Solar Decathlon Team—Fourth Place Winners!

Details on page 6
Stephen F. Staie, ’95 and his family are relocating to Lancaster County, PA. Carol E. Cramer-Pait, ’79 is in the Air Force and working for the Department of Defense. Her career is with the operation and maintenance of HVAC systems. Carol says, “I have learned that after the design phase, and the construction phase, the “real work” begins—making the HVAC work and keeping it working! I am happily married and even “get into” mechanical work when I go home, as my husband is restoring a Delorean car.” Daniel Rogers, ’95 joined the team implementing New York State Energy Research and Development Authority’s New York Energy $martSM Small Commercial Lighting Program which promotes effective, energy efficient lighting. He is working specifically with the New York City design community. In 2006, Daniel and his wife celebrated their 10th anniversary and welcomed the arrival of their first child, Leah Grace. Chuck Tomasco, ’88 (right) is in the process of planning a ten-year reunion for the AE class of 1998. He and his wife, Amy, and their two children, Jack (4) and Sophie (2), reside in Washington, D.C, but occasionally like to hang out at the local hot spots in University Park. Neil G. Unger, ’98 has been promoted to the position of project engineer and project manager for the Commercial Skylight market at Wheaton & Sprague Engineering, Inc. of Cuyahoga Falls, OH. Neil will provide project management, project engineering, system design and product engineering applications work for commercial and residential, slope wall, and conservatory clients. Timothy Stauffer, ’03 is presently employed as a project manager with Grey Lundberg/CMi Homes Inc. in Bellevue, WA. Greg Spaulding, ’97 is employed by the High Construction Company as a project manager and works on a variety of construction projects. William A. Trach, ’67 is employed by TRACH Cellars, Inc. and Del Ciotto Architects, Inc. as a senior mechanical and electrical engineer. His is responsible for the planning, calculations, and design specification writing/editing for many of the firm’s projects. Andrew Rhodes, ’07 has joined Southland Industries in Dulles, VA as a mechanical design engineer. Holly Mawritz, ’05 is currently with Brinjac Engineering in Philadelphia, PA. Shayna Bramley (Collins), ’99 and her husband Jonathan Bramley (LEEDS exchange student 96-97) have welcomed their second son, Sean Connor on June 15, 2007. Tom Forsberg, ’92 is currently employed as a senior project manager with Baker, Ingram & Associates in Lancaster, PA. Daryl Summermson, ’05 is with STV Incorporated in Douglassville, PA.

Stephen Geyer, ’94 is now the vice president of a company he co-founded with a former co-worker, Sean Gaydos, in 2007. Ascent Architectural Lighting, located in Denver, CO, is a decorative company specializing in cost effective sconces, pendants, chandeliers, etc. Walter Grondzik, ’71 has begun a new position as professor of architecture at Ball State University. He has been named a fellow of ASHRAE and co-authored three recently published books: Mechanical and Electrical Equipment for Building (10th ed.), The Green Studio Handbook, and Air Conditioning System Design Manual (2nd ed). Alfred R. Mangus, ’76 married Divina Alves of Brazil in Redmond, WA, on Feb. 10, 2007. He is employed by Caltrans in Sacramento, CA as a transportation engineer. Jeffrey C. Pitchford, ’00 is currently employed as a project engineer with CVM Engineers in Waynesville, PA.

Have a message you want to share? Fill out and send the form on page 11, or complete the Alumni Update Form online at: www.engr.psu.edu/ae/contact/Alumni-Update-Form.asp.
The Hankin Distinguished Lecture Series was established in 2006 in honor of the late Bernard Hankin. World-class speakers are invited to Penn State to address students and faculty. This year's Hankin Distinguished Lecturer was Dr. David Seiders, chief economist and senior staff vice president of the National Association of Home Builders (NAHB). The title of his presentation was, “Causes and Consequences of the Boom-Bust Housing Cycle in the U.S.”

Dr. Seiders writes several regular columns on housing and the economy, and he appears regularly in the print and broadcast media. He is a member of a variety of economic forecasting panels, including Blue Chip and Consensus Economics, as well as the exclusive Conference of Business Economists. He has testified before Congress and federal regulatory agencies on monetary and fiscal policy, banking and housing policy issues. Prior to joining NAHB in 1984, Dr. Seiders was a senior economist at the Federal Reserve Board in Washington, DC. In 1981-82, he was the chief policy analyst for housing finance with President Reagan’s Commission on Housing. Mr. Seiders received a BA degree in economics, with highest honors, from LaSalle College in Philadelphia, and he holds a Ph.D. in economics from Penn State. He has taught undergraduate economics and housing policy at the graduate level.

