

**Recayi “Reg” Pecen, Ph.D.**

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- Former VP for Education, Go-Link Energy, a division of ALMx-Security, Inc. (12/2016-8/2017)
- Former President & CEO, North American University (NAU) (7/2012-12/2016), Houston/Stafford, Texas; a small, private, non-profit, non-denominational university promoting excellence in education, diversity, internationalization, and sustainability.
- 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 (**ASEE**) <http://eccd.asee.org/>
- Professor, Program Coordinators of Electrical Engineering Technology (EET) and Department of Technology Graduate Degree (M.S. & Doctoral) Programs (1998-2012) at University 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](http://www.IAWind.org) for the growth of wind energy and supporting, facilitating research and training needs of wind energy companies (2009-2012).

**Education**

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|---------------|---|
| 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 ( <i>Ranked as a top 5th graduating engineer in the department</i> ) |
| 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.
- 7/1/2012-12/9/2016** President & Professor, CEO & Professor, North American University, Stafford, greater Houston area, TX. A private, traditional, non-profit, non-denominational 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).
- ✓ 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](http://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 (SAC)** by President Ben Allen's request, January 2011-June 2012.
  - ✓ Served on **University Energy and Environment Coordinating Council**, assigned by Dean Haack, 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 and Circuits II Laboratory. Actively worked on ABET Visit Preparations during the AY 1997-1998.

- 1995-1997** Teaching Assistant, University 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 transmission 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 University of Wyoming Motor Testing Center under the supervision of Dr. S. Ula.
- 1989-1990** Lecturer, Istanbul Technical University (ITU), Dept. of Mechanical Eng.
- 1989-1990** Part-time Electrical Engineer, Computer Hardware Company, Istanbul.
- 1987-1990** Teaching and Research Assist., Istanbul Tech. University, Dept. of Elect. Eng.
- 1984-1996** Summer Internships in (1) Northern Telecom Corp., Istanbul, (2) SEKA – Pulp-Paper Mill Inc., (3) “Auer” Stove manufacturing Company, Istanbul, Turkey.
- 2012-2016** As NAU President, Dr. Pecen had the following International trips for establishing 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, Int. Schools, EducationUSA Offices and attended multiple fairs to introduce NAU and talked to faculty/ students.

## **I. TEACHING**

### **Courses Being Developed and 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

### **North American University (2014-2016)**

SUST 2311 Sustainability - Theory and Practice (3 hrs), an elective course offered for juniors to seniors at North American University by President Pecen. *Also added sustainability to the 5-year strategic planning of the North American University.*

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

- 330:036 Power Technology
- 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
- 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.
- 330:086 Studies in Renewable Energy Applications (1 SH)
- 330:186 (31) Studies in Electrical Circuits (2-4 SH)
- 330:186 Studies in Engineering Technology Management (1 SH)
- 330:186 (35) Studies in Applications of Power Electronics (3 SH)
- 330:186g (68) Motors/Motor Control Systems (3 SH)
- 330:286 Studies in LabView Control Systems (3 SH), graduate class.
- 330:198 Independent Study (1-3 SH)
- 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 DEMACC-UNI students through Iowa Communication Network (ICN) every academic year between 2002-2011.
- 820:140 Environment, Society, Tech. teaching through **WebCT for distance education** students. (Online course package prepared by Dr. Pecen).
- 330:245 Technology and Management of Waste Materials, graduate class.
- 330:186g Computer Technology for Managers (3 SH), for DEMACC-UNI students through the Iowa Communication Network (ICN) 2005-06.
- 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/>. Classes taught: BOC 107 Facility Electrical Systems, BOC 104 Lighting Fundamentals, BOC 202 Advanced Electrical Diagnostics, and BOC 211 Motors in Facilities, classes for a variety of *technical employee working in industry, state and federal government agencies in Iowa, Illinois, Kansas, Missouri, Wisconsin*. Taught more than 50 workshops since May 2007 with excellent teaching evaluations from workshop students. Due to very positive student comments, *BOC Bulletin Editor Christine Doonan (Tel. 401 455 0562) interviewed with Dr. Pecen for a short article published nationwide on BOC Bulletin, spring 2011 issue.*
- Selected as a professional instructor for teaching workshops for South-central Partnership for Energy Efficiency as a Resource (SPEER), Austin, Texas, [www.eepartnership.org](http://www.eepartnership.org).

Classes taught since 2012: BOC 1006 Common Opportunities for Low-Cost Operational Improvement, BOC 107 Facility Electrical Systems, BOC 1003 Efficient Lighting Fund., BOC 202 Adv. Electrical Diagnostics, classes for a variety of *technical employee working in industry, state and military/federal government agencies in Texas and Oklahoma.*

- Two workshops on Basic Electricity and Electronics in Spring 2000 for John Deere Davenport Plant employees through UNI Cont. Edu. Programs.
- A Workshop on “Data Processing, Sorting, and Analysis in MS Excel”, John Deere, Westfield Side, Waterloo (August 18-20, 1999).
- 330:133g Workshop: Wind/PV Renewable Energy (enhanced and repeated three times).
- Power Quality in Industrial Plants: Trying It All Together Presentation and Q&A Session, Muscatine Power and Water, Muscatine, IA, September 13, 2002.
- Electrical Motors & Efficiency, UNI Metal Casting Center’s Workshop on Maintenance Sessions, October 15, 2002, UNI Maucker Union.
- Guest Lecturer and Presenter for a number of 330:036 Power Technology, and 820:140 Environment - Technology, and Society courses taught other instructors for introduction to Electricity and solar/wind/fuel cell renewable energy applications since 2000.

