

FARUK YILDIZ

Professor – Engineering Technology
Sam Houston State University

EDUCATION

- Ph. D. Doctor of Industrial Technology (DIT), 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. Grove School of Engineering, The City College of City University of New York, New York, NY.
- B.S. Computer Science (Applied Information Systems and Programming), 2000. M.Kh. Dulaty Taraz State University, Taraz, Kazakhstan.

Book & Encyclopedia Chapters

- **Yildiz, F.** 2013. 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.

Journal Publications

1. Dakeev, U., **Yildiz, F.** 2022. Design and Development of Mixed Reality (MR) Laboratory Tools to Improve Spatial Cognition, Student Engagement, and Employee Safety. *Journal of Advanced Technological Education (JATE)*. Volume 2 Issue 1. November 16, 2022. doi: 10.5281/zenodo.7332034.
2. **Yildiz, F.** Pecen, R., Dakeev, U. 2019. Educational Mobile Laboratory Unit Implementation to Study and Research Industrial Control System Vulnerabilities to Cyber Attacks. *Journal of Technology, Management, and Applied Engineering (JTMAE)*. Volume 36, Number 2, April June 2020.
3. Pecen, R., **Yildiz, F.**, Johnson, K., Aguirre, A., Dakeev, U. 2018. A Novel Curriculum Development in Solar and Wind Energy Systems in an Engineering Technology Program. *The International Journal of Modern Engineering (IJME)*. Vol. 19, No. 1. Print ISSN# 2157-8052, Online ISSN# 1930-6628. Fall/Winter 2018.
4. Dakeev, U., Pecen, R., **Yildiz, F.**, Heidari, F., Alam, S. 2018. Using an Augmented Reality Tool to improve Spatial Cognition. *International Journal of Engineering Research and Innovation*, Vol. 10, Number 2, Fall/Winter 2018.

5. **Yildiz, F.**, Coogler, K. L. 2017. Low Power Energy Harvesting with a Thermoelectric Generator through an Air Conditioning Condenser. *ASEE - Journal of Engineering Technology (JET)*. ISSN# 0747-9964. Spring 2017.
6. **Yildiz, F.**, Coogler, K. L. 2017. Design and Development of Mobile Geothermal Laboratory Equipment. *Technology Interface International Journal (TIJ)*. Vol. 17, No. 2. ISSN# 1523-9926. Spring/Summer 2017.
7. 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.
8. **Yildiz, F.**, Coogler, K. L. 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.
9. **Yildiz, F.**, Coogler, K. L., Amador, R. 2015. Conversion of a Gasoline Powered Boat to a Hybrid Electric Boat. *ASEE Journal of Engineering Technology (JET)*. ISSN# 0747-9964. Spring 2015.
10. **Yildiz, F.**, Pecan, R. 2014. Design and Implementation of a Hybrid Power System Using Wind and Solar Photovoltaics. *Technology Interface International Journal (TIJ)*. Vol. 15, No. 1. ISSN# 1523-9926. Fall/Winter 2014.
11. **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.
12. **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.
13. **Yildiz, F.** 2012. 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. Engineering Pathway, December 2012.
14. **Yildiz, F.** 2012. Design and Development of a Multiple Concept Educational Renewable Energy Mobile Mini-Lab for Experimental Studies. *International Journal of Engineering Research and Innovations (IJERI)*. Vol. 4, No. 2. Print ISSN# 2152-4157, Online ISSN# 2152-4165. Fall/Winter 2012.

15. ***Yildiz, F.,** Humston, J., Pecen, R. 2012. Promoting STEM to Young Students by Renewable Energy Applications. *Journal of STEM Education: Innovations and Research (JSTEM)*. ISSN# 1557-5284, Vol. 13, No. 3. May-June 2012. * *Corresponding Author*
16. **Yildiz, F.,** Baltaci, K. 2011. Challenges of EVs and HVs to the US Electrical Power Grid. *International Journal of Engineering Research and Innovations (IJERI)*. Vol. 3, No. 1. Print ISSN# 2152-4157, Online ISSN# 2152-4165. Spring/Summer 2011.
17. **Yildiz, F.,** Muns, N. C., Coogler, K. L. 2011. A General Alternative Energy Course Development for a Technology Program. *Technology Interface International Journal (TIIJ)*. Vol. 12, No. 1. ISSN# 1523-9926. Fall/Winter 2011.
18. **Yildiz, F.** 2011. Energy Harvesting with Piezoelectric Fiber Composite from Mechanical Vibrations. *The International Journal of Modern Engineering (IJME)*. Vol. 11, No. 2. Print ISSN# 2157-8052, Online ISSN# 1930-6628. Spring/Summer 2011.
19. **Yildiz, F.** 2011. Energy Harvesting from Passive Human Power. *Journal of Applied Science & Engineering Technology (JASET)*. ISSN#1933-0421, Vol. 4.
20. **Yildiz, F.,** Pecen, R., Zora, A. 2010. Utilizing Advanced Software Tools in Engineering and Industrial Technology Curriculum. *International Journal of Engineering Research and Innovation (IJERI)*. Vol. 2, No. 1. Print ISSN# 2152-4157, Online ISSN# 2152-4165. Spring/Summer 2010.
21. **Yildiz, F.** 2010. Low Power Self-Sufficient Wireless Camera System. *The International Journal of Modern Engineering (IJME)*. Vol. 10, No.2. Print ISSN# 2157-8052, Online ISSN# 1930-6628, Spring/Summer 2010.
22. **Yildiz, F.,** Fazarro, D., Coogler, K. L. 2010. 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.
23. **Yildiz, F.** 2010. Low Power Energy Harvesting from Hydraulic Door Closer. *Journal of Engineering Technology (JET)*. Vol.27, No.1. ISSN# 0747-9664. Spring 2010.
24. **Yildiz, F.** 2009. Potential Ambient Energy Harvesting Sources and Energy Harvesting Techniques. *Journal of Technology Studies (JOTS)*, Epsilon Pi Tau (EPT). Vol. XXXV No. 2. ISSN#: 1071-6084. Fall 2009.

25. **Yildiz F.**, Fahmy, M. F. 2009. Self-Powered Fitness Equipment. *The Technology Interface Journal*. Vol.10 No.1. ISSN# 1523-9926. Fall, 2009.

