



Reg Pecen, Ph.D.

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- Former VP for Edu., Go-Link Energy, a div. of ALMx-Security, Inc. (12/2016-8/2017)
- Past-Chair (2013-14), Chair (2012-13), Chair-Elect (2011-12) and Program Chair (2010-11) of Energy Conversion Conservation Division (ECCD), American Society of Engineering Education
- Professor, Program Coordinators of Electrical Engineering Tech. (EET) and Dept. of Technology Graduate Degree (M.S. & Doctoral) Programs (1998-2012), Univ. of Northern Iowa (UNI), Cedar Falls, Iowa.
- Received a Certificate of Recognition by State of Iowa, State Senate on June 22, 2012 for the excellent service and contribution to Iowa for development of clean and renewable energy and promoting diversity and international education between 1998 and 2012.
- Recipient of 2011 **UNI C.A.R.E Sustainability Award** for the recognition of applied research and development of renewable energy applications at UNI and Iowa in general.
- Recipient of the **Diversity Matters Award** to acknowledge individual contributions to the advancement of diversity-related goals at UNI, January 12, 2010.
- Served as a member of Board of Directories at Iowa Alliance for Wind Innovation & Novel Development (**IAWIND**), a partnership with state, local governments, community colleges, Regent Universities, the private sector, and the federal government, www.IAWind.org for the growth of wind energy & supporting research & training needs of wind energy companies (2009-2012).
- Former President & CEO, North American University (NAU) (7/2012-12/2016), Professor (12/2016-8/2017) Stafford, Texas.

Education

- 1994-1997 Ph.D. in Electrical Engineering, University of Wyoming (UW), Laramie, Wyoming, December, 1997, GPA: 3.71/4.0
- 1991-1993 M.S. in Electrical Engineering, University of Colorado at Boulder (CU), Boulder, Colorado, December, 1993, GPA: 3.65/4.0
- 1987-1990 M.S. in Control and Computer Engineering, Istanbul Technical University (ITU), The Institute of Science & Technology, May, 1990, GPA: 88/100
- 1982-1986 B.S. in Electrical Engineering, Istanbul Technical University, July 1986, Istanbul, Turkey (*Ranked as a top 5th graduating engineer in the department*)
- 4/25-28, 2000 Univ. of Wisconsin-Madison, College of Eng., Dept. of Eng. Professional Development Certification (*2 cr. EU*) in Power Quality Problems in Ind. Env.

Research Areas

Modeling/Simulation of AC/DC Power System Interactions, Conventional and Renewable Energy Systems, Design, Operation and Utilization of Solar and Wind Power Systems, Energy Efficiency, Grid-tied Wind Farms Utilization, Hydrogen Fuel-Cell Power System Instrumentation and Data Acquisition, Sustainability and Sustainable Campus Initiations, Power System Control, Transient Stability Analysis and Control of HVDC and AC Integrated Systems, State Estimation, Power Quality, Harmonic Analysis, Custom Power Applications, Smart-grid operations, Integrated modeling and simulation for optimization and distributed operations.

Citizenship United States of America

Employment

- 9/1/2017-current** Quanta Endowed Professor, Department of Engineering Technology, College of Science & Engineering Technology, Sam Houston State University, Huntsville, TX
- 12/21/2016 – 8/31/2017** VP for Education, Go-Link Energy, a division of ALMx-Security, Inc.
- 7/1/2012-12/15/2016** President & CEO, 12/16/2016-8/31/2017 Professor, North American University, Stafford, TX. A private, traditional, non-profit higher education institution offering B.S., M.S., M.Ed., and MBA degrees.
- 8/1/1998-6/30/2012** Professor & Program Chair for Electrical Engineering Technology (ABET-TAC accredited) and Program Coordinator of Department of Technology Graduate Program (M.S. and Doctoral), **University of Northern Iowa (UNI)**, Cedar Falls, Iowa.



- ✓ Tenured & promoted to Associate Professor in April 2004, and promoted to a full Professor in February, 2010, Electrical Engineering Technology (EET), Department of Technology, College of Humanities, Arts, and Sciences.
 - ✓ Restructured former Electromechanical Systems (EMS) Program to EET by consulting other Iowa Regent Universities (UI and ISU), and secured ABET-TAC Accreditation and made the EET at UNI to become Iowa's first and only ABET-TAC accredited four-year engineering technology degree program that has shown steady growth with an outstanding support from all stakeholders, particularly two major industrial partners; John Deere Waterloo Works, and Rockwell Collins, Inc.
 - ✓ Collaborated with UNI Computer Science Department for establishing and enhancing a new and joint undergraduate major "B.S. in Networking and System Administration" between two departments; Computer Science and EET.
 - ✓ Designed and installed a number of small-scale solar-wind hybrid power systems on and off campus in Iowa. *Until leaving UNI in June 2012, represented Dean Haack and President Ben Allen at Iowa Wind Energy Board as a board member, www.IAWind.org for promoting Wind Energy applications in Iowa.*
 - ✓ Chaired **College Diversity Committee** and served on **University Diversity Council**.
 - ✓ Served on **University Sustainability Action Committee** by President Allen's assignment, 2011- 2012.
 - ✓ Served on **University Energy and Environment Coordinating Council**, 2007-2012.
- 8/1997 – 5/1998** Assistant Professor (Non-tenure), South Dakota State University (SDSU), Dept. of Electrical Engineering, taught courses and developed labs in Digital Systems, Digital Design Laboratory, Signals and Systems II, Circuits II/Laboratory. Actively worked on ABET Visit Preparations during the AY 1997-1998.
- 1995-1997** Teaching Assistant, Univ. of Wyoming, Dept. of Elect. Eng., taught courses; Electromechanics & Electrodynamics laboratories, substituted lectures when Dr. S. Ula was not available. Worked on a proposed research project, HVDC power system between WY & CA for exporting WY's Electrical Power Resources.
- 1994-1995** Research Assistant, University of Wyoming, Dept. of Electrical Engineering. Worked on National Energy Conservation Solutions for US DOE projects; electric motor efficiency and motor control projects, performed motor efficiency tests at the Univ. of Wyoming Motor Testing Center under the supervision of Dr. S. Ula.
- 1989-1990** Lecturer, Istanbul Technical University (ITU), Dept. of Mechanical Eng.

2012-2016 Dr. Pecan had the following International trips for establishing and signing International Partnerships for the University Development;

International partnerships, international student recruitment, talking directly to parents of prospective International students, attending educational fairs, MOA signing, giving seminars on sustainability, energy efficiency and renewable energy developments, served as a keynote speaker at some of the seminars and conferences at the following countries:

Bosnia-Herzegovina, Belgium, Brazil, Burma, Poland, Turkey, Iraq, Kazakhstan, Tajikistan, Kyrgyzstan, Turkmenistan, Thailand, Vietnam, Panama, Mexico, Nepal, India, U.A.E., Sri Lanka, Burma. Visited U.S. Embassies/Consulate Offices, **EducationUSA** Offices, Int. Schools, and attended multiple fairs to introduce American Higher Edu and talked to faculty/ students.

Courses Being Developed/Taught at Sam Houston State University (9/2017-current)

- ETEE 4352 Instrumentation & Interfacing using LabVIEW
- ETEC 3340 Solar and Wind Energy Systems
- ETEE 1340 Electronic Technology I (DC Circuits)
- ETEE 2320 Electronics Technology II (Circuits & Systems)
- ETEE 3373 Industrial Electronics (Control Systems)
- ETEE 3360 (4369) Electrical Power & Machinery

Courses Developed and Taught at University of Northern Iowa (8/1998-6/2012)

- 330:036 Power Technology and 330:037 Introduction to Circuits
- 330:038 Intro. to Electrical Power & Machinery (previously known as Industrial Electricity).
- 330:039 Circuits & Systems (previously known as 330:139 Advanced Circuits and Systems).
- 330:152g Industrial Electronics (renamed as Advanced Analog Electronics)
- 330:174 Senior Design I and 330:176 Senior Design II
- 330:166g Advanced Electrical Power Systems and 330:184g Advanced Controls and Processes
- 330:119g Computer Applications in Ind. Tech. (for John Deere Engineers only)
- 820:140 Environment, Society, Tech (a general education core course for all majors) (2 SH)
- 830:285 Readings in Environmental Science and Technology (1-3 SH), graduate class.
- 330:284 Electronics and Computer Technology (2-3 SH), graduate class.
- 330:286 Studies in Neural Networks (3 SH), graduate class.



- 330:286 (11) Studies in Management Information Systems (3 SH), graduate class.
- 330:286 Studies in Environmental Technology Processes (3 SH), graduate class.
- 330:299 (14) Graduate Research
- 330:036 Power Technology (3 SH) and 820:140 Environment, Society, Technology (2 SH) for Des Moines Area Community College-UNI students through Iowa Com. Network (ICN) every academic year between 2002-2011.
- 820:140 Environment, Society, Tech. teaching through **WebCT for distance education** students.
- 010:196 (16) **Honors Seminar (2 SH) Conventional vs. Renewable Energy by Reg Pecen**, spring 08, this special class was offered for **UNI Presidential Scholars & Honors Students**.
- 330:059/159g Wind Power Applications in Iowa, Fall 2009, Fall 2010.
- 330:186g Pr. in Wind Energy Management, (3 SH), for DEMACC-UNI students through the Iowa Communication Network (ICN) 2009-10. TECH 2059/5159 Wind Energy Engineering a new class developed available on line at: <https://sites.google.com/a/uni.edu/windpower/> **October 2011**

Workshops and Summer STEM Camps Organized & Taught

- Reengineering Math & Science Education by Renewable Energy Applications, a workshop taught to 20 Math/Science/Technology teachers in Cedar Valley Area, Nov 1-8, 2008 as part of Iowa Math & Science Education Initiative grant titled “MSETI-AREA”.
- Worked with interdisciplinary faculty members to plan, organize and teach a summer camp “Young Scientists Camp at UNI Campus” in July 7-11 (grades 5-7), and 8/14-18 (grades 7-8) 2008. Dr. Pecen coordinated efforts on renewable energy applications. Waterloo CF Courier, a local newspaper covered the STEM Camp with an article on 8/2008.
- Selected as a professional instructor for teaching workshops for Midwest Energy Efficiency Alliance (MEEA), Chicago, IL, <http://mwalliance.org/> and South-central Partnership for Energy Efficiency as a Resource (SPEER), Austin, Texas, www.eepartnership.org Classes taught: BOC 107 Facility Electrical Systems, BOC 104 Lighting Fundamentals, BOC 202 Advanced Electrical Diagnostics, and BOC 211 Motors in Facilities, BOC 1006 Common Opportunities for Low-Cost Operational Improvement, classes for a variety of *technical employee working in industry, state and federal government agencies in IA, IL, KS, WI, OK, TX*. Taught more than 50 workshops since May 2007 with excellent teaching evaluations from workshop students.
- Two workshops on Basic Electricity and Electronics in Spring 2000 for John Deere Davenport Plant employees through UNI Cont. Edu. Programs.
- Power Quality in Industrial Plants: Trying It All Together Presentation and Q&A Session, Muscatine Power and Water, Muscatine, IA, September 13, 2002.

