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## EDUCATION

- **Ph. D. Doctor of Industrial Technology – Electrical Engineering Technology**, (2008)  
University of Northern Iowa Cedar Falls, IA  
**Dissertation:** “Low Power Energy Harvesting and Storage Techniques from Ambient Human Powered Energy Sources” – **Received Outstanding Doctoral Dissertation Award**
- **M.S. Computer Science**, (2005)  
The City College of the City University of New York New York, NY
- **B.S. Computer Science**, (2000)  
Taraz State University named after M. Kh. Dulaty Taraz, Kazakhstan

## BOOK & ENCYCLOPEDIA CHAPTERS

**Yildiz, F.** Renewable Energy Education: Implementation of an Energy Training Unit, Energy Education and Training. *Encyclopedia of Energy Engineering and Technology*. February 28, 2013. Published by Taylor & Francis DOI: 10.1081/E-EEE-120042928. ISBN: 0-8493-3653-8; eISBN: 0-8493-3896-4.  
*Note: EEE invites authors to submit.*

## JOURNAL PUBLICATIONS

Goksu, M., **Yildiz F.** 2016. Geometrical Determination of Maximum Power Point of a Photovoltaic Cell. *The International Journal of Modern Engineering (IJME)*. Vol. 17, No. 1. Print ISSN# 2157-8052, Online ISSN# 1930-6628. Fall/Winter 2016.

**Yildiz, F.**, Coogler, L. K. 2016. Design and Development of a Mobile Geothermal Laboratory Equipment. *Technology Interface International Journal (TIJ)*. Vol. 17, No. 1. ISSN# 1523-9926. Fall/Winter 2016.

**Yildiz, F.**, Coogler, L. K. 2015. Parking and Street Lighting with Hybrid Solar & Wind Energy Powered LED Lights. *Technology Interface International Journal (TIJ)*. Vol. 16, No. 1. ISSN# 1523-9926. Fall/Winter 2015.

**Yildiz, F.**, Coogler, L. K., Amador, R. 2014. Conversion of a Gasoline Powered Boat to a Hybrid Electric Boat. *ASEE, Journal of Engineering Technology (JET)*. ISSN# 0747-9964. Spring 2015.

**Yildiz, F.**, Pecan, R. 2014. Photovoltaic Solar-Wind Hybrid Power System Design and Implementation. *Technology Interface International Journal (TIJ)*. Vol. 15, No. 2. ISSN# 1523-9926. Fall/Winter 2014.

**Yildiz, F.** 2013. Self-Sufficient Energy-Efficient Green Building Design Projects. *The Journal of Management & Engineering Integration (JMEI)*. ISSN# 1939-7984. Vol. 6, No.1.

**Yildiz F.,** Muller, J., Kingman, D, Ullrich, D., Coogler, K.L., Crockford, W.W. 2013. Mobile Renewable Energy Education to Promote STEM Education in Rural School Districts. *International Journal of Research & Innovation (IJERI)*. Vol. 5, No. 2. Print ISSN: 2152-4157, Online ISSN: 2152-4165.

**Yildiz, F.,** “Lab Experiments on Renewable Energy using Microsoft Visio and Inexpensive Apparatus”, Educational Module, *Electronic Library of the Center for Sustainable Engineering*, 12-40-R at [www.csengin.org](http://www.csengin.org). Engineering Pathway, December 2012.

**Yildiz, F.,** “Design and Development of a Multiple Concept Educational Renewable Energy Mobile Mini-Lab for Experimental Studies”, *International Journal of Engineering Research and Innovations (IJERI)*. Volume 4, Number 2. Print ISSN #2152-4157, Online ISSN: 2152-4165. Fall/Winter 2012.

**\*Yildiz, F.,** Humston, J., Pecan, R., “Promoting STEM to Young Students by Renewable Energy Applications”, *Journal of STEM Education: Innovations and Research (JSTEM)*. ISSN# 1557-5284, Volume 13, Issue 3, May-June 2012. \* **Corresponding Author**

**Yildiz, F.,** Baltaci, K., “Challenges of EVs and HVs to the US Electrical Power Grid”, *International Journal of Engineering Research and Innovations (IJERI)*. Volume 3, Number 1. Print ISSN #2152-4157, Online ISSN: 2152-4165. Spring/Summer 2011.

**Yildiz, F.,** Muns, C.N., Coogler, L.K., “A General Alternative Energy Course Development for a Technology Program”, *Technology Interface International Journal (TIIJ)*. ISSN: 1523-9926. Fall/Winter 2011, Volume 12, Number 1, [WWW.TIIJ.ORG](http://WWW.TIIJ.ORG)

**Yildiz F.,** “Energy Harvesting with Piezoelectric Fiber Composite from Mechanical Vibrations”, *The International Journal of Modern Engineering (IJME)*. Volume 11, Number 2. Print ISSN# 2157-8052, Online ISSN# 1930-6628. Spring/Summer 2011.

**Yildiz F.,** “Energy Harvesting from Passive Human Power”, *Journal of Applied Science & Engineering Technology (JASET)*, ISSN# 1933-0421, Volume 4, 2011.

**Yildiz F.,** Pecan R., Zora A., “Utilizing Advanced Software Tools in Engineering and Industrial Technology Curriculum”, *International Journal of Engineering Research and Innovation (IJERI)*. Volume 2, Number 1. Print ISSN #2152-4157, Online ISSN: 2152-4165. Spring/Summer 2010.

**Yildiz F.,** “Low Power Self-Sufficient Wireless Camera System”, *The International Journal of Modern Engineering (IJME)*. Volume 10, No.2. Print ISSN# 2157-8052, Online ISSN# 1930-6628, Spring/Summer 2010.

**Yildiz F.**, Fazarro D., Coogler K., “The Green Approach: Self-Powered House Design Concept for Undergraduate Research”, *Journal of Industrial Technology (JIT)*. Vol. 26 No.2. April 2010 through June 2010.

**Yildiz F.**, “Low Power Energy Harvesting From Hydraulic Door Closer”, *Journal of Engineering Technology (JET)*. Applied Research. Vol.27 No.1 ISSN# 0747-9664. Spring 2010.

**Yildiz F.**, “Potential Ambient Energy Harvesting Sources and Energy Harvesting Techniques”, *Journal of Technology Studies (JOTS)*, Epsilon Pi Tau (EPT), ISSN#: 1071-6084, Volume XXXV Number 2, Fall 2009.

**Yildiz F.**, Fahmy M. F., “Self Powered Fitness Equipment”, *the Technology Interface Journal*, Vol.10 No.1 ISSN# 1523-9926, Fall, 2009. <http://technologyinterface.nmsu.edu>

## CONFERENCE PUBLICATIONS

Goksu, M., **Yildiz, F.** 2016. *Geometrical Determination of Maximum Power Point of a Photovoltaic Cell*. Proceedings of 5<sup>th</sup> IAJC/ISAM Joint Conference, November 6-8, 2016. Orlando, FL.

Dakeev, U., Farzin, H., **Yildiz, F.**, Bhavana, K. 2016. *Analysis of a Custom Constructed Wind Augmentation Device with 30 Degree Inlet Section to Improve Wind Power Generation*. Proceedings of 5<sup>th</sup> IAJC/ISAM Joint Conference, November 6-8, 2016. Orlando, FL.

**Yildiz, F.**, Coogler, L. K. 2016. *Design and Development of a Mobile Geothermal Laboratory Equipment*. Proceedings of 5<sup>th</sup> IAJC/ISAM Joint Conference, November 6-8, 2016. Orlando, FL.

Dakeev, U., Heidari, F., **Yildiz, F.**, Dimitrovska, M., Baltaci, K. 2016. *Comparative Study of Custom-constructed Wind Augmentation Shrouds on a Small-scale Wind Turbine*. Proceedings of 2016 American Society for Engineering Education (ASEE) Annual Conference, June 26-29, 2016, New Orleans, LA.

**Yildiz, F.**, Collins, H. C., Leatherwood, J., Beverly, M. M., Anderson, M. J. 2016. *Design and Development of a Non-Contact Thermography Device for Equine Research*. Proceedings of 2016 American Society for Engineering Education (ASEE) Annual Conference, June 26-29, 2016, New Orleans, LA.