Conference Proceeding Papers

1. **Yildiz, F.**, Pecen, R., Dakeev, U. 2022. *Review of Remote and Virtual/Augmented Reality Based Laboratory Platforms and Technologies*. Proceedings of the 2022 IAJC International Conference. October 13-15, 2022. Orlando, FL.
2. **Yildiz, F.**, Villalta-Cerdas, A. 2022. *The STEM Center at Sam Houston State University*, Proceedings of the ASEE 2022 129th Annual Conference & Exposition, Excellence Through Diversity, June 26-29, 2022, Minneapolis, MN.
3. Villalta-Cerdas, A., **Yildiz, F.** 2022. *Creating Significant Learning Experiences in An Engineering Bridge Course: A Backward Design Approach*, NSF Grantees Poster Session Paper Proceedings of the ASEE 2022 129th Annual Conference & Exposition, Excellence Through Diversity, June 26-29, 2022, Minneapolis, MN.
4. Pecen, R., **Yildiz, F.**, Dakeev, U. 2022. *Design And Construction of A 50 KW PV-Based EV Fast-Charging Station as a Community Engagement Project*, Received the 2nd Best Paper Award in ECCNED Division. Proceedings of the ASEE 2022 129th Annual Conference & Exposition, Excellence Through Diversity, June 26-29, 2022, Minneapolis, MN.
5. Dakeev, U., Pecen, R., **Yildiz, F.**, Basith, I.I., Obeidat, S., Sowell, L. 2022. *Development of Virtual Reality Robotics Laboratory Simulation*. Proceedings of the 2022 ASEE Zone IV Conference, May 12-14, 2022, University of BC, Vancouver, BC.
6. Dakeev, U., Pecen, R., **Yildiz, F.**, Luong, Y. 2021. *Augmented Reality Computer Aided Design Education (ARCADE) Tool to Improve Student Motivation, Engagement, and Spatial Cognition*. Proceedings of the ASEE 2021 128th Annual Conference & Exposition, July 26-29, 2021, Virtual Meeting.
7. Dakeev, U., Pecen, R., **Yildiz, F.**, Luong, Y. 2021. *COVID – 19 Community Relief Project: Design and Development of Disinfection Booth with AR/VR companion app*. Proceedings of the ASEE 2021 128th Annual Conference & Exposition, July 26-29, 2021, Virtual Meeting.
8. Pecen, R., Dakeev, U., **Yildiz, F.**, Ursell, W. T., Spradley, S. A. 2021 *Integration of Two Unique Senior Design Projects to Engineering Technology*. Proceedings of the ASEE 2021 128th Annual Conference & Exposition, July 26-29, 2021, Virtual Meeting.

9. Pecen, R., Coogler, K. L., **Yildiz, F.**, Dakeev, U., Sebesta L. D. 2021. *Design and Implementation of PV Charging Stations for City of Huntsville Aquatic Center*. Received the Third Best Paper Award. Proceedings of the ASEE 2021 128th Annual Conference & Exposition, July 26-29, 2021, Virtual Meeting.
10. Pecen, R., Dakeev, U., **Yildiz, F.** 2021. *Modular Conveyor Belt System with Robotic Sorting*. Proceedings of the ASEE 2021 128th Annual Conference & Exposition, July 26-29, 2021, Virtual Meeting.
11. Dakeev, U., Luong, Y., Pecen, R., **Yildiz, F.**, 2020. *Construction of 3D Printed Masks, Face shields and Disinfection Booth for COVID-19 Community Relief Efforts*. Proceedings of the 2020 ATMAE and IAJC Joint Conference (Virtual Conference). Paper # 163-T-20.
12. Dakeev, U., Aljaroudi, A., **Yildiz, F.**, Pecen, R. 2020. *Assessment of Firefighters' Exposure and Response to a High-Intensity Virtual Reality Simulation*. Proceedings of the ASEE 2020 127th Annual Conference & Exposition, June 21-24, 2020, Montreal, Quebec, Canada.
13. **Yildiz, F.**, Coogler, K.L., Pecen, R. 2020. *A Multidisciplinary Energy Project: Re-building a Non-working Electric Car with Students*. Proceedings of the ASEE 2020 127th Annual Conference & Exposition, June 21-24, 2020, Montreal, Quebec, Canada.
14. **Yildiz, F.**, Thompson, D.E. 2020. *Development of Interdisciplinary Project Based Scientific Research Course for STEM Departments*. Proceedings of the ASEE 2020 127th Annual Conference & Exposition, June 21-24, 2020, Montreal, Quebec, Canada.
15. Basith, I.I., Ma, J., **Yildiz, F.** 2020. *Certification and Training for Automation and Mechatronics*. ASEE 2020 127th Annual Conference & Exposition, June 21-24, 2020, Montreal, Quebec, Canada.
16. Pecen, R., **Yildiz, F.**, Gibson, M., Gonzalez, M. 2020. *Design and Implementation of a Smart and Cost-Effective Indoor Irrigation System (SCEIIS)*. Proceedings of the ASEE 2020 127th Annual Conference & Exposition, June 21-24, 2020, Montreal, Quebec, Canada.
17. Pecen, R., Coogler, K.L., **Yildiz, F.**, Ulan, D., Sebesta, L. 2020. *Mobile Renewable Response Trailer (MRRT) for Disaster Relief Efforts*. Proceedings of the ASEE 2020 127th Annual Conference & Exposition, June 21-24, 2020, Montreal, Quebec, Canada.
18. Dakeev, U., Pecen, R., **Yildiz, F.**, & Aljaroudi, A. 2020. *A Novel Augmented Reality Application for a Mobile Renewable Trailer as an Emergency Response*. Proceedings of the ASEE South Gulf Section, April 24-29, 2020, Albuquerque, New Mexico.

19. Dakeev, U., Pecen, R., **Yildiz, F.**, Clint, E. 2020. *Effect of an Augmented Reality Tool in Early Student Motivation and Engagement*. ASEE Conference for Industry and Education Collaboration (CIEC), January 29-31, 2020, Orlando, FL.
20. Pecen, R., Johnson, K.M., **Yildiz, F.** 2019. *Stable Operation of a Microgrid by Distributed Generation of Renewable Energy Sources*. Proceedings of the 7th International Conference on Clean and Electrical Power: Renewable Energy Resources Impact (IEEE-ICCEP 2019), July 2-4, 2019, Otranto, Puglia– Italy.
21. Pecen, R., **Yildiz, F.** 2019. *Integrating Geothermal Energy Education to an Engineering Technology Curriculum*. Proceedings of the ASEE 2019 126th Annual Conference & Exposition, June 15-19, 2019, Tampa, FL.
22. Pecen, R., **Yildiz, F.** 2019. *A Smart Grid Implementation for an Engineering Technology Curriculum*. Proceedings of the ASEE 2019 126th Annual Conference & Exposition, June 15 - 19, 2019, Tampa, FL.
23. Basith, I.I., **Yildiz, F.**, Johnson, K., Aguirre, A. 2019. *Ultrasonic Alarm Glove*. Proceedings of the ASEE 2019 126th Annual Conference & Exposition, June 15 - 19, 2019, Tampa, FL.
24. Pecen, R., **Yildiz, F.**, Johnson, K., Aguirre, A., Dakeev, U. 2018. *A Novel Curriculum Development in Solar and Wind Energy Systems in an Engineering Technology Program*. Proceedings of the 6th IAJC International Conference, October 11-14, 2018. Orlando, FL.
25. Dakeev, U., Pecen, R., Heidari, F., **Yildiz, F.**, Alam, S. 2018. *How an Augmented Reality Tool May Benefit Spatial Cognition*. Proceedings of the 6th IAJC International Conference, October 11-14, 2018, Orlando, FL.
26. Pecen, R., **Yildiz, F.**, Basith, I. I., Albrecht, M. 2018. *An Effective Industry-University Partnership to develop tomorrow's Workforce*. Proceedings of ASEE 2018 Annual Conference and Exposition, College-Industry Partnership Division (CIPD), June 24 - 27, 2018, Salt Lake City, UT.
27. Pecen, R., **Yildiz, F.** 2018. *Design and Implementation of a new Instrumentation and Interface Undergraduate course using LabVIEWTM myDAQ*. Proceedings of the ASEE 2018 Annual Conference and Exposition, Engineering Technology Division, June 24 - 27, 2018, Salt Lake City, UT.
28. **Yildiz, F.**, Pecen, R., Karabiyik, U., Coogler, K. L., England, J. 2018. *Design and Development of a Supervisory Control and Data Acquisition (SCADA) Laboratory*. Proceedings of the ASEE 2018 Annual Conference and Exposition, June 24 - 27, 2018, Salt Lake City, UT.