Professional Development Activities Related to Teaching/Research/Leadership

Sam Houston State University

- Certificate of Training on Intro to Control Systems Cybersecurity (Course 101) by National Cybersecurity and Communications Integration Center, U.S. Department of Homeland Security, Exxon-Mobile Campus, Spring, TX, Monday, November 5, 2018.
- Attended 15th Annual Teaching & Learning Conference (TLC 2018), SHSU, August 16, 2018 (*4.75 total credits for different sessions by SHSU HR*).
- Attends NI Week Annual Conf. for NI LabVIEW Training, May 23-24, 2018, Austin, TX.
- Attended 14th Annual SHSU Teaching and Learning Conference, August 17, 2017.
- Attended SHSU New Faculty Orientation and Trainings, August 14-18, 2017.
- Participated National Instruments (NI) LabVIEW Software Development Training, Houston Marriott Westchase, November 9, 2017.
- Attended and graduated Fort Bend County Chamber of Commerce Leadership Forum 2016-17 Class, Fort Bend County, TX. <http://www.fortbendchamber.com/leadership-forum>
- Member of FBI - InfraGard Houston Alliance; www.infragard.org for Cyber Security and IT Security Issues.
- Attended **White House Convening for the 6th Annual President’s Interfaith and Community Service Campus Challenge Meeting** on September 22, 2016, Washington, D.C.
- Successfully completed **FBI Houston Citizens Academy Program covering national security, community leadership, and global security issues** in 2015 Fall Semester.
- Attended SACSCOC Regional Accreditation Annual Conference, December 2016 in Houston, Texas as part of NAU’s application to SACSCOC.
- Attended **Foro de Rectores de Las Americas, Panama City, Panama** April 2015 <http://foroderectores.pa/en/about/summary> a forum of university presidents is being organized to examine cooperation challenges with a view to achieving prosperity through education. Met with many South American University presidents for International partnership and MOU agreements as well as President Varela of Panama.



- Attended Grupo **Coimbra de Universidades Brasileiras** (CGBU's V. International Seminar and VI General Assembly), October 1-4, 2013, Brasília, DF, Brazil.
- Attended ABET-TAC Summer Workshop and Institutional Representation Orientation Meeting, Washington, DC, July 15-18, 2009
- Attended 4th Annual Diversity Summit with workshops-whole day event, Impacting Diversity through Educational Alliances, April 23, 2009, UNI, Cedar Falls, IA.
- Presented at UNI Sustainability Town Hall Meeting, UNI Maucker Union, April 14, 2009.
- Developed & revised a 49-page lab manual for 330:038 Int. to Electrical Power & Mach.
- Developed a 108-page lab manual for 330:037/330:139 DC and AC Circuits Classes.
- Developed a lab manual for 330:184g Electromechanical Control Systems
- Developed new 820:140 Environment, Tech, and Society lecture notes all in power point where traditional & renewable energy resources, society, and technology were key topics.
- Participated, Program of Study Workshop for the UNI Faculty. This excellent workshop was very informative in terms of on-line information for Student Degree Audits, program Requirements, etc. (October 23, 1998).
- Participated, Accreditation of Board of Eng. and Tech. (ABET) Annual Meeting & Workshop, Seattle, WA, 1998.
- Participated, a one-week workshop and earned (2 credit cont. edu. Hrs.) on Power Quality in Industrial Environments, Univ of Wisconsin, College of Engineering, WI, April 2000.
- Attended UNI Advising Workshop on September 11, 1998.
- Attended and Received Wheaton Franciscan Healthcare SE WI's Adult/Child CPR,
- Attended and Received Red Cross Hawkeye Chapter's First Aid and Adult CPR Certification, UNI. (4/4/2003).
- Developed and updated 820:140 ETS – Capstone Guided Study Instructional Material for UNI Continuing Edu Programs (in both Paper format and On Line - WebCT) since 2004.
- Developed a Blackboard based-CAP 3140 GISW Environment Technology Society – On line Capstone Guided Study Instructional Material for UNI Continuing & Distance Education Programs, October 2011.

Publications on Refereed Journals

- **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. International Journal of Modern Engineering (IJME), Fall/Winter Spring 2019. <http://www.ijme.us>
- Dakeev U., **Pecen R.**, Yildiz F., Heidari F., Alam S. (2018). How an Augmented reality Tool may benefit Spatial Cognition. Technology Interface International Journal, Fall/Winter 2019, tijj.org
- **Pecen R.**, Humston Jill L., Yildiz F., "Promoting STEM to Young Students by Renewable Energy Applications, Journal of STEM Education: Innovations and Research, Vol. 13, Issue 3, May – June 2012, pp. 62-73.
- Yildiz F., **Pecen R.**, Zora A., "Utilizing Advanced Software Tools in Engineering and Industrial Technology Curriculum", International Journal of Engineering Research and Innovation (IJERI), 2 (1), Online ISSN: 2152-4165, pp. 12-22, Spring/Summer 2010.
- Zhu, J., **Pecen R.** (2009). A Wireless Mesh Network Based Automatic Utility Data Collection System, International Journal of Modern Engineering, 10 (1), Fall/Winter 2009, ISSN# 1930-6628, pp 29-34. <http://www.ijme.us>
- Nie, H., & **Pecen R.** (2007). The Impacts of Hardware Description Languages and Large-Scale Programmable Logic Devices on Digital Hardware Design Education in Engineering Technology Programs, The Technology Interface, 8 (1), Fall 2007, ISSN# 1523-9926. <http://technologyinterface.nmsu.edu/Fall07/>
- **Pecen R.**, Salim MD, Zora A. (2004). A LabView Based Instrumentation System for a Wind-Solar Hybrid Power Station, Journal of Industrial Technology, Vol. 20, Number 3, June-August 2004.
- **Pecen R.**, Ula S., Timmerman M., "Modeling and Simulation of a Kalman Filter Based Control Scheme for an AC/DC Power System", Elsevier's Intern. Journal of Electrical Power & Energy Sys., Vol. 26, Issue 3, pp. 173-189, 2004.
- **Pecen R.**, Salim M., Timmerman M, "An Hybrid Solar-Wind Power Generation System as an Instructional Resource for Industrial Technology Students", Journal of Industrial Technology, Vol. 16, No 3, May-July, 2000.
- Timmerman M., **Pecen R.** "A Paradigm for Breadboard Use in Electronics Laboratory Instruction", Journal of Industrial Technology, Vol.17, Number 2, February - April 2001.

Selected Publications on Peer-reviewed Conference Proceedings

- **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 International Association of Journals and Conferences (IAJC), Oct 11-14, Orlando, FL.



- Dakeev U, **Pecen R**, Yildiz F, Heidari F, Alam S. (2018). How an Augmented reality Tool may benefit Spatial Cognition. Proceedings of the 6th IAJC International Conference, Oct 11-14, Orlando, FL.
- 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 & Education Collaboration (CIEC), San Antonio, TX, Feb 7-9, 2018.
- **Pecen R**, Yildiz F, Basith 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), Salt lake City, UT.
- **Pecen R**, Yildiz F. (2018). Design and Implementation of a new Instrumentation and Interface Undergraduate course using LabVIEW™ myDAQ. Proceedings of the ASEE 2018 Annual Conference and Exposition, Engineering Technology Division, Salt Lake City, UT.
- Yildiz F, **Pecen R.**, Karabiyik, U., Coogler, K., England, J. (2018). Design and Development of a Supervisory Control and Data Acquisition (SCADA) Laboratory. Proceedings of the ASEE 2018 Annual Conference and Exposition, Technological and Engineering Literacy/Philosophy of Engineering Division, Sal Lake City, UT.
- 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, Sal Lake City, UT.
- **Pecen R**, Maclachlan A, Joye N., "Project Education-based Applied Technologies for Poverty Alleviation, Ending Hunger, Achieving Food Security and Promoting Sustainable Ag", Paper #1570342347, Proceedings of the **IEEE International Humanitarian Technology Conference**, <http://www.ihtc2017.ieee.ca/>, July 20-21, 2017, Toronto, Canada.
- **Pecen R.**, Yildiz F., Dakaev U., "Design and Implementation of a 10 kW Wind Power and Instrumentation System", Proceedings of the ASEE 2012 Annual Conference and Exposition. San Antonio, TX, June 2012. "This paper was ranked as 4th best paper in the ASEE Energy Conversion and Conservation (ECC) Division".
- **Pecen R.**, Eichelberger C., Yildiz F., "An undergraduate summer research experience on energy efficient lighting technologies and harmonics", *Proceedings of the ASEE 2012 Annual Conference and Exposition*. San Antonio, TX, June 2012.
- Yildiz F., Coogler K., **Pecen R.**, "An Overview: Applied Interdisciplinary Ren. Energy Projects", *Proceedings of the ASEE 2012 Annual Conference & Exposition*. San Antonio, TX, June 2012.
- Madwar H., **Pecen R.**, Baltaci Kenan (2011). Integration of Hydrogen Fuel Cell Tech. to Undergraduate Edu. in EET Programs. *Proceedings of the ASEE 2011 Annual Conference & Exposition*. Vancouver, Canada, June 2011.
- **Pecen R.**, & Nayir A. (2010). Design and Implementation of a 12 kW Wind- Solar Distributed Power and Instrumentation System as an Educational Testbed for Electrical Engineering Technology Students. *Proceedings of the Modern Electric Power Systems (MEPS) 2010*, Sept. 20-22, 2010. Wroclaw, Poland.
- **Pecen R.**, & Nayir A. (2010). Promoting STEM to young students by Renewable Energy Appl., *Proc. of the Modern Electric Power Syst.(MEPS) 2010*, September 20-22, 2010. Wroclaw, Poland.
- Yildiz F., **Pecen R.**, Tarim S., ASEE2010-1560, "Young minds meet for sustainable future", *Proceedings of the ASEE 2010 Annual Conference and Exposition*, June 2010.
- **Pecen R.**, Yildiz F., "How to Establish a Solar Electric Boat Development Program as a STEM Application for Academic Institutions". *Proceedings of 2010 Association of Technology, Management, and Applied Engineering ATMAE Conference, Presentation Abstracts, Page 29*. <http://atmae.org/conven/ATMAE2010ConfProc.pdf> , Oct 27-30, 2010, Panama City Beach, FL.
- Madwar H., **Pecen R.**, "Analyzing Zigbee Wireless Network Performance in Manufacturing Env.". *Proceedings of 2010 ATMAE Conference, Presentation Abstracts, Page 93*. <http://atmae.org/conven/ATMAE2010ConfProc.pdf>, Oct 27-30, 2010, Panama City Beach, FL.
- **Pecen R.**, Yildiz F., "Development of Two New Courses on Wind Energy and Its Management". *Proceedings of 2010 Association of Technology, Management, and Applied Engineering ATMAE Conference, Presentation Abstracts, Page 97*. <http://atmae.org/conven/ATMAE2010ConfProc.pdf>
- **Pecen R.**, & Humston J. (2009). MSETI-AREA: Math-Science-Engineering Technology in Iowa on Applied Renewable Energy Areas. *Proceedings of the ASEE 2009 Annual Conference & Exposition*. Austin, TX.
- Franz H., & **Pecen R.** (2009). Developing and Engineering and Technology Fundamentals Course. *Proceedings of the ASEE 2009 Annual Conference and Exposition*. Austin, TX.
- Madwar H., Nie, J., **Pecen R.**, & Zhang J. (2009). Applications of Wireless Sensor Networks in a Midwestern Manufacturing Company. *Proceedings of the ASEE 2009 Annual Conference & Exposition*. Austin, TX.



