Dear Alumni & Friends,

It has been a busy Fall semester with an ABET accreditation visit (which was largely successful), the development of numerous research and other proposals, and the usual business of teaching and learning.

This newsletter reports on many of the Department’s recent activities, with the following as some of the highlights:

- Our three new faculty started this Fall 2014 – Dr. Somayeh Asadi (Construction Option), Dr. Donghyun Rim (Mechanical Option) and Dr. Aly Said (Structures Option). Their profiles are included on page 7 of this newsletter. Please feel free to reach out to them for collaboration opportunities.

- Our alumni received several recognitions for their outstanding work and leadership roles in the profession (see page 4). Worthy of particular note is Ms. Karen Sweeney BAE ’80, who was named an ‘Alumni Fellow’ and honored at a ceremony on October 8, 2014;

- The Department was awarded the 2014 Henry C. Turner Prize for innovations in construction technology and honored at a ceremony on December 3 at the National Building Museum in Washington DC, which was attended by over 125 alumni (see page 5);

- The 21st Annual AE Career Fair was a great success with 129 companies in attendance and another 50 companies on the waiting list (see page 6 for details). This is indicative of the economic recovery and is great for our students;

- The Department hosted two excellent distinguished lectures – The Raymond Bowers Distinguished Lecture (given by Jeremy Snyder BAE ’01, Stephen Iski BAE ’01 and Lisa Adkins), and the Annual Hankin Lecture (given by Peter Yost, Green Building Inc.) – see pages 6-7;

- Nancy Sabol, our long-term administrative staff coordinator ‘retired’ at the end of Fall 2014 and will be replaced by Holly Seidel (see page 7). Nancy’s dedication to the Department and her capacity to go above and beyond the call of duty will be missed;

- Many of our students have distinguished themselves in both academic and extra-curricular activities remain national champions by winning top honors in the 2014 ASCE Charles Pankow Foundation as reported on page 10. Architectural Engineering National Student Competition (see page 11);

We have decided to discontinue the practice of sending out separate letters in respect of our Annual AE Giving Campaign. In its place, we will continue to include an envelope in each of our newsletters, and I would encourage our alumni and friends to use these to send their gifts to the Department. In this regard, I would like to remind you that gifts to ‘Penn State’ do not automatically come to the Department unless you specifically designate them as such. The Department’s needs include areas such as scholarships, program support, faculty support, graduate fellowships, endowed professorships, facilities upgrades, and student activities/field trips. Your support over the years has made a difference by enabling us to provide financial support to students and to enhance the quality of the program. We are most grateful for this and hope for your continued support in the future.

I look forward to welcoming you to the Department on your next visit to Happy Valley!

Sincerely,

Chimay J. Anumba, FREng, Ph.D., DSc., Dr.h.c., P.E.
Professor and Department Head

**On the cover:** Penn State Old Main photo courtesy of AE staff member Deb Sam.
1970s
Tomothy Woerner ’79 with ARCOM (MasterSpec) in Alexandria, VA. Responsible for writing of MasterSpec’s pre-eminent specifications to include production planning, coordination of consultant writers, equipment research, and interface with manufacturers and industry organizations. Timothy says, ”Being a Penn State AE has been a door opener my entire career as it has, I believe, for many of my classmates.”

Gregory Ryan ’79 vice president and construction executive with Turner Construction Company in Philadelphia, PA. Responsibilities include overall business operations manager for local office and executive on specific projects.

1980s
Jerome Biedny ’87 design and construction division manager, with Hennepin County Property Services in Minneapolis, MN. He manages the design and construction for the largest county in the state of MN. Jerome says, ”After 15 years in private practice and 10 years with tribal and other county governments, I’ve moved to my home county of Hennepin.”

Keith R. Bush ’86 is a project executive with Balfour Beatty Construction in Fairfax, VA.

Robert A. Young, FAPT ’84g was elected chair of the National Council for Preservation Education (NCPE) at its annual meeting in Savannah in November. The chair acts as president/CEO of NCPE which is a consortium of 59 schools and affiliated programs that collectively provides education along the entire spectrum of historic preservation practice and research. Professor Young is currently the director of the Historic Preservation program at the University of Utah, College of Architecture and Planning in Salt Lake City, UT.