29. Dakeev, U., Pecen, R., **Yildiz, F.**, Alam, S. 2018. *Development of Virtual Environment to Introduce Spatial Reasoning to First-And Second-Year Engineering Students*. Proceedings of the ASEE 2018 Annual Conference and Exposition, Instrumentation Division, June 24 - 27, 2018, Salt Lake City, UT.
30. Karabiyik, U., Celebi, N., **Yildiz, F.**, Holekamp, J., Rabieh, K. 2018. *Forensic Analysis of SCADA/ICS System with Security and Vulnerability Assessment*. Proceedings of the ASEE 2018 Annual Conference and Exposition, June 24 - 27, 2018, Salt Lake City, UT.
31. Dakeev, U., Pecen, R., Heidari, F., **Yildiz, F.** 2018. *Student Spatial Orientation Improvement in Introductory CAD courses with the Integration of 3D printing and CNC technologies*. Proceedings of the 2018 Conference for Industry and Education Collaboration (CIEC), American Society for Engineering Education (ASEE). February 7-9, 2018. San Antonio, TX.
32. **Yildiz, F.**, Coogler, K. L. 2017. *An Interdisciplinary Experimental Engineering Projects Course Development*. Proceedings of 2017 American Society for Engineering Education (ASEE) Annual Conference, June 25 - 28, 2017. Columbus, OH.
33. Dakeev, U., Yilmaz, M., **Yildiz, F.**, Alam, S., Heidari, F., 2017. *Curriculum Service Learning Workshop for STEM Outreach*. Proceedings of 2017 American Society for Engineering Education (ASEE) Annual Conference, June 25 - 28, 2017. Columbus, OH.
34. Goksu, M., **Yildiz, F.** 2016. *Geometrical Determination of Maximum Power Point of a Photovoltaic Cell*. Proceedings of 5th IAJC/ISAM Joint Conference, November 6-8, 2016. Orlando, FL.
35. 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 5th IAJC/ISAM Joint Conference, November 6-8, 2016. Orlando, FL.
36. **Yildiz, F.**, Coogler, K. L. 2016. *Design and Development of a Mobile Geothermal Laboratory Equipment*. Proceedings of 5th IAJC/ISAM Joint Conference, November 6-8, 2016. Orlando, FL.
37. 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.

38. **Yildiz, F.**, Collins, H. C., Leatherwood, J. L., 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.
39. **Yildiz, F.**, Suh M. J., Coogler, K. L., 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.
40. 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.
41. **Yildiz, F.**, Coogler, K. L., 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.
42. **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.
43. 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.
44. 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.
45. 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.
46. 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.

47. **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.
48. **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.
49. **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.
50. **Yildiz, F.** 2013. *Attracting Young Minds to Engineering Technology Fields with Mobile Renewable Energy Education,*” Proceedings of the ASEE Fall 2013 Middle Atlantic Section Conference, University of District Colombia, October 11-12, 2013, Washington, DC.
51. 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.
52. **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.
53. **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.
54. Pecen, R., **Yildiz, F.**, Yuksek, B.Z., Dakeev, U., Baltaci, K. 2012. *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.
55. Pecen, R., Eichelberger, C.E., **Yildiz, F.** 2013. *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.
56. **Yildiz, F.**, Coogler, K. L., Pecen, R. 2012. *An Overview: Applied Interdisciplinary Renewable Energy Projects*. Proceedings of 2012 American

- Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.
- 57. Yildiz, F.,** Coogler, K.L., 2012. *Indoor Security Lighting with Solar Powered LED Technology*. Proceedings of 2012 American Society for Engineering Education (ASEE) Annual Conference, June 2012, San Antonio, TX.
- 58. Yildiz, F.,** Coogler, K.L., Muns, C.N. 2011. *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.
- 59. Yildiz F.,** Coogler K.L., Zora, A. 2011. *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, June 2011, Vancouver, BC, Canada.
- 60. Karayaka H.B., Yildiz, F.,** Mehrubeoglu, R., Caruso, K., 2011. *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, June 2011, Vancouver, BC, Canada.
- 61. Yildiz, F.,** Muns, N.C., Coogler, K.L. 2011. *A General Alternative Energy Course Development for a Technology Program*. Proceedings of 2011 IAJC-ASEE International Joint Conference on Engineering and Related Technology, April 2011, Hartford, CT.
- 62. Yildiz, F.,** Baltaci, K. 2011. *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.
- 63. Yildiz, F.,** Kingman, D., Coogler, K.L., Karayaka, H.B. 2011. *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.
- 64. Yildiz, F.,** Coogler, K. L. 2010. *Development of a Renewable Energy Course for a Technology Program*. Proceedings of 2010 American Society for Engineering Education (ASEE) Annual Conference, June 2010, Louisville, Kentucky.

65. **Yildiz, F.**, Coogler, K. L. 2010. *Students Built Educational Renewable Energy Training Units*. Proceedings of 2010 American Society for Engineering Education (ASEE) Annual Conference, June 2010, Louisville, Kentucky.
66. **Yildiz, F.** 2010. *A New Approach: Using Electronics Laboratory More Efficiently and Safely*. Proceedings of 2010 American Society for Engineering Education (ASEE), June 2010, Louisville, Kentucky.
67. **Yildiz, F.**, Pecen, R., Tarim, S. 2010. *Young Minds Meet For Sustainable Future*. Proceedings of 2010 American Society for Engineering Education (ASEE) Annual Conference, June 2010, Louisville, Kentucky.
68. **Yildiz, F.**, Dearing, M. 2010. *Self-Powered Athletics Field Striping Machine*. Proceedings of 2010 ASEE - Gulf Southwest Annual Conference: Bridge to Industry – Educating the Industry Bound Engineer and Technologist, ASEE Gulf-Southwest Section, March 2010, Lake Charles, LA.
69. **Yildiz, F.** 2010. *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.
70. **Yildiz, F.**, Freitas, M. 2009. *Energy Harvesting and Storage Techniques from Ambient Energy Sources*. 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.
71. Baltaci, K., **Yildiz, F.** 2009. *NI LabView Data Acquisition System Design using Hydrogen Fuel Cell*. 3rd Institute of Electrical and Electronics Engineers (IEEE) International Conference on Application of Information and Communication Technologies (AICT 2009). Page(s): 1-6, ISBN# 978-1-4244-4739-8. DOI# 10.1109/ICAICT.2009.5372578. October 4-16, 2009, Baku, Azerbaijan.
72. **Yildiz, F.** 2009. *Self-Powered Wireless Camera System Design*. Proceedings of 2009 American Society for Engineering Education (ASEE) Annual Conference. June 2009, Austin, TX.
73. **Yildiz, F.**, Coogler, K.L., Fazarro, D. 2009. *Self Sufficient Energy Efficient House Design*. Proceedings of 2009 American Society for Engineering Education (ASEE) Annual conference, June 2009, Austin, TX.
74. **Yildiz, F.**, Zora, A. 2009. *Using One Dimensional Software Tools in Low Power Ambient Energy Harvesting and Generation Simulations*. Proceedings

