

Engineering Technology Scholarly Activity 2012-14

Anaya, Leticia – Senior Lecturer

2014	Canchola, R. and Anaya, L (2014), "Technology Acceptance Model (TAM) for Engineering 3D CAD Systems", 2015 ASEE Midwest Section Conference, University of Arkansas, Fort Smith, Arkansas September 24-26, 2014. (Mr. Ruben Canchola was an ETEC Graduate Student)
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

Barbieri, Enrique – Professor & Chair

2014	S. Yousefi, N. Joshua, H. Bostanci, E. Barbieri, "Automation of a Heat-Shrink Tubing Process", IAJC/ISAM Joint International Conference, Orlando, FL, September 2014.
2014	E. Barbieri, "Answering a Renewed Call for Action in Engineering Technology", ASEE Annual Conference and Exposition, Indianapolis, IN, June 2014.
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

Funding

2014-2014	E. Barbieri and A. Boggiano, University of North Texas, \$52,000. "Inventivas de la Inventiva: Empleando KUHf -Engines of Our Ingenuity- to Increase Engineering Awareness and Education Opportunities in the Hispanic Community" Project websites: http://www.uh.edu/engines/episodes-spanish.html http://inventiones.coe.uh.edu/index.cfm ; http://www.kntu.com/index.php?option=com_content&view=category&id=34&Itemid=69	United Engineering Foundation	\$52,000
2013-2014	H. Bostanci, A. Nouri, and E. Barbieri, "Automated Heat Shrink Harnessing Device (AHSHD) – Phase I (of 3), 2013-14,	Labinal/Safran Inc., Denton, Texas.	\$14,356
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	United Engineering Foundation	\$103,850

Engineering Technology Scholarly Activity 2012-14

	Engineering Awareness and Education Opportunities in the Hispanic Community”, Jan-Dec 2013.		
2012-2012	E. Barbieri, A. Boggiano, A. Bencomo, Invencciones de la Inventiva: Employing 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

Bostanci, Huseyin – Assistant Professor

2014	Yousefi-Darani, S., Joshua, N.E. *, Bostanci, H. , Barbieri, E., “Automating a Heat Shrink Tubing Process,” Proc. IAJC/ISAM Joint Int. Conf., ISBN 978-1-60643-379-9, Orlando, FL, September 25-27, 2014.
2014	Joshua, N.E. *, Ajakumar, D.K. *, Bostanci, H. , “Nucleate Boiling of Dielectric Liquids on Hydrophobic-Patterned Surfaces,” Proc. ASME IMECE 2014, Quebec, Canada, November 14-20, 2014.
2014	Bostanci, H. , Rini, D.P., Kizito, J.P., Singh, V., Seal, S., Chow, L.C., “High Heat Flux Spray Cooling with Ammonia: Investigation of Enhanced Surfaces for HTC,” International Journal of Heat and Mass Transfer, vol. 75, pp. 718-725, 2014.
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

Funding

2014-2015	“Spray Cooling System,” H. Bostanci	American Science & Engineering, Inc	\$51,577
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

Engineering Technology Scholarly Activity 2012-14

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

Boubekri, Nourredine – Professor

2014	Shaikh, V., Boubekri, N., and Scharf, T. W., "Microlubrication effects during end milling AISI 1018 steel", <i>International Journal of Manufacturing, Materials and Mechanical Engineering</i> , 3(4), (2014),IJMMME-JPD4112.Pages 14-29.		
2014	Shaikh,V.,Boubekri,N.,Sharf,T.W., "Analyzing the Effectiveness of Microlubrication Using Vegetable Oil-Based Metal Working Fluid During End Milling", <i>International Journal of Manufacturing Engineering</i> , V(2014);Article ID 261349		
2013	N. Boubekri ,Vasim Shaikh, "Minimum Quantity Lubrication (MQL) in Machining"; <i>Journal of Management and Engineering Integration</i> , 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, <i>European International Journal of Science and Technology</i> , 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		

Funding

2014-2015	"Research and Development in Additive manufacturing (3D Printing)"	Emerson Corporation	\$24,000
-----------	--	---------------------	----------

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.		

