

CEEC

Carnegie Mellon



Civil & Environmental
ENGINEERING
NEWSLETTER

FALL & WINTER



THE GLOBAL IMPACT OF CEE

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CEE Alumni
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CEE Alumni Events!
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CEE Department Head

JIM GARRETT

Dear Friends,
Greetings from Carnegie Mellon!



I hope that this newsletter finds you well. It has been another exciting year for the department. While the economic times have been challenging, the department is doing well, which I hope will be conveyed in this issue of our newsletter.

The highlighted theme of this newsletter is our departmental activities that reach around the globe. For example, **Professor Peter Adams'** work on solar flare-related cloud formation and its minimal contribution to global warming has been highlighted in both *Science* and *Nature* recently. **Professors Lucio Soibelman** and **Burcu Akinci** teach a course that brings students from the US, Brazil, Israel, and Turkey together virtually to collaboratively work on construction management exercises and in the process learn about each others cultures. We have recently hired a new faculty member, K.G. Karthikeyan, to be resident at our CMU Qatar Campus, to teach courses on environmental engineering and science and conduct water related research. We have students accepted and enrolled in both of our dual degree PhD programs with Korea Advanced Institute for Science and Technology (KAIST) and the Middle East Technical University (METU) in Ankara, Turkey. We also have

alumni working in many interesting places in the world, applying their engineering knowledge, such as **Dennis Mialki** (CE 1978) who has helped to build homes in El Salvador and Thailand for Habitat for Humanity. There are many more such activities described in the highlight article and elsewhere in this newsletter. Those of you with interesting international experiences are most welcome to send them with photos to Andrea Rooney or me.

We have a number of excellent pieces of news to report since the last newsletter. The CEE department has moved up in the undergraduate and graduate rankings by US News and World Report (Graduate:

6th in EE and 11th in CE; Undergraduate: 9th in EE and 11th in CE). The following faculty were recognized with national awards for their work:

Greg Lowry received an *ASCE Huber Prize and the Malcolm Pirnie/AEESP Frontier in Research Award*; and **Jeanne VanBriesen** received the *McGraw-Hill/AEESP Outstanding Teaching Award*. Three other faculty members received significant university recognition: **Jacobo Bielak** was made a University Professor, the university's highest honor for a faculty member; **Cliff Davidson** received the *Ryan Award for Meritorious Teaching*; and **Chris Hendrickson** received the

Alumni Association's Faculty Service Award.

Our students and alumni have also received many awards this year, including the alumni honored at the CEE Alumni Brunch in November, the alumni who received university honors at Homecoming '09, and the first graduate student to receive the Jared and Maureen Cohon Fellowship. Please be sure to check out the alumni and student sections for more information.