- of 2009 American Society for Engineering Education (ASEE) Annual Conference, June 2009, Austin, TX.
75. Fidan, I., **Yildiz, F.**, Bahadir, M.E. 2009. *Remote Laboratory Collaboration*. Proceedings of 2009 American Society for Engineering Education (ASEE) Annual Conference, June 2009, Austin, TX.
 76. **Yildiz, F.** 2009. *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. Pages. 35-40. April 2009, Las Vegas, NV.
 77. Pecen, R., **Yildiz, F.**, Baltaci, K. 2008. *Design and Implementation of a Hydrogen Fuel Cell Data Acquisition and Monitoring Scheme for Educational Institutions*. Proceedings of 2008 American Society for Engineering Education Annual Conference, June 2008, Pittsburgh, PA.
 78. Pecen, R., Zora, A., **Yildiz, F.** 2008. Utilizing Advanced Software Tools for Engineering Technology Curriculum as a Bridge Between Academia and Industry. Proceedings of 2008 American Society for Engineering Education Annual Conference, June 2008, Pittsburgh, PA.
 79. **Yildiz, F.**, Zhu, J., Pecen, R. 2007. *Techniques of Harvesting Ambient Energy Sources & Energy Scavenging Experiments, Design and Implement an Energy Harvesting Device*. Proceedings of 2007, National Association of Industrial Technology (NAIT) Annual Conference, October 2007, Florida.
 80. **Yildiz, F.**, Pecen, R., Baltaci, K. 2007. *A Lab View PDS v8.20 Based Novel DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station Unit*. Proceedings of 2007, National Association of Industrial Technology (NAIT) Annual Conference, October 2007, Florida.
 81. **Yildiz, F.**, Zhu, J., Pecen, R., Guo, L. 2007. *Energy Scavenging for Wireless Sensor Nodes with a Focus on Rotation to Electricity Conversion*. Proceedings of 2007 American Society for Engineering Education (ASEE) Annual Conference, June 2007, Honolulu, Hawaii.
 82. Pecen, R., **Yildiz, F.**, Baltaci, K. 2007. *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.
 83. **Yildiz, F.**, Zhu, J. 2006. *Applications of Wireless Sensor Networks in Industrial Environments*. Proceedings of 2006, National Association of

Industrial Technology (NAIT) Annual Conference, October 2006, Cleveland, Ohio.

Funded Grants

- Pecen, R., **Yildiz, F.**, Dakeev, U. 2022. *Design and Implementation of PV based EV DC Fast Charging for University and Community*. Entergy Services, Inc., Environmental initiative Funding (EIF), September 26, 2022.
Total Funded: \$120,500.00
- Ma, J., **Yildiz, F.**, Pecen, R., Pannkuk, T., Smith-Heron, A. 2022. Plant Protection Act FY2022. USDA APHIS PPA 7721, US Department of Agriculture. *Development of a Network of Field Deployable Infrared Thermography-Minirhizotron Device for Nondestructive Rapid Detection of Cyst Nematodes*.
Total Funded: \$140,000.00
- Pecen, R., **Yildiz, F.**, Dakeev, U. 2021. *Design, Construction, and Implementation of Sustainable PV Carport with Level 2 Fast EV Charging Stations at Sam Houston Statue Visiting Center*. Entergy Services, Inc., Environmental initiative Funding (EIF), August 30, 2021.
Total Funded: \$135,367.00
- Pecen, R., **Yildiz, F.**, Yesudasan, S., Dakeev, U. 2021. SHSU - Teaching Innovation Grants (TIGs), *Design and Implementation of Senior Design (Capstone) Curriculum for Engineering Technology Majors*.
Total Funded: \$10,940
- Ma, J., **Yildiz, F.**, Pecen, R., Pannkuk, T., Smith-Heron, A. 2021. Plant Protection Act FY2021. USDA APHIS PPA 7721, US Department of Agriculture. *Development of a Handheld infrared Thermography-Minirhizotron Device for Nondestructive Rapid Detection of Cyst Nematodes*.
Total Funded: \$139,000.00
- **Yildiz, F.**, Pecen, R., Ma, J., Smith-Herron, A., Dakeev, U. 2019. USDA APHIS PPA 7721. US Department of Agriculture. *Design and Development of Automated Invasive Pest Survey and Sorting Devices*.
Total Funded: \$146,814.00
- Ma, J., **Yildiz, F.**, Pecen, R., Smith-Herron, A. 2019. USDA APHIS PPA7721. US Department of Agriculture. *Development of a Handled Infrared Thermography-Minirhizotron Device for Nondestructive Rapid Detection*.
Total Funded: \$131,834.00
- **Yildiz, F.** England, J. 2018. *Enhancement, Security and Vulnerability Assessment, and Forensic Analysis of SCADA/ICS Systems*. 2018 COSET (College of Science and Engineering Technology) Summer Research Award.

- Total Funded: \$2,153
- Pecen, R., **Yildiz, F.**, Coogler, K. L. 2018-2020. *Promotion of Renewable Energy, Environment Education and Disaster Storm Relief through a State-of-the-Art Mobile Renewable Energy Support (MRRT)*. Entergy Services, Inc., Environmental initiative Funding (EIF).
Total Funded: \$85,000
 - Loft, B., **Yildiz, F.**, Artho, D., Martin, E. T., Thompson, E. D. 2017-2022. NSF- DUE - IUSE-Development & Implementation Institutional & Communication Transform. *A Comprehensive Model for Improving the Success of STEM Majors through the STEM Center - The STEM Center at SHSU*. NSF IUSE grant (DUE-1725674).
Total Funded: \$2,030,000
 - **Yildiz, F.** 2015. 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).
Total Funded: \$10,000
 - **Yildiz, F.** 2015. 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).
Total Funded: \$15,000
 - Lucia, J.L., M.M. Beverly, **F. Yildiz**, and M.J. Anderson. 2014. *Development of an Equine Non-contact Thermography Device*. Sam Houston State University (SHSU), Enhancement Research Grant. Total Funded: \$11,674.00
 - **Yildiz, F.** 2014. 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*.
Total Funded: \$5600
 - **Yildiz, F.** 2014. 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*.
Total Funded: \$1585
 - Wolfskill, L. A., Ullrich, D. R., **Yildiz, F.** 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.

Total Funded: \$14,409

- **Yildiz, F.** 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.*
Total Funded: \$2400
- Stutts, K.J, Beverly, M.M, **Yildiz, F.** 2013. Texas Workforce Commission. “*Summer Merit Program – SHSU STEM Camp.*”
Total Funded: \$70,742
- **Yildiz, F.** 2012. 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.*
Total Funded: \$4603
- Ullrich, D., Lane, R., **Yildiz, F.** 2012. 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)*,” NIFA: 2012-03737-GRANT11179387, Award Number: 2012-70001-20142.
Total funded: \$693,021
- **Yildiz, F.**, Crockford, W. 2011. Entergy Inc. – Charitable Foundation, to Support “*Promotion of Science and Energy Education in K-12 Rural Schools*”.
Total funded: \$15,000
- **Yildiz, F.** 2010. Fleishman Hillard Inc., to Support “*Promotion of Alternative Energy Education Workshops in K-12 Schools*”.
Total Funded: \$1561
- **Yildiz, F.** 2009. Enhancement Grant for Research 2010 of Sam Houston State University to Support “*Building an Interactive Mini-Lab Training Unit to Promote Alternative Energy*”.
Total Funded: \$13,500
- **Yildiz, F.**, Kingman, D. 2009. Entergy Inc. Charitable Foundation, to Support “*Promotion of Alternative Energy Education in K-12 Schools*”.
Total Funded: \$15,000
- **Yildiz, F.** 2009. SHSU-Office of Research and Special Programs to Support “*Alternative Energy Education Course Curriculum and Equipment Purchase.*”
Total Funded: \$5817.09
- **Yildiz, F.** 2009. SHSU-College of Art & Sciences to Support “*Alternative Energy Education Course Curriculum and Equipment Purchase.*”