2000s
Sally (Gimbert) Carter ’08g and husband David announce the birth of their son, Flynn Alexander Hudson Carter, who was born on Aug. 26 at the NYU Langone Medical Center, NYC.

He was 7lbs 7oz and 20.5 inches long when born but is now over 10lbs - gaining weight like a rugby champ!

Brian M. Barna ’07g and Mark P. Gardner ’00g were co-authors along with Thomas Heffernan on a paper “The Use of Tilt-up Concrete for Anti-Terrorism Force Protection,” that appeared in the September 2014 issue of STRUCTURE magazine.

Barna is a senior associate at Cardno Haynes Whaley in Reston, VA and Gardner is managing engineer at Hinman Consulting Engineers in Alexandria, VA. Heffernan is a senior vice president at Cardno Haynes Whaley.

Michael Rometo ’00g with Heery International, Inc. in Atlanta GA was recently been promoted to the Atlanta Structural Department Manager. He notes, “I join the Atlanta Mechanical Department Manager, Joe Gottardy ’78, the Atlanta Electrical Department Manager, Steven Sveda ’77, and the Director of Atlanta Engineering, Duane Dunlap ’77 to form an all PSU AE engineering management team at the corporate headquarters.”

Logan Brown ’09 is an electrical designer with R.G. Vanderweil Engineers, LLP in Philadelphia, PA.

Jeff Rothermel ’09g project designer with Hope Furrer Associates, Inc. in Towson, MD. Responsibilities include structural design and construction administration in structural steel, reinforced concrete, post-tensioned concrete and wood. We have spent several years around Baltimore and are finally moving back to Pennsylvania. We finally bought our first home in York and our little girl is about to turn 2. We really miss the PSU family and hope to reconnect once we move closer. We haven’t been able to get to a football game since JoePa was coaching and boy do we miss it!

2010s
Nicholas Umosella, LEED AP, E.I.T., ’10 is now associate project manager at JLL in the Washington, DC metro area.

Laura Ashley Alferes ’14 building electrical systems designer with WSP in Arlington VA.


Patrick Morgan ’11 electrical engineer with James Posey Assoc. in Baltimore, MD.

Sikandar Porter-Gill ’14 structural engineer with SK&A in Washington, DC.

Nicole Trujillo ’12 and Humberto Cavdana were married Oct. 11 in Albuquerque, NM. Nicole is currently an M.S. student at the University of New Mexico.

AE Alumni News Continued on page 11
Alumni Honors

Alumni Fellow Named

Karen Sweeney '80 is one of two engineering alumni who was honored Oct. 8, 2014 for their outstanding professional accomplishments and given the title of Alumni Fellow, the Penn State Alumni Association's highest award. Sweeney is senior vice president for diversity, inclusion and community for Turner Construction Co. in Baltimore.

She is a founding member of In Counsel with Women in Cleveland, and is a member of the Conference Board's Council of U.S. Diversity and Inclusion Executives, and the Society of Women Engineers.

In 2010, Sweeney received the College of Engineering’s Outstanding Engineering Alumni Award. She is immediate past president of the Penn State Engineering Alumni Society; founding member of the Penn State Alumni Society of Architectural Engineers affiliate program group; and past chair and member of the College of Engineering’s Industrial and Professional Advisory Council.

ASHRAE Distinguished Lecturers

The August 2014 issue of ASHRAE Insights magazine reported that two AE alumni have been named to the list of top ten new ASHRAE Distinguished Lecturers. The Distinguished Lecturers provide ASHRAE Society Chapters with noted authorities speaking on relevant topics that impact the built environment industry. Since its inception in 1996, the Distinguished Lecturer Program has presented over 1,600 lectures.

John Peterson ’99, Senior Mechanical Engineer, with HP Critical Facilities Services in Takoma Park, MD.

Topics: Lake and Sea Water Cooling Projects; River and Lake Cooling Considerations for Critical Facilities; Comparison of Data Center Classes on Energy Use; and Warmer Weather Effects on Data Center Design.

Luke Leung ’87, ’90g, Director of the Sustainable Engineering Studio for Skidmore, Owings and Merrill LLP in Chicago, IL.

Topics: Master Integrator Beyond Building Scale: 21st Century Tall Building Design; and Burj Khalifa - The Tallest Building in the World.