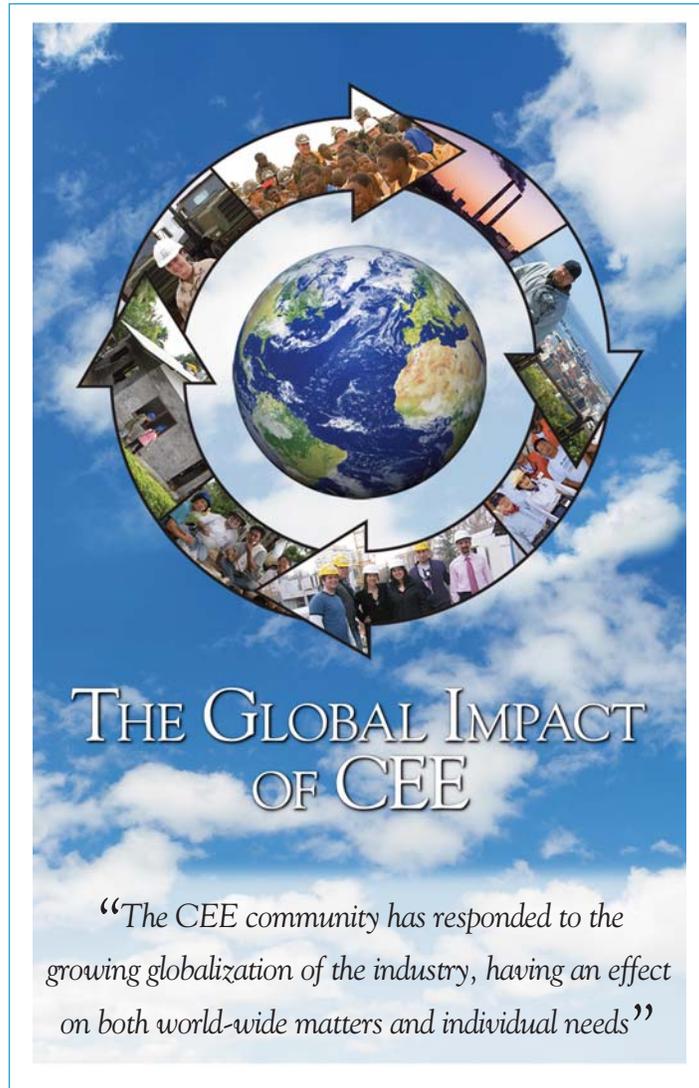
In CEE, we have been fortunate to have the largest classes of undergraduate and graduate students in recent history, about 120 of each in Fall 2009. In spite of challenging economic times, we have continued to offer the educational and community activities that define our departmental culture. We sincerely thank those alumni that have continued to support the department (alumni donors are acknowledged later in this newsletter). Without such support, we would find it difficult to continue to provide the world class educational environment we strive to maintain at Carnegie Mellon.

“IN SPITE OF CHALLENGING ECONOMIC TIMES, WE HAVE CONTINUED TO OFFER THE EDUCATIONAL AND COMMUNITY ACTIVITIES THAT DEFINE OUR DEPARTMENTAL CULTURE”

A handwritten signature in black ink, appearing to be 'Ji'.

A family in El Salvador receives keys to a new earthquake-resistant home. A pregnant woman in Ghana walks into a hospital for her first maternity care. Students from Pittsburgh ponder construction management issues with colleagues in Turkey through a teleconferencing system. U.S. industries are asked to take a revised look at how they have calculated their carbon footprints. Researchers re-evaluate the effect of the sun's rays on global warming trends.

Civil and Environmental Engineering faculty, students and alumni are making a global impact through their research activities, academic endeavors and humanitarian work. The CEE community has responded to the growing globalization of the industry, having an effect on both world-wide matters and individual needs.



Rethinking the Effect of Cosmic Rays

Skeptics of global warming often rely on the hypothesis that changes in the sun have caused warming to support their case that greenhouse gases are not to blame. **Peter Adams**, Associate Professor of Civil and Environmental Engineering and Engineering and Public Policy, and **Jeff Pierce** of Dalhousie University in Halifax, Canada, have discredited that theory. Adams and Pierce have developed a model to test the controversial hypothesis that increased solar activity reduces cloudiness by changing cosmic rays. When clouds decrease, more sunlight reaches the surface, causing the earth to warm. However, in the first simulations of changes in atmospheric ions and particle formation resulting from variations in the sun and cosmic rays, Adams and Pierce found that changes in the concentration of particles that affect clouds are 100 times too small to affect clouds or climate.

perfect,” Adams said. “Proponents of the cosmic ray hypothesis will probably try to question these results, but the effect is so weak in our model that it is hard for us to see the basic result changing.”