Justin Schultz, '07 is now with Flack + Kurtz, Inc. in San Francisco, CA. Paul Morris, '82 and his wife, Mindi and their two children, Matthew (16) and Nicole (14) live in Ridgefield, CT. Paul is working at IVI International as a senior project manager. Scott Walthour, '00 has joined Arium AE in Columbia, MD, as an engineering department manager. Peter Brumberg, '00 and his wife, Katie (Heisey), '00 are the proud parents of a son, Peter Cooper (who goes by the name Cooper), born on April 18, 2007. Cooper is keeping Peter and Katie very busy these days, but he has finally managed to sleep through the night! Michael H. Schwarz, '01 has had a busy couple of years. In September 2006 he married his longtime girlfriend, Kristin Rodman, at St. Peter’s Lutheran Church in Lancaster, PA. The couple then traveled to the Hawaiian islands of Kaua’i and Oah’u for their honeymoon. Michael is employed by KlingStubbins in Philadelphia, where he has been promoted to associate. He is responsible for the overall coordination of HVAC system design, including concepts, drawings, technical specifications, and construction administration for multiple project types, including data centers, offices, and laboratories. Jeff Gerwing, '98 and his wife Heather have been blessed with their second daughter, Alyssa Noelle. She joins her big sister Hayley. Jeff is employed at Smith-Group as a principal, senior lighting designer. Chad Allison, '03 obtained his Masters degree in Mechanical Engineering in 2005 from Ohio State University. He is now working at the Ford Motor Company, where is a Fuel Cell Research Engineer. He recently helped to develop the fuel systems for the Hyseries edge, the first plug in fuel cell vehicle, and the Hydrogen 999, the first fuel cell vehicle to go over 200 mph. Last May he married Katy, whom he met while at Ohio State, and they are now living in Plymouth, MI.

**Hankin Distinguished Lecture Series**

The 2007 Baker Medal 'Load-carrying capacity of flooded masonry arch bridges;' a paper authored by Kent Hulet, '06g, Colin Smith and Matthew Gilbert were awarded the 2007 Baker Medal by the Institution of Civil Engineers in London. The Baker Medal was founded in 1934 in memory of Sir Benjamin Baker (1840-1907), a past president of the institution, and is awarded in recognition of services to development or investigation of bridges, dams, tunnels, soil mechanics, foundations, transport, research or materials. The paper, published in the September 2006 issue of the Proceedings of the Institution of Civil Engineers, Bridge Engineering, reports on research Kent conducted at the University of Sheffield, while visiting there under the sponsorship of the World Universities Network Program. In his research, Kent was supervised by Drs. Matthew Gilbert and Colin Smith. The medal was presented during a ceremony at the annual meeting of the ICE in October 2007.

**CLASS REUNION**

The Penn State Architectural Engineering Class of 1998 is planning a 10-year reunion in State College for the weekend of July 18 - 20, 2008. Please contact the reunion team of Chuck Tomasco, Justin Ziegler and Angie Cotie (Hamlett) at psualumni.98@gmail.com for additional details and to provide your current contact information.

**AE Newsletter Fall/Winter 2007**
New Faces
We are pleased to announce that **Dr. Chimay Anumba** has accepted the position of head of the department of architectural engineering. Dr. Anumba comes to us from the Loughborough University in the United Kingdom with an outstanding record of teaching, research and service related to construction in the building industry. He is a chartered professional engineer in the UK and is a fellow of the Institution of Civil Engineers, the Institution of Structural Engineers, the Chartered Institute of Building, and the American Society of Civil Engineers. He has received numerous honors for his work. He holds a doctor of science degree from the Loughborough University (2006) and an honorary doctorate from Delft University of Technology (2007). Please join us in welcoming Dr. Anumba to the Penn State family!

**Dr. Kevin W. Houser** joined the AE faculty as an associate professor in January 2008. Prior to joining Penn State, Dr. Houser was an associate professor of architectural engineering at the University of Nebraska-Lincoln in Omaha. He has been the manager of Lighting Education for Philips Lighting Company and has also worked for Public Works and Government Services Canada, Elliptipar Corporation in Connecticut, and Edwards and Zuck in New York City. He is also the owner of Loucetios LLC, a lighting consulting firm based in Omaha. Dr. Houser received his Ph.D. degree from Penn State in 1997.

**Welcome back to Penn State!**

Faculty Honors
**Jelena Srebric, Ph.D.**, received a Distinguished Service Award from the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) at its 2007 annual meeting.