**Yildiz, F.**, Suh M. J., Coogler, L. K., Dakeev, U., Baltaci, K. 2016. *Design and Development of a Grid-Tied Solar Photovoltaic Training Infrastructure*. Proceedings of 2016 American Society for Engineering Education (ASEE) Annual Conference, June 26-29, 2016, New Orleans, LA.

Suh, M. J., Pearce, A. R., **Yildiz, F.**, Jeon, M. H. 2016. *Training and Education for Green Construction in the U.S.* Proceedings of 2016 American Society for Engineering Education (ASEE) Annual Conference, June 26-29, 2016, New Orleans, LA.

**Yildiz, F.**, Coogler, L. K., Dakeev, U., Baltaci, K. 2015. *Energy Harvesting from Air Conditioning Condensers with the Use of Piezoelectric Devices*. Proceedings of 2015 American Society for Engineering Education (ASEE) Annual Conference, June 14-17, 2015, Seattle, WA.

**Yildiz, F.**, Tallos, N. 2015. *Installation and Data Acquisition Study to Test Circuit Solver TRV Devices*. Proceedings of 2015 American Society for Engineering Education (ASEE) Annual Conference, June 14-17, 2015, Seattle, WA.

Dakeev, U., Quamrul, H. M., **Yildiz, F.**, Baltaci, K. 2015. *Design and Development of a New Small-Scale Wind Turbine Blade*. Proceedings of 2015 American Society for Engineering Education (ASEE) Annual Conference, June 14-17, 2015, Seattle, WA.

Dakeev, U., Quamrul, H. M., **Yildiz, F.**, Baltaci, K., Bedelbai, M. 2015. *Motivation and Learning Strategies of Students in Kyrgyzstan*. Proceedings of 2015 American Society for Engineering Education (ASEE) Annual Conference, June 14-17, 2015, Seattle, WA.

Baltaci, K., **Yildiz, F.**, Peng, A. S., Dakeev, U. 2015. *Developments of a General Education Course to Broaden the Knowledge of College Students in Renewable Energy and Sustainability*. Proceedings of 2015 American Society for Engineering Education (ASEE) Annual Conference, June 14-17, 2015, Seattle, WA.

Baltaci, K., Dakeev, U., **Yildiz, F.** 2015. *Barriers to Completion of Two-Year Engineering Technology Programs: A Survey*. Proceedings of 2015 American Society for Engineering Education (ASEE) Annual Conference, June 14-17, 2015, Seattle, WA.

**Yildiz F.** 2014. *Parking and Street Lighting with Solar and Wind Energy Powered Retrofitted LED Lights*. Proceedings of 4th IAJC/ISAM Joint International Conference, September 25-27, 2014. Orlando, FL

**Yildiz, F.**, Coogler, K. L., 2014. *Design and Implementation of a 1kW Photovoltaic System as a Training Infrastructure*. Proceedings of 2014 American Society for Engineering Education (ASEE) Annual Conference, June 2014, Indianapolis, IN.

**Yildiz, F.**, Coogler, K.L., 2014. *Low Power Energy Harvesting with a Thermoelectric Generator through an Air Conditioning Condenser*. Proceedings of 2014 American Society for Engineering Education (ASEE) Annual Conference, June 2014, Indianapolis, IN.

Atharifar, H. **Yildiz, F.**, Knapp R. J. 2013. *Survey of the Current Academic and Industrial Trends in Utilizing the CADD Technology*. Proceedings of 2013 American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 23-26, 2013, Atlanta, GA.

**Yildiz, F.** 2013. *A Project Based Microcontroller Course*. Proceedings of 2013 American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 23-26, 2013, Atlanta, GA.

**Yildiz, F.** 2013. *An Applied Comparison Study: Solar Energy vs. Thermoelectric Energy*. Proceedings of 2013 American Society for Engineering Education (ASEE) Annual Conference and Exposition, June 23-26, 2013, Atlanta, GA.

Pecen, R., **Yildiz, F.**, Yuksek, B.Z., Dakeev, U., Baltaci, K. “*Design and Implementation of a 10kW Wind Power and Instrumentation System*”, Proceedings of 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX. (***Selected 4<sup>th</sup> Best Paper in the ECCD of ASEE***)

Pecen, R., Eichelberger, C.E., **Yildiz, F.**, “*An undergraduate summer research experience on energy efficient lighting technologies and harmonics*”, Proceedings of 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.

**Yildiz, F.**, Coogler, L. K., Pecan, R. “*An Overview: Applied Interdisciplinary Renewable Energy Projects*”, Proceedings of 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.

**Yildiz, F.**, Coogler, L. K., “*Indoor Security Lighting with Solar Powered LED Technology*”, Proceedings of 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.

**Yildiz, F.**, Coogler, L.K., Muns, C.N., “*Two Successful Projects: Solar Air and Solar Water Heating Training Units*”, Proceedings of 2011 The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: ReThinking the Future, November 9-12 2011, Cleveland, OH.

**Yildiz F.**, Coogler K., Zora, A., “*An Undergraduate Research Project: The Design and Development of an Environment Friendly Hybrid Boat*”, Proceedings of 2011 American Society for Engineering Education (ASEE) Annual Conference, Energy Conversion Conservation Division (EECT), June 2011, Vancouver, BC, Canada.

Karayaka H, B., **Yildiz, F.**, Mehrubeoglu, R., Caruso, K., “*A Nuclear Power Industry Career Development Workshop for High School Teachers in a Hispanic Serving Institution*”, Proceedings of 2011 American Society for Engineering Education (ASEE) Annual Conference, Energy Conversion Conservation Division (EECT), June 2011, Vancouver, BC, Canada.

**Yildiz, F.**, Muns, C.N., Coogler, L.K., “*A General Alternative Energy Course Development for a Technology Program*”, Proceedings of 2011 IAJC-ASEE International Joint Annual Conference on Engineering and Related Technology, April 2011, Hartford, CT.

**Yildiz, F.**, Baltaci, K., “*Challenges of EVs and HVs to the US Electrical Power Grid*”, Proceedings of 2011 IAJC-ASEE International Joint Annual Conference on Engineering and Related Technology, April 2011, Hartford, CT.

**Yildiz F.**, Kingman, D., Coogler, K., Karayaka, H.B., “*Recruitment of K-12 Students to Engineering Technology Programs through Applied Alternative Energy Education Workshops*”,

Proceedings of 2011 ASEE Gulf Southwest Annual Conference: Innovating Engineering and Engineering Technology Education, ASEE Gulf-Southwest Section, March 2011, Houston, TX.

**Yildiz F.**, Coogler K., “*Development of a Renewable Energy Course for a Technology Program*”, Proceedings of 2010 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECT), June 2010, Louisville, Kentucky.

**Yildiz F.**, Coogler K., “*Students Built Educational Renewable Energy Training Units*”, Proceedings of 2010 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECT), June 2010, Louisville, Kentucky.

**Yildiz F.**, “*A New Approach: Using Electronics Laboratory More Efficiently and Safely*”, Proceedings of 2010 American Society of Engineering Education (ASEE), New Engineering Educators Division, June 2010, Louisville, Kentucky.

**Yildiz F.**, Pecen R., Tarim S. “*Young Minds Meet For Sustainable Future*”, Proceedings of 2010 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECT), June 2010, Louisville, Kentucky.

**Yildiz F.**, Dearing, M., “*Self-Powered Athletics Field Striping Machine*”, Proceedings of 2010 Gulf Southwest Annual Conference: Bridge to Industry – Educating the Industry Bound Engineer and Technologist, ASEE Gulf-Southwest Section, March 2010, Lake Charles, LA.

**Yildiz F.**, “*Building Tomorrow: A Study of Renewable Energy Students Built Renewable Energy Training Unit*”, Proceedings of 2010 Gulf Southwest Annual Conference: Bridge to Industry – Educating the Industry Bound Engineer and Technologist, ASEE Gulf-Southwest Section, March 2010, Lake Charles, LA.

**Yildiz F.**, Freitas M., “*Energy Harvesting and Storage Techniques from Ambient Energy Sources*”, EECT (Electricity, Electronics, Computer Technology) Division, Proceedings of 2009 The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Emerging & Green Technologies for Today's Economic Challenges, November 2009, Louisville, Kentucky.