Broadening Carbon Footprint Calculations

Research conducted by **Professors H. Scott Matthews, Chris T. Hendrickson** and **Chris Weber** has put into question the reliability of carbon footprint calculations for U.S. industries. Many different carbon calculators have appeared on the internet in recent years, due to a lack of a universally accepted method of calculating carbon footprints. Additionally, methods of tracking industry carbon emissions rely on three tiers of progressively broader scope. Tier one includes the company's own activities; tier two includes emissions from electricity and steam purchased by the company; tier three expands to add in

“Until now, proponents of this hypothesis could assert that the sun may be causing global warming because no one really had a computer model to really test the claims,” said Adams. “The basic problem with the hypothesis is that solar variations probably change new particle formation rates by less than 30 percent in the atmosphere. Also, these particles are extremely small and need to grow before they can affect clouds. Most do not survive to do so,” Adams added.

Adams and Pierce's research was first published in *Geophysical Research Letters* then subsequently featured in *Science* and in *Nature*. Although questions remain, the researchers feel confident that this hypothesis should be laid to rest. “No computer simulation of something as complex as the atmosphere will ever be

Story continued on page 4 >

The Global Impact of CEE



Lt. Liz Durika (B.S. 2003, in white hardhat) with children in Kenya

Dennis Mialki, (B.S. 1978, second from right) with President and Mrs. Carter

all other emissions, including the entire supply chain of goods and services. Most companies use only tier one or tier two when reporting their carbon footprints. “By far, most companies are pursuing very limited footprints—*toe prints* really—instead of comprehensive ones,” said Matthews.

In research reported in *Environmental Science & Technology*, Matthews, Hendrickson and Weber found that U.S. industries continuing to report at the tier one or tier two levels would overlook almost 75 percent of their total greenhouse gas emissions. The average industry has only 14 percent of its total greenhouse gas emission in tier one and 12 percent in tier two, totaling only 26 percent.

The researchers have helped to develop a more accurate screening tool in the website www.eiolca.net, which looks at all three tiers for industrial sectors. They have urged U.S. industries to use a broad view when calculating their carbon footprints. Otherwise, companies may make poor decisions when trying to decrease their greenhouse gas emissions. “A company that is looking to move toward bio-based materials may find it far more cost-effective to encourage purchases of green power in its supply chain when they look at its total supply chain carbon footprint,” said Hendrickson.

Creating an International Classroom

Professors Burcu Akinci and Lucio Soibelman have expanded their classroom globally through their International Collaborative Construction Management (ICCM) course, now going into its fourth year. Originally offered through a grant for globalized education from Carnegie Mellon President Jared Cohon, the course provides a comprehensive overview of the facility development process and relevant project management techniques. Students work in international teams from the United States, Turkey, Brazil and Israel, taking maximum advantage of video conferencing and other information technology. While learning how to develop construction

estimates and schedules, students gain knowledge of globalization issues, negotiation techniques, and strategies for working on multicultural teams. Students work with faculty and industry mentors in all four countries.

Two ICCM students, Joe Nam (B.S. 2007, M.S. 2008) and David Morris (M.S. 2008) traveled to Turkey in 2008 to meet their fellow ICCM students as well as their Turkish mentors. “The trip to Turkey was definitely an experience I will never forget,” said Nam. “ICCM has certainly gone above and beyond compared to the traditional education methods, but being able to go on the Turkey trip actually to see and experience first hand the construction methods used over there enhanced the educational goals the ICCM course set out.”

During the trip, Nam and Morris visited various construction sites such as underground tunnels for a subway transit and high rises aiming to be the tallest buildings in Turkey. They were able to view some of the design phase work as well as the actual construction. “The best part of the trip had to be meeting my group members and seeing them in person. It is one thing to see and converse through Skype, but to meet them face-to-face and get to know them and their culture was definitely eye opening,” Nam added

Humanitarian Acts for a Greater Good

Making a global impact on a local level, CEE alumnus Dennis Mialki (B.S. 1978) has spent the past several years building homes with Habitat for Humanity, first in El Salvador, then in India and Mexico, and currently in Thailand. A standard Habitat house in El Salvador has two bedrooms, a combination living/dining room, and a bathroom. The families’ living conditions are changed from an unsecure dirt floor house with sheet metal walls to an earthquake-resistant concrete block house with secure doors and windows. The typical construction schedule is just seven weeks, with Mialki and the other volunteers working through the weekends sometimes to