### **Professional Development Activities Related to Teaching/Research/Leadership**

- 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](http://www.infragard.org) for Cyber Security and IT Security Issues.
- Attended **White House Convening for the 6<sup>th</sup> 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://forodirectores.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 Country 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.
- Attended UNI ITTC Workshop on “e-Portfolio” on Friday August 22, 2008.
- Participated, National Instruments’ Seminar on LabView Acquire, Analyze, and Present with NI’s LabView Graphical Development. October 9, 2003, one-day seminar, Hawkeye Community College, Business Extension, Cedar Falls.
- Developed a digital video and movie on wind-solar based renewable energy applications as part of Provost’s mini-grant in summer 2001.



- Developed a multi-media enhancement to the class 330:038 for Provost's mini-grant in summer 2000.
- Developed new teaching modules for the class 330:037. Virtual Labs on Digital movies are generated with the help of UNI ITS as part of Provost's mini-grant in summer 1999.
- 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 Engineering and Technology (ABET) Annual Meeting and 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, Adult/Child AED, and Infant CPR with mask and choking Certification, UNI. (11/2010).
- 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.

## **II. RESEARCH AND SCHOLARLY ACTIVITIES**

### **Publications on Refereed Journals**

- **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 International Journal of Electrical Power & Energy Systems, 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, Number 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.

### **Publications on Peer-reviewed Conference Proceedings**

- 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 4<sup>th</sup> 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 Technology to Undergraduate Education in EET Programs. *Proceedings of the ASEE 2011 Annual Conference and 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*, September 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 Environments”. *Proceedings of 2010 Association of Technology, Management, and Applied Engineering 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., & **Pecen 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., & **Pecen 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.
- **Pecen 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.
- **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 the ASEE 2008 Annual Conference and Exposition.* Pittsburgh, PA.
- **Pecen 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., & **Pecen 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.
- **Pecen 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., **Pecen 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., **Pecen 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., & **Pecen 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.
- **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 a LabView™ PSD v8.20. *Selected papers for NAIT 2007 Conference*, Panama City Beach, FL.
- Yildiz F., Zhu J., & **Pecen 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., **Pecen 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.
- **Pecen 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.
- **Pecen 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.
- **Pecen 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.
- **Pecen 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., **Pecen 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.
- **Pecen R.**, Fahmy M., & Chalkiadakis F. (2005). Design and Construction of a Hydro -Wind Hybrid Renewable Power Station in Iowa Hickory Hills State Park. *Proceedings of the ASEE 2005 Annual Conference*. Portland, OR.
- Chalkiadakis F., **Pecen R.**, “Utilizing Advanced Software Tools for Classroom Projects in Control and Power System Studies”, Proceedings of the ASEE 2004 Annual Conference and Exposition, Salt Lake City, June 2004, Utah.
- Griffen B., Stryczek K., **Pecen 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.

- **Pecen 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 and Exposition, Engineering Technology Division, 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 33<sup>rd</sup> 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, Engineering Technology Division's Session 2650 on Advanced Graduate Education in Technology, 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 32<sup>nd</sup> 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 10<sup>th</sup> International Power Quality Conference, November, 1999.

- **Pecen R.**, “Future of Solar/Wind Energy Applications”, Iowa Industry & Technology Education Conference, IITE, October, 1999.

**Short Non-refereed publication at a Nationwide Online Campus Paper**

[www.todayscampus.com](http://www.todayscampus.com)

- Solar Powered Boats – Topics: Sustainability, Teaching & Learning, Technology  
<http://www.todayscampus.com/minute/load.aspx?art=1774> , 2009 *The Greentree Gazette Corporation*, October 2009.

*Aforementioned ASEE/IEEE/NAIT Conference papers also include presentations in the assigned sessions. Published “Anchors away for UNI Solar powered boat”, a short article on UNI eBoat update. Iowa Energy Center Resource, Volume 10, Issue 2, page 4, 2003. Also more than 15 different articles were published in the local and regional papers regarding UNI Solar and wind power projects 2001-2010.*

**Invited Keynote Speeches, Panel Discussions, Presentations & Project Displays**

*Keynote Speeches:*

- “Energy Education and Sustainability”, Keynote Speech, Intellectual Capital and Education; Vistula University, Stokłosy 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, U.S.A.**