Baltaci K., **Yildiz F.**, “*NI LabView Data Acquisition System Design using Hydrogen Fuel Cell*” 3<sup>rd</sup> IEEE International Conference on Application of Information and Communication Technologies (AICT 2009), 14-16 Oct. 2009, Baku, Azerbaijan, On page(s): 1-6, ISBN:978-1-4244-4739-8. DOI: 10.1109/ICAICT.2009.5372578.

**Yildiz F.**, “*Self Powered Wireless Camera System Design*”, Proceedings of 2009 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECT), June 2009, Austin, TX. AC 2009-1091

**Yildiz F.**, Coogler K., Fazarro D., “*Self Sufficient Energy Efficient House Design*”, Proceedings of 2009 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECT), June 2009, Austin, TX. AC 2009-1073

**Yildiz F.**, Zora A., “*Using One Dimensional Software Tools in Low Power Ambient Energy Harvesting and Generation Simulations*”, Proceedings of 2009 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECD), June 2009, Austin, TX. AC 2009-1093

Fidan I., **Yildiz F.**, Bahadir M.E., “*Remote Laboratory Collaboration*” Proceedings of 2009 American Society of Engineering Education (ASEE), Engineering Technology Division (ETD), June 2009, Austin, TX. AC 2009-963

**Yildiz F.**, “*Low Power Ambient Energy Harvesting and Conversion and Storage Circuits*”, 2009 Sixth International Conference on Information Technology: New Generations (ITNG 2009), Proceedings of IEEE’s (Institute of Electrical and Electronics Engineers) Computer Society, Circuit and System Design Track. ISBN#: 978-0-7695-3596-8. pp. 35-40. April 2009, Las Vegas, NV.

Pecen R., **Yildiz F.**, Baltaci K., “*Design and Implementation of a Hydrogen Fuel Cell Data Acquisition and Monitoring Scheme for Educational Institutions*”, Proceedings of 2008 American Society of Engineering Education, Energy Conversion Conservation Division, June 2008, Pittsburgh, PA. AC 2008-1096:

Pecen R., Zora A., **Yildiz F.**, “*Utilizing Advanced Software Tools for Engineering Technology Curriculum as a bridge between Academia and Industry*”, Proceedings of 2008 American Society of Engineering Education, Energy Conversion Conservation Division, June 2008, Pittsburgh, PA. AC 2008-2611

**Yildiz F.**, Zhu J., Pecan R., “*Techniques of Harvesting Ambient Energy Sources & Energy Scavenging Experiments, Design and Implement an Energy Harvesting Device*”, EECT (Electricity, Electronics, Computer Technology), Proceedings of 2007, National Association of Industrial Technology (NAIT), October 2007, Florida.

**Yildiz F.**, Pecan R., Baltaci K., “*A Lab View PDS v8.20 Based Novel DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station Unit*”, EECT (Electricity, Electronics, Computer Technology), Proceedings of 2007, National Association of Industrial Technology (NAIT), October, 2007, Florida.

**Yildiz F.**, Zhu J., Pecan R., Guo L., “*Energy Scavenging for Wireless Sensor Nodes with a Focus on Rotation to Electricity Conversion*”, Proceedings of 2007 American Society of Engineering Education, Energy Conversion Conservation Division, June 2007, Honolulu, Hawaii. AC 2007-2254

Pecen R., **Yildiz F.**, Baltaci K., “*Development of a DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station using LabView™ PDS v8.20*”, Proceedings of 2007, International Hydrogen Energy Congress and Exhibition (IHEC 2007), July 2007, Istanbul, Turkey.

**Yildiz F.**, Zhu J., “*Applications of Wireless Sensor Networks in Industrial Environments*”, EECT (Electricity, Electronics, Computer Technology), Proceedings of 2006, National Association of Industrial Technology (NAIT), October 2006, Ohio

## ABSTRACTS

**Yildiz, F.**, Lane, R., Ullrich, D. 2016. *Renewable Energy Education Initiative for K-12 Teachers with Sustainable Energy Education Network*. 5<sup>th</sup> IAJC/ISAM Joint Conference. November 6-8, 2016. Orlando, FL.

Goksu, M., **Yildiz, F.** 2016. *Photovoltaic Laboratory Exercises for Renewable Energy Courses*. The Association of Technology, Management, and Applied Engineering (ATMAE) 2016 Annual Conference: Entering the Future. November 2-5, 2016. Orlando, FL.

**Yildiz, F.** 2016. *Design of a Mobile Grid-Tied Solar Photovoltaic Laboratory Unit for Demonstrations and Laboratory Experiments*. The Association of Technology, Management, and Applied Engineering (ATMAE) 2016 Annual Conference: Entering the Future. November 2-5, 2016. Orlando, FL.

Dakeev, U., Heidari, F., **Yildiz, F.** 2016. *A Comparative Study of Motivation and Learning Strategies between Public and Private High School Students of India and U.S.* The Association of Technology, Management, and Applied Engineering (ATMAE) 2016 Annual Conference: Entering the Future. November 2-5, 2016. Orlando, FL.

Goksu, M., **Yildiz, F.** 2015. *Affordable Laboratory Exercises in Wind Energy*. The Association of Technology, Management, and Applied Engineering (ATMAE) 2015 Annual Conference: Building Bridges. November 11-14, 2015. Pittsburgh, PA.

**Yildiz, F.**, Coogler, L. K., Muns, N.C. 2015. *Design and Development of a Data Acquisition System to Test Heat Transfer through Building Envelopes*. The Association of Technology, Management, and Applied Engineering (ATMAE) 2015 Annual Conference: Building Bridges. November 11-14, 2015. Pittsburgh, PA.

**Dakeev, U.**, Yildiz, F. 2015. *Motivation and Learning Strategies of Students in Turkey*. The Association of Technology, Management, and Applied Engineering (ATMAE) 2015 Annual Conference: Building Bridges. November 11-14, 2015. Pittsburgh, PA.

**Yildiz, F.**, Dakeev, U., Goksu, M. 2015. *Implementation of Rapid Prototyping Technologies in Multidisciplinary Coursework and Research Applications*. The Association of Technology, Management, and Applied Engineering (ATMAE) 2015 Annual Conference: Building Bridges. November 11-14, 2015. Pittsburgh, PA.

Collins, H.C., Leatherwood J. L., Anderson, M. J., Beverly M. M., **Yildiz, F.**, Walker, N. L., Pritchett, K. B. 2015. *Relationship of ocular and rectal temperatures as indicators of health status in horses*. J. Equine Vet. Sci. 35(5): 423. (Graduate Student Poster Presentation, Equine Science Symposium, St. Petersburg, FL).



Pasket, M., Watson, M., Kane, S., Ullrich, D., **Yildiz, F.**, Lane, R. (2015). “*Agricultural Sustainable Energy Education Network (ASEEN) – Teacher Professional Development Summer Workshop*”, Poster/Workshop. 2015 VATAT Professional Development Conference. July 27-31, 2015. Waco, TX.

**Yildiz, F.** 2015. *An Instrumentation Project to Measure Domestic Hot Water Recirculation Temperature in Building Systems*. International Conference on Industry, Engineering, and Management Systems (IEMS 2015) Annual Conference, March 23-25, 2015. Cocoa Beach, FL.

Goksu, M., **Yildiz, F.** 2014. *Modeling for More Efficient Wind Turbine*. The Association of Technology, Management, and Applied Engineering (ATMAE) 2014 Annual Conference: Tomorrow’s Gateway. November 19-22, 2014. St. Louis, MO.

**Yildiz, F.** 2014. *Design and Implementation of 2kW Hybrid Photovoltaic and Wind Energy Laboratory and Training System for Renewable Energy Classes and Research*. The Association of Technology, Management, and Applied Engineering (ATMAE) 2014 Annual Conference: Tomorrow’s Gateway. November 19-22, 2014. St. Louis, MO.

**Yildiz F.** 2014. *Energy Harvesting with Piezoelectric Devices through an Air Conditioning Condenser*. International Conference on Industry, Engineering, and Management Systems (IEMS 2014) Annual Conference, March 24-26, 2014. Cocoa Beach, FL.