Habitat for Humanity Buildsite

Joe Nam (B.S. 2007, M.S. 2008) in Turkey

meet the target date when weather impacts the build schedule. Near the dedication date of one house in Cara Sucia, El Salvador, the new homeowner insisted on giving Mialki and his group green peppers from her garden in gratitude for their work. “She really didn’t have much more than the peppers to give, and probably couldn’t even afford to part with them,” said Mialki. “That which is given freely and cheerfully by those who have nothing never ceases to amaze me.”

In Thailand, the community held what Mialki describes as a “connection ceremony” surrounding the build. A continuous white string was placed around the entire worksite, which consisted of several acres, the construction offices and block factory, leading to the local temple. The monks opened the ceremony by chanting, and then all of the soon-to-be new homeowners placed the strings around their heads as the monks prayed. “Everyone and everything associated with the project was connected and is, of course, connected,” Mialki reflected. He found an international community at every one of the build sites, with volunteers from Canada, Costa Rica, England, Italy, Liberia and the United States on builds in El Salvador, and volunteers from over 40 different countries on builds in Mexico, India and Thailand, as well as the local communities, participating. Former President Jimmy Carter and his wife Rosalynn were among the volunteers in Mexico, India and Thailand. Mialki was a Peace Corps volunteer in Honduras immediately after graduating from Carnegie Mellon, working in the Community Development sector.

Lt. Liz (Higgins) Durika (B.S. 2003) of the U.S. Navy was deployed last year with the Navy Seabees in Africa on a mission to improve water access and build and repair community structures. In the northeast province of Kenya, Durika worked with a hand-picked, twelve-person team to drill wells in order to provide access to clean water to residents who previously had to walk several hours to retrieve usable water. “I became more cognizant of what we have in America that we

often take for granted,” said Durika, “such as clean, drinkable water and flushing toilets.” During her deployment, Durika also aided in the construction of an eight room hospital in Accra, Ghana. The hospital provides basic medical necessities, including a much needed maternity ward, to the area. “We made an immediate impact,” Durika recalled. “What more could you ask for?”

Looking to the Future

The Civil and Environmental Engineering Department continues its commitment to act locally and think globally. **Jennifer Lawrence (B.S. 2009)** has joined the Peace Corps while her classmate Andy Stochetti is spending six months building homes in India. The first students are enrolled in the dual degree programs previously established with METU (Middle East Technical University) and KAIST (Korea Advanced Institute of Science and Technology). A record number of graduate students, 147 individuals from across the United States as well as from countries such as Rwanda, India, China and Iran, are enrolled in the department this fall, bringing opportunities to experience new cultural activities for the entire CEE community.

CEE faculty, students and alumni are making a difference around the world. Some work on the large canvas of industrial pollution patterns, some examine the tiniest of particles in our atmosphere, and still others build structures and relationships on a very human scale — but all are making the world a better place to live.



The Spring 2009 Design and Construction Project

The Spring 2009 Design and Construction project was a memorial for Humanities and Social Sciences (H&SS). Dean John Lehoczky was the client, and the site was a grassy area at the southeast corner of Baker Hall. The site was challenging as it was atop the Giant Eagle Auditorium which is underground. There was only 18" of soil between grade and the top of the roof. The final design was 2 curved sectional walls with banked earth on the north sides and walkways of pavers on the south sides. All of the interior wall sections had granite plaques on their fronts. These plaques will be engraved in the future with names of H&SS notables. The rear wall was topped with white oak benches.