Engineering Technology Scholarly Activity 2012-14

Huang, Zhenhua – Assistant Professor

2014	Dai, K., and Huang, Z. (2014). Bridge field testing by using wireless and laser Doppler sensing technologies – case studies. <i>Proceedings of 7th International Conference on Bridge Maintenance, Safety and Management</i> , July 2014, Shanghai, China.
2014	Dai, K., Li, X.S, Song, X.S, Chen, G.S, Pan, Y., Huang, Z. (2014). Monitoring of CO2 geological storage based on the passive surface waves, <i>International Journal of Mining Science and Technology</i> , 24(5): 707–711.
2014	Huang, Z.C, Al-Saad, Q.UNTS, Nasrazadani, S., and Wu, H.F. (2014). Understanding and optimizing the Geosynthetic-reinforced steep slopes, <i>Electronic Journal of Geotechnical Engineering</i> , 19(T): 5793-5811.
2014	Huang, Z.C, Shi, S.Q., and Cai, L. (2014). Experimental analysis on strength and failure modes of wood beam-column connections, <i>Frontier Structural and Civil Engineering</i> , 8(3): 260–269.
2013	Adeleye, T.* , Huang, M., Huang, Z., and Sun, L. (2013) Predicting loss for large construction companies, <i>ASCE Journal of Construction Engineering and Management</i> , 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, <i>Proceedings of 2013 SPIE Smart Structures/NDE SSN09</i> , San Diego, California.
2013	Huang, Z. and Wu H.F. (2013). Full-scale testing of civil structures using wireless sensing technologies, <i>Proceedings of 2013 SPIE Smart Structures/NDE SSN09</i> , San Diego, California
2012	Dai, K. and Huang Z. (2012). Novel sensing techniques for full-scale testing of civil structures, <i>Frontier Structural and Civil Engineering</i> , 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

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

2014	A. Khan*, S. P. Mohanty, and E. Kougianos, “Statistical Process Variation Analysis of a Graphene FET based LC-VCO for WLAN Applications”, in proceedings of the <i>15th IEEE International Symposium on Quality Electronic Design (ISQED) 2014</i> , pp. 569-574 (blind review).
------	--