Alumni Spotlight

Colonel Thomas M. Laffey ’94g officially retired from the US Air Force in November 2013. He said that “his Air Force Career was tremendously rewarding for both himself and his family, and without question, his M.S. degree in Architectural Engineering contributed greatly to his overall career experiences and successes.”

During his career, Colonel Laffey was the Director of the Air Force Housing Privatization Program Management Office, Air Force Civil Engineer Center, San Antonio, Texas. He led the Execution, Operations and Program Management of the Air Force’s $8.6 billion Housing Privatization program for 53,760 housing end-state units located at 63 installations. Colonel Laffey managed a division of 135 military and civilian engineers, operations, financial, contracting, and legal staff from base, MAJCOM and the Air Force Civil Engineer Center to negotiate and execute 50 year Housing real estate transactions on behalf of the Air Force.

Colonel Laffey was born and raised in South Kingstown, Rhode Island. He graduated from the University of Connecticut in 1983 with bachelor of science degrees in biological sciences and civil engineering and was a Chi Epsilon Honors Graduate. He earned his commission in 1983 after graduating from the Air Force ROTC program at the University of Connecticut. Colonel Laffey earned a masters degree in architectural engineering from the Penn State in 1994, and he is a Registered Professional Engineer in the state of Colorado.

During his career, he served as a civil engineer at the squadron, group, wing, major command, Air Staff, and Joint Staff levels, including five remote and overseas tours. His staff positions include NATO/US military construction program manager at Headquarters U.S. Air Forces Europe, chief of environmental restoration and housing programs at Air Combat Command, Deputy Division Chief of Engineering and Chief of Emergency Services Division for Headquarters Air Force Space Command. Prior to his current assignment, he was the Director of Installation Support at the Defense Logistics Agency for all installation support programs with infrastructure valued at $34 billion at more than 500 world-wide sites.

As a squadron commander at Beale Air Force Base, California, his unit earned the Air Force's Best Housing Program Award and won the prestigious Society of American Military Engineers Curtin Award as the Best Civil Engineer Squadron in Air Combat Command for 2001. As Group Commander, his Mission Support Group at Mountain Home Air Force Base, Idaho led the 366th Fighter Wing in capturing the Air Force's Commander in Chief Installation Excellence Award for 2007, as the Best Installation of 84 major bases in the Air Force -- a historical first for Mountain Home Air Force Base, and a Presidential Honor Award.

His contingency experience includes the beddown of 125 combat aircraft and 5,000 coalition forces during Operations DESERT SHIELD and DESERT STORM, and Deputy Chief of Contingency Construction at Prince Sultan Air Base, Saudi Arabia, for Operation SOUTHERN WATCH. He was the Air Force Base Realignment and Closure Division Chief for the Assistant Secretary of the Air Force, managing $2.4 billion in realignment investments for 124 installations, and also served as the Director for Facilities Management to the Deputy Assistant Secretary of the Air Force for Installations.

Colonel Laffey is married to the former Heather J. Hamara of Tucson, Arizona. They are the proud parents of two children, Quinn Eero (11) and Shae Mari (9).
The Department of Architectural Engineering was named the recipient of the National Building Museum’s 2014 Henry C. Turner Prize for Innovation in Construction Technology.

The prize, which carries an honorarium of $25,000, is extended to the Department of Architectural Engineering for fostering a broad range of collaborative research efforts that will lead to efficiencies in the construction process and encourage energy-efficient building solutions, such as the innovative research underway at the GridSTAR Center in Philadelphia’s Navy Yard.

“I commend [Penn State’s] commitment to communication and collaboration with our building industry,” said Turner Prize jury member and Turner Construction past president Hal Parmalee. “In particular the ‘GridSTAR Center,’ ‘Computer Integrated Construction,’ ‘Owner’s Guide to Building Information Modeling,’ ‘Institute of Energy and Environment and Energy efficient renovations targeting zero energy use’ are but examples of research papers they have disseminated to the industry and the development of the Philadelphia Navy Yard.”

The AE department is the 12th recipient of this prestigious award. Previous award winners include Gehry Partners and Gehry Technologies, Engineers Without Borders-USA, the U.S. Green Building Council, the Society of Women Engineers, architect I. M. Pei, ACE Mentor Program founder Charles Thornton, Stanford University professor Paul Teicholz, Caterpillar Inc., engineer Leslie Robertson, construction manager Charles DeBenedittis of Tishman Speyer, and the Lean Construction Institute.

