi:10.1016/j.jcsr.2011.09.008
2012	<i>Simplified Method for Critical Elastic Distortional Buckling of Cold-Formed Steel C and Z Sections</i> Law, K., Zhao, Y., Yan, W., Yu, C. <i>Advances in Structural Engineering</i> , Vol 15, No. 12, (2012), 2013-2019.
2012	<i>Experimental Investigation of Cold-Formed Steel Shear Walls Sheathed with Steel-Gypsum Composite Panels</i> Yu, C., Chao, L. <i>Proceedings of the Annual Stability Conference, Structural Stability Research Council, Grapevine, TX, April 2012.</i>
2012	<i>Selection of delivery system, contract type, and incentive/disincentive strategy for highway construction projects in the United States;</i> Kuo, C.-C., Johnson, J. L., and Yu, C. <i>Proceedings of the 6th International Conference on Operations and Supply Chain Management, July 14-18, Xi'an, China, 109-111.</i>
2012	<i>Behavior and Strength of Cold-Formed Steel Framed Shear Walls Sheathed with Composite Panels</i> Yu, C., Chao, Li <i>Proceedings of the 21st International Specialty Conference on Cold-Formed Steel Structures, St. Louis, MO, October 2012.</i>
2012	<i>The 1st Student Competition on Cold-Formed Steel Design</i> Yu, C., Moen, C. <i>Proceedings of the 21st International Specialty Conference on Cold-Formed Steel Structures, St. Louis, MO, October 2012.</i>
2012	<i>Analytical Model for Cold-Formed Steel Framed Shear Wall with Steel Sheet Sheathing</i> Yanagi, N., Yu, C. <i>Proceedings of the 21st International Specialty Conference on Cold-Formed Steel Structures, St. Louis, MO, October 2012.</i>
2011	<i>Detailing Recommendations for 1.83-m Wide Cold-Formed Steel Shear Walls with Steel Sheathing</i> Yu, C., Chen, Y. <i>Journal of Constructional Steel Research</i> , 67 (2011) 93-101
2011	<i>Determining Distortional Buckling Strength of Cold-Formed Steel Flexural C and Z Sections Using Effective Width Method Thin-Walled Structures</i> Yu, C., Yan, W. <i>Thin-Walled Structures</i> , Vol 49, Issue 2, 233-238
2011	<i>Bearing Strength of Cold-Formed Steel Bolted Connections Using Oversized Holes without Washers</i> Yu, C., Xu, K., Sheerah, I. <i>Journal of Structural Engineering</i> , Vol. 137, Issue 1
2011	<i>Simplified Methods for Determining The Critical Elastic Buckling Load of Thin-Walled Cold-Formed Steel Sections</i> Law, K., Zhao, Y., Yu, C., Yan, W. <i>Proceedings of the Annual Stability Conference, Structural Stability Research Council</i>

Engineering Technology Scholarly Activity 2011-13

Funding

2013-2014	C. Yu, "Structural Behavior of CFS Trusses"	KEYMARK Enterprises, LLC	3,500
2013-2014	C. Yu, "Load Bearing Clip Angle Design"	American Iron and Steel Institute	\$20,000 (Cost Share \$11,741)
2012-2013	C. Yu, "Enhance UNT's Education and Research Capacities through Linkages with Top Universities in China and Thailand"	UNT International	5,000
2010-2015	CAREER: Comprehensive Research on Cold-Formed Steel Sheathed Shear Walls: Special Detailing, Design, and Innovation	National Science Foundation	400,010
2012-2013	Construction Department Grant	TEXO Foundation	5,000
2010-2012	18 testing projects on a variety of issues	NUCONSTEEL Commercial Corp.	58,359