Engineering Technology Scholarly Activity 2012-14

2014	O. Okobiah*, S. P. Mohanty, and E. Kougianos, "Kriging Bootstrapped Neural Network Training for Fats and Accurate Process Variation Analysis", in proceedings of the <i>15th IEEE International Symposium on Quality Electronic Design (ISQED) 2014</i> , pp. 365-372 (blind review).
2014	T. S. Das, P. Ghosal, S. P. Mohanty, and E. Kougianos, "A Performance Enhancing Hybrid Locally Mesh Globally Star NoC Topology", in proceedings of the <i>23rd ACM/IEEE Great Lakes Symposium on VLSI (GLSVLSI) 2014</i> , pp. 69-70 (blind review , 29 regular papers, 20 short papers, and 27 poster papers accepted out of 79 submissions, acceptance rate 42.4%).
2014	E. Agu*, S. P. Mohanty, E. Kougianos, and M. Gautam*, "Simscape Based Design Flow for Memristor Based Programmable Oscillators", in proceedings of the <i>23rd ACM/IEEE Great Lakes Symposium on VLSI (GLSVLSI) 2014</i> , pp. 223-224 (blind review , 29 regular papers, 20 short papers, and 27 poster papers accepted out of 79 submissions, acceptance rate 42.4%).
2014	O. Okobiah*, S. P. Mohanty, and E. Kougianos, "Exploring Kriging for Fast and Accurate Design Optimization of Nanoscale Analog Circuits", in proceedings of the <i>13th IEEE Computer Society Annual Symposium on VLSI (ISVLSI) 2014</i> , pp. 244 – 247, 2014 (blind review).
2014	S. P. Mohanty, M. Gomathisankaran, and E. Kougianos, "Variability-Aware Architecture Level Optimization Techniques for Robust Nanoscale Chip Design", <i>Elsevier International Journal on Computers and Electrical Engineering (IJCEE)</i> , Vol. 40, No. 1, January 2014, pp. 168-193.
2014	S. P. Mohanty and E. Kougianos, "Incorporating Manufacturing Process Variation Awareness in Fast Design Optimization of Nanoscale CMOS VCOs", <i>IEEE Transactions on Semiconductor Manufacturing (TSM)</i> , Vol. 27, No. 1, February 2014, pp. 22-31.
2014	O. Okobiah*, S. P. Mohanty, and E. Kougianos, "Nano-CMOS Thermal Sensor Design Optimization for Efficient Temperature Measurement", <i>VLSI Integration Journal (Elsevier)</i> , Vol. 47, No. 2, March 2014, pp. 195-203.
2014	O. Okobiah*, S. P. Mohanty, and E. Kougianos, "Fast Design Optimization through Simple Kriging Metamodeling: A Sense Amplifier Case Study", <i>IEEE Transactions on Very Large Scale Integration Systems (TVLSI)</i> , Vol. 22, No. 4, April 2014, pp. 932-937.
2014	S. P. Mohanty, and E. Kougianos, "Polynomial Metamodel Based Fast Optimization of Nano-CMOS Oscillator Circuits", <i>Analog Integrated Circuits and Signal Processing (Springer)</i> , Vol. 79, No. 3, June 2014, pp. 437-453.
2014	S. P. Mohanty and E. Kougianos, "Polynomial Metamodel-Based Fast Optimization of Nanoscale PLL Components", Book Chapter in <i>Models, Methods, and Tools for Complex Chip Design: Selected Contributions from FDL 2012</i> , Jan Haase (Editor), Springer, 2014, pp. 179-200. ISBN: 978-3-319-01417-3.
2013	U. Choppali, E. Kougianos, S. P. Mohanty and B. Gorman, "Influence of Annealing on Polymeric Precursor ZnO Thin Films on Sapphire", <i>Elsevier Journal of Thin Solid Films (TSF)</i> , 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", <i>IET Circuits, Devices & Systems (CDS)</i> , 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 <i>56th IEEE International Midwest Symposium on Circuits & Systems (MWSCAS) 2013</i> , pp. 277-280.

Engineering Technology Scholarly Activity 2012-14

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.
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 Jrnal. (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 Nao-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

Engineering Technology Scholarly Activity 2012-14

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. 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

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
2010-2013	E. Kougianos and S. P. Mohanty (UNT), R. Mahapatra (TAMU), Introduction of Nanoelectronics Courses in Undergraduate Computer Science and Computer Engineering Curricula	NSF	180,000
2009-2012	E. Kougianos and S. P. Mohanty, Fast PVT Tolerant Physical Design of RF IC Components	SRC/TxACE	105,000
2009-2012	E. Kougianos and S. P. Mohanty, Infrastructure Acquisition for Statistical Power, Leakage, and Timing Modeling Towards Realization of Robust Complex Nanoelectronic	NSF	250,000

Mirshams, Reza - Professor

2014	Melissa Maria Monroy-Hernandez, Lorena Romero-Salazar, Reza Mirshams, Juan Carlos Arteaga-Arcos, “Determination of Mechanical Properties on Different Mexican Composite Portland Cements by Atomic Force Microscopy Nanoindentation,” 2014 ATINER CONFERENCE PAPER SERIES No: CIV2014-1232.
2014	Reza Mirshams, Yong Tao, Xun Yu, Azize Akcayoglu, “Assessment Development for Accreditation of an Innovative Mechanical and Energy Engineering Program,” Proceedings of IMECE 2014 ASME International Mechanical Engineering Congress and Exposition IMEC2014. November 14-20, 2014, Montreal, Quebec, Canada.