*Other Presentations:*

- Panel Discussion on [Issues in Teaching Renewable Energy](#), American Society of Engineering Education (ASEE), Energy Conversion and Conservation Division, June 12, 2012, San Antonio Convention Center. The panel included practical issues of teaching solar and wind energy engineering and technology. Experiences in establishing renewable energy courses and curricula from experts who have made it happen. Speakers: Reg Pecan, Sarma Pisupati, Jennefer 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”, February 11, 2011.
- UNI Interdisciplinary Research Symposium 2009, Office of Sponsored Programs, Presenter on Energy and Environment Session, “Distributed power generation, grid-connected wind energy systems - current challenges and advantages, promoting STEM in Iowa using renewable energy technologies”, Friday, February 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, Provost, and members of Cedar Valley Greater Alliance, invited by UNI PR Division, 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 ON IMPACTS OF THE PROPOSED 750 MW COAL-FIRED POWER PLANT IN WATERLOO. 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 10<sup>th</sup> 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 9<sup>th</sup> Annual Solar Electric Boat Regatta**, Buffalo, NY, June 19-23, 2002.
- **IITE 2002** – Iowa Industry and Technology Education Conference, “UNI’s Zero Emission Fiberglass Solar Electric Boat: Why should we promote solar electric boats and Iowa Lakes and Rivers?”, October 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 and Technology Education Conference, “UNI’s Zero Emission Fiberglass Solar Electric Boat and Other Renewable Energy based Projects”, Red Fox Inn, 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)***

- **Minigrant for AASCU/RFY** for High Impact Practices (HIPs) developing undergraduate applied research efforts, \$1000 and \$500 for a student support, Spring-Fall 2018.

#### ***B. University of Northern Iowa (1998-2012)***

- **Iowa NSF EPSCoR- 5 years**: National Experimental Program to Stimulate Competitive Research (EPSCoR) Iowa Grant, **serving 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 September 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, Pecan, 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](http://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. Pecan, 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. Pecan, Iowa Math and Science Education Partnership (IMSEP), project completed June 30, 2009. Project web site [www.cns.uni.edu/mseti](http://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, Pecan. 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. Pecan.
- 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. Pecan, 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. Pecan.
- 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. Pecan (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. Pecan, **\$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. Pecan.
- 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), Cullen Hall, Neil Francois, Mike Boomer and Ben 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 senior students; Derek Paulus & Dan Frisch to secure a total amount of **\$940** from CNS Dean's SOAR Acad. Research Fund. for a variety of senior design projects in Spring 2004.
- Fiberglass Solar Electric Boat Design and Implementation in Iowa Lakes and Rivers for a brighter Iowa, IEEE Cedar Rapids Section, **\$500**, February 2003.
- 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 with a total of **\$2,500** from CNS Dean, Spring 2001.
- Research advisor for SOAR grants awarded to 6 students with a total of **\$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 Laboratory for proposed new joint major CCS between CS and Ind Tech Departments.
- Solar-Boat Design Funding from Iowa Energy Center, **\$12,750.00** with matching, 1998-1999, UNI.
- Senior Design Project Funding from Iowa Renewable Energy Association, 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 10<sup>th</sup> Annual Solar Electric Boat World Championship, **\$1,260** + Faculty travel. (Also **\$720** in 2002 Solar Boat Project).

**Submitted Grant Proposals (Sam Houston State University):**

- EURECA Summer 2018 Faculty and Student Team (FAST) Award Application, “Smart Grid Infrastructure Development” with Student-Kali Johnson, \$6,250 (pending), submitted, Nov. 2017.
- FRG 2018 Grant Application, “Development of a Smart grid test bench by renewable Energy and LabVIEW DAQ”, \$5,000 (pending), submitted, Nov. 2017.



### 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).
- **Representing UNI at Wind University Consortium – Wind Alliance** (11 Universities, Wind Manufacturers such as Vestas, Siemens, ABB, Tpi, Rockwell Collins, GEC AWS Truwind), 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, June-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, December 2007 (not funded).
- **An Experimental Intelligent Control System to Improve the Power Efficiency of the HVAC and Lighting Systems in Buildings**, \$202,792, PI: R. Pecen, Co-PI: H. Nie, Iowa Energy Center, December 2, 2008 (not funded).
- **The Development of Remote Studios for Emerging Technologies**, Submitted April 25, 2005, \$653,799.00. Collaborated with Tennessee Technological University, 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 Implementation, submitted December 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). Company president Randy Dumse also visited UNI and had two presentations for students and industrial partners on April 17-18, 2003.
- An equipment grant requested through the Rockwell Collins Inc, Cedar Rapids, IA, for support of the EIET Program’s Telecommunications Labs, \$25,000, March 14, 2003. (Not funded).
- Collaborated with (PI) Dr. William Stigliani, CEEE, for a proposal submitted to Federal Funding Agency, (Chemistry Dept \$715K, Industrial Technology Dept \$555K, CEEE \$555K), Ind. Tech portion of the project includes research and implementation of solar, wind, and fuel cell technology and applications, April 2003 (not funded).
- **UNI “South Face-Hybrid” Research Facility**, July 2002-March 2004 Iowa Energy Center-ISU \$170,000 (not funded).
- Request to the JD Foundation for Support for the EIET Program John Deere Foundation \$40,000 (not funded).