Ullrich, D., **Yildiz, F.**, Kane, S. (2014). “*Agricultural Sustainable Energy Education Network (ASEEN) – Teaching Alternative Energy Topics*”, Poster/Workshop. 2014 VATAT Professional Development Conference: Generate Success. July 28-August 1, 2014. Abilene, TX

**Yildiz F.** 2014. *Design and Implementation of a 1kW Wind Power Training System*. International Conference on Industry, Engineering, and Management Systems (IEMS 2014) Annual Conference, March 24-26, 2014. Cocoa Beach, FL.

**Yildiz, F.** 2013. “*Low-Cost and Portable Mini-Lab Development for Green Energy Education Activities*”, The Association of Technology, Management, and Applied Engineering (ATMAE) 2013 Annual Conference: Developing the Future Workforce. November 20-23, 2013. New Orleans, Louisiana.

Goksu, M., **Yildiz, F.** 2013. “*Simulation of Wind Turbines*”, The Association of Technology, Management, and Applied Engineering (ATMAE) 2013 Annual Conference: Developing the Future Workforce. November 20-23, 2013. New Orleans, Louisiana.

**Yildiz, F.** 2013. “*Learn How to Build Affordable Renewable Energy Training Equipment and Prepare Curriculum*”, 2013 High Impact Technology Exchange Conference (HI-TEC): Education America’s Technical Workforce. July 21-24 2013. Austin, TX.

Ullrich, D., **Yildiz, F.**, Lane, B., Kane, S. (2013). “*Agricultural Sustainable Energy Education Network (ASEEN)*”, Poster. 2013 VATAT Professional Development Conference: Agricultural Education by the Bay. July 29-August 2, 2013. Corpus Christi, TX.

**Yildiz F.**, Coogler, K.L., Kuzmar S. A. 2013. “*Building Affordable Equipment to Conduct Experiments for Alternative Energy Courses*”, International Conference on Industry, Engineering, and Management Systems (IEMS 2013) Annual Conference, March 24-27, 2013. Cocoa Beach, FL.

Kuzmar S. A., **Yildiz F.**, Crockford, W.W., Manjahy, F. 2013. “*Potential Use of New Technologies to Improve Highway Safety*”, International Conference on Industry, Engineering, and Management Systems (IEMS 2013) Annual Conference, March 24-27, 2013. Cocoa Beach, FL.

Atharifar, H. **Yildiz, F.**, Knapp R. J., “*Learners Development of Spatial Visualization in a 2D versus 3D CAD Class*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Strengthening Our Connections. November 14-17, 2012. Nashville, TN.

**Yildiz, F.**, Coogler, L. K., Crockford, W.W., “*Energy Harvesting from an Air Conditioning Condenser Exhaust*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Strengthening Our Connections. November 14-17, 2012. Nashville, TN.

**Yildiz, F.**, Coogler, L. K., “*Energy Efficient LED Lighting Powered By Hybrid Wind and Solar Power*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Strengthening Our Connections. November 14-17, 2012. Nashville, TN.

**Yildiz, F.**, Baltaci, K., Goksu, M., “*Overview of Hybrid Electric Vehicle Technology*”, Energypath 2012 Annual Conference, June 25-29 2012, DE SALES University, Center Valley, PA.

**Yildiz F.**, Kuzmar S. A., “*Self-Sufficient Energy-Efficient Residential and Commercial Building Design Aspects*”, International Conference on Industry, Engineering, and Management Systems (IEMS 2012), March 2012, Cocoa Beach, FL.

**Yildiz F.**, “*Environment Friendly Electric Boat Design and Development*”, International Conference on Industry, Engineering, and Management Systems (IEMS 2012), March 2012, Cocoa Beach, FL.

Kuzmar S. A., **Yildiz F.**, “*Interaction Between Engineers and Construction Managers*”, International Conference on Industry, Engineering, and Management Systems (IEMS 2012), March 2012, Cocoa Beach, FL.

**Yildiz F.**, “*A Comparison Study: The Reliability and Viability of Potential Sustainable Energy Systems*”, Proceedings of 2012 ASEE Gulf Southwest Annual Conference, ASEE Gulf-Southwest Section, April 2012, El Paso, TX.

**Yildiz F.**, “*Promotion of STEM Education in K-12 System with Alternative Energy Workshops*”, Proceedings of 2012 ASEE Gulf Southwest Annual Conference, ASEE Gulf-Southwest Section, April 2012, El Paso, TX.

**Yildiz F.**, “*Self-Sufficient Energy-Efficient House Design*”, Proceedings of 2012 ASEE Gulf Southwest Annual Conference, ASEE Gulf-Southwest Section, April 2012, El Paso, TX.

**Yildiz F.**, “*High Performance and Driver-Friendly Electric Vehicle Technology*”, Proceedings of 2012 ASEE Gulf Southwest Annual Conference, ASEE Gulf-Southwest Section, April 2012, El Paso, TX.

Oncul, F., **Yildiz, F.**, “*Facilitate Learning by Video Capturing Your Lectures with Free Software Tools*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

Nedom, M., **Yildiz, F.**, “*Develop a Safety Program for Your Classroom On How to Liability-Proof Your Self in A Lawsuit*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

Baltaci, K., **Yildiz, F.**, “*Design and Simulation of Electric Motor Control Unit for Dual Engine Hybrid Tractor*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

**Yildiz, F.**, “*A Small Scale Prototype Wind Turbine Design and Development*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

**Yildiz, F.**, Coogler, L. K., “*Two Successful Student Projects: Solar Air and Solar Water Heating Training Units*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

**Yildiz, F.**, “*The Current Map and Future of Alternative Energy Degrees*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

Kuzmar, A., **Yildiz, F.**, Freitas, V. M., “*Design in Construction Management*”, The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

Pecen, R., **Yildiz F.** “*Development of Two New Courses on Wind Energy and Its Management*”. EECT (Electricity, Electronics, Computer Technology) Division of The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

**Yildiz F.**, Coogler, K. “*Establishing a Renewable Energy Laboratory and its Data Acquisitions System*”. EECT (Electricity, Electronics, Computer Technology) Division of The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

Pecen, R., **Yildiz F.** “*How to Establish a Solar Electric Boat Development Program as a STEM Application for Academic Institutions*”. Administration Division of The Association of

Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

**Yildiz F.** “*A Quick Game to Learn Importance of Freehand Sketching Techniques*”. EECT Graphics Division of The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

**Yildiz F.,** Coogler, K. “*The Development and Implementation of Solar, Wind, and Human Power Mini-lab as a Training Unit*”. EECT (Electricity, Electronics, Computer Technology) Division of The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

## GRANTS

**Yildiz, F. \$10,000.** Solar Instructor Training Network, South-Central Region. U.S. Department of Energy. DE-EE0005680. Funded amount excludes: Free training from training provider (Solar Power People), follow up training and consultative services. Subcontract with Houston Community College (HCC).

**Yildiz, F. 15,000.** Solar Instructor Training Network, South-Central Region. U.S. Department of Energy. DE-EE0005680. Brand New Solar Photovoltaic related Equipment Transferred to SHSU Campus. Subcontract with Houston Community College (HCC).

**Yildiz, F. \$5600.** Plus free training from a solar training provider, follow up training and consultative services (teaching, mentoring, observation, coaching), and more funds can be requested. Subcontract with Houston Community College (HCC). Solar Instructor Training Network, South-Central Region. U.S. Department of Energy. DE-EE0005680.

**Yildiz, F. \$1585.** Plus free training from a solar training provider, follow up training and consultative services (teaching, mentoring, observation, coaching), and more funds can be requested. Subcontract with Houston Community College (HCC). Solar Instructor Training Network, South-Central Region. U.S. Department of Energy. DE-EE0005680.

Lucia, J.L., M.M. Beverly, **Yildiz, F.**, and M.J. Anderson. **\$11,674.00** Development of an equine non-contact thermography device. SHSU-Enhancement Research Grant.