Turner Construction Company established the Prize and an endowment to support it to honor Henry C. Turner, who founded the Turner Construction Company in 1902. The prize recognizes advances or high achievement in the process of construction – an invention, an innovative methodology, and/or exemplary leadership. It is awarded to an individual or team of individuals for a singular achievement of exceptional importance or for a lifetime of contributions to the construction industry.

Dr. Anumba said, “We are very grateful to the selection committee for recognizing our work on energy efficiency in buildings, and the development of innovative construction technologies and processes. It is a testament to the excellent work done by our faculty and students.”

A formal award program was held on December 3, 2014 at the National Building Museum in Washington, DC, which included poster displays by Penn State AE students (left-middle); introduction and remarks by Chase Rynd, president of the National Building Museum, and Peter Davoren, president and CEO of Turner Construction; and acceptance speeches from Anthony Atchley, senior associate dean, College of Engineering; Chimay Anumba, head, Department of Architectural Engineering; and David Riley, assoc. professor and director of the GridSTAR Center.

In addition, a panel discussion (left-bottom) on “University-Industry Collaboration on Innovative Building Research and Education” was moderated by Jan Tuchman, editor-in-chief, Engineering News Record. Panelists included: James Freihaut, professor of AE, Penn State; John Grady, president, Philadelphia Industrial Development Corporation; Martha Krebs, director, Consortium for Building Energy Innovation; and Ted Lynch, president, Southland Industries.
21st AE Career Fair
On September 22-23, 2014 the Architectural Engineering Department hosted the 21st annual AE Career Fair. This year’s Career Fair was a great success! 129 companies and approximately 600 students attended. In addition we once again hosted visiting students from North Carolina A & T State University, Tennessee State University and Carnegie Mellon University. We were also pleased to welcome visiting students from Appalachian State University in North Carolina.

This year we had 2 Industry Leaders, 40 Corporate Partners, 29 Sponsors and 60 General Companies. As usual, a large number of AE alumni returned to the Career Fair as recruiters. Company representatives were pleased with attendance and with the students they met. Students were interviewed and quite a few will be receiving offers of jobs or internships.

Monday night’s Career Fair Social was held at the Hintz Family Alumni Center, a comfortable choice for the many companies and students who attended. The social is an excellent way for students and companies to talk in an informal setting.

If you are interested in being on our mailing list to get information about the 2015 Career Fair, please send your company information to Deb Sam at dsam@engr.psu.edu.

The AE Career Fair is held annually, in early fall.

INDUSTRY LEADERS
Limbach, Pittsburgh, PA
Southland Industries, Dulles, VA

CORPORATE PARTNERS
AECOM, Arlington, VA
Affiliated Engineers, Inc., Madison, WI
Alexander Building Construction, LLC, Harrisburg, PA
Architectural Engineering Institute of ASCE, Reston, VA
Balfour Beatty Construction, Fairfax, VA
Bard Rao + Athanas Consulting Engrs., Watertown, MA
Barton Associates, Inc., State College, PA
Barton Malow Company, Baltimore, MD
Buch Construction, Laurel, MD
Burdeitt Koehler Murphy & Associates, Inc.(BKM), Baltimore, MD
CFR Engineering, Germantown, MD
Clark Builders Group, Ashburn, VA
Clark Construction Group, LLC, Bethesda, MD
Clark Nexsen, Norfolk, VA
EDIS Company, Wilmington, DE
EwingCole, Philadelphia, PA
exp Global, Inc., Chicago, IL

Bowers Program Distinguished Lecture
The AE Department hosted the Raymond A. Bowers Distinguished Lecture on Dec. 11 at the Palmer Museum of Art on campus. Guest speakers included: Jeremy Snyder ’01, associate principal with BuroHappold, New York, NY; Lisa Adkins, architect and senior ssociate with Gensler in Pittsburgh, PA; and Stephen Iski ’01, principal and founder of the Studioi Company in Pittsburgh. The group provided a presentation on the building design and construction of the Tower at PNC Plaza, the most environmentally friendly skyrise in downtown Pitts- burgh.
Welcome to all of our new faculty and staff!