Total Funded: \$1174.05

- **Yildiz, F.** 2009. SHSU-Graduate School to Support “*Alternative Energy Education on Campus.*” Total Funded: \$13,465.87

None Peer Reviewed Abstracts/Posters, Presentations, Seminars, Workshops Offered

- *Science, Technology, Engineering & Mathematics – STEM Center*, SkillsUSA Texas District 7 Fall 2022 Leadership Conference, Sam Houston State University Campus, Huntsville, TX (2 hrs.). November 2, 2022.
- *Innovating Education*, Panelist. Innovation Summit by The U.S. Chamber of Commerce at The Woodlands Area Chamber of Commerce (2 hours). July 23, 2020.
- Microsoft Excel workshop for Quanta Interns, (8 hours). May 31, 2019
- *Engineering Technology Degrees and Potential Careers*, Dekaney High School, (2 hours), 2 teachers and 27 students participated. April 17, 2019.
- Microsoft Excel workshop for Quanta Interns, (16 hours). May 11 & 18, 2018
- **Yildiz, F.**, Hedrick, D., Howard, W. (Poster). *ASEEN: Energizing Teachers*. The Ninth Annual Undergraduate Research Symposium. April 23, 2016. Sam Houston State University, Huntsville, TX.
- *Exploring Renewable Energy and Its Applications*, Groesbeck ISD – High School, (4 hours). February 19, 2016. Groesbeck, TX.
- *Exploring Renewable Energy and Its Applications*, Jacksonville ISD – High School, (4 hours). April 22, 2016. Jacksonville, TX.
- *Exploring Renewable Energy and Its Applications*, Bryan ISD – High School, (3 hours). October 14, 2016. Bryan, TX.
- *Exploring Renewable Energy and Its Applications*, Hudson ISD – High School, (4 hours). October 28, 2016. Hudson, TX.
- *Exploring Renewable Energy and Its Applications*, Magnolia ISD – Junior High School, (2 hours). November 4, 2016. Magnolia, TX.
- *Exploring Renewable Energy and Its Applications*, Somerset ISD – High School, (4 hours), 4 teachers and 48 students participated. December 17, 2015. Somerset, TX.
- *Exploring Renewable Energy and Its Applications*, Jacksonville ISD – High School, (3 hours), 47 students participated. December 3, 2015. Jacksonville, TX.
- *Exploring Renewable Energy and Its Applications*, New Caney ISD – Middle School, (3 hours), 4 teachers and 111 students participated. November 19, 2015. New Caney, TX.
- *Exploring Renewable Energy and Its Applications*, Hudson ISD – High School, (3 hours), 20 students participated. November 3, 2015. Hudson, TX.
- *Exploring Renewable Energy and Its Applications*, Jacksonville ISD – High School, (3 hours), 25 students participated. November 3, 2015. Jacksonville, TX.

- *3D Computer Aided Design and Rapid Prototyping* (2 hours). 28 High School Students and 2 teachers participated. Lee High School in Baytown, TX. Sam Houston State University. December 2, 2015. Huntsville, TX.
- *Solar and Wind Energy Technologies and Activities* (6 hours). 50 High School Students Participated. ExCEL@Sam – Exploring College Education and Life at Sam Houston State University. October 21, 2015. Huntsville, TX.
- *Fundamentals of Electronics*, ASEEN Project Summer Workshops, Sam Houston State University. Agriculture and Science Teachers, (2 hours). 23 Teachers Participated. June 19, 2015. Huntsville, TX.
- *Renewable Energy Technologies and Related Activities*, ASEEN Project Summer Workshops, Sam Houston State University. Agriculture and Science Teachers, (5 hours). 23 Teachers Participated. June 10-11, 2015. Huntsville, TX.
- *3D Computer Aided Design and Rapid Prototyping* (6 hours). 28 High School Students Participated. ExCEL@Sam – Exploring College Education and Life at Sam Houston State University. October 15, 2014. Huntsville, TX.
- *Computer Aided Design (3-D Modeling)* for 38 High School Students, (6 hours). ExCEL@Sam – Exploring College Education and Life at Sam Houston State University. February 26, 2014. Huntsville, TX.
- *Fundamentals of Electronics*, ASEEN Project Summer Workshops, Sam Houston State University. Agriculture and Science Teachers, (2 hours). June 10, 2014. Huntsville, TX.
- *Solar Photovoltaic Technology Activities*, ASEEN Project Summer Workshops, Sam Houston State University. Agriculture and Science Teachers, (4 hours). June 10, 2014. Huntsville, TX.
- *Wind Energy Technology*, ASEEN Project Summer Workshops, Sam Houston State University. Agriculture and Science Teachers, (3 hours). June 20, 2013. Huntsville, TX.
- *Solar Photovoltaic Technology*, ASEEN Project Summer Workshops, Sam Houston State University. Agriculture and Science Teachers, (2 hours). June 18, 2013. Huntsville, TX.
- *Introduction to Renewable Energy and Electronic*, ASEEN Project Summer Workshops, Sam Houston State University. Agriculture and Science Teachers, (2 hours). June 17, 2013. Huntsville, TX.
- *Renewable Energy Technology*, SHSU STEM Summer Camp, Sam Houston State University, 15 High School Students, (4 hours). June 12, 2013. Huntsville, TX.
- *Renewable Energy Technology*, SHSU STEM Summer Camp, Sam Houston State University, 15 High School Students, (4 hours). June 11, 2013. Huntsville, TX.
- *Renewable Energy Technology and Energy Conservation*, 46 Students, (4 hours). May 2, 2013. Willis ISD, TX.
- *Fueling the Future*, Speaker and Discussion Leader invited by SHSU Honors College. Let's Talk Event at Sam Houston State University, (3 Hours). March 21, 2013.

- *Alternative Energy Technology and Applications*, 30 Palacious ISD Middle and High School Students, (3 hours), February 22, 2013. SHSU Campus, Huntsville, TX.
- *Promotion of Alternative Energy Education: Reengineering Energy Education with Alternative Energy Applications*, Conroe ISD, High School Students, (8 hours), May 16, 2012. Conroe ISD, TX.
- *Promotion of Alternative Energy Education: Reengineering Energy Education with Alternative Energy Applications*, Huntsville ISD, High School Students, (4 hours), November 27, 2012. Huntsville ISD, TX.
- *Promotion of Alternative Energy Education: Reengineering Energy Education with Alternative Energy Applications*, Coldspring ISD, High School Students, (8 hours), April 26, 2012. Coldspring-Oakhurst ISD, TX.
- *Promotion of Alternative Energy Education: Reengineering Energy Education with Alternative Energy Applications*, Coldspring ISD, High School Students, (8 hours), April 27, 2012. Coldspring-Oakhurst ISD, TX.
- *Promotion of Alternative Energy Education: Reengineering Energy Education with Alternative Energy Applications*, Centerville ISD, High School Students, (8 hours), December 13, 2012. Centerville ISD, TX.
- *Promotion of Alternative Energy Education: Reengineering Energy Education with Alternative Energy Applications*, Centerville ISD, Middle School Students, (1 hour), December 13, 2012. Centerville ISD, TX.
- *Promotion of Alternative Energy Education: Reengineering Energy Education with Alternative Energy Applications*, Groveton ISD, High School Students, (8 hours), December 6, 2012. Groveton ISD, TX.
- *Promotion of Alternative Energy Education: Reengineering Energy Education with Alternative Energy Applications*, Coldspring ISD, High School Students, (8 hours), October 19, 2012. Coldspring-Oakhurst ISD, TX.
- *Mini-Lab: Building an Affordable Renewable Energy Training Unit*, 2010 The Association of Technology, Management and Applied Engineering (ATMAE) Annual Conference, 20 College Professors, (4 hours), October 2010. Panama City, FL.
- *Promotion of Alternative Energy Education Workshops 2010: Reengineering Energy Education with Alternative Energy Applications*, Conroe ISD, Science and Technology Teachers, Duration: 8 hours, Participants: 22 STEM Teachers, May 2010, Conroe ISD, Conroe, TX.
- *Promotion of Alternative Energy Education Workshops 2010: Reengineering Energy Education with Alternative Energy Applications*, Boys and Girls Club of Walker County Students, Duration: 8 hours, Participants: 16 Students, June 2010, SHSU Campus, Huntsville, TX.
- *Promotion of Alternative Energy Education Workshops 2010: Reengineering Energy Education with Alternative Energy Applications*, Boys and Girls Club of Walker County Students, Duration: 8 hours, Participants: 22 Students October 2010, SHSU Campus, Huntsville, TX.
- *Promotion of Alternative Energy Education Workshops 2010: Reengineering Energy Education with Alternative Energy Applications*, Huntsville ISD, T-