Wolfskill, L. A., Ullrich, D. R., **Yildiz, F. \$14,409.** 2013-14. *TXARNG Facility Energy Auditing Program. Texas Military Forces (TXMF)* CFMO401-4-1298. Contract for energy audit of military facility (pilot program), with more facilities to be programmed in CY2014 after successful completion this first one. Includes student training and learning outcomes for 2-6 undergraduate students. **\$3,793.00** from contract, plus **\$10,616** of new equipment for the department.

**Yildiz, F. \$2400.** 2013. Solar Instructor Training Network, South-Central Region. U.S. Department of Energy. DE-EE0005680. Funded amount excludes: Free training from training provider (Ontility), follow up training and consultative services.

Stutts, K.J., Beverly M.M, **Yildiz, F. \$70,742.** 2013. Texas Workforce Commission. “*Summer Merit Program – SHSU STEM Camp*”.

Yildiz, F. **\$4603** plus free training from training provider (ontology), follow up training and consultative services (teaching, mentoring, observation, coaching), and more funds can be requested. Subcontract with Houston Community College (HCC). Solar Instructor Training Network, South-Central Region. U.S. Department of Energy. DE-EE0005680. (2012)

Ullrich, D., Lane, B., **Yildiz, F., \$693,021** from United States Department of Agriculture (USDA), Capacity Building Grants for Non-Land Grant Colleges of Agriculture through National Institute of Food and Agriculture (NIFA), to establish “***Agriculture Sustainable Energy Education Network (ASEEN)***”, Proposal Number Assigned by NIFA: 2012-03737. Grants.Gov Tracking Number: GRANT11179387, Award Number: 2012-70001-20142. (2012)

**Yildiz, F., & Crockford W., \$15,000** from Entergy Inc. – Charitable Foundation, to Support “*Promotion of Science and Energy Education in K-12 Rural Schools*”. (2012)

**Yildiz, F.,** \$1500.61 from Fleishman Hillard Inc., to Support “*Promotion of Alternative Energy Education Workshops in K-12 Schools*” (2010).

**Yildiz, F., & Kingman D., \$15,000** from Entergy Inc. Charitable Foundation, to Support “*Promotion of Alternative Energy Education in K-12 Schools*” (2009).

## PRESENTATIONS

Renewable Energy Education Initiative for K-12 Teachers with Sustainable Energy Education Network. 5<sup>th</sup> IAJC/ISAM Joint Conference. November 6-8, 2016. Orlando, FL.

Photovoltaic Laboratory Exercises for Renewable Energy Courses. The Association of Technology, Management, and Applied Engineering (ATMAE) 2016 Annual Conference: Entering the Future. November 2-5, 2016. Orlando, FL.

Design of a Mobile Grid-Tied Solar Photovoltaic Laboratory Unit for Demonstrations and Laboratory Experiments. The Association of Technology, Management, and Applied Engineering (ATMAE) 2016 Annual Conference: Entering the Future. November 2-5, 2016. Orlando, FL.

A Comparative Study of Motivation and Learning Strategies between Public and Private High School Students of India and U.S. The Association of Technology, Management, and Applied Engineering (ATMAE) 2016 Annual Conference: Entering the Future. November 2-5, 2016. Orlando, FL.

Affordable Laboratory Exercises in Wind Energy. The Association of Technology, Management, and Applied Engineering (ATMAE) 2015 Annual Conference: Building Bridges. November 11-14, 2015. Pittsburgh, PA.

Design and Development of a Data Acquisition System to Test Heat Transfer through Building Envelopes. The Association of Technology, Management, and Applied Engineering (ATMAE) 2015 Annual Conference: Building Bridges. November 11-14, 2015. Pittsburgh, PA.

Motivation and Learning Strategies of Students in Turkey. The Association of Technology, Management, and Applied Engineering (ATMAE) 2015 Annual Conference: Building Bridges. November 11-14, 2015. Pittsburgh, PA.

Implementation of Rapid Prototyping Technologies in Multidisciplinary Coursework and Research Applications. The Association of Technology, Management, and Applied Engineering (ATMAE) 2015 Annual Conference: Building Bridges. November 11-14, 2015. Pittsburgh, PA.

Relationship of ocular and rectal temperatures as indicators of health status in horses. J. Equine Vet. Sci. 35(5): 423. (Graduate Student Poster Presentation, Equine Science Symposium, St. Petersburg, FL).

Agricultural Sustainable Energy Education Network (ASEEN) – Teacher Professional Development Summer Workshop”, Poster/Workshop. 2015 VATAT Professional Development Conference. July 27-31, 2015. Waco, TX.

An Instrumentation Project to Measure Domestic Hot Water Recirculation Temperature in Building Systems. International Conference on Industry, Engineering, and Management Systems (IEMS 2015) Annual Conference, March 23-25, 2015. Cocoa Beach, FL.

Modeling for More Efficient Wind Turbine. The Association of Technology, Management, and Applied Engineering (ATMAE) 2014 Annual Conference: Tomorrow’s Gateway. November 19-22, 2014. St. Louis, MO.

Design and Implementation of 2kW Hybrid Photovoltaic and Wind Energy Laboratory and Training System for Renewable Energy Classes and Research. The Association of Technology, Management, and Applied Engineering (ATMAE) 2014 Annual Conference: Tomorrow’s Gateway. November 19-22, 2014. St. Louis, MO.

Energy Harvesting with Piezoelectric Devices through an Air Conditioning Condenser. International Conference on Industry, Engineering, and Management Systems (IEMS 2014) Annual Conference, March 24-26, 2014. Cocoa Beach, FL.

Agricultural Sustainable Energy Education Network (ASEEN) – Teaching Alternative Energy Topics. Poster/Workshop. 2014 VATAT Professional Development Conference: Generate Success. July 28-August 1, 2014. Abilene, TX

Design and Implementation of a 1kW Wind Power Training System. International Conference on Industry, Engineering, and Management Systems (IEMS 2014) Annual Conference, March 24-26, 2014. Cocoa Beach, FL.

Low-Cost and Portable Mini-Lab Development for Green Energy Education Activities, The Association of Technology, Management, and Applied Engineering (ATMAE) 2013 Annual Conference: Developing the Future Workforce. November 20-23, 2013. New Orleans, Louisiana.

Simulation of Wind Turbines, The Association of Technology, Management, and Applied Engineering (ATMAE) 2013 Annual Conference: Developing the Future Workforce. November 20-23, 2013. New Orleans, Louisiana.

Learn How to Build Affordable Renewable Energy Training Equipment and Prepare Curriculum, 2013 High Impact Technology Exchange Conference (HI-TEC): Education America's Technical Workforce. July 21-24 2013. Austin, TX.

Agricultural Sustainable Energy Education Network (ASEEN), Poster. 2013 VATAT Professional Development Conference: Agricultural Education by the Bay. July 29-August 2, 2013. Corpus Christi, TX.

Building Affordable Equipment to Conduct Experiments for Alternative Energy Courses, International Conference on Industry, Engineering, and Management Systems (IEMS 2013) Annual Conference, March 24-27, 2013. Cocoa Beach, FL.

Potential Use of New Technologies to Improve Highway Safety, International Conference on Industry, Engineering, and Management Systems (IEMS 2013) Annual Conference, March 24-27, 2013. Cocoa Beach, FL.

Learners Development of Spatial Visualization in a 2D versus 3D CAD Class", The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Strengthening Our Connections. November 14-17, 2012. Nashville, TN.

Energy Harvesting from an Air Conditioning Condenser Exhaust", The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Strengthening Our Connections. November 14-17, 2012. Nashville, TN.

Energy Efficient LED Lighting Powered By Hybrid Wind and Solar Power", The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Strengthening Our Connections. November 14-17, 2012. Nashville, TN.

Design and Implementation of a 10kW Wind Power and Instrumentation System, 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.

An undergraduate summer research experience on energy efficient lighting technologies and harmonics, 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.

An Overview: Applied Interdisciplinary Renewable Energy Projects, 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.

Indoor Security Lighting with Solar Powered LED Technology, 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.

Overview of Hybrid Electric Vehicle Technology, Energypath 2012 Annual Conference, June 25-29 2012, DE SALES University, Center Valley, PA.

Self-Sufficient Energy-Efficient Residential and Commercial Building Design Aspects, International Conference on Industry, Engineering, and Management Systems (IEMS 2012), March 2012, Cocoa Beach, FL.