- A Clear Choice for Iowans: Wind-Solar Hybrid Power Generation submitted November 2001 Iowa Energy Center – ISU, \$8,846 (not funded).
- Request to Rockwell Collins Inc, Cedar Rapids, IA, for support of the EIET Program’s Telecommunications Labs “Establishment of a new Analog/Digital Telecommunications Laboratory at UNI”, \$25K, submitted March 15, 2004, (not funded)
- 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. Project also covers undergraduate and graduate students with the supervision of Dr. Pecen. Total requested for FY 2005-09: **\$4,245,000** (not funded)
- Proposal submitted with Mr. Bruce Early (Co-PI) to CNS Dean for PCB Fabrication and Lab Facility in the Industrial Technology Department, March 30,2004, **\$83,139** (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 21<sup>st</sup> 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.
- Solar Powered Wireless Sensors and Alarm Systems applied to Road Safety – to reduce deer hits in US Highways.
- 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. Dushan 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 former doctoral student, Mr. Faruk Yildiz from UNI Graduate School, (Dissertation Chair, Dr. M. Fahmy), 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.
- Appeared 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](http://www.cns.uni.edu/eboat)
- Collaborated with UNI PR & Marketing Department to prepare a number of press releases on success stories by solar electric boat project team members, UNI wind-solar projects, as well as MSETI-AREA STEM project.
- **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 Department was listed in “Wind and Solar Power Systems” by Patel, CRC Press, pp. 324-325, 2000, as one of the top 15 US universities that conduct valuable 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 Engineering Technology Division's conference papers as author, reviewer, and moderator.
- Recognized as an Honored Teacher/Researcher in "**Who's Who in America**", November 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)
- American Society of Engineering Education (ASEE) Membership (1999-2015).
- ASEE Energy Conversion and Conservation Division Membership (2001-2015).
- ASEE Engineering Technology Division Membership (2001-2012).
- ATMAE, Assoc. of Technology, Management, & Applied Engineering Membership (2002-2008).
- Member of Iowa Wind Energy Association (2007-09) (IWEA) [www.iowawindenergy.org/](http://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** *(not all included)*

Chair of New Graduate Program Survey

Chair of Nomination Committee

Chair of Articulation Committee

Dept. Representative to College Curriculum 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

**North American University (NAU): President & CEO, July 1, 2012-December 12, 2016**

Charged with responsibility for providing daily operation and general supervision to all affairs of the University. Reported to the Board of Trustees. Served as ex-officio, a member of the Board of Trustees. The leadership and management included achieving the University mission, objectives, purpose by taking NAU to the next step. Some major accomplishments under President Pecen's leadership:

- Student enrollment increased approximately from 397 to 834 from 2012 to 2016.
- The institution name was updated from College (NAC) to University (NAU) in 2013.
- New graduate degree programs in Edu. (M.Ed), Computer Science (M.S.), and Business (MBA) established.
- Dr. Pecen's extensive International recruitment priority resulted in strong International Student Body, almost 50% of all students at NAU are international from 54 countries.
- Restructured the Administration chart to a more dynamic and efficient operation by resizing and reducing administrative VP Offices from four to two in a small institution.
- ESL program received its CEA Accreditation, academic programs got their re-accreditation from 2013 through 2017 by ACICS.
- Traveled to 20 countries for establishing International partnerships and student recruitment opportunities.
- Established strong summer ESL, SAT/ACT, and American Culture Programs for International students.
- Improved student life on campus activities and campus dorms.
- The campus was moved from North Houston to a beautiful location at South Houston.
- Established a strong community outreach through Public ISDs, Charter Schools, Chamber of Commerce, US Corporations, non-profit Institutions, Houston & Lone Star Community Colleges, and Consulate Offices in Houston, government agencies including FBI and InfraGard, and other higher education institutions.
- Open-door policy and Student-first policies made NAU campus very special and covenant to all NAU family members and stake holders.
- The University budget has grown from \$6 M to about \$10M from 2012 to 2016.

**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 Industrial Technology as **Doctor of Technology** with enhanced up-to-date curriculum. The proposal was accepted by college and university curriculum committees in November 2011. Coordinated college senate and graduate school curriculum meetings regarding this update.
- **Chaired** the graduate program committee to update existing MS in Technology with seven emphasis areas to MS in technology with Engineering Management, Graphic Technologies, and Technology Education with enhanced up-to-date curriculum and core courses. This restructured and revised proposal was accepted by college and university curriculum committees in November 2011. Coordinated college senate and graduate school curriculum meetings regarding this update.