New Faculty/Staff

Somayeh Asadi, assistant professor of architectural engineering. Her work focuses on energy efficient building design, self-healing concrete, integration of advanced-sustainable materials and nanomaterials in construction, life cycle assessment and construction safety. Asadi holds a bachelor’s degree in construction management from Semnan University, Iran; a master’s in industrial management from Shiraz University, Iran; and her master’s and doctoral degrees in engineering science from Louisiana State University.

Donghyun Rim, assistant professor of architectural engineering. His work centers on measurement and computational fluid dynamics modeling of airflow and pollutant dynamics within buildings, heating, ventilation and air conditioning system design for high performance buildings and occupancy sensing, and energy efficient ventilation. Rim received his bachelor’s degree in civil and environmental engineering from Hanyang University, Seoul, Korea, and his doctorate in environmental engineering from The University of Texas at Austin.

Aly Said, associate professor of architectural engineering. His work focuses on seismic behavior and design of reinforced concrete (RC) structures, use of composite materials (FRP) in rehabilitation of RC structures, finite element modeling of RC structures, use of FRP as reinforcement, knowledge-based systems applications in civil engineering, structural behavior of self-consolidating concrete, nano-particles use in concrete materials and materials recycling in concrete. Said received his bachelor’s degree in civil engineering from Ain Shams University, Egypt; a master of applied sciences degree in structural engineering from the Universite de Moncton, Canada; a master of engineering degree in structural engineering from McMaster University, Canada; and doctoral degree in structural engineering from The University of Western Ontario, Canada.

Professor Lisa Iulo (School of Architecture and Landscape Architecture) has been offered a courtesy appointment as associate professor of architectural engineering for the period January 1, 2015 to December 31, 2017. In this role, she will help to strengthen teaching and research links between AE and Architecture.

Holly Seidel joined the AE department in December 2014 as the new administrative support coordinator and manager of the Engineering Copy Center. Holly has 28 years of service with the University. She previously was the Administrative Coordinator in the Department of Mechanical and Nuclear Engineering.

Welcome to all of our new faculty and staff!

Partings

Nancy Sabol, administrative support coordinator, retired effective Jan. 1, 2015. She joined the AE Department in 1996 as bookkeeper and in 2001, she assumed the role of administrative support coordinator.

A farewell reception with AE faculty, staff, students and colleagues was held in her honor on Dec. 19.

AE Research Seminar

The AE Department was pleased to host Dr. Roy Denoon, vice president, CPP Wind Engineering and Air Quality Consultants, as a guest speaker for the AE Research Seminar Series. On Dec. 5, Dr. Denoon spoke on “Wind Engineering Beyond the Code.” This talk, which was tailored for the collegiate audience from its original offering at the National Council of Structural Engineers Associations (NCSEA) annual conference in New Orleans, LA, highlighted technical topics which fall outside the scope of current ASCE 7-10 wind provisions. Among the issues discussed were cross wind dynamic effects in high rise buildings, pedestrian winds, the effect of building shape/orientation on wind loads, special wind regions, and resonance issues in solar panels designed using ASCE 7 components and cladding provisions. Dr. Denoon’s engaging presentation was well-received by students and faculty alike.

Heather Sustersic, AE research associate, arranged this event. Support for this presentation was provided by the architectural engineering and civil engineering departments.

Hankin Lecture Held

The Pennsylvania Housing Research Center (PHRC) hosted the annual Hankin Lecture on Nov. 12 at the Nittany Ion Inn. Guest speaker Peter Yost, vice president of technical services for Building Green, Inc. discussed “The Art, the Science, and the Business of Sustainable Residential Construction.”

New AE Endowments/Scholarships

The AE Department is pleased to announce three new endowed gifts that have been established. We are very grateful for the outstanding support these bring to both the Department and our students!

Bill Moyer ’79 and his wife, Juli established a fund for excellence to support programs and initiatives in the Department of Architectural Engineering.

Hope Furrer ’73 and her husband David established a fund for excellence in the AE Department to encourage collaboration and multi-disciplinary integration in curriculum, projects, field trips and other academic pursuits.

P.J. Dick, Inc. and Trumbull Corporation have established a scholarship in support of outstanding AE undergraduate students. Jeffrey Turconi ’82, president, P.J. Dick, Inc. facilitated the gift.