The Distinguished Service Award salutes members of any grade for giving freely of their time and talent on behalf of the society. The honor recognizes participation in chapter, regional and society activities.

**CONVR 2007**
The 7th International Conference on Construction Applications of Virtual Reality (CONVR) was held at Penn State on October 22-23rd at the Nittany Lion Inn. CONVR 2007 brought together researchers and practitioners in all areas of the AEC Industry and promoted exchanging and implementing innovative ideas for applying virtual and augmented reality. These technologies allow visualization and interaction with a building or infrastructure design and construction process before it is constructed. Over 50 registrants from academia and industry participated in the event and 25 peer reviewed papers were presented. The sessions were on virtual reality in design; virtual reality and education; interactive workspaces; augmented reality; and visualization and modeling. International participants came from Germany, Australia, Malaysia, the United Kingdom, Canada, Japan, Turkey, Finland, and Switzerland. The Computer Integrated Construction Research Program at Penn State and **Dr. John I. Messner** chair of the organizing committee, were proud to host this conference. Interactive tours of our visualization labs including the Immersive Construction Lab and the Immersive Environments Lab were provided to the conference participants, along with a tour of the new Stuckeman Family Building, a LEED Gold building constructed for the School of Architecture and Landscape Architecture. We would like to thank everyone who contributed to conference, and also Autodesk for sponsoring the event. For more information on the CONVR 2007 and a link to the published papers, please visit: [www.engr.psu.edu/convr/proceedings.htm](http://www.engr.psu.edu/convr/proceedings.htm). We hope that you will review and enjoy the conference papers, and be able to join future CONVR events.

**Two Longtime Faculty Members Recognized**
Congratulations to **Associate Professors Moses Ling and Kevin Parfitt**, who were honored in recognition of their 25 years of service at Penn State. To commemorate this milestone, Ling and Parfitt were presented with the 25 Year Length of Service Chair from Penn State University. Thank you!

**National Academies Committee**
**Dr. William Bahnfleth**, professor of architectural engineering and director of the Indoor Environment Center, was named to a National Academies committee charged with reviewing efforts to protect occupants of Department of Defense buildings from chemical and biological weapons attacks. The group will provide advice to the Defense Threat Reduction Agency as the Pentagon plans, designs, constructs and operates future chemical...
- and biological-resistant facilities. Part of the committee's job will be to analyze existing military and civilian studies on preventing and mitigating the effects of a chemical or biological release. The information will then be used in formulating new protection schemes.

**Shaking Things Up**

**Dr. Ali Memari**, associate professor of architectural engineering, was featured in a video clip produced for a program called Discoveries and Breakthroughs Inside Science for Ivanhoe Broadcast News. The video showcases Dr. Memari’s research into how non-structural components of buildings react during an earthquake. You can view the video at: [http://www.aip.org/dbis/stories/2007/17124.html](http://www.aip.org/dbis/stories/2007/17124.html).

**Behr Appointed Director of the Smart Spaces Center**

On Jan. 17, 2008, Dr. Eva Pell, Penn State’s senior vice president for research, announced that former AE department head **Richard A. Behr**, now the Charles and Elinor Matts Professor of Architectural Engineering, will be appointed the founding director of the Smart Spaces Center. The center is an interdisciplinary Penn State initiative to conduct research that will enable our elderly citizens to age more successfully in place—thereby delaying as long as possible the need to move elderly persons to assisted living facilities. The Smart Spaces directorship is effective July 1, 2008, with some activities commencing immediately based on early access to FY 2009 Penn State funding for the center. The Office of the Senior Vice President for Research, the Colleges of Engineering, Arts and Architecture, Health and Human Development, and Information Sciences and Technology, and the Social Sciences Research Institute have committed to providing an initial three years of baseline funding for the Smart Spaces Center.

Smart Spaces for our aging population can be conceptualized as a set of at least four “spaces” surrounding the core individual: (1) smart personal space; (2) smart living space; (3) smart information space; and (4) smart societal space. Here, “smart” means that each space is embodied with research-derived enhancements that will better enable our senior citizens to age more successfully.
Penn State Solar Decathlon Team Brings Home 4th Place!

By: Jude Simpson

The October air was charged with enthusiasm and hope. A procession of 20 select international teams made their way down Decathlete’s Way on the Mall in Washington, DC. They stood together, poised under the big white tent waiting for the judges’ final determination. How would their teams’ two year efforts to design, build and live in a completely solar powered high performance house fare?