- Hay M., & Pecan R., (2009). AC 2009-2411: A Student Research Project – Myth and Facts on In-rush Power Consumption and Mercury Content of Incandescent vs. Compact Fluorescent Lights. *Proceedings of the ASEE 2009 Annual Conference & Exposition*, Austin, TX.
- Zhu, J., & Pecan R. (2008). A Novel Automatic Utility Data Collection System using IEEE 802.15.4-Compliant Wireless Mesh Networks. *Proceedings of 2008 IAJC-IJME International Conference*. ISBN 978-1-60643-379-9.
- Pecan R. (2008). A Novel Renewable Energy and Communication Application for an Undergraduate Engineering Technology Curriculum. *Proceedings of the Int. Symposium on Energy, Inform. and Cybernetics: EIC 2008*. Orlando, FL.
- Pecan R., Yildiz F., & Baltaci K. (2008). Design and Implementation of A Hydrogen Fuel Cell Data Acquisition And Monitoring Scheme For Educational Institutions”, *Proceedings of the ASEE 2008 Annual Conference and Exposition*. Pittsburgh, PA.
- Pecan R., Zora A., & Yildiz F. (2008). Utilizing Advanced Software Tools for Engineering Technology Curriculum. *Proceedings of the ASEE 2008 Annual Conference and Exposition*. Pittsburgh, PA.
- Guo L., & Pecan R. (2008). Design Projects in a Programmable Logic Controller (PLC) Course in Electrical Engineering Technology”, *Proceedings of the ASEE 2008 Annual Conference and Exposition*. Pittsburgh, PA.
- Pecan R., & Hay M. (2007). Planning a small-scale wind-electric system in East-Central Iowa. *Proceedings of the ASEE 2007 Annual Conference and Exposition*. Honolulu, HI.
- Nie H., Pecan R., “The Innovative Effects of HDL and FPGA on Digital Hardware Design Education in EET Programs”, *Proceedings of the ASEE 2007 Annual Conference and Exposition*, Hawaii, June 2007.
- Yildiz F., Pecan R., & Zhu J. (2007). Energy Scavenging For Wireless Sensor Nodes with a Focus on Rotation to Electricity Conversion. *Energy Conversion and Conservation Division, Proceedings of ASEE Annual Conference and Exposition*. Honolulu, HI.
- Guo L, & Pecan R. (2007). PSCAD Simulation in a Power Electronics Application Course. *Energy Conversion & Conservation Division, Proceedings of the ASEE 2007 Annual Conference and Exposition*. Honolulu, HI.
- Pecan R., Yildiz F., & Baltaci K. (2007). Development of a DATA Acquisition and Interface Module for a 500 W Hydrogen Fuel-Cell Power Station using a LabView™ PSD v8.20. *Selected papers for NAIT 2007 Conference*, Panama City Beach, FL.
- Yildiz F., Zhu J., & Pecan R. (2007). Techniques of Harvesting Ambient Energy Sources & Energy Scavenging Experiments, Design and Implement an Energy Harvesting Device. *Selected papers for NAIT 2007 Conference*. Panama City Beach, FL.
- Zhu J., Salim MD, Kashef A., Pecan R., & Baltaci K. (2007). Enhance Interdisciplinary Collaboration and Graduate Education by Applying Geospatial Technologies in practical applications. *Proceedings of ASEE 2007 Annual Conference and Exp*. Honolulu, HI.
- Pecan R., Praska F., & Alqassab A. (2006). Design and Implementation of a 0.5 kW Wind Generator. *ASEE Energy Conversion and Conservation Division, Proceedings of the ASEE 2006 Annual Conference*. Chicago, IL.
- Pecan R., & Gray P. (2006). A new Networking and System Administration Major at UNI. *ASEE Energy Conversion and Conservation Division, Proceedings of the ASEE 2006 Annual Conference*. Chicago, IL.
- Pecan R., & Stigliani W. (2005). Design and Implementation of 5 kW Hydrogen Fuel-Cell Station using Wind, Solar, and Hydro resources at Hickory Hills Park in Iowa, USA, *Proceedings of the International Hydrogen Energy Congress & Exhibition 2005*. Istanbul, Turkey.
- Pecan R., & Hay M. (2005). Design and Implementation of Solar Electric Boats for Cleaner US Waters. *ASEE Engineering Technology Division, Proceedings of the ASEE 2005 Annual Conference*. June 2005. Portland, OR.
- Zora A., Fahmy M., Pecan R., & Taban F. (2005). A Comprehensive Energy Model Development for Off-Highway Vehicles”, *ASEE Energy Conversion and Conservation Division, Proceedings of the ASEE 2005 Annual Conference*. Portland, OR.
- Pecan R., Fahmy M., & Chalkiadakis F. (2005). Design and Construction of a Hydro -Wind Hybrid Renewable Power Station in IA Hickory Hills State Park. *Proceedings of the ASEE 2005 Annual Conference*. Portland, OR.
- Chalkiadakis F., Pecan R., “Utilizing Advanced Software Tools for Classroom Projects in Control & Power System Studies”, *Proceedings of the ASEE 2004 Annual Conference & Exp.*, Salt Lake City, June 2004, Utah.
- Griffen B., Stryczek K., Pecan R., Hall T., “A New Approach to Implementing a PLC-Based Model Predictive Controller for Application in Industrial Food Processes”, *Proceedings of the ASEE 2004 Annual Conference and Exposition*, Salt Lake City, June 2004, Utah.
- Pecan R., O’Meara Ron, Zora A, “Design and Construction of a Solar Powered Outdoor Digital Display as a Senior Design Project”, *Proceedings of the ASEE 2004 Annual Conference & Exp.*, ETD, Salt Lake City, Utah.



- **Pecen R.**, Zora A., Salim MD, “Web-based Real-time Monitoring of a solar/wind power unit”, Proceedings of NAIT 2003 Annual Conf. & Exposition, Nashville, TN, Nov., 2003.
- **Pecen R.**, Hall T., Chalkiadakis F., Zora A., “Renewable Energy Based Capstone Design Applications for An Undergraduate Eng. Tech. Curriculum”, Proceedings of 33rd ASEE/IEEE Frontiers in Education (FIE) Conference 2003, Session S1E, Boulder, CO, November 5-8, 2003.
- Fidan I., **Pecen R.**, at al., “Implementation and Assessment of Knowledge-Based Systems in Various Engineering Courses”, Proceedings of 2003 ASEE Annual Conference, Session 2793, Nashville, TN, June 20-24, 2003.
- **Pecen R.**, Leighty W., “A Novel Solution for California’s energy Crisis: Prospects of Large Sale Wind Power Transmission from the Energy Rich ND and IA to CA through HVDC lines”, Proceedings of the ASEE 2003 Annual Conference and Exposition, Energy Conversion & Conservation Div., Nashville, TN, June 20-24, 2003.
- Fecik J., Varzavand S., **Pecen R.**, Hall T., “The Doctor of Industrial Technology Degree: A Unique Opportunity for Applied Technology Disciplines”, Proceedings of the ASEE 2003 Annual Conference and Exposition, ETD’s Session 2650 on Advanced Graduate Edu. in Tech., Nashville, TN, June 20-24, 2003.
- **Pecen R.**, Alexia Barry M., “An Academic Collaboration between the University of Northern Iowa and John Deere Company in Electrical and Information Engineering Technology Area”, Proceedings of 2002 Conference for Industry & Education Collaboration (CIEC) of ASEE, Session 542, Sarasota, FL, February 5-8, 2002.
- **Pecen R.**, Hall T., Ahmad J., “Curriculum Update from Electromechanical to Electrical and Information Engineering Technology” at the University of Northern Iowa, Proceedings of ASEE Annual Conference 2002, Montreal, Canada, June 16-19, 2002.
- **Pecen R.**, Timmerman M., “A Hands-On Renewable Energy Based Laboratory for Power Quality Education”, Proceedings of ASEE Annual Conference 2001, Session 1333-Energy Conversion, New Mexico, June 25, 2001.
- **Pecen R.**, Fidan I., Timmerman M., “Synopsis of a Controls-Oriented Four-Year Engineering Technology Program at UNI”, Proceedings of American Control Conference (AAC), **received BEST session paper award in session FP18-3**, June 30, 2000, Chicago, IL.
- **Pecen R.**, “Restructuring and Innovating of Power System Analysis and Power Electronics Courses at the University of Northern Iowa”, Proceedings of 1999 American Society of Engineering/Technology Education (ASEE) Conference, Charlotte, NC, June, 1999.
- **Pecen R.**, “Harmonics and their effects on Industrial Plants”, Proceedings of 32nd Annual Convention of the National Association of Industrial Technology (NAIT), Florida, Nov., 1999.
- **Pecen R.**, Timmerman M., “A novel power quality scheme to improve a utility interface in a small-sized hybrid solar/wind generation unit”, Proceedings of 10th International Power Quality Conference, November, 1999.
- **Pecen R.**, “Future of Solar/Wind Energy Applications”, Iowa Industry & Technology Education Conference, IITE, October, 1999.