On behalf of the faculty, staff and students of the AE Department, THANK YOU all for your generous support!
Faculty News

Study on Perceptions of LED Lighting

A research team led by Kevin Houser, professor of architectural engineering, has determined that color and whiteness rendition has a profound effect on LED light source preference. The team’s findings were published in Lighting Research & Technology in an article titled "Perceptual responses to LED illumination with colour rendering indices of 85 and 97."

In addition to Houser, the research team included architectural engineering graduate student Minchen Wei, and Aurelien David and Mike Krames from Soraa, the California-based lighting manufacturer that participated in the study.

The researchers recruited 48 participants to compare colorful and white objects under two different light-emitting diode (LED) sources: a blue-pumped LED with a two-phosphor mix and color rendering index (CRI) of 85 and a violet-pumped LED with three phosphors and a CRI of 97 (Soraa’s VP3 Technology). CRI is a measure of a light source's ability to show object colors realistically or naturally compared to a familiar reference source, either incandescent light or daylight. CRI has a maximum value of 100, with a lower value indicating that some colors may appear unnatural when illuminated by the lamp. For instance, incandescent lamps have a CRI above 99 while most fluorescent lamps have CRI values in the low to mid 80s. Additionally important for red color rendering, including human skin tones, is the index R9. Like CRI, R9 has a maximum value of 100. Incandescent lamps have R9 above 99 while fluorescent lamps vary widely (e.g., R9 of less than 0 to greater than 90). The experimental set up achieved an R9 of 89 for the 97 CRI lamp and 24 for the 85 CRI lamp.

The team found that the participants strongly preferred colors under the light with the high CRI and R9. While this was anticipated, even more pronounced was the perception of common white objects. The strong preference for whites was made possible by the full visible spectrum of the high CRI sources, which is unlike standard LEDs that lack the short wavelengths, specifically violet.

Houser explained that the results have implications that consumers can see on a day-to-day basis. "We evaluate color continuously, sometimes consciously and sometimes not. I was recently in the produce section of a remodeled grocery store and most types of fruits looked unappealing. Then, I looked up to see that the store had converted the produce lighting to LEDs with apparently a low CRI. The color distortion that I was seeing was caused by the light sources."

He said the same concept applies to buying paint for a room in your house or a tie to match a shirt. "Lighting, more specifically the way objects appear under a light, makes a difference in how we perceive and evaluate the colors in our world."

Houser added that partnering with industry to conduct these types of studies is a win-win for both entities. "Soraa partnered with Penn State in cutting-edge research and in return we have provided data that Soraa can use to enhance their products."

"Kevin’s depth of expertise and attention to detail have helped us breakdown the critical elements of lighting perception and develop fundamentally better products based on scientific facts, rather than on gimmicks or marketing tricks,” said Mike Krames, Soraa of CTO. "We look forward to even more opportunities in understanding and improving the way our customers view the world."

Oman Eco House Competition

In September, AE associate professor Dr. David Riley ('91, '94g) traveled to Oman to serve as a judge for a unique event in which student teams were challenged to build a sustainable and solar powered home. The Oman Eco House Competition is a direct outgrowth of the U.S. Department of Energy Solar Decathlon Competition, with a major difference. Instead of universities building a home in a temporary "Village" for the competition, the five participating Omani universities were challenged to build a home on their own campus.

"In addition to the homes themselves, I was most impressed by the commitment of the Universities to the competition and the prominent locations chosen for the homes,” shared Riley, "They were being built in the equivalent of Old Main lawn."

The completion included four judged events including architecture, engineering, communications, and sustainability. Dr. Riley served as one of three sustainability judges, and was joined by Noor Alzadjali, an professional architect, and like Dr. Riley, a graduate of an exchange program with the University of LEEDS. Ammar Mohamed ('03g, lighting) also served on the engineering judging team, and sent his regards to Dr. Rick Mistrick and the AE program.

In addition to the evaluation of the homes by juries, a rigorous measurement phase is used to evaluate the performance of the homes in a series of events very similar to the Solar Decathlon, including climate and humidity control, appliances, and energy balance.

The five homes were also much larger than the 800 SF limit of the Solar Decathlon. Intended to be appealing to new home buyers and builders, the homes were typically about 300 SqM (3200 ft).