- **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 Technology Management Degree through ICN/WebCT, **August 2008-2009**, organized semester class offerings, advised Tech Management students, maintained WebCT and helped distance education 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 Technology** including Manufacturing, EET, Construction, and Technology Management areas together. (Spring 2011)
- **Coordinated** with graduate program committee members to **update former Doctoral of Industrial Technology (DIT) curriculum to Doctor of Technology** 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 external reviewers, November 2008.
- Established a major called "Electrical & Information Engineering Technology" (EIET), Iowa's FIRST and only 4-year Engineering Technology program (2002). This required an extensive work on curriculum update from previous (old-fashioned) electromechanical systems program which was down to very low enrollments. *It was also a compassion and big challenge for Dr. Pecen to convince senior professors in the department about the necessity of this crucial curriculum update. Majority of students are recruited from Iowa community colleges.*
- 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-current. Previous term member duties on the same committee: 2000-2002 (junior member), 2003-2004 (junior member), 2004-06 (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, 5<sup>th</sup> 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, 8<sup>th</sup> 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, 3<sup>rd</sup> graders, their teachers and some parents from **Hansen Elementary School** on April 18, 2003 for solar, wind power, and electronics/robotics applications.
- Answered a number of phone calls, interviewed, and provided information on solar and wind power technologies from local and regional community in general 1998-2012.
- Coordinated with John Deere Waterloo Works, Rockwell-Collins Inc, Waterloo Industries, and other local electrical contractors to provide part time positions for EET students since 1999-2012.
- 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 Environment and Education (CEEE) Director Search Committee, Fall 2007, Spring 2008.
- 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 Commencement, as a faculty Marshal, May 2007.
- Represented CNS in Spring 2006 Commencement, as a faculty Marshal, May 2006.
- Represented CNS in Spring 2005 Commencement, as a faculty Marshal, May 2005.
- Represented CNS in Fall 2004 Commencement, as a faculty Marshal, December 10, 2004.
- Represented CNS in Spring 2003 Commencement, as a faculty Marshal, May 10, 2003.
- Represented CNS in Spring 2002 Commencement, as a faculty Marshal, May 9, 2002.
- 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 – All Students between August 2010-August 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 Committee chaired by Christy Twait (Fall 2009-Spring 2010).
- Selected and Served on Outstanding Doctoral Dissertation Award Selection Committee on November, 2008 at UNI Graduate School. (5 dissertations are reviewed and ranked).
- Member of **University Energy and Environment Coordinating Council**, Selected by CNS Dean, 2007-2012. *This required a number of meetings and tasks related with UNI's contribution on Iowa's energy independence and renewable energy efforts.*
- 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, *MCC was renamed as Multicultural Recruitment Team since 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 Information Technology (PPCIT)**. February – 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 student assistants and designers**

**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.
- Prepared a professional assessment report for Dr. N. Alaraje's candidacy for tenure and promotion to Assoc. Prof. at EET program, Michigan Tech. Univ, Houghton, Michigan. 12/2010.
- Served on conference organizing committee for the IWEA-IAWIND Wind Energy Conference held on April 6-7, 2010, ISU campus, 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](http://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 and

- 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 Development) Iowa Board Member (2001-2004) among high school students.
  - Served as an Advisory Committee Member for Hawkeye Community College's (HCC) Electronics Engineering Technology Program, 2003-2012.
  - 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 Technology Program, 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, 34 Cornell Dr, Canton, NY 13617-1096, [www.canton.edu](http://www.canton.edu), May 2005.

### **International and Civic Service**

- Served as international advisory board member for **Istanbul International Conference on foreign people studying postgraduate edu in Turkey, ISTIAC 2009 Proceedings, Istanbul, Turkey.**
- Served as a president of **Turkish-American Society of Iowa (TASIOWA)** for international fellowship and promoting stronger covenant among educational institutions among Turkey, Iowa and in general, the United States of America, 2007-2012.
- Worked with former VP for International Programs Dr. Tim O'Connor and current Interim VP for International Programs Dr. Kurt 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 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. Fatih University, Gediz University, Mevlana University and Meliksah University were visited 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, Associate Dean at the College of Economics and Management, Dalian Nationalities University, **China**, for renewable energy and sustainability efforts on university campuses, 2010.
- Arranged Qafqaz University Delegation (Baku, Azerbaijan) to UNI on March 30-April 1, 2009 for academic partnerships between UNI and Qafkaz 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 to UNI.
- **Took five Iowa Legislators** (Senators Daryl Beall, Chair of International Relations Commission, Senator Black, Senator Gaskill, Senator McKinley, one Representative Lisa Heddens) to Turkey in July 2008 for one week tour to historical attractions and visit educational institutions.
- **Took five Iowa Legislators** (Senator Randy Feenstra, **Rep. Linda Upmeyer (2011 Iowa House Majority leader)**, Rep. Chuck Soderberg, Rep. Ako Abdul, Bill Angrick II (State of Iowa

Ombudsman, 2010) to Turkey in August 2009 for one week tour to historical attractions and visit higher educational institutions.

- **Took 3 Iowa Legislators** (Sen Thomas Courtney, Rep. James Engelenhoven, Rep. Helen Miller), and West Des Moines Police Chief Mr. Jack O'Donnell, Dean Joel Haack (UNI), VP David Evans (BVU), and few other faculty members to Turkey in July 16-24, 2011 for one week tour to historical attractions and visit to educational institutions.
- Served as a Program Committee Member, and Reviewer, 2<sup>nd</sup> 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 2<sup>nd</sup> 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. <http://www.uni.edu/~pecen/soccercoach.html>