Invited Keynote Speeches, Panel Discussions, Presentations & Project Displays

Keynote Speeches & Plenary Sessions:

Sam Houston State University

- “Wearable Energy and Grid-Tied Solar-Wind-Hydrogen Fuel Cell Energy Systems”, Plenary Speaker, *I Congreso Internacional Universidad Fidelitas De Ingenieria e Innovacion*, San Jose, **Costa Rica**, September 20, 2018.
- **North American University**
- “Energy Education and Sustainability”, Keynote Speech, Intellectual Capital and Education; Vistula University, Stoklosy 3, 02-787 Warszawa, **Poland**, December 4-6, 2014.
- “Environmental Sustainability: A Life-long learning in Higher Education” , *Congreso Internacional de Investigacion Multidisciplinaria 2014, Facultad De Estudios Superiores ACATLAN*, UNAM, FES Acatlan. Oct 21-24, 2014, Mexico City, **Mexico**.
- “Renewable Energy for Modern and Developed Turkmenistan”, International Scientific Congress: Magtymguly Pyragy and Human Cultural Values, May 14—16, 2014 Ashgabat, **Turkmenistan**.
- “American Renewable Energy Industry Prospects and Possibilities in the United States of America”, G.B.N.E.C. Global Business Networking Exhibition Convention, May 9-10, 2014 **Atlanta, Georgia**.

Other Presentations:

- 15th Annual **SHSU Teaching and Learning Conference**, 2018, B2: Incorporating High Impact Practices Research for Undergrads: 1st Intro to Research Process co-presented with other HIP mini grant recipients, Drs. Bullock, Murfin, Raalte, August 16, 2018.



- **2018 ASEE Energy Conversion and Conservation Division (ECCD)**, Sunday Workshop: Wind Energy Presentation and Activity for K-20 Outreach, Sunday, June 24, 2018, Salt Lake City, UT, workshop co-presented w/ **Dr. Lynn Albers & Reg Pecen**.
- Panel Discussion on [Issues in Teaching Renewable Energy](#), American Society of Engineering Education (ASEE), Energy Conversion and Conservation Division, June 12, 2012, San Antonio Conv. Center. The panel included practical issues of teaching solar and wind energy engineering and technology. Experiences in establishing renewable en. courses and curricula from experts who have made it happen. Speakers: Pecen, Pisupati, Husman.
- UNI Interdisciplinary Research Symposium 2011, Office of Sponsored Programs, Project Presenter, “UNI’s 12 kW wind-solar hybrid power station and instrumentation system for promoting sustainability at UNI campus and community”, Feb. 11, 2011.
- UNI Interdisciplinary Research Symposium 2009, Office of Sponsored Programs, Presenter on Energy and Env. Session, “Distributed power generation, grid-connected wind energy systems - current challenges & advantages, promoting STEM in Iowa using renewable energy tech.”, Feb. 13, 2009.
- I-Renew Energy & Sustainability Expo Sept. 13-14, 2008, Center for Energy Environment and Education (CEEE 016), UNI, “Applied Renewable Energy Projects at UNI Campus and Promoting them for the Community”.
- Upper Midwest Association for Campus Sustainability (UMACS), “Promoting Renewable Energy based Applied Research Projects on Campuses”, April 18-19, 2008, Luther College, Decorah, Iowa.
- UNI’s Renewable Energy Projects, **Opening Ceremony of UNI Business & Community Services Extension**, presentation to UNI president, and members of Cedar Valley Greater Alliance, March 2007.
- **Last lecture Series, A Public Speech to the Community**, Campus Activities Board, November 13, 2007, “No Rush in Coal-Fired Power Plant in Waterloo: Any Better Option for Cedar Valley by Dr. Reg Pecen?”, Seerley Hall, UNI Campus. *This was a very important public presentation to UNI and Cedar Falls/Waterloo Communities for educating public for the impacts of the proposed 750 MW coal-fired power plant in Waterloo, IA.* Dr. Pecen’s as well as many other individuals’ supporting arguments and efforts worked and Iowa Utilities Board did not approve the construction of the proposed project in the middle of an African American Community.
- Commercializing Creative Endeavors Conference, Office of Sponsored Programs, Project Display for “Solar Electric Boat development for Brighter Iowa Lakes and Rivers”, UNI, October 7, 2005.
- “Design and Implementation of Fiber Glass Solar Electric Boat for Iowa Lakes and Rivers”, **Project Display Presented in the 10th Annual Solar Electric Boat Regatta**, Buffalo, NY, June 18-22, 2003. The same project displayed was updated yearly for 2003-2010.
- “Testing the Feasibility of a Constant Speed Brushless DC Motor Controller”, **Project Display in 2002 Sigma Xi Research Conference**, J. Higby, C. Wunderlich, & R. Pecen, UNI, 4/17/2002.
- “Iowa’s First 4-year Engineering Technology Program-EIET and Tour”, **IEEE Cedar Rapids and UNI Joint Sections’ Meeting**, UNI Industrial Tech Dept., Cedar Falls, IA, 09/17/2012.
- “Design & Implementation of Fiber Glass Solar Electric Boat for IA Lakes & Rivers”, **Project Display Presented in the 9th Annual Solar Electric Boat Regatta**, Buffalo, NY, June 19-23, 2002.
- **IITE 2002** – Iowa Industry & Technology Edu. Conference, “UNI’s Zero Emission Fiberglass Solar Electric Boat: Why should we promote solar electric boats and Iowa Lakes and Rivers?”, Oct. 25, 2002.
- **IEEE Midwest Solutions Conference 2002** (November 5-6, 2002), “LabView Based Data Acquisition Setup to UNI Wind/Solar Green Power Generation Station”, R. Pecen, Nov 5, 2002.
- **Waterloo Technical Society** – “Solar Electric Boat and other Renewable Energy Projects at UNI EIET Program”. Cedar Falls Holiday Inn, April 9, 2003.
- **Waverly Lions Club** – Iowa Industry & Tech. Edu. Conference, “UNI’s Zero Emission Fiberglass Solar Electric Boat and Other Renewable Energy based Projects”, Waverly, July 14, 2003.
- **Electrathon Iowa** – “Electric Motors used in Electrathon Electric Cars”, A Workshop presentation through ICN for a number of remote sites in Iowa. January 25, 2003.
- **Rebuild Iowa** – “Solar and Wind Energy Education” presented to members of Rebuild Iowa including Iowa DNR in CEEE. May 9, 2003.

Grants, Contracts, and Fellowships

A. Sam Houston State University (2017-current)

- EURECA Summer 2019 Faculty and Student Team (FAST) Award Application, “Power Quality Enhancement of Sam Smart Grid (SSG) with Distributed Generation and PHEVs” with Students-Clayton Ellinwood and Pathik Patel, \$8,000, submitted, December 2018.
- PI- Pecen, R., Co-PIs - Yildiz, F., Coogler, L.K. 2018. Environmental Projects for Potential Funding with the **Entergy Environmental Initiatives Fund (EIF)**. “Promotion of Renewable Energy, Environment Education and



Disaster Storm Relief through a State-of-the-Art Mobile Renewable Energy Support”. Total Requested: **\$85,000 (Funded, October 2018)**.

- **Minigrant for AASCU/RFY** for High Impact Practices (HIPs) developing undergraduate applied research efforts, \$1000 and \$500 for a student support, Spring-Fall 2018.
- EURECA Summer 2018 Faculty and Student Team (FAST) Award Application, “**Smart Grid Infrastructure Development**” with Student-Kali Johnson, \$6,250 (Funded, Summer 2018).
- FRG 2018 Grant Application, “**Development of a Smart grid test bench by renewable Energy and LabVIEW DAQ**”, \$5,000, funded, March 2018.