- STEM Academy Students, Duration: 8 hours, Participants: 22 Students, October 2010, SHSU Campus.
- *Promotion of Alternative Energy Education Workshops 2010: Reengineering Energy Education with Alternative Energy Applications*, Boys and Girls Club of Walker County Students, October 2010, SHSU Campus, Huntsville TX.
 - *Promotion of Alternative Energy Education Workshops 2010: Reengineering Energy Education with Alternative Energy Applications*, Boys and Girls Club of Walker County Students, June 2010, SHSU Campus, Huntsville, TX.
 - *Promotion of Alternative Energy Education Workshops 2010: Reengineering Energy Education with Alternative Energy Applications*, Conroe ISD, Science and Technology Teachers, May 2010, Conroe ISD Campus, Conroe TX.
 - **Yildiz, F.**, Crumrine, C., Chelf, M. (Poster). "Alternative Energy Training Unit." The Fourth Annual SHSU Undergraduate Research Symposium, April 16, 2011. Sam Houston State University.
 - Johnston, D., **Yildiz, F.** (Abstract/Presentation). "Building an Alternative Energy Training Unit." The Third Annual SHSU Undergraduate Research Symposium, April 24, 2010. Sam Houston State University.
 - Wagner, C., **Yildiz, F.** (Abstract/Presentation). "Building a Prototype Wind Turbine." The Third Annual SHSU Undergraduate Research Symposium, April 24, 2010. Sam Houston State University.
 - **Yildiz, F.**, (Poster). "*Self-Sufficient Energy Efficient House Design and Construction.*" Student and Faculty Research Posters. Centennial Celebration of Agricultural and Industrial Sciences Department. September 26, 2009, SHSU Gibbs Range, Huntsville, TX.
 - **Yildiz, F.**, Parker, K. (Poster). "*Establishing Renewable Energy Laboratory and Education.*" Student and Faculty Research Posters. Centennial Celebration of Agricultural and Industrial Sciences Department. September 26, 2009, SHSU Gibbs Range, Huntsville, TX.
 - **Yildiz, F.**, Dearing, M. (Poster). "*Converting a Battery-Powered Field Paint Machine to a Self-Powered Paint Machine Using Passive Human Power.*" Student and Faculty Research Posters. Centennial Celebration of Agricultural and Industrial Sciences Department. September 26, 2009, SHSU Gibbs Range, Huntsville, TX.
 - **Yildiz, F.**, (Poster). "*Renewable Energy Training Unit – Mini Lab Implementation.*" Student and Faculty Research Posters. Centennial Celebration of Agricultural and Industrial Sciences Department. September 26, 2009, SHSU Gibbs Range, Huntsville, TX.

PROFESSIONAL EXPERIENCE

- *Professor*, Department of Engineering Technology, Sam Houston State University, Huntsville, TX. (September 2020 – Present)
- *Department Chair*, Department of Engineering Technology, Sam Houston State University, Huntsville, TX. (September 2017 – Present)

- *Assistant Director, The STEM Center* at Sam Houston State University, Huntsville, TX. (September 2017 – 2023)
- *Program Coordinator, Engineering Technology, Department of Agricultural Sciences and Engineering Technology, Sam Houston State University, Huntsville, TX.* (March 2015 – August 2017)
- *Associate Professor, Department of Engineering Technology, Sam Houston State University, Huntsville, TX.* (September 2014 – August 2020)
- *Assistant Professor, Department of Agricultural and Industrial Sciences, Sam Houston State University, Huntsville, TX.* (September 2008 – Fall 2014)
- *Graduate Teaching & Research Assistant, Department of Industrial Technology, University of Northern Iowa, Cedar Falls, IA.* (August 2005 - May 2008)
 - Teaching Assistant (Electrical and Information Engineering Technology)
 - 330:037 Introduction to Circuits
 - 330:167 Power Electronics Applications
 - 330:039 Circuit & Systems
 - 330:038 Introduction to Electrical Power and Machinery
 - Research Assistant
 - Energy harvesting, conversion, and storage systems
 - Data acquisition systems from renewable energy sources
 - Hydrogen fuel cell to electricity conversion for home appliances
 - Data acquisition using NI LabView and National Instruments tools
 - Self-powered wireless sensor networks in industrial applications
- *Hitch, Wheel, Tire and Track Engineering, Product Engineering Center, John Deere & Company Waterloo Works, Waterloo, IA* (September 2005 – August 2008)
 - 3D-design and modeling of tractor components using Pro/E Wildfire for Hitch, Wheel, Tires, and Track Engineering Group
 - Creating Engineering drawings with geometric dimensioning and tolerancing (GD&T)
 - Creating and maintaining 3D Top-Down engineering assemblies to help manufacturing, production, and assembly processes
- *Database Management and Web Developer, Staff Counselor's Office, OHRM/DOD, United Nations Headquarters, New York City, NY.* (February 2004 – August 2004)
 - Design and maintain division web site under intranet linked to database
 - Design and maintain new databases under SQL server
 - Teach new database system and web interactions to department employees

ACADEMIC & PROFESSIONAL SERVICE

Academic Committees – Sam Houston State University (SHSU)

- Graduating Senior and Alumni Surveys (Member), 2021-Present
- Outreach/Requirement Events (Saturdays@Sam & ExCEL@Sam etc.), 2017-Present
- Annual ETEC Awards Program Committee (Member), 2017-Present
- Establishment of ETEC Wall of Honor (Lead and Chair), 2017-2019
- Accreditation Committee (ABET, ATMAE), Lead, 2018-2022
- Departmental Facility Safety/Accident Manual Development Committee (Chair and Member), 2017-Present
- Articulations/MOUs Committee, (Member), 2016-Present
- Annual Catalog Revisions (Chair), 2017 - Present
- Administrative Associate III Hiring Committee (Member), 2015
- SHSU, Student Organizations Board Committee (Member), 2014 - 2016
- College of Sciences – META Assessment Committee (Member), 2015 - 2016
- Engineering Technology Marketing Committee (Chair), 2014 - Present
- ASET (Agricultural Sciences and Engineering Technology) Promotion/Tenure/Post-Tenure Committee (Member), 2015 - 2017
- SACs Program Assessment Committee (Member), 2015 - Present
- ExCEL@Sam Committee (Member), 2015 - 2016
- Curriculum & Catalog & WE Committee (Chair), 2017-2018
- Curriculum & Catalog & WE Committee (Member), 2015 - Present
- ASET Scholarship Committee (Member), 2015 - 2016
- SHSU Credit by Examination Committee (Member), 2013 – 2016
- Academic Building Programming Committee – Pirkle ETEC Center (Member), 2012 – 2016
- Faculty Merit/FES Committee (Chair), 2016 – 2017
- Faculty Merit/FES Committee (Member), 2012 – 2016
- Engineering Technology Industrial Advisory Board (IAB) Committee (Member), 2008 – Present
- Engineering Technology Alumni Relations (Member), 2009 – 2017
- Engineering Technology Faculty Search Committees, 2010 – 2017
- Engineering Technology Program Curriculum Committee, 2010 – 2018
- Recruitment and ExL in Ag (Member), 2011 – 2012
- Faculty Retreat Committee (Member), 2011
- Departmental Nomination Committee (Member), 2011 – 2016