### **Graduate Students Served on M.A., M.S., and Doctoral (D.T./D.I.T.) Committees**

<i>Last First Name</i>	<i>Committee</i>
Alexia Barry	DIT (Co-Chair, Graduated)
Alyabis Fahad	DIT (Member, Graduated)
Hay Michael	MA (Chair, Graduated)
O'rloff Chad A.	DIT (Member, served 2 years)
Tang Quan	MA (Chair, Graduated)
Zora Ayhan	DIT (Co-Chair, Graduated)
Griffen Bryan	DIT (Co-Chair, Graduated)
Abdulrahman Al-Zumaia	DIT (Committee Member, Graduated)
Bahadir Emre	MA (Committee Member, Graduated)
Yuasa Yuichi	MA (Graduated)
Lucas Martinez	MS in Environmental Science and Tech (Member, Graduated)
Jihyo Chong	MS in Environmental Science (Committee Member, Graduated)
Svetlana Korotkova	MS in Environmental Science (Committee Member, Graduated)
Tracy Wolin	MS in Environmental Science (Committee Member, Graduated)
Russell J. Lucas	MA (Chair, Graduated)
Racheal S Nabalamba	MS in Computer Science (Committee Member, Graduated)
Tom Duke	MA Energy Management
Faruk Yildiz	DIT in Computer Networking Technology (Co-Chair) (Graduated)
Kenan Baltaci	MA (Graduated) (Chair), DT (Doctor of Tech) (Chair & Adv.) Flexible Hybrid Vehicles & Battery Storage Issues 2008-2012
Erkan Taskin	DIT (Co-Chair)
Garth LeFeere	MA (Chair, graduated) Wind Power management and Turbine Analysis
Hameed Madwar	DT (Chair & Advisor) Wireless Sensor Networks in Industrial Environments 2009-2012
Setordji Abotsi	MS in Technology (Committee Member, graduated)
Ed Olthoff	MS in Env Science Energy Systems & Energy Efficiency (Graduated)
Melanie Abbas	DIT (DIT Committee Chair and Advisor) 2010-current
Ulan Dakeev	MS in Technology with Ind Management Emphasis (Advisor)
Sultan Altamimi	MS in Technology with EET emphasis (Advisor) 2010-2012
Pratiksha Holavannur	MS in Technology with EET emphasis (Advisor) 2010-2012
Jeffrey Rick	MS in Technology with EET emphasis (Advisor) 2010-2012
Islam M. Hassan	MS in Technology with EET emphasis (Advisor) 2010-2012
James Smith	MS in Technology with Ind. Mng. Emphasis (Member) 2011-2012
Matt Myers	MS in Technology with Ind. Mng. Emphasis (Chair), 2011-2012

*Also served as external reviewer for Mr. Mayurappriyan's Ph.D. dissertation titled "Analysis of Horizontal Wind Turbine Generators" at Centre for Research at Anna University Chennai-India, Spring 2012.*

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

- American Journal of Undergraduate Research (AJUR), **Engineering Technology Editor**, 2003-2012.
- IEEE Transactions on Electronics Packaging Manufacturing, Reviewer for Engineering Technology Papers, since 2001.
- 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 annual conference 2005 - Engineering Technology Division – Session 2549 Capstone/Design Projects. Served as a session moderator in ASEE 2005, Portland, Oregon, June 2005.
- Reviewed abstracts and full-papers for ASEE Annual Conference 2004 – Engineering Technology Division – Session 3548 Engineering Technology Design Projects, as reviewer and session moderator.
- Reviewed the textbook "Modern Control Technology: Components and Systems" by Kilian for 3<sup>rd</sup> 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 Technology Design Projects, February – March 2003.
- Reviewed abstracts and 7 full-papers for ASEE 2002 Annual Conference, Engineering Technology 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 Service 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 is accepted in July 2009, Cedar Falls/Waterloo/UNI is selected as 2011-2013 Solar Splash Location.** [www.solarsplash.com](http://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.
- Reviewed and ranked three best papers for ASEE ECCD Division, April 8, 2009.
- Reviewed and ranked 24 engineering and energy related projects at I-SWEEEP 2009 Olympiad. [www.isweeep.com](http://www.isweeep.com)
- Worked with Computer and Automated Systems Association CSA SME to organize their professional meeting at UNI on December 3, 2008 with a tour to EET program facilities and labs.
- 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](http://www.musco.com)) for EIET program introduction/presentation for company's intern & full-time employee needs, Nov.18, 2008.
- Worked with KCRG Channel 9 from Cedar Rapids, Iowa to host one, "young future engineer", Blake Mulnix, a winner of KCRG STEM essay, at the EIET labs to make a program on wind, solar,



and Hydrogen fuel-cell technology for our future, August 14, 2008. The video clip was broadcasted a number of times through the KCRG.