Originally the competition planned to include a preliminary judging phase in which scale models would be used in a down-select process to choose three homes that would actually be built. Five entries were prepared for this phase. In a surprise move two years ago, and in another impressive display of commitment, the Oman Research Council (sponsor of the event) decided to fund all five homes including three universities in the capital Muscut, and one home in Nizwa, and one in Salalah.

"This competition has an opportunity to make a major impact to the country of Oman and the Arabian Peninsula,” observed Riley. "These students are experimenting with many techniques that could enable the Omani people to build the homes that both appeal to their culture, and that have dramatically lower energy requirements than the typical homes and buildings currently under construction. The leadership displayed by the Omani government and research council to invest in this completion is impressive,” added Riley.

In addition to the opportunity to meet the student and faculty from the competition teams, the judges had opportunities to see the diverse climate zones of Oman including the capital city of Muscat located on the eastern coast, the high desert plains and formal capital city of Nizwa, and the southern coastal region of Salalah. They were also treated to a traditional barbeque feast consisting of roasted camel and goat served with rice and yogurt (and Mountain Dew).
Oman Eco House Competition  (continued)
The competition had entered the measurement phase at the
time of this publication and can be monitored from this website:
http://omanehdc.com/measurements/live-data/

Oman is located on the East
Coast of the Arabian Peninsula
with temperatures ranging
from 70 degrees in January, to
110 degrees in June.

Several students in the AE
program are from Oman in-
cluding graduate students
Nablus Aljahdhamy,
(lightning), Hadi Al-lawati
(construction), Mazin Al-
rashdy, (construction), Iman
Aljashmi, (lighting), Amal Aljashmi (mechanical) and Hanan
Alhashmi (3rd year).

Some highlights of the different homes and competition teams
included:

**German University** (GU) Tech chose to utilize mud bricks in
their round home in a throw-back to indigenous housing con-
struction and locally produced materials, as well as furniture
covering made from fabric woven by local artisans.

**Higher College of Technology** (HCT) incorporated a compo-
site insulated block wall system that could easily be an alterna-
tive to current concrete block construction that dominates new
construction in Oman.

**Sultan Qaboos University** (SQU) home featured a double wall
system that provided shade and unique spaces. The home will
be used as a visitor’s center.

**Nizwa University** incorporated a unique shell frame that sup-
ported the PV arrays, shaded the home, scooped prevailing
wind, and also provided coveted privacy important to the Omani
culture.

**Dhofar University** is located 800km south, and in a dramatically
different climate, set out to completely eliminate air condition-
ing through a complex natural ventilation system and architec-
tural wind catcher.

**2014 PACE Roundtable**
The Partnership for Achieving Construction Excellence (PACE)
Roundtable Meeting was held on Nov. 5-6 at Beaver Stadium on
campus. Held each fall, the meeting is an open forum discussion
in which key topics selected by the advisory board are discussed
by students and industry practitioners. The theme for this year’s
seminar was “Integrated Project Delivery and the New Project
Manager.” In addition, there were Penn State research and in-
dustry presentations on timely topics such as global market,
seeking innovation, and integrated processes.

The Spring PACE Research Seminar will be held on Apr. 21-22,
2015. Registration details are available online at:
www.engr.psu.edu/pace/default.aspx
2014 Howard Brandston Student Lighting Design Education Grant
AE 5th year students Owen Dalton and Malcolm Murray have been named the recipients of the Illuminating Engineering Society’s (IES) 2014 Howard Brandston Student Lighting Design Education Grant. Dalton and Murray were cited for their lighting design plan for a mixed-use education building. It promotes a highly-stimulating learning environment and reflects the human process of receiving, developing and expressing information. Kevin Houser, professor, and AE graduate student Minchen Wei served as advisers. Dalton and Murray received a plaque and a check for $1,000 during the IES annual conference in Pittsburgh on Nov. 2 to 4.

The grant was established to encourage and recognize students who have demonstrated exceptional professional promise through the presentation of an original and ingenious solution to a supplied design problem.

Women’s Soccer Championship
The Penn State women’s soccer team won its 16th Big Ten Championship and third outright title in four years, thanks to the second half heroics by AE 5th year student Kori Chapic on Oct. 26th. She had the first two-goal game of her career, scoring the pair five-and-a-half minutes apart to beat Iowa and capture the Conference title with a 2-1 win.