The major project constraint was the allowable roof load. No large equipment was permitted on the roof, therefore, all excavation had to be done by hand. The added construction elements had to be lightweight. The wall sections were cast of lightweight dyed concrete (110pcf) and were filled with structural foam. The final product weighed 440 lbs per section and could be carried around the site by 4 husky students. The backfilled north sides were founded with 9" of structural foam, covered with 8" of topsoil, and planted with several types of ground cover.

A secondary constraint required the construction to be removable. The roof of the Auditorium will eventually require repair or replacement. The wall sections and paved walkways were designed to be removed. Each wall section is marked on its ends to denote position in the wall. Also, the granite plaques are engraved with subtle sine waves which will aid in reassembly. The waves on both walls are of 2 parallel lines, but the lines on the rear wall are of a different spacing. This will help indicate where a particular piece belongs. A bronze plaque with the students' names has been ordered and will be placed on an end piece of the rear wall.

CEE NEWS BITS

CEE undergraduate program ranks 9th (Environmental) and 11th (Civil) in new U.S. News & World Report Rankings

U.S. News & World Report has released its college and university rankings for 2010. The CEE Department is pleased to announce that our Environmental Engineering program came in at 9th (up from 10th in the 2009 rankings) and our Civil Engineering program held steady at 11th. The College of Engineering ranked 7th overall.



Donna Marano Receives Andy Award



Donna Marano, Director of Finance and Administration for Civil and Environmental Engineering, has received an Andy Award for Outstanding University Citizenship. The Andy Awards, named for Andrew Carnegie and Andrew Mellon, are a tribute to the spirit of teamwork and dedication embodied by the staff at Carnegie Mellon University. The Andy Award for Outstanding University Citizenship honors those who have made important contributions that benefit the entire university community. *Congratulations, Donna!*

CEE Alumni Receive University Alumni Awards

The CEE Department is pleased to announce that four of our community members were honored with awards at the Carnegie Mellon Alumni Awards Ceremony during Homecoming 2009 in October: Alumnus **Wayne Balta** (B.S. 1982) received an Alumni Service Award. Alumnus **Markus Klausner** (Ph.D. 1998) accepted a Recent Alumni Award. CEE alumnus and Fredkin University Professor of Robotics **William "Red" Whittaker** (M.S. 1975, Ph.D. 1979) was honored with the Alumni Distinguished Achievement Award. **Chris Hendrickson**, Duquesne Light Professor of Engineering, received the Faculty Service Award. *Congratulations to all of our award winners!*

SPRING PROJECT
NEWS BITS
CEE DONORS LIST



CEE DONORS *July 2008 – June 2009*

The Department of Civil and Environmental Engineering would like to thank the following alumni, corporate partners, and friends who have made a gift to the department in the fiscal year ending June 30, 2009. We appreciate your support!

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Rasim A. Akdogan
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Yvonne L. Alston
Adjo A. Amekudzi
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Apple Corporation
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Sona Avetisyan
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Wayne S. Balta
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Black Fives, Inc.
Ralph E. Borsani
Marc L. Brown
Rebecca Buchheit Clayton
John Henry Burger
Joseph Tuleya Bushey
William L. Carstensen Jr.
Cordell Obadele Carter
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Richard T. and Jill S. Creech
Kelly E. Cronin
Kendra M. D'Altilio
Cliff I. Davidson
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Galina Shanti Leiphart
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Karen Olsen Levy and Nathaniel S. Levy
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Kevin Tantisevi
William F. Till
John Tischuk
Umberto P. Traini
Stephen P. Trapp
David E. Troxell
George M. Turkiyyah
Jeanne M. VanBriesen
Rade Vignovic
Lewis V. and Nancy W. Wade
Shing-Huei Wang
William L. Warrick
John Wayne Weber
Iris Winstanley
Alec J. Wisch
Dotty J. Wisch
Brian Eugene Wiser
Bruce J. Wolstoncroft
Laurie A. Worthington and Hadrian A. Rori
Amy Elizabeth Wright
Jifeng Xu