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2013	H. F. Zhang, J. A. Kosinski, and K. Afazul*, "Apparatus for measurement of acoustic wave propagation under uniaxial loading with application to measurement of third-order elastic constants of piezoelectric single crystals," Review of Scientific Instrument, vol. 84, pp. 054901-1-5, 2013
2013	H. F. Zhang, J. A. Turner, J. S. Yang and J. A. Kosinski, Y. Y. Bao*, "Experimental measurement of the electroelastic effect in thickness mode langasite resonators," IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control, vol. 60, pp. 970-974, 2013
2013	H. F. Zhang, J. A. Kosinski, "Analysis of contributions of nonlinear material constants to stress-induced velocity shifts of quartz and langasite surface acoustic wave resonators, IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control, vol. 60, pp. 975-985, 2013
2013	H. F. Zhang, J. A. Kosinski, Y. Xie*, and J. A. Turner, "Drive level dependence of doubly rotated langasite resonators with different configurations," IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control, vol. 60, pp.963-969, 2013
2013	M. Ahmadi*, H. F. Zhang, Y. Cheng, and J. Wahrmund, "Determining elastic and shear moduli of cold-formed steel at elevated temperatures using a new sonic resonance method," Nondestructive Testing and Evaluation, V. 29, pp. 1-13, 2013.
2013	H. F. Zhang, J. A. Turner, J. S. Yang and J. A. Kosinski, "Experimental measurements of the force-frequency effect of thickness mode langasite resonators," IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control, vol. 60, pp. 1475-1478, 2013.
2013	H. F. Zhang, "Optimal Cuts to extract the third-order piezoelectric constants and electrostrictive constants of langasite single crystals through the electroelastic effect," IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control, vol. 60, pp. 1453-1466, 2013.
2013	H. F. Zhang, "Analysis of thickness vibrations of C-Axis inclined Zig-Zag multi-layered zinc oxide thin film resonators," Ferroelectrics, vol. 445, pp. 96-106, 2013.
2013	H. F. Zhang, Tinghui Fan*, "Wireless electric field sensor based on a langasite resonator," Proceedings of IEEE International Frequency Control Symposium, pp. 458-461, 2013.
2012	H. F. Zhang, J. A. Kosinski, "Analysis of thickness vibrations of C-Axis inclined zig-zag two-layered zinc oxide thin film resonators," IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control, vol. 59, pp. 2831-2836, 2012.
2012	H. F. Zhang and Walter de Gruyter, Book Chapter in Analysis of Piezoelectric Structures and Devices (ISBN 978-3-11-029799-7), Chapter 8: Theoretical Investigation of Force-frequency and Electroelastic Effects of Thickness Mode Langasite Resonators

Engineering Technology Scholarly Activity 2011-13

2012	H. F. Zhang, P. H. Lee*, J. A. Kosinski, "Experimental study of a frequency-adjustable piezoelectric bimorph energy harvester," <i>Ferroelectrics</i> , vol. 437, pp. 34 – 44, 2012
2012	H. F. Zhang, Benjamin D. Montz, Tinghui Fan* and John A. Kosinski, "Wireless langasite resonator as a force sensor," <i>Proceedings of IEEE International Frequency Control Symposium</i> , 1-6, 2012.
2012	K. Afazul*, H. F. Zhang, "Measurement of nonlinear elastic constants of rail steel," <i>Proceedings of the SPIE - The International Society for Optical Engineering</i> , v 8347, 83472U, 2012.
2011	H. F. Zhang, "Optimal cuts to extract the third-order elastic constants of langasite single crystals," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , vol. 58, pp. 1245-1254, 2011.
2011	H. F. Zhang, P. H. Lee*, "Experimental study of thickness-shear vibration of AT-cut quartz resonators loaded with microparticles," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , vol. 58, pp. 1521-1524, 2011.
2011	H. F. Zhang, Y. Xie*, J. A. Turner, J. A. Kosinski, "Drive level dependence of doubly rotated langasite resonators with different configurations" <i>Proceedings of IEEE International Frequency Control Symposium</i> , 1-4, 2011.
2011	Z. Salmani*, Y. Xie*, G. Zheng*, H. F. Zhang, H. L. Zhang, "Application of antenna in strain measurement," <i>Proc. IEEE Int. Workshop on Antenna Technology</i> , 336-339, 2011.

Funding

2014-2016	Lei Zuo (Stony Brook University), Haifeng Zhang (University of North Texas), Jie Lian (Rensselaer Polytechnic Institute), "Self-powered wireless dual-mode langasite sensor for pressure/temperature monitoring of nuclear reactors"	DOE	\$800,000 (SBU: \$365,243, UNT: \$284,757, RPI: \$150,000)
2013-2016	H. Zhang, L. Zuo, B. K. Sinha, NSF GOALI: "Collaborative Research: Self-powered Dual-mode Piezoelectric Resonant Pressure/Temperature Sensors for Oil and Gas Field Explorations"	NSF	\$382,000 (UNT: \$192,000, SBU: \$190,000)
2012-2013	Wireless Transmission of an Acoustic Signal Using an Unpowered Piezoelectric Crystal Transducer-Lead Magnesium Niobate Titanate (PMN-PT),	Once Upon a Time Foundation	9,318
2010-2014	H. Zhang, Integrated analysis of piezoelectric resonators as components of electronic systems	Army Research Office	\$386,670
2011-2012	Acquisition of Equipment for Advanced Piezoelectric Devices Laboratory in the University of North Texas	Army Research Office	\$128,716