Environment Friendly Electric Boat Design and Development, International Conference on Industry, Engineering, and Management Systems (IEMS 2012), March 2012, Cocoa Beach, FL.

Interaction Between Engineers and Construction Managers, International Conference on Industry, Engineering, and Management Systems (IEMS 2012), March 2012, Cocoa Beach, FL.

A Comparison Study: The Reliability and Viability of Potential Sustainable Energy Systems, Proceedings of 2012 ASEE Gulf Southwest Annual Conference, ASEE Gulf-Southwest Section, April 2012, El Paso, TX.

Promotion of STEM Education in K-12 System with Alternative Energy Workshops, Proceedings of 2012 ASEE Gulf Southwest Annual Conference, ASEE Gulf-Southwest Section, April 2012, El Paso, TX.

Self-Sufficient Energy-Efficient House Design, 2012 ASEE Gulf Southwest Annual Conference, ASEE Gulf-Southwest Section, April 2012, El Paso, TX.

High Performance and Driver-Friendly Electric Vehicle Technology, 2012 ASEE Gulf Southwest Annual Conference, ASEE Gulf-Southwest Section, April 2012, El Paso, TX.

Facilitate Learning by Video Capturing Your Lectures with Free Software Tools. The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

Develop a Safety Program for Your Classroom On How to Liability-Proof Your Self in A Lawsuit. The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

Design and Simulation of Electric Motor Control Unit for Dual Engine Hybrid Tractor. The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

A Small Scale Prototype Wind Turbine Design and Development. The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

Two Successful Student Projects: Solar Air and Solar Water Heating Training Units. The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.



The Current Map and Future of Alternative Energy Degrees. The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

Design in Construction Management. The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Rethinking the Future. November 9-12, 2011. Cleveland, OH.

An Undergraduate Research Project: The Design and Development of an Environment Friendly Hybrid Boat, 2011 American Society for Engineering Education (ASEE) Annual Conference, Energy Conversion Conservation Division (EECT), June 2011, Vancouver, BC, Canada.

A Nuclear Power Industry Career Development Workshop for High School Teachers in a Hispanic Serving Institution, Annual American Society for Engineering Education (ASEE) Annual Conference, Energy Conversion Conservation Division (EECT), June 2011, Vancouver, BC, Canada.

A General Alternative Energy Course Development for a Technology Program, 2011 IAJC-ASEE International Joint Annual Conference on Engineering and Related Technology, April 2011, Hartford, CT.

Challenges of EVs and HVs to the US Electrical Power Grid, 2011 IAJC-ASEE International Joint Annual Conference on Engineering and Related Technology, April 2011, Hartford, CT.

Recruitment of K-12 Students to Engineering Technology Programs through Applied Alternative Energy Education Workshops, Annual ASEE Gulf Southwest Annual Conference: Innovating Engineering and Engineering Technology Education, ASEE Gulf-Southwest Section, March 2011, Houston, TX.

Mini-Lab: Building an Affordable Renewable Energy Training Unit, 2010 Annual ATMAE (Association of Technology Management and Applied Engineering) Conference, October 2010, Panama City Beach, FL.

Development of Two New Courses on Wind Energy and Its Management. EECT (Electricity, Electronics, Computer Technology) Division of The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

Establishing a Renewable Energy Laboratory and its Data Acquisitions System. EECT (Electricity, Electronics, Computer Technology) Division of The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

How to Establish a Solar Electric Boat Development Program as a STEM Application for Academic Institutions. Administration Division of The Association of Technology,

Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

A Quick Game to Learn Importance of Freehand Sketching Techniques. EECT Graphics Division of The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

The Development and Implementation of Solar, Wind, and Human Power Mini-lab as a Training Unit. EECT (Electricity, Electronics, Computer Technology) Division of The Association of Technology, Management, and Applied Engineering (ATMAE) Annual Conference: Bridging the Gulf. October 2010. Panama City Beach, FL.

Development of a Renewable Energy Course for a Technology Program. Proceedings of 2010 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECT), June 2010, Louisville, Kentucky.

Students Built Educational Renewable Energy Training Units, Proceedings of 2010 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECT), June 2010, Louisville, Kentucky.

A New Approach: Using Electronics Laboratory More Efficiently and Safely, Proceedings of 2010 American Society of Engineering Education (ASEE), New Engineering Educators Division, June 2010, Louisville, Kentucky.

Young Minds Meet For Sustainable Future, Proceedings of 2010 American Society of Engineering Education (ASEE), Energy Conversion Conservation Division (EECT), June 2010, Louisville, Kentucky.

Self-Powered Athletics Field Striping Machine, Proceedings of 2010 Gulf Southwest Annual Conference: Bridge to Industry – Educating the Industry Bound Engineer and Technologist, ASEE Gulf-Southwest Section, March 2010, Lake Charles, LA.

Building Tomorrow: A Study of Renewable Energy Students Built Renewable Energy Training Unit, Proceedings of 2010 Gulf Southwest Annual Conference: Bridge to Industry – Educating the Industry Bound Engineer and Technologist, ASEE Gulf-Southwest Section, March 2010, Lake Charles, LA.

Energy Harvesting and Storage Techniques from Ambient Energy Sources. The 2009 ATMAE's Annual Conference: Emerging & Green Technologies for Today's Economic Challenges, October 2009, Louisville, Kentucky.

One Dimensional Analytical Simulation Software Tools in Renewable Energy Harvesting Simulations. The 2009 ATMAE's Annual Conference: Emerging & Green Technologies for Today's Economic Challenges, October 2009, Louisville, Kentucky.

Web-Based Homework Assignment and Assessment Tool with Individual Performance Report Generation. The 2009 ATMAE's Annual Conference: Emerging & Green Technologies for Today's Economic Challenges, October 2009, Louisville, Kentucky.

NI LabView Data Acquisition System Design using Hydrogen Fuel Cell. 3rd IEEE International Conference on Application of Information and Communication Technologies (AICT2009). Baku, Azerbaijan.

Self-Powered Wireless Camera System Design. American Society of Engineering Education (ASEE) Annual Convention and Conference, June 2009, Austin, TX.

Self Sufficient Energy Efficient House Design. American Society of Engineering Education (ASEE), Annual Conference and Convention, June 2009, Austin, TX.

Using One Dimensional Software Tools in Low Power Ambient Energy Harvesting and Generation Simulations. American Society of Engineering Education (ASEE) Annual Conference and Convention, June 2009, Austin, TX.

Remote Laboratory Collaboration. American Society of Engineering Education (ASEE) Annual Conference and Convention, June 2009, Austin, TX.

Low Power Ambient Energy Harvesting and Conversion and Storage Circuits. The International Conference on Information Technology - New Generations (ITNG 2009), April 2009, Las Vegas, NV.

Design and Implementation of a Hydrogen Fuel Cell Data Acquisition and Monitoring Scheme for Educational Institutions. American Society of Engineering Education, Energy Conversion Conservation Division, June 2008, Pittsburgh, PA.

Utilizing Advanced Software Tools for Engineering Technology Curriculum as a bridge between Academia and Industry. American Society of Engineering Education, Energy Conversion Conservation Division, June 2008, Pittsburgh, PA.

Development of a DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station Using LabView PDS v8.20. Poster Presentation, American Society of Engineering Education Illinois/Indiana Section Conference, Indiana University-Purdue University Indianapolis, March 30-31, 2007, IL.

Energy Scavenging for Wireless Sensor Nodes with a Focus on Rotation to Electricity Conversion. American Society of Engineering Education, Energy Conversion Conservation Division, June 2007, Honolulu, Hawaii.

Techniques of Harvesting Ambient Energy Sources & Energy Scavenging Experiments, Design and Implement an Energy Harvesting Device. The 2007 NAIT's 40th Annual Convention "Past - Present - Future", November 2007, Panama City, Florida.

A Lab View PDS v8.20 Based Novel DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station Unit. The 2007 NAIT's 40th Annual Convention "Past - Present - Future", November 2007, Panama City, Florida.

Applications of Wireless Sensor Networks in Industrial Environments. The 2006 National Association of Industrial Technology Convention, "Linking the World through Technology", Cleveland, Ohio November 2006.