B. University of Northern Iowa (1998-2012)

- **Iowa NSF EPSCoR- 5 years:** National Experimental Program to Stimulate Competitive Research (EPSCoR) Iowa Grant, **servng as a senior faculty on Wind Energy Technology Platform Committee, (total \$20 M for UNI-UI-ISU)**, first submitted June 2009, active on wind energy platform, funded in Sept. 2011.
- **Iowa Alliance for Wind Innovation and Novel Development (IAWIND)**, Wind Energy Curriculum development for State of Iowa higher education, **\$9,000**, August 2010, PI: Reg Pecen.
- **IAWIND.org**, “Design and Implementation of a 12 kW Wind-Solar Distributed Power and Instrumentation System as an Educational Testbed for Electrical and Manufacturing Engineering Technology Students”, **\$87,900** from IAWIND, including institutional matching a total of **\$115,580** from Iowa Wind Association, PI: Reg Pecen, Co-PI: Jeff. Nie.
- Secured **\$20,000 from IEEE Power Electronics Society (PELS)** for Solar Splash Championship event held in Iowa in 2011. The money was transferred to UNI Foundation in April 2011. Also secured another funding of \$20,000 from IEEE PELS for 2012 Solar Splash event that was held in Iowa again.
- **Equipment Proposal to John Deere Waterloo Works** for Manufacturing and EET program Development to serve better for JD’s Workforce Development, continuously worked and coordinated with colleagues/ Co-PIs: Drs. Fahmy/Bergquist, Pecen, Rao, Giese, \$500,000 requested , April 2007, revised on June 2009. “**Funded for \$250,000 as of Jan 15, 2010**”.
- **Iowa Alliance for Wind Innovation and Novel Development (IAWIND)**, (www.iawind.org) a joint proposal to Office of Energy Independence, State of Iowa, \$3,000,000, by University of Iowa, Iowa State University, and University of Northern Iowa, Project Manager for UNI-R. Pecen, Co-PI, (*Other reps- Dr. Ganesh Rajagopalan- ISU Manager, Dr. P. Barry Butler(Interim Provost) - UI Manager.*
- **Math-Science-Engineering Technology in Iowa on Applied Renewable Energy Areas, MSETI – AREA, \$100,567** for 2008-2009, PI: R. Pecen, Iowa Math and Science Education Partnership (IMSEP), project completed June 30, 2009. Project web site www.cns.uni.edu/mseti
<https://uni.edu/newsroom/uni-mseti-area-work-to-promote-math-science-education-in-local-schools>
- **An Interdisciplinary Solar Research Program** for Undergraduates and High School Teachers, establishing an **Alternative Energy Research Program Based on Dye Sensitized Solar Cells (DSSCs)** at the University of Northern Iowa, PI-Martin Chin, Co-PIs: Bartak, Elbert, Kidd, Pecen. State of Iowa, Power Funding and Carver Foundation, **\$205,320**.
- Design, Construction, Testing of Solar Electric Boats for Iowa Lakes and Rivers (grant also requires participating World Championship on Solar Electric Boating), **\$38,340** from Iowa Energy Center, 2007-2010 for three years, PI: R. Pecen.
- Waterloo/Cedar Falls, Entertainment Commission (IDED), **\$5000** gift to be used in 2011 World Championship on Solar Electric Boating in George Wyth Park/UNI, July 2009.
- UNI Executive VP & Provost office provided **\$2,600** for the UNI Solar Boat Team’s request for an IAF Funding on Solar Splash 2010 Comp. in Fayetteville, AR, May 2010.
- UNI Executive VP & Provost office provided **\$2,534** for the UNI Solar Boat Team’s request for an IAF Funding on Solar Splash 2009 Competition in Fayetteville, Arkansas, April, 18, 2009.
- UNI Office of Provost provided **\$2,426.95** for the UNI Solar Boat Team’s request for an IAF Funding on Solar Splash 2008 Competition in Fayetteville, Arkansas, April, 8, 2008.
- A Novel Automatic Utility Data Collection and Management System using IEEE 802.15.4 compliant Wireless Mesh Networks, Jin Zhu and R. Pecen, Battelle Grant, **\$32,768** from CNS.
- Design, Construction, Testing of Solar Electric Boats for Iowa Lakes and Rivers (grant also requires participating World Championship on Solar Electric Boating), **\$30,000** from Iowa Energy Center, Iowa Sate University, 2004-2007 for three years, PI: R. Pecen.
- Design and Construction of a Solar/Wind/Hydro Power Educational Project Display in Hickory Hills Park for visitors and local school students, Iowa Energy Center , **\$15,410**, December 2005.



- “Design and Constr. of a Novel Hydro/Wind/Solar Power & Instr. Station”. \$30,000 from Mr. Frank Starr, Former President of Assoc. of Academics, \$7,100 UNI Inst. Matching Funds, Total: **\$37,100**. R. Pecen (PI), and F. Chalkiadakis (Co-PI).
- Center for Energy & Environment Education, 1 kW Photovoltaic Power System Design and Instrumentation/Display, PI: Patricia Higby, Co-PI: R. Pecen, **\$13,998**, Dec 2004-Nov 2005, UNI.
- Graduate School **Summer 2005 Fellowship** titled “Design and Construction of a 6 kW Wind and Hydro Power Generation Station in Hickory Hills Park to supply Zero Emission Electricity for Park Cabins & RV Outlets”, **\$2,600**, July 2005, UNI.
- UNI Graduate School **Summer 2002 Fellowship** titled “A Novel Solution for California’s Energy Crisis: Prospects of Large Scale Wind Power Transmission from the Energy Rich North Dakota and Iowa to California through DC Lines”, **\$2,600**, July 2002, UNI.
- UNI Graduate School **Summer 2000 Fellowship** and Equipment Grant entitled “Enhancing the Value of Wind/PV Energy Sources in Electric Utility systems”, **\$2,500**, July 2000, UNI.
- The UNI e-boat: A Novel Fiberglass Solar Boat Design, **\$15,000** for three years, Iowa Energy Center, ISU, January 2002-July 2004, PI: R. Pecen.
- The UNI e-boat Development, **\$2,000** + Equipment Donation from Square - D Inc. Cedar Rapids, January 2005.
- Recipient of Provost's Mini-Grant for Achieving Educational Excellence, 1999, UNI.
- Recipient of Provost's Mini-Grant for Achieving Educational Excellence, 2000, UNI.
- Recipient of Provost's Mini-Grant for Achieving Educational Excellence, 2001, UNI.
- Worked with senior students; Patrick Dehn, and Aaron Pelton to secure a total amount of **\$1,000** from CNS Dean’s SOAR Academic Research Fund. for senior design projects in 2007-08 AY.
- Worked with senior students; John Gregorich (UNI MOW – solar powered lawn mower), Hall, Francois, Boomer and Wagner (Hybrid boat design and implementation) to secure a total amount of **\$2,000** from CNS Dean’s SOAR Academic Research Funding for a variety of senior/graduate design projects in 2006-07 AY.
- Worked with senior students; Francis Praska, Bart Schneick, Todd Mueggenberg, Tim Turba, and graduate student Racheal Nabalamba to secure a total amount of **\$2,000** from CNS Dean’s SOAR Academic Research Funding for a variety of senior/graduate design projects in 2005-06 AY.
- Worked with senior students; J. Kokeno, etc. to secure a total amount of **\$ 2,000** from CNS Dean’s SOAR Academic Research Funding for a variety of senior design projects in Spring 2005.
- Worked with a number of senior students; to secure a total amount of **\$1,500** from CNS Dean’s SOAR Academic Research Funding for a variety of senior design projects in Spring 2003.
- Worked with a number of senior students; to secure a total amount of **\$1,700** from CNS Dean’s SOAR Academic Research Funding for a variety of senior design projects in Spring 2002.
- Research advisor for SOAR grants awarded to 5 students, **\$2,500** from CNS Dean, spring 2001.
- Research advisor for SOAR grants awarded to 6 students, **\$3,000** from CNS Dean, spring 2000.
- Collaborated with Dr. John McCormick for the grant awarded from Rockwell-Collins Inc., Establishment of Embedded Control Systems Lab. for proposed new joint major CCS between CS and Ind Tech Dept.
- Solar-Boat Design Funding from Iowa Energy Center, **\$12,750.00** with matching, 1998-1999, UNI.
- Senior Design Project Funding from Iowa Ren. Energy Assoc. 1999, UNI (Donated inverter and controllers).
- Senior Design Project Funding from Siemens Solar Inc., 1999. (Donated four solar panels).
- Secured very useful hardware/software equipment donations from Nestle USA and Pinnacle Engineering for the new EMS program update to EIET, summer 2001.
- UNI – Intercollegiate Academics Fund and Award through Faculty Sponsorship Fund. Secured funds for Student Trip to Buffalo, NY for the 10th Annual Solar Electric Boat World Championship, **\$1,980**.

Previously Submitted Grant Proposals (University of Northern Iowa)

- TUES Type-3 “Collaborative Research for Global Challenges: Cyber-enabled concurrent Engineering Framework to enhance Multidisciplinary Learning for effective STEM Education”, **TUES Track Division of Undergraduate Education, NSF**, served as an External Consultant, January 2011.
- **Iowa NSF EPSCoR**: National Experimental Program to Stimulate Competitive Research (EPSCoR) Iowa Grant, served as a senior faculty on Wind Energy and Energy Efficiency Technology Platform Committees to submit a major proposal (**total \$20 M for UNI-UI-ISU**), final proposal submitted on Oct 19, 2009, active on wind and energy efficiency platforms (not funded).
- **Represented UNI at Wind University Consortium – Wind Alliance** (11 Universities, Wind Manufacturers; Vestas, Siemens, ABB, Tpi, Rockwell Collins, GEC AWS Truewind), worked with the team members from



members and submitted wind turbine manufacturing and wind workforce development sections (about **\$190K**) in a major proposal, DoE-FOA-0000090, July 2009, (not funded).

- **Wind Energy Concept Evaluation System (WECES)**, \$195,000 for UNI (Reg Pecen), \$1,965,000 for National Instruments (Andy Marshall) and DisTek Integration Inc. (Ken Baxter), submitted to Office of Energy Independence, State of Iowa, Power Fund, 1/30, 2008 (not funded).
- **Greenhouse Gas Emission Reduction for Iowa Small Business**, \$887,333, (UNI EET Program (R. Pecen), Metal Casting Program (Jerry Thiel), Iowa Waste Reduction Center (Jim Olson, Dan Nickey), submitted to Office of Energy Independence, Iowa Power Fund, State of Iowa, Dec. 2007 (not funded).
- **An Exp. Intelligent Control System to Improve the Efficiency of the HVAC and Lighting Systems in Buildings**, \$202,792, PI:R. Pecen, Co-PI: H. Nie, Iowa Energy Center, Dec. 2, 2008 (not funded).
- **The Development of Remote Studios for Emerging Technologies**, Submitted April 25, 2005, \$653,799.00. Collaborated with Tennessee Technological Univ., Saddleback College-CA, and the University of Northern Iowa, propose to create a system of "remote studios," by which students would be able to access laboratories in rapid prototyping, renewable energy, and microelectronics manufacturing. The three schools each bring expertise in one of the three areas to the project. PI: Dr. Fidan, Co-PIs: Dr. Pecen, Prof. Patton (not funded).
- **Development of Laboratory Facilities for the Electrical and Information Engineering Technology Program** at the University of Northern Iowa, NSF- CCLI, Adaptation and Impl., submitted Dec. 2004, PI: F. Chalkiadakis, Co-PI: R. Pecen, NSF 04-565, \$334,399, NSF Proposal # 0509109 (not funded).
- **Mondialogo – Daimler-Chrysler and UNESCO**, Design and Construction of Solar-Wind Power and Instrumentation Station in Mugla, \$25,300, submitted December, 2004, (not funded).
- **Design and Implementation of a Wind Turbine/Fuel-Cell Station for Undergraduate Education** by PI: W. Stigliani, Co-PI: R. Pecen, submitted to Federal Funding Agency through the State of Iowa, \$60,000, November 2004 (not funded).
- An Equipment Grant Proposal Submitted to New Micros Inc, Dallas, Texas, \$25,000, February 2003. (Not granted, however company gave two microprocessor kits to the EIET program as gift).
- Collaborated with (PI) Edward Schultz, Cedar Falls Utilities (CFU) Director, and (PI) Dr. W. Stigliani, CEEE, for a **proposal submitted to Federal Funding Agency**, February 2004. The project includes research and implementation of solar, wind, and hydrogen fuel cell technology based new four residential home developments and storage of Hydrogen for future vehicles in Cedar Falls/Waterloo area. Total requested for FY 2005-09: **\$4,245,000** (not funded)

Previous Research Activities

- Data acquisition and wireless telemetry of grid-tied wind-solar power systems. The UNI 12 kW wind-solar power system serves as a test bed for this research. (with Dr. Hong Nie, 2010-current).
- Investigating grid-tied wind power systems, transmission capacity, wind power workforce development, development of data acquisition and instrumentation system for dye-sensitized based solar cells (DSSCs) (with Dr. Martin Chin, Chemistry-Biochemistry, UNI, 2009).
- Wireless Sensor Development System or Utility Power Systems for measurement of remote power data (with Dr. Jin Zhu, 2006-2008).
- Design and implementation of grid-connected small-scale Wind-Solar and Micro-Hydro-Wind power systems and investigation of power quality and interactions.
- Fuel-Cell Technology: Fuel-cell applications to Automotive have become very important for 21st Century. A research collaboration was completed among Pecen, grad students K. Baltaci and former grad student F. Yildiz (2008-2012).
- Power Quality and AC/DC Power Interactions Research: Power Quality has become a major issue in Industry due to the power electronics switches involved.
Plasma arc technology and establishing an engineering scale plasma arc melter at UNI for waste minimization and Hydrogen gas production (2004-2007).