The results, Penn State, fourth, Santa Clara University, third, University of Maryland second with Germany’s Technische Universität Darmstadt in first place. It was a bittersweet moment for everyone. As the emotional rollercoaster took off, feelings of pride, relief and disappointment became entangled. We were all so close in the running. All the teams achieved excellence. Their commitment and beautiful renewable energy homes gave us a compelling glimpse of our near future.

Every two years the Solar Decathlon challenges student teams. For most universities participation is only a dream. I offer my congratulations not only to the Penn State team, but to everyone involved in the event. I have no doubt these students will impact the way we all live and use energy, as they pursue their education and careers with new found enthusiasm backed by the power of the sun to bring us closer to a safe, reliable energy neutral world.
Commencement

Commencement for the College of Engineering was held on Dec. 22, 2007. Architectural engineering conferred 5 B.A.E., 25 M.A.E., 2 M. Eng. degrees and 1 Ph.D.

Congratulations to our most recent graduates!

2007 ASHRAE Student Design Project

ASHRAE student members Kevin Kaufman and Justin Bem placed 3rd in the 2007 ASHRAE Student Design Competition's system selection category. The project consisted of the design and selection of the heating, cooling, and air conditioning systems for a renovation of a downtown New York City building that is being converted to a biotech research building. The goal of the project was to compare multiple air and water side systems based on life cycle cost, and make the appropriate recommendations. One of the challenges of the project was balancing the large amount of air and space pressurization requirements for laboratory spaces while still meeting energy codes. NYC's high energy costs also required that many alternatives be analyzed.

The selected air side system consisted of a combination of VAV air handling units and dedicated outdoor air systems (DOAS) with radiant cooling panels. Air cooled screw chillers provided the chilled water for the air handling units and the radiant panels. A hot water heat recovery system was also implemented that provided "free" domestic hot water heating by using the chilled water system's condenser water loop. A variety of both air and water system combinations were compared but were not recommended because of higher life cycle costs. Air systems compared included VAV, DOAS, and chilled beams while some waterside options explored included water and air cooled central plants. The selected system had an initial cost of $755,766 which is higher than others, but has a payback period of three to four years due to energy savings.

Grad Student Wins Several Awards

Ph.D. candidate Sezer Atamturktur has won several awards during the past year. First, she has been chosen as the recipient of the Dominick J. DeMichele Scholarship Award. The purpose of this award is to honor and memorialize the generous spirit of Dick DeMichele by providing financial assistance to students traveling to present papers at an International Modal Analysis Conference (IMAC). Sezer was also the 2007 recipient of the James L. Noland Student Fellowship Award for her work on the structural assessment of existing masonry structures by utilizing the nondestructive testing and computer modeling under the direction of Dr. Thomas E. Boothby. Finally, Sezer was granted the World University Network Fellowship and visited the Department of Civil & Structural Engineering at the University of Sheffield in the United Kingdom. While at the university she worked with Professor Aleksandar Pavic and Paul Reynolds. Their research centered around the Beverly Minster Church which is located in Beverly, United Kingdom. She was joined by AE MS students Sally Gimbert and Stefanie Terentiuk who visited the University for a short time to help Atamturktur with her work.

Congratulations Sezer!

Smart Spaces Center

in place. The goal of the Living Better Longer in Smart Spaces initiative is to create interdisciplinary teams of Penn State faculty and strategic partners to perform research that advances what we know about aging, home design, technology, community planning, and public policy to create innovative and practical solutions to enable elderly persons to remain at home as long as possible, while maintaining a high quality of life.

The Smart Spaces Center will partner with business and industry, insurance companies, health care systems, foundations, local communities, the Commonwealth of Pennsylvania, the federal government, and national organizations to ensure that the Penn State produces innovative research that translates into better quality of life for our aging population.
On Nov. 13, 2007, the Architectural Engineering Career Fair was held at Rec Hall on campus. Once again, it created a day of upbeat excitement and energy as companies sought to secure qualified students for full-time and summer jobs.

It was a highly successful event. This year we had 141 companies attending the fair, 40 of which were corporate Partners. More than 600 students, ranging from freshmen to graduate students attended. As in previous years, we were pleased to welcome students from North Carolina A&T State University as well as students from the Penn State Department of Architecture. Student from other Penn State engineering departments, such Worthington-Scranton were also in attendance. This year, as a pilot program, we were also pleased to have students attending from the civil engineering department at Bucknell University in structures and construction.

The Career Fair Social was held in the beautiful Hintz Family Alumni Center on campus and was well attended. The Social gave companies and AE seniors an opportunity to mingle in an informal setting.