## PROFESSIONAL EXPERIENCES

9/14 – Present	<b>Sam Houston State University</b> , Dep. of Agricultural Sciences and Engineering Technology. Associate Professor, Engineering Technology	Huntsville, TX
09/08 - 8/14	<b>Sam Houston State University</b> , Department of Agricultural and Industrial Sciences. Assistant Professor, Industrial Technology	Huntsville, TX
08/05-06/08	<b>University of Northern Iowa</b> , Department of Industrial Technology Graduate Teaching & Research Assistant, Electrical and Information Engineering Technology	Cedar Falls, IA
05/07-07/08	<b>University of Northern Iowa</b> , Strategic Marketing Services Database and Web Administrator	Cedar Falls, IA
09/05-07/08	<b>John Deere Waterloo Works</b> , Product Engineering Center IA Hitch, Wheel, Tire and Track Engineering Group	Waterloo,
05/07-07/08	<b>University of Northern Iowa</b> , Classic Upward Bound Program Math-Science Instructor, Calculus & Geometry	Cedar Falls, IA
08/05-08/07	<b>University of Northern Iowa</b> , College of Natural Sciences IT/ Computer Administrator	Cedar Falls, IA
02/05-08/05	<b>Tiger Zone, Inc.</b> Information Technology Administrator	Fort Lee, NJ
02/05-08/05	<b>Convenience Express, Inc.</b> Information Technology Administrator	North Bergen, NJ
02/04-08/04	<b>United Nations Headquarters</b> , Staff Counselor's Office, OHRM/DOD Database and Web Development and Management	New York City, NY

## AWARDS & SCHOLARSHIPS/FELLOWSHIPS

**Nominated** for 2015 - 2016 SHSU Scholarly and Creative Accomplishments Award.

**Scholarship** to attend the Energypath 2015 – Sustainable Energy Fund Conference and Pre Conference Energy Boot Camps. **\$1500** from Sustainable Energy Fund of PA (July, 2015).

**Nominated** for 2014 - 2015 SHSU Scholarly and Creative Accomplishments Award.

**Recipient** of 2014 - 2015 SHSU College of Sciences Faculty Excellence in Research Award.

**Scholarship** to attend the Energypath 2014 – Sustainable Energy Fund Conference and Pre Conference Energy Boot Camps. **\$2500** from Sustainable Energy Fund of PA, June, 2014.

2013 ATMAE **Faculty Excellence Award**. University Award for Academic Excellence.

**Scholarship** to attend the NSF-ATE VHDL and FPGA Design Workshop, Electrical Engineering Technology Program, Michigan Technological University. **\$800**. May 10-11 2013.

**Scholarship** to attend the Energypath 2013 – Sustainable Energy Fund Conference and Pre Conference Energy Boot Camps. **\$2300** from Sustainable Energy Fund of PA, June 29-August 2, 2013.

**Scholarship** to attend Teaching and Learning Microcontrollers in Embedded System Designs Workshop. **\$400** from NSF TUES DUE Type 2 Project. Wayne State University, Detroit, MI. July 10-12, 2013.

**Scholarship** to attend the Energypath 2012 – Sustainable Energy Fund Conference and Pre Conference Energy Boot Camps. ~**\$2000** from Sustainable Energy Fund of PA (June 2012).

**Fellowship** to attend the High Impact Technology Exchange Conference (HI-TEC). **\$450** from NSF funded GeoTech Center at Delmar College (July 2011).

**Scholarship** to attend the Energypath 2011 – Sustainable Energy Fund Conference and Pre Conference Energy Boot Camps. ~**\$3000** from Sustainable Energy Fund of PA (June 2011).

**Scholarship** to attend the Center for Sustainable Engineering (CSE) Workshop (2 days). ~**\$1000** from Syracuse Center of Excellence in Environmental and Energy Systems (SyracuseCoE and Syracuse University (May 2011).

**Outstanding Doctoral Dissertation Award**, (Doctoral Dissertation: “Low Power Energy Harvesting and Storage Techniques from Ambient Human Powered Energy Sources”) from University of Northern Iowa Graduate College (December 2008).

Graduate Scholarship (3 years – Graduate Assistantship and Full Tuition). University of Northern Iowa, College of Natural Sciences (August 2005 – June 2008).

Certificate and Recognition of Successful Internship. United Nations Headquarters, Staff Counselor's Office, OHRM/DOD, New York, NY (2005).

## **PROFESSIONAL MEMBERSHIPS**

American Society of Engineering Education (ASEE) 2006-Present  
Epsilon Pi Tau Honor Society (EPT) 2009-Present  
Institute of Electrical and Electronics Engineers (IEEE) 2007-Present  
The Association of Technology, Management, and Applied Engineering (ATMAE) 2006-Present  
Institute of Electrical and Electronics Engineers (IEEE) - Southern Section

## **PROFESSIONAL SERVICE**

**Manuscript Editor** – The Technology Interface International Journal (TIIJ). ISSN: 1523-9926

- Manuscript Editor, 2011 – 2014

**Center Fellow** - Center for Rural Studies at Sam Houston State University, 2011 - Present

### **Executive Board and Committees - Conferences**

- Executive Board – Co-Chair - 4th International Association of Journals and Conferences. (IAJC/ISAM 2014), Orlando, FL.
- Proceeding Committee - 4th International Association of Journals and Conferences. (IAJC/ISAM 2014), Orlando, FL.

### **Advisor** – Sam Houston State University

- ATMAE student chapter club (SHSU) 2009 - Present
- SHSU Renewable and Clean Energy Association 2013 - Present

### **Committees** – Sam Houston State University

- Administrative Associate III Hiring Committee (Member), 2015
- Departmental Scholarship Committee – (Member), 2015-2016
- SHSU, Student Organizations Board Committee (Member), 2014 - Present
- College of Sciences – META Assessment Committee (Member), 2015 - 2016
- Engineering Technology Marketing Committee (Chair), 2014 - Present
- ASET Promotion/Tenure/Post-Tenure Committee (Member), 2015 - Present
- SACs Program Assessment Committee (Member), 2015 - Present
- ExCEL@Sam Committee (Member), 2015 - Present
- Curriculum & Catalog & WE Committee (Member), 2015 - Present
- ASET Scholarship Committee (Member), 2015 - Present
- SHSU Credit By Examination Committee (Member), 2013 – 2016
- Academic Building Programming Committee (Member), 2012 – 2016
- Faculty Merit/FES Committee (Member), 2012 – Present
- Engineering Technology Advisory Committee (Member), 2008 – Present
- Engineering Technology Alumni Relations (Member), 2009 – Present
- Engineering Technology Faculty Search Committee, 2010 – Present

- Engineering Technology Program Curriculum Committee, 2010 – Present
- Recruitment and ExL in Ag (Member), 2011 – 2012
- Faculty Retreat Committee (Member), 2011
- Nomination Committee (Member), 2011 – 2016
- **Graduate Student Committee** 2008-2011
  - Christiaan Marius Meiring, Advisor
  - Timothy Hunt, Graduate Committee Member
  - Daniel Hendren, Graduate Committee Member
  - Clint Wilkes, Graduate Committee Member
  - Eric Wilburn, Graduate Committee Member
  - Mariana Freites, Graduate Committee Member

**Reviewer** (Book, Journal and Conference Paper/Abstract/Articles)

- Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2016). Orlando, FL.
  - Abstract Reviewer
- American Society for Engineering Education Annual Conference (ASEE 2016). New Orleans, LA.
  - Abstract and Paper Reviewer
- Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2015). Pittsburgh, PA.
  - Abstract Reviewer
- American Society for Engineering Education Annual Conference (ASEE 2015). Seattle, WA.
  - Abstract and Paper Reviewer
- Peer-Reviewer - Community and Education Division of the National Institute of Food and Agriculture (NIFA- USDA).
- Paper Review. Journal of Energy Research & Social Science.
- Paper Review. Journal of Energy Science and Engineering.
- Abstract and Paper Reviews. 4<sup>th</sup> International Association of Journals and Conferences. (IAJC/ISAM 2014), Orlando, FL.
- Reviewer - Encyclopedia of Energy Engineering and Technology. Publication of Taylor & Francis Group.
- ASEE 2013 Conference Review (papers and abstracts)
- IAJC (International Association of Journals and Conferences) Annual Conference
- Book Review Elsevier Elliot Gindis, “Up and Running with AutoCAD 2010”, Elsevier, Academic Press (AP) Publications.
- ASME 2010 10<sup>th</sup> Biennial Conference on Engineering Systems Design and Analysis, Manufacturing Systems Track (4 papers), Istanbul, Turkey July 12-14, 2010
- “American Society for Engineering Education” (ASEE). 2008-Present.
- ASEE-GSW (American Society for Engineering Education – Gulf-Southwest Section. 2009-Present
  - *Strengthen Computing Discipline Recruitment With Media Computing And Computer Game Development Under Educators Collaboration.* ASEE-GSW 2011 Conference.
- “the Technology Interface Journal”. 2008-Present.