- 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, Business and Community Services Director Randy Pilkington 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 (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](http://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.
- Presented and displayed projects in **Engineers Week 2008, 1<sup>st</sup> Annual Engineering Day** event at Jefferson High School, Cedar Rapids, Iowa, March 5, 2008.
- Presented and demonstrated wind/solar basics, Hydrogen fuel-cells, solar boat and E-Bike projects to 40+ students/families from Northeast IA College readiness (NICR) Program on March 8, 2008.
- Organized EIET 2007-08, 2006-07, and 2005-06 **Senior Design Seminars** at UNI inviting a number of faculty members, students, families, administrators, industrial partners, and local media. Seminar included project team presentation and demonstrations.
- Prepared and coordinated many demonstration projects for IT Day, Science & Scholarship Days, and the Elementary School Visits.
- Visited Kirkwood Community College (with Dr. Fanis Chalkiadakis) and attended a round table discussion on 2+2 Transfers from KCC EET to UNI EET Programs.
- Presented and demonstrated Hydrogen fuel-cells, solar boat and E-Bike projects to 25 + students and families from Waterloo Expo Alternative High School and Waterloo Bunker School visiting UNI on Wed Oct 1 and 8, 2008.
- Worked with Dr. Doug Hotek to investigate feasibility of updating Department title to "**Department of Technology**", presented to Department Council, March-April, 2008.
- Attended and displayed renewable energy projects at **Cedar Falls Utilities Energy Expo** for community on September 27, 2008 as well as 2007 and 2006.
- Presented, and demonstrated in Energy and Electronics for the Black Hawk Elementary School visit on Thursday April 17, 2008, also in 2007 and 2006, as well as North Kossuth Middle School's 8<sup>th</sup> Graders, April 1, 2003.
- Provided Detailed Information, Spent Time and Effort for a number of media coverage of UNI Solar Electric Boat Design and Race in Buffalo, NY, through March – Sept. 2003.
- Co-presented in the "**Celebrating our Partnership: Deere and Company & UNI** March 31, 2003.
- Attended Deere and Company for Industrial Technology Department's Program Display to promote the EIET Program as part of JD's University Week., July 9, 2003.
- Prepared a full page, color add to be printed on the Northern Iowan, on April 2003. The add exhibited all the solar/wind related senior projects completed in the Ind Tech Dept. The add costs about \$420 and is paid by UNI Students Research/Consulting Center as a gift to the Tech. Dept.
- Hosted three faculty members from Northern Illinois University's College of Engineering and Technology, Technology Department. The guests (Dr. Bala, Dr. Kalaani, and Dr. Merrill) requested this visit to get more information on UNI EIET's solar/wind hybrid project for possible similar project collaboration at the NIU – DeKalb, IL, July 15, 2003.
- Represented **UNI at Iowa State Fair** with an information Desk on Industrial Technology and Renewable Projects at UNI. This activity targeted mostly farmers. UNI PR has provided professionally prepared three display materials covering eBoat, UNI Solar/Wind Project, and Solar Powered Digital Display Projects, July 16, 2003.
- **Recruited an excellent speaker** (Mr. Randy Dumse, President of New Micro Inc, TX) for UNI College of Natural Science's, Science, Math, Technology Symposium, Nov. 24, 2004.



- Attended UNI Ambassadors Meeting in August 2005, to introduce UNI Technology majors to international ambassadors from more than 100 countries.
- Attended ABET TAC Program Evaluator One-Day Training, June 2005, Portland, Oregon.
- Attended ABET TAC Institutional Rep Meeting and Summer Workshop, July 2009, Washington, DC, July 15-18, 2009.

#### **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 engineers and supervisors from Musco Lighting Company ([www.musco.com](http://www.musco.com)) for EIET program introduction and presentation for company's intern and full-time employee needs, November 18, 2008.
- Worked with Computer and Automated Systems Association (CSA) SME to organize their professional meeting at UNI on December 3, 2008 with a tour to EET program facilities and labs.
- Served on Science and Math Subcommittee of the Afterschool Taskforce, Waterloo Community Schools, Chaired by Shelly Smith, Community education program Coordinator, (2007-2010).
- 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](http://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 and displayed renewable energy projects at **Cedar Falls Utilities Energy Expo** for community on September 27, 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 Advisory Board members from all Iowa School districts on Monday, April 6, 2009. Also had lab demos on renewable energy applications at UNI.
- Presented to about 37 Iowa Community College Counselors in Gilchrist, UNI on Monday Sept. 28 on UNI's first and only BS in EET Program as well as other Tech majors to promote 2+2 transfers to UNI. This presentation requested by UNI Admissions Office.
- Presented for UNI Admission Staff Members (25-30 people) for describing **Electrical Engineering Technology major and Engineering Technology 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, science and technology, 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 seven 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 finish and 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.
- Met with Mr. Ray Almgren, VP for Product Marketing and Academics from National Instruments, Andy Marshall, District Sales Manager, and Peter Anderson, Area Sales Manager, and local engineering company DisTek Integration Inc. in February 2008 at UNI to talk on possible partnership among UNI, NI, and DisTek. **Secured NI's Academic Suit Software with very affordable price for the College of Natural Sciences**, March 2008.
- Contacted NI officials to reduce the quoted price of \$2,999 to \$999 for NI Academics License agreement for the College one more year, January 29, 2009.
- Met with Iowa Community College Presidents and program coordinators from wind and sustainable energy programs, IDED representatives, and ISU College of Engineering faculty in a reception and meeting on Florida Power and Light (FPL) Energy company's visit to Iowa on Wednesday April 16 meeting at UNI and evening meeting at Ames, ISU Campus.
- Met with Dan Terrell from Iowa Central Community College to discuss and establish an articulation **agreement between ICC's Sustainable Energy program and UNI EET Program**. A document was prepared and submitted for approval, March 2008.
- Visited Jefferson High School, Cedar Rapids and presented EIET program as part of **Annual Engineering Day event**. Also took one graduate and one undergraduate student for project demonstrations and display. Attendance and student interest to eng. tech area were excellent.
- Met with Iowa Department of Economical Development (IDED) director and managers to discuss and prepare reports on feasibility of new businesses on wind power systems (turbine, blade, and data acquisition and control systems-SCADA) in Iowa. Met with a number of times new business leaders to guide on needs on opportunities in Iowa, 2006 and 2007.
- Met with John Deere Engineers to secure a \$10,000 scholarship for EIET and MT students.
- Worked in the committee on a new grant submitted to John Deere Foundation to request an equipment grant of \$500,000, Nov, 2007, 2008, 2009. The grant is pending and JD Foundation is planning to support both the EET and MT programs in the department due to good quality students and graduates provided to John Deere Waterloo Works and other branches nationwide.
- Off Campus Invited Speaker on January 17, Dike Lions Club, Renewable Energy Applications and Coal Fired Power Plants.
- Attended as a **Panelist on a Panel Discussion** on movie "An Inconvenient Truth" on Global warming with Dr. Stigliani, September 27, 2006.
- Attended President Allen's Installation ceremony on Friday September 29, 2006.
- To increase Minority Student Enrollment and help recruitment, collaborated with Ron Green to arrange a campus visit and organize technical presentation and demonstration for Northeast Iowa Readiness College Campus Visit on Saturday November 11, 2006.
- EET program has grown 25% from 2003-04 to 2004-05 under the leadership of Dr. Pecan.
- EET program has grown 17% from 2002-03 to 2003-04 under the leadership of Dr. Pecan.
- Individually revised all interested EMS majors' transfer requests to the EET with their updated declaration forms.
- Met, informed, and gave tour to a number of prospective EET students and transfer students from Iowa Community Colleges. Also met with a number of prospective graduate students.
- Continuously working on program recruitment by contacting Iowa CC Electronics Engineering Technology Programs to encourage 2+2 transfers.
- Corresponded to UNI's undecided **530** students to introduce the EET Program and the Department of Industrial Technology for possible careers, October 6, 2003. (This activity has been done periodically in every Fall semester, since 2000).