Awards and Recognitions

- **Certificate of Recognition by State of Iowa, State Senate on June 22, 2012** for his excellent service and contribution to state of Iowa for development of clean and renewable energy and promoting diversity and international education between 1998-2012.
- Certificate of Appreciation from **IEEE Power Electronics Society** President Dr. Boroyevich in recognition of valuable contributions to the IEEE Power Electronics Society Solar Splash as 2011 and 2012 Event co-coordinators.
- **Recipient of 2011 UNI C.A.R.E Sustainability Award** for the recognition of applied research and development of renewable energy applications at UNI and Iowa in general.



- **Recipient of the Diversity Matters Award** to acknowledge individual contributions to the advancement of diversity-related goals at the University of Northern Iowa, **January 12, 2010**.
- **Recognition as Advisor of the Year Award** nominee among UNI faculty in 2010-2011 academic year. April 26, 2011, UNI Leadership Award Ceremony.
Recognition Letter from President Ben Allen for excellence on the annual Undergraduate Student Survey in Fall 2007, Spring 2010.
- Co-Chair of Doctoral Dissertation titled “Low Power Energy Harvesting and Storage Techniques” that is selected for Outstanding Dissertation Award for a former doctoral student from UNI Graduate School, Fall 2008.
- Received a **Milestone Award** for outstanding mentoring of graduate students at UNI, and a recognition from UNI Graduate College for acknowledging **the milestone that has been achieved in successfully chairing ten or more graduate student culminating projects, theses, or dissertations**, April 27, 2011.
- Received a **Milestone Award** for outstanding mentoring of graduate students at UNI, and a recognition letter from Dr. Catherine DeSoto, Chair of the UNI Graduate Faculty, UNI Graduate college for acknowledging **the milestone that has been achieved in successfully chairing ten or more graduate student culminating projects or theses**, May 5, 2008.
- Received a **Certificate of Appreciation** from **UNI Educational Talent Search Program Staff** for dedication and support of the Talent Search Academy Summer School Program for promoting college educations, science & technology for underrepresented high school students, 7/17/2008.
- **KGAN Cedar rapids CBS2 News** covered Dr. Pecen and his three students on Wed 4/29/2009 on energy bike and wind energy projects.
Attended on **KCRG-TV9 Community Affairs Program** in Cedar Rapids with Summer Writing Contest Winner, Blake Mulnix to promote STEM majors at UNI, this TV program was broadcasted through Sept - Oct 2008 at TV9 together with other areas of winners, Sept 10, 2008.
- Dr. Pecen is selected as CEEE Fellow for spring 2007 to work closely with CEEE staff on Energy efficiency research and Renewable Energy Applications.
- **Recruited and supervised UNI Solar Boat team students who brought many rewards and trophies in Solar Electric Boat World Championship** since 2002. A list of rewards and trophies as well as project details are listed at www.cns.uni.edu/eboat
- **Two Recognition Letters from International Admissions and Student Services as Outstanding Educator identified as a UNI faculty member who provided guidance in and out the classroom and supported students in reaching their academic goals.**
- **UNI President Koob’s Recognition for the annual Undergraduate Student Survey, 12/1999.**
- UNI Ind Tech Dept. was listed in “Wind and Solar Power Systems” by Patel, CRC Press, pp. 324-325, 2000, as one of the top 15 US universities conducting research in Wind/PV renewable energy systems.
- **Nominated for 2004 University Book and Supply Outstanding Teaching Award**, March 2004.
- Received an appreciation letter from Dr. Ron Land, Assistant Chair of Programs for ETD ASEE Engineering Technology chair for contributions to ASEE ETD’s conference papers as author, reviewer, and moderator.
- Recognized as an Honored Teacher/Researcher in “**Who’s Who in America**”, Nov. 19, 2008, # WA64061EJ.
- Recognized as an Honored Teacher/Researcher in “**Who’s Who among America’s Teachers**”, March, 3, 2004. Who’s Who ID# 1524770-3
- Recognized as an Honored Teacher/Researcher in “**Who’s Who among America’s Teachers**”, February 16, 2005, Who’s Who ID# 106502686
- **Nominated for 2005-06 Ross A. Nielsen Professional Service Award**, UNI, January 2006.
- **Nominated for 2006-07 Ross A. Nielsen Professional Service Award**, UNI, January 2007.

Professional Memberships

- **Tau Beta Pi-National** Engineering Honor Society Award Membership, Wyoming Chapter.
- **IEEE Senior member**, The Institute of Electrical and Electronics Engineers, Inc.(IEEE), IEEE Power Engineering Society (PES) Membership (1997-2007, 2010-2015), **SM** (2018-current).
- **American Society of Engineering Education (ASEE)** Membership (1999-current).
- ASEE Energy Conversion and Conservation Division Membership (2001-current).
- ASEE Engineering Technology Division Membership (2001-current).



- ATMAE, Assoc. of Technology, Management, & Applied Engineering Membership (2002-2008).
- Member of Iowa Wind Energy Association (2007-09) (IWEA) www.iowawindenergy.org/
- Member of Wind Alliance (2007-2009), a multi-university and company's joint partnership promoting wind energy projects. The Wind Alliance develops infrastructure, technology and workforce through business integration and collaborative projects between industry, academia and government within the U.S. Dr. Pecan represented UNI at the Wind Alliance. <http://www.thewindalliance.org/>

III. PROFESSIONAL SERVICE, LEADERSHIP AND ADMINISTRATION

Sam Houston State University (9/1/2017-current): Departmental Service

- **Chair** of New Graduate Program Survey
 - **Chair** of Nomination Committee
 - **Chair** of Articulation Committee
 - Member of Curriculum & Catalog Committee
 - Member of ETEC Faculty Search Committee
 - Member of Scholarship Committee
 - Member of Annual ETEC Honors Banquet
 - Member of Industrial Advisory Board
 - Member of Accreditation Program Assessment Committee
 - Member of Internship Committee
 - Member of ETEC Marketing Committee
 - Member of Dept Facility Safety Development Committee
 - Member of EEC Wall of Honor Proced. Committee
-
- Met with UT Tyler College of Engineering Dean, Javier A. Kypuros, and other SHSU colleagues to review and develop further existing 2+2 Transfer agreement between SHSU ETEC and UT-Tyler Engineering Programs, Thursday, January 18, 2018.

Sam Houston State University (9/1/2017-current): College Service

- College Curriculum Committee Member representing Dept. of Engineering Technology
- CoSET Advisory Committee Member for ongoing efforts on SHSU STEM Center
- CoSET Awards of Excellence Committee (2018-19).
- CoSET Awards of Excellence Committee (2017-18); reviewed the nominations for the following categories; Faculty Research, Student Research, and Student Teaching and submitted a report to the chair of the committee; May 2, 2018.

Sam Houston State University (9/1/2017-current): University Service

- Faculty Liaison on Office of Research and Sponsored Programs (ORSP)
- Attended and presented Engineering Tech Dept. support at Collaborative Workforce Development Meeting with SHSU Interdisciplinary Team members, Gulf Coast Workforce Board Members, Coldspring – Oakhurst CISD Administrators, and Edu Service Center region 6 staff members, January 19, 2018, PACE Center.

University of Northern Iowa (UNI) (1998-2012), Cedar Falls, Iowa

Departmental Service *(not all included)*

- **UNI, Dept of Technology, Graduate Program (MS and DIT) Coordinator**, Department of Industrial Technology since January 1, 2011-June 30, 2012.
- **Chaired** the graduate program committee to update existing Doctor of Ind. Tech. as **Doctor of Technology** with up-to-date curriculum. The proposal was accepted by college/univ. curriculum committees in Nov. 2011. Coordinated college senate and graduate school curriculum meetings.
- **Chaired** the graduate program committee to update existing MS in Technology with seven emphasis areas to MS in Tech. with Engineering Management, Graphic Technologies, and Tech. Edu. with up-to-date curriculum and core courses.
- **EET Program Coordinator (2000-2012)** included a number of ongoing duties in the program assessment, development, course and laboratory curriculum, tenure-track and adjunct faculty hiring, semester course planning and scheduling, institutional reviews, and **ABET-TAC accreditation**, etc.