- “*The International Conference on Information Technology - New Generations*” (ITNG). Circuit and System Design Track. 2008-Present.
- I-SWEEEP – (International Sustainable World Energy, Engineering, & Environment Project Olympiad). 2008-Present.
- “*IEEE International Conference – Science and Technology for Humanity, Sustainable Development*” (IEEE TIC-STH-SSD). 2009-Present
- “*Association of Technology, Management, and Applied Engineering*” (ATMAE). Electrical, Electronics and Computer Technology (EECT) Division. 2007-Present.
- “*Smart Materials and Structures Journal (IOP)*”. 2009-Present.
- International Journal of Energy for a Clean Environment. 2009-Present
- IEEE Education Engineering (EDUCON). 2009-Present
- IEEE (Institute of Electrical and Electronics Engineers)
- International Review Board, The International Journal of Engineering Research & Innovation 2009-Present
- Journal of Applied Science & Engineering Technology. 2010 – Present.

### **Judge**

- Judge for Science and Engineering Fair of Houston, University of Houston Alumni Center, Houston, TX. February 26, 2016.
- Rice University Graduate Student 90 Second Competition, Rice University, Houston, TX. March 11, 2016.
- Judge for Texas Technology Student Association (TX TSA) Annual State Contest, Waco, TX. April 15, 2016.
- Judge for Energy, Engineering, and Environmental related projects, International Sustainable World Energy, Engineering, and Environment (I-SWEEEP) Project Olympiad, Houston, TX. May 9, 2015.
- Judge for Texas Technology Student Association (TX TSA) Annual State Contest, Waco, TX. April 10, 2015.
- Robotics Competition, Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2014). St. Louis, MO.
- 2014 SET BEST Robotics Competition, Bernard G. Johnson Coliseum, Sam Houston State University
- 2013 SET BEST Robotics Competition, Bernard G. Johnson Coliseum, Sam Houston State University.
- 2012 SET BEST Robotics Competition, Bernard G. Johnson Coliseum, Sam Houston State University.
- 2013 TX Technology Student Association (TX TSA) Annual State Contest, Waco, TX.
- Brazos Valley Technology Education Association (BVTEA) Regional Annual Contest, March 2, 2012. Spring, TX
- Texas Technology Student Association Annual State Contest, April 2-3, 2012. Waco, TX
- Energy & Environmental related projects. I-SWEEEP, International Sustainable World (Energy, Engineering, and Environment) Project Olympiad, May 2012, Houston, TX.
- Energy & Environmental related projects. I-SWEEEP, International Sustainable World (Energy, Engineering, and Environment) Project Olympiad, April 2011, Houston, TX.



- Engineering Notebook Judging, BEST Robotics Competition, Sam Houston State University, October 29, 2011.
- “*Association of Technology, Management, and Applied Engineering (ATMAE)*. Robotics Competitions. 2009-Present.
- *Association of Technology, Management, and Applied Engineering (ATMAE)*. Graduate Research and Related Poster Presentations. 2010-Present.
- Sam Houston State University, Department of Agricultural and Industrial Sciences, Judged AGR 463 Coursework, Spring 2010.
- Brazos Valley Technology Science Association Regional Contest, April 16,17 2010
  - Judged High School Student Projects (Photography, Computer Aided-Design and Drafting)
- “*International Sustainable World (Energy, Engineering, & Environment) Project Olympiad (I-SWEEEP)*. 2008-Present. (2010)
  - Judged 22 Senior Energy Level Projects
- “*Association of Technology, Management, and Applied Engineering*” (ATMAE). Robotics Competitions. 2009-Present.
  - Judged about 20 robotics teams
- “*International Sustainable World (Energy, Engineering, & Environment) Project Olympiad (I-SWEEEP)*. 2008-Present. (2009)
  - Judged 30 Senior Energy Level Projects

#### **Chair/Co-Chair/Moderator**

- Session Chair - Topics in STEM and PLTW, 5<sup>th</sup> IAJC/ISAM Joint Conference. November 6-8, 2016. Orlando, FL.
- Moderator – Energy Conversion and Conservation Division, American Society for Engineering Education (ASEE) Annual Conference, June 26-29, 2016, New Orleans, LA.
- Moderator – Engineering Technology Division, American Society for Engineering Education (ASEE) Annual Conference, June 26-29, 2016, New Orleans, LA.
- Judge – Robotics Competition, Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2016). Orlando, FL.
- Moderator – Energy Conversion and Conservation Division, American Society for Engineering Education (ASEE) Annual Conference, June 14-17, 2015, Seattle, WA.
- Moderator – Engineering technology Division, American Society for Engineering Education (ASEE) Annual Conference, June 14-17, 2015, Seattle, WA.
- Moderator - Energy Conversion and Conservation Division, American Society for Engineering Education Annual Conference, 2014 Indianapolis, IN.
- Moderator, 4<sup>th</sup> *International Association of Journals and Conferences. (IAJC/ISAM 2014)*, Orlando, FL.
- Executive Board – Co-Chair, 4<sup>th</sup> *International Association of Journals and Conferences. (IAJC/ISAM 2014)*, Orlando, FL.
- Moderator – Electrical and Computer Engineering Division, American Society for Engineering Education Annual Conference, June 2013, Atlanta, GA.
- Moderator, The Fifth Annual SHSU Undergraduate Research Symposium, April 21, 2012.
- Moderator, The Fourth Annual SHSU Undergraduate Research Symposium, April 16, 2011.

- Moderator – Engineering Technology Division, American Society for Engineering Education Annual Conference, 2012 San Antonio, TX.
- Moderator – Computing & Information Technology, American Society for Engineering Education Annual Conference, 2012 San Antonio, TX.
- Moderator – Energy Conversion Conservation Division, American Society for Engineering Education Annual Conference, 2012 San Antonio, TX.
- Moderator – Engineering Technology Division, American Society for Engineering Education Annual Conference, 2011 Vancouver, Canada.
- Moderator – Energy Conversion Conservation Division, American Society for Engineering Education Annual Conference, 2011 Vancouver, Canada.
- Program Chair – Engineering Technology Division, 2011 IAJC-ASEE International Joint Annual Conference on Engineering and Related Technology, April 2011, Hartford, CT.
- Session Chair – Topics in Green & Alternative Technologies (ENT 202), 2011 IAJC-ASEE International Joint Annual Conference on Engineering and Related Technology, April 2011, Hartford, CT.
- Session Chair – Topics in Electrical & Power Systems (ENG 105), 2011 IAJC-ASEE International Joint Annual Conference on Engineering and Related Technology, April 2011, Hartford, CT.
- Moderator – Manufacturing Division, American Society for Engineering Education Annual Conference, 2010 Louisville, KY.
- Moderator – Engineering Technology Division, American Society for Engineering Education Annual Conference, 2010 Louisville, KY.
- Moderator – New Engineering Education Division, American Society for Engineering Education Annual Conference, 2010 Louisville, KY.
- Moderator, The Third Annual SHSU Undergraduate Research Symposium, “Agriculture and Environment Session”, April 24, 2010.
- Moderator (Technology Session III), American Society for Engineering Education – Gulf Southwest Annual Conference, “Bridge to Industry-Education the Future Industry Bound Engineer and Technologist”
- Co-Chair, “*The International Conference on Information Technology - New Generations*” (ITNG). Circuit and System Design Track. April 2009.