Concrete Canoe Team at Regional Competition



CEE undergraduates competed at the regional ASCE Concrete Canoe Competition at Western Kentucky University last spring. Their canoe, named “Pepper Patty” in honor of Undergraduate Program Coordinator Patty Langer, was successfully launched and placed 6th in the canoe races. *Congratulations to our team members!*

From left to right Nolan Kurtz, Corey Tucker, Kimberly Hirt and Danny Schoenfelder

Tang and Akinci Receive Best Paper Award



CEE graduate student **Pingbo Tang** and Professor **Burcu Akinci** recently were awarded a Best Paper Award at the 2009 Construction Research Congress for their paper entitled, “Extracting Surveying Goals from Point Clouds to Support Construction and Infrastructure Inspection.” The congress is held by the Construction Institute of the American Society of Engineers. *Congratulations Pingbo and Burcu!*



Graduate Student **Ricardo Taborda** has been selected to receive a Bertucci Graduate Fellowship. Created through the generosity of John and Claire Bertucci, this highly competitive fellowship was established to provide merit fellowships to graduate students pursuing doctoral degrees in the College of Engineering. *Congratulations to Ricardo and to his advisor, University Professor Jacobo Bielak!*



Stacey Louie Named First Cohon Fellow



CEE graduate student **Stacey Louie** has been named the first recipient of the Jared and Maureen Cohon Graduate Fellowship in Civil and Environmental Engineering, established through a generous gift by President Jared Cohon and his wife Maureen Cohon. This fund, managed by the Steinbrenner Institute for Environmental Education and Research, provides fellowships to graduate students in engineering in the Carnegie Institute of Technology, with first preference given to civil and environmental engineering students specializing in environmental engineering.

Stacey started her first year of graduate study in CEE this fall after completing her undergraduate degree in Chemical Engineering at the University of Texas at Austin. Her graduate research at Carnegie Mellon will focus on environmental implications of nanotechnology under the guidance of faculty advisor Professor Greg Lowry. *Congratulations, Stacey!*



Danny Schoenfelder (B.S. CE 2009) and **Katie Basta** (B.S. CE 2009) were awarded Art Livingood Scholarships from the Pittsburgh Area Chapter of the American Concrete Institute (ACI) at the ACI annual awards banquet earlier this year. The scholarship, named in honor of one of the founding ACI Pittsburgh Chapter members, recognizes undergraduate students who have an interest in the areas of cement technology, or concrete technology, design or construction.

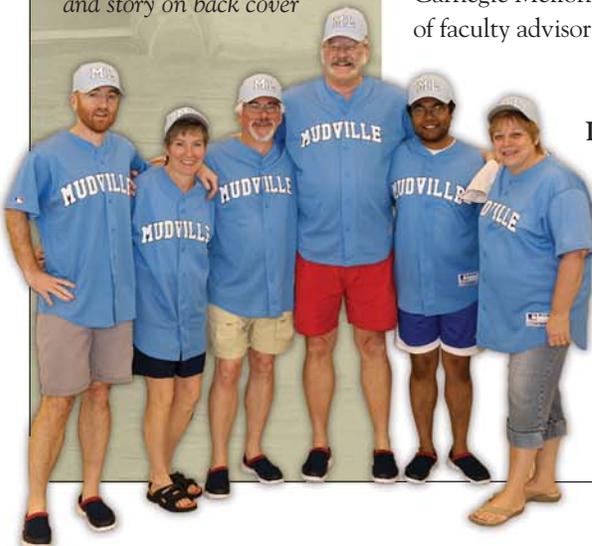
Both Danny and Katie worked on their graduate studies in the department this fall. *Congratulations!*