- **2+2 Community College Articulation Coordinator between DMACC Carroll –UNI** for a BA in Tech. Management Degree on ICN/WebCT, **August 2008-2009**, organized semester class offerings, advised Tech Management students, maintained WebCT and helped distance edu. students for their degree auditing through UNI Registrar’s Office.
- Search Committee Member for Dept. Recruitment Coordinator to replace Ella Hoff, 2010-2011.
- **Coordinated** with graduate committee members on a new **Master of Science Degree in Engineering Tech.** including Manufacturing, EET, Construction, and Tech. Management areas. (Spring 2011)
- **Coordinated** with graduate program committee members to **update former Doctoral of Industrial Tech. (DIT) curriculum to Doctor of Tech.** as overall content and title through regular meetings in Fall 2010-Spring 2011.
- Involved in a team effort to establish a **new Masters of Science Degree in Technology with the emphasis of Electrical Engineering Technology (EET)** at UNI, 2006-07.
- **Professional Assessment Committee (PAC) Chair** for Tenure-Track Faculty for 2006-07, and served as a secretary in 2005-06, and a current member in 2008-2011 academic years respectively.
- Prepared and submitted a report and necessary curriculum forms to UNI CNS Dean to update EIET program title as “Electrical Engineering Technology (EET)” as suggested by two ABET external reviewers, Nov. 2008.
- Established a major called “Electrical & Information Engineering Technology” (EIET), Iowa’s FIRST and only 4-year Engineering Tech. program (2002). This required an extensive work on curriculum update from previous (old-fashioned) electromechanical systems program which was down to very low enrollments.
- Established a minor “Electrical /Electronics Technology” (EET) at UNI, 2002.
- Served as a **chair of two separate tenure-track faculty search committees**, (1) Electrical and Information Engineering Technology, and (2) Network Information Systems.
- Served as a member of a tenure-track faculty search committee to hire two faculty members for the EIET program, 2005-06.
- **Graduate Program Committee Two Year Senior Term Member** (Dept), 2009-2012. Previous term member duties on the same committee: 2000-2002 (junior member), 2003-2006 (senior member).
- Institute of Electrical and Electronics Engineers (**IEEE**) UNI Student Branch Advisor: Organized IEEE presentations, tours, and invited speakers from Industry & Community, **1998-2008**.
- Served on New Major’s (Network Information Systems) New Tenure-Track Faculty position Search Committee (Fall 2002-Spring 2003).
- Served as EMS/EET New Tenure-Track Faculty Position Search Com. (1999, 2000, 2002).
- Serving on a number of Doctoral of Industrial Technology (DIT) and MA/MS committees.
- Department Representative to Center for Energy Environment and Education (CEEE). (Frequently met with CEEE Staff for collaborated work and grant applications in renewable energy).
- Scholarship & Science/Math/Tech Symposium Committee, 2000-2002, 2004-2005.
- Undergraduate Curriculum Committee Member, 1998-2010.
- Established an EMS/EIET Industrial Advisory Committee, 2000.
- Designed and built a solar powered - outdoor digital display as an undergraduate applied research project for the department. The project displays departmental information and is updated periodically.
- Hosted a group of 30, 5th graders, their teachers and some parents from **Black County Elementary School** on April 15, 2004 for solar, wind power, and laser technology applications.
- Hosted a group of 50, 8th graders plus their teachers and some parents from **North Kossuth School, Iowa**, March 2004 for solar, wind power, and electronics applications.
- Hosted a group of 60, 3rd graders, their teachers and some parents from **Hansen Elementary School** on April 18, 2003 for solar, wind power, and electronics/robotics applications.
- Worked with Dr. Charles Johnson for planning and offering classes for a BS degree in Technology Management for 2+2 DMACC-Carroll Program through the Iowa Communication Network (ICN).
- **College Level Service**
 - Served as Chair, College of Natural Sciences Diversity Committee, October 2008 – June 2012.
 - Represented CNS at University Diversity Advisory Council (DAC), 2010-2012.
 - Col. of Natural Sciences, Adv. Committee on Promotion & Tenure, 2010-2011, appointed by Dean.
 - Col. of Natural Sciences, Adv. Committee on Promotion and Tenure, 2004-2005, appointed by Dean.
 - Served on the Center for Energy Env. and Edu. (CEEE) Director Search Committee, AY 2007-08.
 - Served on UNI, School of Technology (SAT) Planning Committee, 2006.
- **Selected to serve as a Faculty Senator in the College of Natural Sciences, Fall 2005 - Spring 2008.**



- Represented CNS for ITTC (Innovative Teaching & Technology Center) Planning Committee for new major in Digital Information Systems and Technology (2003-2005).
- Represented CNS in Spring 2007, Spring 2006 Commencements, as a faculty Marshal, May 2007 and May 2006.
- Represented CNS in Spring 2005, Fall 2004, Spring 2003, Spring 2002 Commencements as a faculty Marshal.
- Collaborated with CS faculty - Dr. Bergquist, Dr. Gray, Dr. Drake, and Dr. McCormick for development of new major curriculums in the Network Inf. Systems and Software Eng. 2002-04.

University Service

- Served as member on **University Sustainability Action Committee (SAC)** by President Ben Allen's request, January 2011-June 2012.
- Served as a co-Chair of Foundation of Excellence Task Force for Transfer Focus –between August 2010-2011.
- Served on UNI Graduate School Diversity Task Force, 2009-2012.
- Member of University Diversity Advisory Committee, CNS Rep., October 2008-June 2012.
- Served on UNI Sustainability Coordinator Search Com. (Fall 2009- Spring 2010).
- Selected and Served on Outstanding Doctoral Dissertation Award Selection Committee on Nov., 2008 at UNI Graduate School. (5 dissertations are reviewed and ranked).
- Member of **Univ. Energy and Environment Coordinating Council**, Selected by Dean, 2007-2012.
- Member of **Multicultural Coordinating Council (MCC)**: A member of MCC representing College of Natural Sciences. (MCC Objective: "coordinates efforts for the recruitment and retention of African American, Hispanic/Latino American, Asian American and Native American students by providing and promoting a supportive academic, social and cultural environment), 2005-2008.
- Member of **UNI Minority and Multicultural Recruitment Team** chaired by Christie Kangas, Director of Admission, previously known as Multicultural Coordinating Council.
- Member of **Committee on Admission and Retention – UNI CARR (University)**: This committee meets three to four times yearly to listen appeals, discuss and decide student suspension cases. Tasks also include continuous case reviews and decisions through the campus mail, served 2002-2009.
- **Member of UNI Innovative Teaching and Technology Center (ITTC) Planning Committee**: Task included meetings and discussions to secure a technically feasible location for the Lecture and Laboratory Facilities for future Digital Information Systems in East Gym, UNI, 2004-2006.
- Served on **University, Planning and Policy Committee for Inf. Tech. (PPCIT)**. Feb. – May 2002.
- **Member of UNI Carver Scholars Program Committee** – Met four times a year to review applicants and select qualified students for Roy J. Carver Charitable Trust Scholarships, served 2003-2006.

Web Sites Developed with staff & student assistants

www.na.edu Main university web site, promotional brochures, University logo, University seal are all designed under President Pecen's leadership at NAU.

<http://www.renewiowa.org/> worked with VP for Research, Christy Twait and a grad student to design a website showing renewable energy research at UNI, June-July 2009. (*This page is not active as of 1/15/2011*).

www.uni.edu/indtech/eet for the EET Program

www.cns.uni.edu/eboat for Solar Electric Boat project

www.cns.uni.edu/mseti for MSETI-AREA IMSEP project to promote STEM efforts by Renewable Energy Applications in Cedar Valley area high and junior high schools.

www.uni.edu/~pecen for Dr. Pecen and his classes.

State, National, and Community Service

- Served on the **US Department of Energy (DOE) and Energy Efficiency and Renewable Energy (EERE)**'s merit grant committee to promote Grid Engineering for Accelerated Renewable Energy Deployment (**GEARED**) initiative in May, 2013.
- Served as a **Chair for American Society of Engineering Education (ASEE) for Energy Conversion & Conservation Division (ECCD)** for 2012-2013. <http://eccd.asee.org/>
<http://www.asee.org/member-resources/groups/divisions/energy-conversion-conservation/officers>



- Served as a Chair-Elect & Program chair for **American Society of Engineering Education for Energy Conversion & Conservation Division** for 2011-2012, & 2010-2011 Annual Conferences.
- Served as a **board member for Iowa Alliance for Wind Innovation and Novel Development (IAWIND)**, represented board member for regent universities, University of Northern Iowa.
<http://www.iawind.org/contactUs.php> 2009-2012.
- Served on conference organizing committee for the IWEA-IAWIND Wind Energy Conference held on April 6-7, 2010, Iowa State University, Ames, IA.
- I-SWEEEP International Sustainable Energy Environment and Engineering Project Olympiad, Advisory Board Member promoting STEM among High School Students Worldwide, Judge, Project reviewer.
www.isweeep.org, 2008-current.
- Served as Proposal Reviewer on Renewable Energy for Sam Houston State University, TX at the Office of Research and Special programs, December 2008.
- Served on ASEE Energy Conservation and Conversion Division (ECCD) as Officer, Treasurer (2009-2010), Newsletter Editor (2008), <http://www2.tech.purdue.edu/Orgs/ECCD/>
- Served on ASEE Energy Conservation and Conversion Division (ECCD) to peer review papers on ASEE Annual Conferences since 2001.
- Prepared an assessment report for Dr. Dale Litwhiler's candidacy for tenure & promotion to Associate Professor at Pennsylvania State University, Berks, September 30, 2007.
- Dr. Pecen met with Kirkwood Community College Industrial Tech. Dept. Dean and administrators from University of Iowa in Iowa City in January 2007 to talk on feasibility of establishing Iowa's first BS degree program in Renewable Energy Applications.
- IEEE Cedar Rapids Section, University Sections Committee (1998-2006).
- Has served on ASEE Engineering Technology Division (ETD) in Annual ASEE Conferences as paper reviewer, moderator, and co-moderator, regularly every year since 2001.
- Electrathon (Small-Scaled Electric Car Dev.) Iowa Board Member (2001-2004) among high school students.
- Served as an Advisory Committee Member for Hawkeye Community College's (HCC) EET, 2003-12.
- Served as an Industrial Advisory Committee Member for Kirkwood Community College's (KCC) Electronics Engineering Technology Program, 2004-2012.
- Nominated to serve as an ASEE/TAC Program Evaluator and submitted application to ASEE Engineering Technology, ABET/TAC Accreditation Activities, November 15, 2005.
- Advisory Committee Member for Iowa Falls Community College's Wind Energy Tech., 2005-2008.
- Served as reviewer for a number of textbook publishers in Electrical and Electronics since 2002.
- Served as an external evaluator and submitted a report for a new Baccalaureate degree program in Alternative and Renewable Energy Applications (AREA) for SUNY Canton, State University of NY, Canton, NY 13617-1096, www.canton.edu, May 2005.
- **International and Civic Service**
- Served as international advisory board member for **Istanbul International Conference on foreign nationals studying postgraduate edu in Turkey**, ISTIAC 2009 Proceedings, Istanbul, Turkey.
- Worked with former VP for International Programs Dr. O'Connor and Interim VP for International Programs Dr. Meredith to **organize faculty and scholar exchange programs from Kazakhstan, Georgia, Azerbaijan, Albania, Kirgizstan, Turkmenistan, and Turkey to UNI**. A number of faculty members and administrators were invited and hosted from those countries at UNI, Cedar Falls, in summer semesters of 2007, 2008, 2009.
- **Worked with Executive VP and Provost Gloria Gibson to visit four universities in Turkey** to initiate mutual partnership between UNI and universities in Turkey, July 10-18, 2010. Visited four universities in July 2010 with Provost Gibson and other three faculty members/administrators from Iowa.
- **Collaborated with** UNI International Programs, CIEP, College of Business Dean, and Executive VP office continuously to enhance international partnerships, 2009-2012.
- **Collaborated with** Dr. Juyong Zhang, Assoc. Dean at the College of Economics & Management, Dalian Nationalities Univ., **China**, for renewable energy/sustainability efforts on univ. campuses, 2010.
- Arranged Qafqaz University Delegation (Baku, Azerbaijan) to UNI on March 30-April 1, 2009 for academic partnerships between UNI and Qafqaz University.
- Visited Turkey and Azerbaijan with VP for International Relations, Dr. Kurt Meredith in May 2009 for initiating and signing scholarly exchange programs among two universities in Turkey and Azerbaijan.
- Served as a Program Committee Member, and Reviewer, 2nd International Conference on Intelligent Knowledge Systems (IKS-2005), (<http://www.ikss.org/iks-2005.htm>)