- Prepared an articulation agreement between Kirkwood Community College's (1) Electronics Engineering Technology, (2) Industrial Maintenance Technology to EET. The agreements are signed by both institution's administrators.
- Prepared an articulation agreement between Hawkeye Community College's Electronics Engineering Technology to EET. The agreements are signed by both institution's administrators.
- Completed design and implementation of a Solar Powered Alpha/Numeric Digital Display for ITD at UNI, November 2002. This project was an excellent collaborated work between Construction Management and EET programs. The digital outdoor display powered by solar energy also promotes environmentally friendly energy technologies at UNI - Cedar Falls.
- Coordinated with other EET faculty and Department Head to renovate an old lecture area in ITC 10 to an excellent teaching environment! Secured good conditioned desks and chairs from UNI surplus center. ITC 13 room was also cleaned and rearranged as a new electrical/hydraulics systems laboratory during Summer/Fall 03.
- Worked with UNI Jump Start Committee to promote and minority students at UNI since 2004. This task included presentations and demonstrations about technical majors at UNI.
- Collaborated with CS faculty members to develop and finalize the curriculum package in (1) BS in Network Information Systems, (2) BS in Software Engineering. The new majors will begin in Fall 2004 as being prepared in the new UNI catalog.
- Iowa Electrathon – Electric Car Race.  
Worked as a clock advisor (Sept 21, 2002) and a technical inspector at the Alliant Energy's Fall 2003 Iowa Electrathon Race, (Sept 27, 2003).
- Hosted a group of 60, 3<sup>rd</sup> graders plus their teachers and some parents from Hansen Elementary School on Friday, April 18, 2003 for solar, wind power, and electronics/robotics applications.
- Coordinated with Mr. Jon Anderson and Mr. Brian Carlson, two of the JD PEC Managers to provide part time jobs for EET majors since 2002.
- Coordinated with dept head and other EET faculty to use \$14,000 from JD Excellence Funds to update EET labs, 2003-04.
- Submitted a proposal to ITD to update ITC 13 to use recently donated two JD Hydraulic trainers as well as other electrical power trainers. Proposal was accepted and the ITC 3 was renovated as a electrical and hydraulic power lab, 2002-03.
- Secured electronics instrumentation and test equipment donation (includes three spectrum analyzers, two digital scopes, three power supplies, probes, etc.) from Rockwell-Collins, Cedar Rapids (December, 2005), also secured electrical motor control units and panels donation from John Deere Waterloo Works (Nov, 2005).
- Dr. Pecen worked with former VP Susan Koch, and Ms. Karen Cunningham, August 2006 – May 2007 for providing advising, guidance and help for one special need student, Mr. Neil Francois. Neil had a terrible train accident in 2000 and he returned to school with very challenging psychical difficulties. As his major advisor, Dr. Pecen worked with Neil for 2006-2007 towards his graduation. A special committee established by Dr. Koch worked with Neil for his needs. Neil graduated on May 2007 with his BA degree in general Studies -Networking Technology.
- Dr. Pecen 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. Pecen 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. Local newspaper covered this workshop with an article on Sept. 21, 2008.
- Presented to UNI Counselor Advisory Board (CAB) Members (about 30 Counselors from all over Iowa) on Iowa's 1<sup>st</sup> and only 4 year Eng Tech program, Monday, April 6, 2009.
- Presented at 2010 ITAG Young Scholars' Conference on renewable energy education and applications, April 6, 2010.
- Served as a Moderator, CNS Alumni Fellows Day for "Industry-University Partnership as a Vehicle for Globalized Education", Bageman 114, 2010, UNI Campus.