It is always great to see the seniors and underclassmen become excited as the day of the career fair draws near. For many students, the AE Career Fair is the primary source for meeting and securing interviews with top firms in the AE industry. And for many companies, the AE Career Fair provides the opportunity to meet some of the best prepared engineering students. We look forward to continuing this relationship in the years to come.
Sponsors (cont.)
Buchart Horn/Basco Associates
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C. M. Kling & Associates, Inc.
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Bergmann Associates
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Syska Hennessy Group, Inc.
URS Corporation
Vitetta
Weigand Associates, Inc.
Whiting-Turner Contracting Company
Woods Peacock Engineering Consultants, Inc.

The 2008 AE Career Fair will be held at the Bryce Jordan Center on campus in late October 2008. Further details will be mailed out later this Spring.

If you would like to be added to the 2008 Career Fair mailing list, please email Lori Smith at LoriSmith@psu.edu.
Dear Alumni and Friends,

I am delighted to be able to write to you as the new AE Department Head. Architectural Engineering at Penn State has a long and distinguished tradition and I am deeply honored to be given the opportunity to contribute to this. I look forward to working with the outstanding group of faculty, staff, students, alumni and friends to ensure that this is universally acknowledged as the pre-eminent AE program in the world. The Department is very well placed to move to this next level and, in this regard, I would like to pay tribute to my predecessor, Dr. Richard Behr, for his leadership and service to the AE Department over the last ten years.

The esteem in which the Department is held was strongly reinforced when my wife, Claire, and I attended the AE Department’s Career Fair in November 2007. It was great to see over one hundred and forty companies from all over the country seeking to recruit our graduates. They were all highly enthusiastic about the quality of our program and the value that our graduates have added to their businesses over the years. It was also wonderful to see so many AE alumni coming back to recruit more AE graduates. I certainly intend to build on this.

The Department faces many challenges in the coming years. First is the tight economic environment within which we are expected to do more with fewer resources. Then there is the need to streamline and strengthen our undergraduate program, providing more flexibility and enhancing quality. The graduate program also needs to be developed further, particularly to enable the achievement of our new strategic goal of leading the development of high performance green buildings. Considerable progress has been made over the last ten years in raising the research profile of the Department but more needs to be done. There is also the growing competition from new AE programs across the country, which means that we cannot afford to be complacent or rely on past glory. The wider issues of sustainability, globalization and technological development will continue to shape and inform our future operations.

Addressing the above challenges requires a multi-faceted strategy that builds on past AE traditions but provides the agility to respond to emerging opportunities. I am working with the faculty and staff in the development of a new 5-year strategic plan, details of which will become available at a later date. However, it is evident that additional resources are required to upgrade our teaching and research facilities, attract and retain the highest quality faculty, staff and students, and maximize the potential of the new opportunities open to us. As such, I would like to solicit your support towards the establishment of major endowments for the AE program, as these will remove the constraints that limit the achievement of our goals.

Finally, I would like to seize this opportunity to thank you all for supporting the Department (in cash and in kind) over the years and to wish you a new year that is your best yet!

With best regards,

Dr. Chimay J. Anumba
Professor and Department Head
AE Graduate Student Association Fund Raiser

AEGSA Fundraiser
The AE Graduate Student Association (AEGSA) has organized the following fund raisers to help support activities for their group. If you are interested in purchasing an AE hard hat or an AE polo shirt, please read below for details:

AE HARD HATS
The hard hat (shown left) is white and features the AE logo in Penn State blue. Each hard hat costs $15 and can be shipped for an extra $5. Multiple hard hats can be shipped to one location for the same shipping charge. (Our adorable model is four-year old Matthew Potts, son of Drew Potts ’88 and wife Tanya. Thanks for sharing the photo!)

AE POLO SHIRTS
Polo shirts (shown right) are dark blue and white, 100% cotton, and embellished with the classic "AE" logo. They work well for business-casual occasions or everyday use.

For additional information on these fundraisers, please contact our AEGSA Treasurer Robert Leicht (rml167@psu.edu)

Alumni Update

Let us hear from you!

| Name | | | |
| Date of Degree(s) | Option | |
| Home Address | | |
| | | |
| | | |
| Home Phone | | |
| Employer | |
| Address | | |
| | | |
| | | |
| Office Phone | | |
| E-Mail Address | | |
| Type of Organization | | |
| Occupation and Title | | |
| Responsibilities | | |
| Additional Comments (may be published in the next newsletter if applicable) | | |

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Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce.

U.Ed. ENG 08-47