Graduate Student Committee (2008-2010)

- Served on 6 graduate student committees
 - Christiaan Marius Meiring, Advisor
 - Timothy Hunt, Committee Member
 - Daniel Hendren, Committee Member
 - Clint Wilkes, Committee Member
 - Eric Wilburn, Committee Member
 - Mariana Freites, Committee Member

Faculty Advisor – SHSU

- ATMAE Student Chapter – 2009 to 2017
- SHSU Renewable and Clean Energy Association Student Organization– 2013 to 2020

National Exam Development Committee - ATMAE

- ATMAE Ad-Hoc Controls Exam Committee (Board of Certification), Member – 2019-2020

Academic Advising

- Academic Advisor for all ETEC degrees in the Department of Engineering Technology (ETEC)
- Advise approximately 200 students per semester in the Department Engineering Technology.
- Unofficial Advisement of average 50 Students per year regarding careers, resume writing (review of resumes), job searches, recommendation letters, and coursework.
- Advise/Supervise graduate and undergraduate students enrolled in Directed/Independent Studies (85 students, 2008 – Present).
 - Offered voluntary directed/independent study courses to improve student learning by applied research projects. Approximately 12 applied individual or team projects.
- Student Mentor, Freshman Learning About Sam Houston (FLASH)
 - Help Freshman Students as Part of FLASH Mentoring Program

Articulation Agreements

- Blinn College – New Articulation, Work in Progress, 2019-2022
- College of Mainland – Gulf Coast Safety Institute – Work in Progress, 2019-2020
- Houston Community College – New Articulation, Work in Progress, 2019-2020
- Lone Star College System
- Angelina College
- University of Texas at Tyler and Sam Houston State University Articulation Agreement for 2-2 Transfer Program, 2015-2017
- Blinn College Potential Engineering Technology Program Articulation
 - May 8, 2015
- Visit Community Colleges for Potential Articulation Agreements and Advertise ASET Programs
 - Angelina College - Past
 - Lone Star College
 - Montgomery Campus
 - Tomball Campus
 - Houston Community College - Past
 - Blinn College - Past

Recruitment

- Panelist, LSC Connection: University Panel for College Academy & Dual Credit, Lone Star College-CyFair. Thursday, February 17, 2022.
- Interview Session, The Lone Star College-Montgomery TRAC (Transfer, Recruitment, & Careers) Center Unplugged Series. April 8 and May 27, 2021.
- Saturdays@Sam, Sam Houston State University, November 9, 2019
- Excel@Sam – Exploring College Education and Life at Sam Houston State University (36 students), November 1, 2019
- Conroe ISD Expo, Lone Star Convention Center, October 24, 2019
- Career and Internship Fair, Sam Houston State University, October 16, 2019
- Transfer Tuesdays, Lone Star College Montgomery, October 8, 2019
- ETEC Career Fair, Sam Houston State University, September 26, 2019
- Texas Technology Student Association (TX TSA) Annual State Contest, April 24-26, 2019. Fort Worth, TX
- Skills USA Texas Leadership and Skills Conference and Career Expo. April 5-6, 2019, Corpus Christi, TX
- Bearkat Family Weekend, Sam Houston State University, September 21, 2019
- Saturdays@Sam, Sam Houston State University, March 23, 2019
- ExCEL@Sam – Exploring College Education and Life at Sam Houston State University, March 8, 2019. Huntsville, TX.
- Saturdays@Sam, Sam Houston State University, November 10, 2018
- Excel@Sam – Exploring College Education and Life at Sam Houston State University, November 16, 2018
- SHSU Day at Lone Star College North Harris Campus, October 30, 2018
- Visit to Niagara Water Bottling Company, October 18, 2018
- Bearkat Family Weekend, Sam Houston State University, September 29, 2018
- Saturdays@Sam, Sam Houston State University, April 7, 2018
- Skills USA Texas Leadership and Skills Conference and Career Expo. April 5-6, 2018, American Bank Center, Corpus Christi, TX
- SHSU Day at Lone Star College – North Harris, March 27, 2018. Houston, TX.
- EXCEL@Sam – Exploring College Education and Life at Sam Houston State University, March 21, 2018
- Transfer Tuesdays Lone Star College Montgomery, February 28, 2018
- Houston Hispanic Forum (HHF) – Career and Education Forum (CED), Saturday, February 10, 2018. Houston, TX.
- SkillsUSA Texas Leadership and Skills Conference and Career Expo. April 6-8, 2017, Corpus Christi Convention Center, Corpus Christi, TX
- Houston Hispanic Forum (HHF) – Career and Education Forum (CED). Saturday, February 18, 2017. Houston, TX.
- Brazos Valley Technology Education Association (BVTEA) Regional Contest, March 11, 2016. Spring, TX
- Texas Technology Student Association, State Contest, April 15, 2016. Waco, TX
- Science, Technology, Engineering, Architecture, Mathematics (STEAM) - Recruiting Event. Sponsored by City of Waco, October 11, 2016

- Saturdays at Sam Houston State University, Transfer Student Event on Campus, November 12, 2016
- Saturdays at Sam Houston State University, Transfer Student Event on Campus, April 2, 2016
- Transfer Tuesdays at Lone Star College – Montgomery - Recruiting Event, February 24, 2016
- Transfer Tuesdays at Lone Star College – Montgomery - Recruiting Event, October 25, 2016
- Student Recruitment at SHSU Earth Week. 2016. Opened a booth with RCEA (Renewable and Clean Energy Association) Club students to promote renewable energy on campus and recruit students.
- Science, Technology, Engineering, Architecture, Mathematics (STEAM) - Recruiting Event
 - Sponsored by City of Waco, October 13, 2015
- Saturdays at Sam Houston State University
 - Transfer Student Event on Campus, November 14, 2015
- Attend to Transfer Tuesdays at Lone Star College – Montgomery - Recruiting Event
 - October 27, 2015
 - October 6, 2015
- Attend to Annual Brazos Valley Technology Education Association (BVTEA) Annual Contests as a Judge
 - Advertising Documents were Distributed at the Contests
- Attend Texas Technology Student Association (TX TSA), State Contest as a Judge
 - Advertising Documents were Distributed at the Contests
 - Visit/Host Independent School Districts to Offer Energy Workshops (2009-2016)
 - Advertisement of SHSU and AG/IT Department Programs
 - Twenty School Districts Visited/Hosted

President/Vice-President

- President – Electronics/Electricity and Computer Technology (EECT) Division, Association of Technology, Management, and Applied Engineering (ATMAE). 2016 – 2019.
- Vice President – Electronics/Electricity and Computer Technology (EECT) Division, Association of Technology, Management, and Applied Engineering (ATMAE). 2014 – 2016.