Engineering Technology Scholarly Activity 2012-14

2014	Reza Mirshams and Ashish Srivastava, "Effect of Pile-Up on Nanoindentation Measurements of Polycrystalline Bulk Metals," Advance Materials Research, Vol. 853, (2014), pp. 143-150, DOI:10.4028/www.scientific.net/AMR.853.317.
2014	Fang Wang, Boshen Fu, Huiyang Luo, Sarah Staggs, Reza A. Mirshams, William L. Cooper, Seong Y. Park, Moon J. Kim, Craig Hartley, Hongbing Lu, "Characterization of the Grain-Level Mechanical Behavior of Eglin Sand by Nanoindentation," Journal of Experimental Mechanics, February 2014, DOI 10.1007/s11340-013-9845-z.
2014	Aleksandra Fortier, Vikranth Gullapalli, Reza A Mirshams, "Review of Biomechanical Studies of Arteries and Their Effect on Stent Implant Performance," International Journal of Cardiology, 2014.
2014	Reza A. Mirshams, Zhenghang Zhao, Zhiqiang Wang, "Experimental Analysis and Computational Modeling of Pile-Up Formation in Nanoindentation," Mex. J. Mat. Sci. Eng. 1 (2014) 1-11.
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

Funding

2013	UNT-UAEM Joint Seed Funding	UNT	5,000
------	-----------------------------	-----	-------

Nasrazadani, Seifollah – Professor & Associate Chair

2014	S. Nasrazadani and Tyler Springfield, " Application of Infrared Spectroscopy in Cement Alkali Quantification", Journal of Materials and Structures, Vol.47, pp. 1607- 1615
2014	S. Nasrazadani , Elias Sudoi, "Effect of Welding on Flow Accelerated Corrosion of Carbon Steel Pipes", Proceedings of Corrosion 2014 Conference & Expo, San Antonio Texas March 9-13, 2014.
2014	Z. Huang, Q. Al-Saad, and S. Nasrazadani, Understanding and Optimizing Geosynthetic-Reinforced Steep Slopes, Electronic Journal of Geotechnical Engineering, Vol. 19, 2014.
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).

Engineering Technology Scholarly Activity 2012-14

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>

Funding

2014-2017	S. Nasrazadani "Development of New Accelerated Corrosion Test(s) for All-Aluminum Microchannel and Tube and Fin Heat Exchangers"	ASHRAE	\$179,250
2014	S. Nasrazadani, "Characterization of regulators coating system"	EPM	3,200
2014	S. Nasrazadani, Scholarship award sponsored by DFW Chapter	NACE	5,000
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)

Wang, Shuping – Associate Professor

2014	S. Wang, C. Zhang, C. Davis, M. Alt, Z. Ji, Y. Han, and M. L. Gardner, "Optical metrology techniques and apparatus for lens assembly," Proc. SPIE, vol. 9272, (Invited, 2014).
2012	"Thermal stability solutions for optical current sensor using thermoelectric method," S. Wang, A. Alahmari, and X. Yang, Proc. SPIE, vol. 8561, (2012)

Funding

2013-2016	Z. Huang, E. Kougiannos, and S. Wang, "A New Interdisciplinary Technology Education Strategy Using State-of-art Wireless Sensor Network"	NSF	199,000
2014	S. Wang "The Development of Innovative Optical Metrology Techniques and Apparatus -Phase II," \$15,000, Sanmina Corporation, 3/1/2014 – 6/30/2014.	SANMINA-SCI, Carrolton, TX	15,000
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