CANOE TEAM
BEST PAPER AWARD
NEWS BITS

CEE Design Project

See additional photos and story on back cover



COMMENCEMENT



M.S. and Ph.D. Recipients

AWARDS

ASCE Outstanding Civil Engineering Student Award:
Jennifer Lawrence

H.A. Thomas, Sr. Scholarship Award:
Nolan Kurtz

H.A. Thomas, Sr. Distinguished Service Award:
Paz Gilboa

James P. Romualdi Civil & Environmental Engineering Award:
Daniel Schoenfelder & Corey Tucker

Paul P. Christiano Student Distinguished Service Award:
Fernanda Leite

Outstanding Teaching Assistant Award:
Shahzeen Attari

Mao Yisheng Outstanding Dissertation Award:
Tanapon Phenrat



Faculty



B.S. Recipients



FACULTY



NEWS BITS
AWARDS
FACULTY MEMBERS

Bielak Named University Professor



Professor Jacobo Bielak has been named University Professor at Carnegie Mellon, the highest academic distinction university faculty members can achieve. The title is awarded on the basis of national or international recognition for research and other scholarly activities. Jacobo joined the CEE faculty in 1978 and has concentrated his research in the areas of engineering seismology and earthquake engineering. *Congratulations, Jacobo!*



Davidson is Ryan Award Recipient



Cliff Davidson is the recipient of the William H. and Frances S. Ryan Award for Meritorious Teaching for 2009. This award is given annually to a full-time faculty member at Carnegie Mellon who has demonstrated unusual devotion and effectiveness in teaching undergraduate or graduate students. *Congratulations, Cliff!*



Lowry Awarded ASCE's Huber Prize



Professor Greg Lowry has been selected as a recipient of the American Society of Civil Engineers (ASCE)'s Walter L. Huber Civil Engineering Research Prize. The Huber Prize is awarded for notable achievements in research related to civil engineering, with preference given to younger ASCE members of early accomplishment. *Congratulations, Greg!*



Weber and Matthews Receive Best Policy Paper Honors from ES&T



Chris Weber, Research Assistant Professor of CEE and H. Scott Matthews, Associate Professor of CEE and EPP have received Best Policy Paper honors from *Environmental Science & Technology (ES&T)* for their paper, "Food-Miles and the Relative Climate Impacts of Food Choices in the United States."

Chris was also a part of the team that won the Best Policy Paper last year for his China emissions research. *Congratulations, Chris and Scott!*



K.G. Karthikeyan has joined the CEE Department in a combined position with Carnegie Mellon's Qatar Campus. He will reside in Qatar for much of the year, teaching courses on environmental engineering and science and conducting water related research, and will spend the summer months continuing his work in Pittsburgh.



Two CEE faculty members were recently recognized by the Association of Environmental Engineering and Science Professors.

Professor Greg Lowry received the 2009 Malcolm Pirnie/AEESP Frontier in Research Award, given to recognize an environmental engineering or science professor who has advanced the environmental engineering and science field through recognized research leadership and pioneering efforts in a new and innovative research area.



Professor Jeanne VanBriesen has been named the 2009 recipient of the McGraw-Hill/AEESP Award for Outstanding Teaching in Environmental Engineering & Science, given to honor a faculty member who has made substantive contributions directly through class-oriented teaching.

In Remembrance: Dr. Martin Wohl

Dr. Martin "Marty" Wohl, former CEE faculty member (1972-1990) and well-known transportation engineer, passed away in July 2009. Dr. Wohl joined Carnegie Mellon University as Professor of Transportation System Planning in 1972 jointly in the Department of Civil Engineering and School for Urban and Public Affairs (now the Heinz School). Previously, he served in the Commerce Department during the Kennedy Administration; as Director of Transportation Studies at The Urban Institute in Washington; Manager of the Transportation Analysis Department at Ford Motor Company; Senior Staff member at the RAND Corporation; a faculty member at MIT, Harvard, and the University of California at Berkeley; and as a consultant in various capacities. In addition to more than 70 publications on transportation in refereed journals, he wrote five books, notably *The Urban Transportation Problem* [with John Meyer and Martin Kain] (1965).