Manuscript Editor

- The Technology Interface International Journal (TIJ), 2011 – 2014

Center Fellow

- Center for Rural Studies at Sam Houston State University, 2011 - 2017

Executive, Advisory Board and Committees

- Career and Technical Education Advisory Council Member (Klein ISD), October 23, 2019 - Present
- Executive Board – Co-Chair – 5th International Association of Journals and Conferences. (IAJC/ISAM 2016), Orlando, FL.
- 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.

Peer Panelist and Evaluator

- Community and Education Division of the National Institute of Food and Agriculture (NIFA- USDA), 2014.
- Agriculture Small Business Innovation Research (SBIR), USDA – National Institute of Food and Agriculture (NIFA)
- Higher Education Challenge Program (HEC), USDA – National Institute of Food and Agriculture (NIFA)

Reviewer – Books, Journals and Conference Publications

- ATMAE Ad-Hoc Controls Exam Reviewer (Board of Certification). 2019- Present
- Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2019).
 - Abstract and Paper Reviewer
- Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2018).
 - Abstract and Paper Reviewer
- 6th International Association of Journals and Conferences. (IAJC 2018).
 - Abstract and Paper Reviewer
- American Society for Engineering Education Annual Conference (ASEE 2017).
 - Abstract and Paper Reviewer
- Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2017). Orlando, FL.
 - Abstract and Paper Reviewer
- 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
- 5th International Association of Journals and Conferences. (IAJC/ISAM 2016), Orlando, FL.
- 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
- 4th International Association of Journals and Conferences. (IAJC/ISAM 2014), Orlando, FL.
- American Society for Engineering Education Annual Conference (ASEE 2014). Indianapolis, IN.
- Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2014). St. Louis, MO.
- Smart Materials and Structures Journal, 2014.
- Journal of Energy Research & Social Science, 2014.
- Journal of Energy Science and Engineering, 2014.
- Encyclopedia of Energy Engineering and Technology. Publication of Taylor & Francis Group
- Elliot Gindis, “Up and Running with AutoCAD 2010”, Book Review, Elsevier, Academic Press (AP) Publications
- American Society for Engineering Education (ASEE) Conference Papers
- ASEE-GSW (American Society for Engineering Education – Gulf-Southwest Section) Conference Papers
- The Technology Interface International Journal (TIIJ)
- Association of Technology, Management, and Applied Engineering (ATMAE) Conference Papers
- Smart Materials and Structures Journal (IOP)
- International Journal of Energy for a Clean Environment.
- IEEE Education Engineering (EDUCON) Conference Papers
- Institute of Electrical and Electronics Engineers (IEEE)
- The International Journal of Engineering Research & Innovation (IJERI)
- The International Journal of Modern Engineering (IJME)
- Journal of Applied Science & Engineering Technology (JASET)
- Agriculture, Environment and Energy related Library Resources Review, Advanced Technology Environmental and Energy Center (ATEEC), approximately ten resources reviewed each week and a report generated.

Judge

- Judge - Robotics Competitions, 2019 Annual Conference, Association of Technology, Management, and Applied Engineering (ATMAE).
- Judge – Texas Technology Student Association (TX TSA) Annual State Contest, April 26-27, 2019. Fort Worth, TX
- Judge – Texas Technology Student Association (TX TSA) Annual State Contest, April 6, 2018. Fort Worth Convention Center, TX
- Judge – Robotics Competition, Association of Technology, Management, and Applied Engineering Annual Conference (ATMAE 2016). Orlando, FL.

- Judge - Energy, Engineering, and Environmental related projects, International Sustainable World Energy, Engineering, and Environment (I-SWEEEP) Project Olympiad, Houston, TX. April 29, 2016
- Judge - Texas Technology Student Association (TX TSA) Annual State Contest, Waco, TX. April 15, 2016.
- Judge – Brazos Valley Technology Student Association (BVTSA) Annual Student Contest, CyFair ISD Telge Ag Complex, TX. March 10, 2016.
- Judge – Science and Engineering Fair of Houston, University of Houston Alumni Center, Houston, TX. February 26, 2016.
- Judge – Rice University Graduate Student 90 Second Competition, Rice University, Houston, TX. March 11, 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.
- 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.
- TX Technology Student Association (TX TSA) Annual State Contest, Waco, TX.
- Brazos Valley Technology Education Association (BVTEA) Regional Annual Contest.
- Energy & Environmental related projects, International Sustainable World Energy, Engineering, and Environment (I-SWEEEP) Project Olympiad, Houston, TX.
- Engineering Notebook Judging, BEST Robotics Competition, Sam Houston State University.
- Judge - Robotics Competitions, Association of Technology, Management, and Applied Engineering (ATMAE).
- 2010 Graduate Research and Poster Competition Committee, Association of Technology, Management, and Applied Engineering (ATMAE).
- Brazos Valley Technology Science Association Regional Contest.

Program Chair and Moderator

- Moderator – Engineering Technology Division, American Society for Engineering Education (ASEE) Annual Conference, June 24-27, 2018, Salt Lake City, UT.
- Session Chair - Topics in STEM and PLTW, 6th IAJC Conference. October 11-14, 2018 – Orlando, FL
- Moderator – Engineering Technology Division, American Society for Engineering Education (ASEE) Annual Conference, June 25-28, 2017, Columbus, OH.

- Session Chair - Topics in STEM and PLTW, 5th IAJC/ISAM Joint Conference. November 6-8, 2016. Orlando, FL.
- Moderator – Computing and Information Technology Division, American Society for Engineering Education (ASEE) Annual Conference, June 26-29, 2016, New Orleans, LA.
- 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.
- 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 - 4th International Association of Journals and Conferences. (IAJC/ISAM 2014), Orlando, FL.
- Moderator – Energy Conversion and Conservation Division, American Society for Engineering Education Annual Conference, June 2014, Indianapolis, IN.
- 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, June 2012, San Antonio, TX.
- Moderator – Computing & Information Technology, American Society for Engineering Education Annual Conference, June 2012 San Antonio, TX.
- Moderator – Energy Conversion Conservation Division, American Society for Engineering Education Annual Conference, June 2012, San Antonio, TX.
- Moderator – Engineering Technology Division, American Society for Engineering Education Annual Conference, June 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, June 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, March 2010, McNeese State University, LA.
- Co-Chair – The International Conference on Information Technology - New Generations (ITNG). Circuit and System Design Track. April 2009.

AWARDS

- **Recipient** of 2018- 2019 SHSU College of Science and Engineering Technology Faculty Excellence in Service Award.
- **Recipient** of 2017- 2018 SHSU College of Science and Engineering Technology Faculty Excellence in Teaching Award.
- **Recipient** of 2014 - 2015 SHSU College of Sciences Faculty Excellence in Research Award.
- **Recipient** of 2013 ATMAE Faculty Excellence Award. University Award for Academic Excellence.
- 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.

PROFESSIONAL MEMBERSHIPS

- American Society for Engineering Education (ASEE) 2006-Present
- Epsilon Pi Tau Honor Society (EPT) 2009-2017
- Institute of Electrical and Electronics Engineers (IEEE) 2007-2017
- Institute of Electrical and Electronics Engineers (IEEE) - Southern Section
- The Association of Technology, Management, and Applied Engineering (ATMAE) 2006-Present