- Served as a session moderator in the International Hydrogen Energy Congress and Exhibition, July 2005, <http://www.ihec2005.org/>, Istanbul, Turkey.
- Served as International Advisory Committee Member in 2nd International Hydrogen Energy Congress and Exhibition, July 2007, <http://www.ihec2007.org/>.
- Served as soccer coach, licensed referee on Cedar Valley Soccer Association (CVSA) 2002-2011.

Served as Chair, Co-Chair, Advisor, Co-Advisor for 32- Graduate students for M.A., M.S., and Doctoral (D.T./D.I.T.) Committees at UNI

Reviewer of Journal(s), Conference Paper(s), and Textbook

Sam Houston State University

- Reviewed 7-abstracts for 2018 ASEE Annual Conference and exposition, Nov-Dec 2017.
- American Journal of Undergraduate Research (AJUR), **Engineering/Technology Editor**, 2003-current. <http://www.ajuronline.org/about/>
- IEEE Transactions on Electronics Packaging Manufacturing, Reviewer for Engineering Technology Papers, 2001-current.
- Reviewed Manuscript #06-10-16-01 titled “Faculty Development with NASA/ASEE Summer Programs Leads to Enhanced EET Curriculum “, for Journal of Industrial Tech, December, 2006.
- Reviewed 8 Engineering Technology Full papers for ASEE 2007 Conference for a number of divisions in ASEE, served as session moderator in ASEE 2007 Annual Conference, Hawaii.
- Reviewed 7 Engineering Technology Full papers for ASEE 2006 Conference for a number of divisions in ASEE, served as session moderator in ASEE 2006 Annual Conference, Chicago.
- Reviewed abstract and 6 full-papers submitted to ASEE Conference 2005, ETD Session 2549 Capstone/Design Projects. Served as a session moderator in ASEE 2005, Portland, OR, June 2005.
- Reviewed the textbook “Modern Control Technology: Components and Systems” by Kilian for 3rd and new edition, Delmar-Thomson Learning Publisher, June-July, 2004.
- Reviewed 8 full-papers submitted to ASEE annual conference 2003 - Engineering Technology Division – Session 3548 Engineering Tech. Design Projects, February – March 2003.
- Reviewed abstracts and 7 full-papers for ASEE 2002 Annual Conference, Engineering Tech. Division, Real-World Applications in ET Session.
- Reviewed **NSF Proposal # 0215760** titled “Computer-Aided Knowledge Based Process Planning for Surface Mount Rework” for the Prog. of Africa, Near East, & Asia, 4/2002.
- Reviewed a **900 Page-manuscript of a textbook**: “Industrial Electricity - 7th Edition” by Michael Brumbach, Delmar Publishing, July-August 2003.

Other Selected Services and Scholarly Activities *(not all included)*

- Worked with Cedar Falls Tourism Bureau to prepare a major proposal to Solar Splash Headquarters to organize the World Championship on Solar Boating Event at UNI, Cedar Falls in 2011, November 2008. **Proposal was accepted in July 2009, Cedar Falls/Waterloo/UNI is selected as 2011-2013 Solar Splash Location.** www.solarsplash.com
- Updated 7 Iowa Community College (CC) to UNI EET **2+2 articulation agreements** including North IA Area CC, Kirkwood CC, IA Western CC, Iowa Lakes CC, IA Central CC, Hawkeye CC, and DMACC, 2010-2012.
- Prepared ASEE ECCD Division Newsletter in Fall 2008. <http://www2.tech.purdue.edu/Orgs/ECCD/> Check for Fall 2008 Newsletter Prepared and edited.
- Represented College of Natural Science as a recruitment faculty member at Cedar Valley Preview Night organized for underrepresented students and families from Cedar Valley area. Met and talked to many students and families to provide info about CNS majors, Oct 28, 2008, UNICUE.
- Met with engineers and supervisors from Musco Lighting Company (www/musco.com) for EIET program introduction/presentation for company’s intern & full-time employee needs, Nov.18, 2008.
- Met with **Florida Power and Light (FPL) Energy** representatives to have presentation on EIET program, graduates and how to help FPL Energy’s employment needs in Iowa wind farms, April 16, 2008. Dean Haack, VP Christine Twait, and other members also attended presentation.
- Met with State of Iowa Department of Economics Development (IDED) director and employee to present UNI’s resources on renewable energy for a European company, *Moventas Oy* from Finland seeking for a renewable energy investment in Cedar Valley Area, June 2008.
- Worked with UNI Community Services Director Randy Pilkington (Dec. 2007, Jan. 2008) to provide a report on UNI’s resources on wind energy for a major report to Vestas Inc. (www.vestas.com), a Danish company seeking wind power research and manufacturing investment in Iowa. IDED collaborated with UNI, UI, and ISU submitted



a major report to Vestas why the company should select State of Iowa for wind power expansion in the United States, April 2008.

- Represented **UNI at Iowa State Fair** with an information Desk on Industrial Tech. and Renewable Projects at UNI targeting mostly farmers. UNI PR has provided professionally prepared three display materials covering eBoat, UNI Solar/Wind Project, and PV Digital Display Projects, July 16, 2003.

Other Academic Duties and Achievements

- Coordinated with Drs. Zhu and Nie to prepare and submit a 330-page ABET self-study report for ABET-TAC in July 2009 as part of UNI EET program's ABET accreditation efforts.
- **Secured more than \$10,000 worth electronics equipment donation** from Rockwell-Collins Inc since 2007 (*Many thanks to our industrial advisory board member and alumni, Mr. Dave Burger*).
- Represented CNS and UNI at Cedar Valley Cultural Fest at Waterloo Arts Center where energy-bike, & CNS programs are displayed and answered questions from community members, 3/5/2009.
- Met with State of Iowa Department of Economics Development (IDED) director and employee to present UNI's resources on renewable energy for a European company, Moventas Oy from Finland seeking for a renewable energy investment in Cedar Valley Area, June 2008.
- Worked with UNI Community Services Director Randy Pilkington (December 2007, January 2008) to provide a report on UNI's resources on wind energy for a major report to Vestas Inc. (www.vestas.com), a Danish company seeking wind power research and manufacturing investment in Iowa. IDED collaborated with UNI, UI, and ISU submitted a major report to Vestas why the company should select State of Iowa for wind power expansion in the United States, April 2008.
- Attended Gary, IL CCS Campus Visit to UNI and met with potential CNS majors to promote UNI, March 26-27, 2009 as part of **Diversity Efforts**.
- Presented UNI Ind Tech and EET programs to 25 UNI Counselor Adv. Board members from all IA School districts on April 6, 2009. Also had lab demos on renewable energy applications at UNI.
- Presented to 37 Iowa Community College Counselors in Gilchrist, UNI on Monday Sept. 28 on UNI's first and only BS in EET Program and other Tech majors to promote 2+2 transfers to UNI.
- Presented for UNI Admission Staff Members (25-30 people) for describing **Electrical Engineering Technology major and Engineering Tech. Career** at UNI, internship and job opportunities for prospective students. This event included presentation/demonstration, Feb 10, 2009.
- Represented CNS in "**I'll Make me a World in Iowa**" in **January 28, 2011** in Des Moines, Iowa with Latricia Hylton. This included educational sessions and energy related demonstrations (UNI energy bike, wind power, etc.) on promoting CNS majors.
- Represented CNS in "**I'll Make me a World in Iowa**" multicultural conference in Des Moines, January 2010, and January 2009. Organized three workshops together with another faculty member from College of Education to promote college study, **STEM to young students from underrepresented groups** in Iowa. The theme was "UNI's Believe, Achieve, and Succeed". These interactive workshops included hands on activities and information related to African American history, STEM, and applied renewable energy technologies. *Dr. Pecan also participated the opening ceremony of the education day events on briefly talking to more than 500 students on college education at UNI.*
- Attended Wind Energy Priority Meeting at Office of Sponsored Programs, January 21, 2009.
- Continuously joining IAWIND.org board meeting since January, 2009.
- Successfully completed **self-study report and campus review process for the EET program's 7-year external review in March 30-April 1, 2008**. Also submitted an application for ABET-TAC accreditation and worked with other EET faculty members to submit a major self-study report to the **ABET in July 2009** and a formal response report in **March 2010** as part of campus visit and review.
- Dr. Pecan was selected to teach an **Honors Seminar for UNI's selected Honors Students & Presidential Scholars**, 010:196 Energy & Ethics: Convent. vs. Renewable Resources, Spring 2008.
- Dr. Pecan established a special 3-week seminar/class titled "**Clean Energy Resources, Sustainability and Energy Efficiency**", for UNI Lifelong University Program in Nov-Dec 2007. Attendants were all senior citizens, UNI alumni who were interested in Sustainability and Energy Efficiency. Received an outstanding letter from UNI Provost regarding success and evaluations in this class, December 07. A local newspaper covered this workshop with an article on Sept. 21, 2008.