Men's Soccer
Kyle MacDonald, AE fourth-year structures option student, has been named to the Capital One Academic All-District Men’s Soccer team, and is a candidate for the 2014 Academic All-American Team.

The 2014 Capital One Academic All-District Men’s Soccer Teams, selected by the College Sports Information Directors of America, are meant to recognize the nation’s top student-athletes for their combined performances athletically and in the classroom.

Baby News
Congratulations to AE graduate student Joshua Dill and his wife, Ashlie on the birth of their baby boy John Paul. He was born on Nov. 6 and weighed in at 7lbs. 7 oz. and 21 in. long.
Alumni News

ASAE Annual Retreat
On September 21-22, 2014 the Alumni Society of Architectural Engineers (ASAE) Board of Directors met for their annual retreat to plan for the upcoming year.

ASAE Early Career Impact Award Nominations
The Development & Awards Committee of ASAE is seeking nominations for the 2015 ASAE Early Career Impact Award. This award was created to honor and recognize an alumnus of Penn State’s Department of Architectural Engineering in the early stages of his or her career.

For award details and to complete the nomination form, please visit http://www.engr.psu.edu/ae/asae/awards.asp. Completed nomination packages are due by January 31, 2015.

1989 Class Reunion
The class of 1989 held it’s 125 year reunion on October 3-5 at University Park. The event was organized by Mark Romanski (BAE ’89) and had 15 classmates attend. Events included a tour of Beaver Stadium (shown right) as well as a tour of the AE Department, labs and the Immersive Construction (Icon) Lab (above) that was led by Moses Ling, AE associate professor.

While some things were familiar to us after 25 years, the group was impressed by the tools and use of BIM by the students today. After our tour of the AE department, the group headed to the Allen Street Grill for a dinner to catch up on our 25 years. We were joined at dinner by Moses Ling, Dr. Lou Geschwindner, emeritus professor and Dan Wills, professor of architecture, Department of Architecture. After dinner the group got reacquainted with the State College bars, on a tour led by Tom Martin who proved after 25 years, he still knows how to lead a bar tour. Some notable reunion facts; Chris Lestochi won the most dedicated AE reunion alumni by traveling the furthest, from Alaska, where he is stationed. While many of us could boast of current children as PSU students, Tom Martin won the legacy award as his son, Shawn is a current AE student. Attendees included: Ken Balch, Ed Evans, Mark Gillespie, Jim Kosinski, Tom Martin, Ken Robinson, Mark Romanski, Nina Scala, Christina Subasic, Shawn Subasic, Alan Zemla, Chris Lestochi, Pam Holcomb, Jim Holcomb and Robbie Haris. The group had a great time and would like to plan another get together in the future.

The Power of your AE Connections
Recently, our company was awarded the new PSU Brandywine design-build dorm project along with our JV partner Barton Malow...this isn't my big news suggestion by the way. We are a fairly small firm and would normally not have a shot at a PSU D/B project of this size. The only reason we are there now is because I decided to pick up the phone and call a fellow AE grad from ’99. I knew that Barton Malow was a strong PSU contractor but it turned out that they were not going to pursue the project because it is too “small”. Long story short, because of the “alumni connection” we both ended up with a signature project that we were not going to originally pursue. I think a lot of us overlook the power of our network...we have people literally all over the word and I guarantee that at least during one point of our careers, we would be able to use that connection.

I thought it would be interesting to see if others had the same experience and could maybe share their stories as well. As an employer of PSU AE's and a yearly Career Fair sponsor, EDIS is very proud to be involved with this new project!

Robert J. Belfiore ’99
EDIS Company
Chief Estimator
## ALUMNI UPDATE —We want to hear from you!

Have a message you want to share? Fill out this form, or complete the Alumni Update Form on-line at the AE website at [www.engr.psu.edu/ae/contact/Alumni-Update-Form.asp](http://www.engr.psu.edu/ae/contact/Alumni-Update-Form.asp).

<table>
<thead>
<tr>
<th>Name</th>
<th>E-Mail Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of Degree(s)</th>
<th>Option</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Home Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Home Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Office Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation and Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Comments (may be published in the next newsletter if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

This publication is available in alternative media upon request. UEd #: ENG 15-33

Penn State is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, disabled individuals, and other protected groups.