Engineering Technology Scholarly Activity 2012-14

Yu, Cheng – Associate Professor

2014	Yanagi, N., Yu, C.* (2014). "Effective Strip Method for the Design of Cold-Formed Steel Framed Shear Wall with Steel Sheet Sheathing", ASCE, Journal of Structural Engineering, 140(4), 04013101. 10.1061/(ASCE)ST.1943-541X.0000870
2014	Balh, N., DaBreo, J., Ong-Tone, C., El-Saloussy, K., Yu, C., Rogers, C.A.* (2014), "Design of steel sheathed cold-formed steel framed shear walls", Thin-Walled Structures 75: 76-86.
2014	Zhang, J.*, Cao, W., Yu, C., Dong, H. (2014), "Shake Table Test of Reinforced Concrete Wall Structure with Concealed Bracings", Proceedings of ICE – Structures and Buildings, ICE Publishing. Vol. 167, Issue 10, February 2014, Pages 598-609. DOI: 10.1680/stbu.13.00035
2014	Zhang, J.*, Cao, W., Meng, S., Yu, C., Dong, H. (2014), "Shaking Table Experimental Study of Recycled Concrete Frame-Shear Wall Structures", Earthquake Engineering and Engineering Vibration, Springer. 2014, 13(2):257-267. DOI:10.1007/s11803-014-0228-y
2013	Ahmadi, M., Zhang, H*, Yu, C., Wahrmund, J. (2013). "Determining Elastic and Shear Moduli of cold-Formed Steel at Elevated Temperatures Using a New Sonic Resonance Method", Nondestructive Testing and Evaluation, Sep 2013.
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 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>

Engineering Technology Scholarly Activity 2012-14

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>

Funding

2014-2016	C. Yu and Jeff Martin (Verco Decking). <i>"Innovative High-Performance Cold-Formed Steel Walls for Light Framed Construction"</i> , Grant # 1445065, National Science Foundation, 2014 – 2016,	NSF PFI:AIR-TT	\$199,653
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

Zhang, Haifeng – Associate Professor

2014	Y. Y. Bao and H. F. Zhang , "Feasibility Study of Langasite Wafer Active Sensors for High Temperature Structural Health Monitoring," The 12th International Conference on Motion and Vibration, Sapporo, Japan, 2014
2014	J. A. Kosinski, H. F. Zhang , Y. Y. Bao, "Measurement of the Second Order Elastic Constant of Langasite Crystals," ASME 2014 Conference on Smart Materials, Adaptive Structures and Intelligent Systems, Newport, RI, 2014
2014	H. F. Zhang and M. Ahmadi*, "Resonance tuning of a multi-piezoelectric bimorph beams energy harvester connected by springs," <i>Ferroelectrics</i> , vol. 460, pp. 34-48, 2014.
2014	H. F. Zhang and Y. Y. Bao*, "Sensitivity analysis of multi-layered C-Axis inclined Zig-zag zinc oxide thin film resonators as a viscosity sensor," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , vol. 61, pp. 525-534, 2014.

Engineering Technology Scholarly Activity 2012-14

2014	Y. Y. Bao*, H. F. Zhang , M. Ahmadi*, K. M. Afazul*, and F. H. Wu, "Measurements of Young's and Shear Moduli of Rail Steel at Elevated Temperatures, <i>Ultrasonics</i> , vol.54 pp. 867-873, 2014.
2014	M. Ahmadi*, H. F. Zhang , and J. Tian, "Investigation of piezoelectric Energy harvesting at Elevated Temperatures, <i>Ferroelectrics</i> , vol. 460, pp. 138-148, 2014.
2014	H. F. Zhang and K. Afazul*, "Design and analysis of a connected broadband multipiezoelectric bimorph beams energy harvester," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , vol. 61, pp. 1016-1023, 2014.
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," <i>Review of Scientific Instrument</i> , 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," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , 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, <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , 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," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , 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," <i>Nondestructive Testing and Evaluation</i> , 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," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , 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," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , 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," <i>Ferroelectrics</i> , vol. 445, pp. 96-106, 2013.
2013	H. F. Zhang, Tinghui Fan*, "Wireless electric field sensor based on a langasite resonator," <i>Proceedings of IEEE International Frequency Control Symposium</i> , 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," <i>IEEE Transaction on Ultrasonics, Ferroelectrics and Frequency Control</i> , vol. 59, pp. 2831-2836, 2012.
2012	H. F. Zhang and Walter de Gruyter, Book Chapter in <i>Analysis of Piezoelectric Structures and Devices</i> (ISBN 978-3-11-029799-7), Chapter 8: Theoretical Investigation of Force-frequency and Electroelastic Effects of Thickness Mode Langasite Resonators
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.

Engineering Technology Scholarly Activity 2012-14

Funding

2015-2018	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