ALUMNI

The CEE Alumni Family Picnic

The CEE Alumni Family Picnic in July gave alumni the opportunity to catch up with faculty and with classmates, and to show the department to their family and friends. Childrens' activities included building structures from toothpicks and gumdrops and designing and decorating a graham cracker house. About 60 alumni, family members, faculty and staff attended the lively event.



CEE alumni and their families at the picnic



ALUMNI FAMILY PICNIC
AWARDS BRUNCH
NEWS BITS

CEE Alumni Awards Brunch

CEE alumni ended Homecoming Weekend with the CEE Alumni Awards Brunch at the Pittsburgh Athletic Association. **Sue McNeil** (M.S. 1981, Ph.D. 1984) received the Distinguished Alumni Achievement Award. Sue is a professor of Civil and Environmental Engineering and Urban Affairs and Public Policy at the University of Delaware. She is also the Director of the Urban Transportation Center and the Disaster Research Center at the university.

John Kovacs (B.S. 1993), Vice President & Regional Office Manager of Gannett Fleming, Inc. in Pittsburgh, accepted the Outstanding Alumni Service Award for his work with the CEE Advisory Council and as a corporate champion for the department. **Associate Professor Adjo Amekudzi** (M.S. 1997, Ph.D. 1999), of Civil and Environmental Engineering at Georgia Tech, was awarded the Recent Alumni Award. Alumni, faculty and students were on hand to congratulate all of our award recipients.

Award. Alumni, faculty and students were on hand to congratulate all of our award recipients.

From left to right:
CEE Department Head Jim
Garrett, Sue McNeil, Adjo
Amekudzi and John Kovacs



Brenda Rian (B.S. 1980), Senior Manager, Environmental Health & Safety for AOL LLC, received a Green IT Award from the Uptime Institute for the AOL Enterprise-Wide Data Center Optimization Project.

The award was given in the category of Data Center Energy Efficiency Improvement: Joint IT and Facilities. Brenda provides oversight for all AOL Environmental Health & Safety matters, including compliance, "green" technologies, EHS risk management and sustainability programs.

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Jeffrey Talley (Ph.D. 2000), a major general in the U.S. Army Reserve, was recently appointed Chair of the Department of Environmental and Civil Engineering and Bobby B. Lyle Professor of Leadership and Global Entrepreneurship at Southern Methodist University. Prior to joining SMU, Jeff served in Iraq for a year as Baghdad Provincial Engineer under Gen. David Petraeus. While in Iraq, Jeff created a strategy commonly called "engineering the peace", which aims to reduce violence in destabilized communities by quickly rebuilding infrastructure, schools and hospitals.

Global Entrepreneurship at Southern Methodist University. Prior to joining SMU, Jeff served in Iraq for a year as Baghdad Provincial Engineer under Gen. David Petraeus. While in Iraq, Jeff created a strategy commonly called "engineering the peace", which aims to reduce violence in destabilized communities by quickly rebuilding infrastructure, schools and hospitals.

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Permit #251

Mighty Casey Has Struck Out

The students in this fall's CEE Design course were assigned the task of designing and building a pitcher's mound to be used in the university's pool. The structure was permitted to rest upon the pool bottom, span between the baselines, or float with two positioning tethers. "Casey", aka CEE Teaching Professor Larry Cartwright, then stood (or attempted to stand) on each mound and pitch to at least four batters from each design group. Casey's team (fellow instructor Jim "Flynn" Campbell and teaching assistants Michael "Blake" Blackhurst and Asad "Barrows" Hasan) also had their chances at bat, with extra credit given to design groups who were able to score more runs than Casey and his team.



**CEE Alumni:
Come back and see us
during Spring Carnival,
April 15-17, 2010**

Contact **Patty Langer**,
Alumni Relations Coordinator,
by phone at (412) 268-1070 or by
email at patty@andrew.cmu.edu
for more information on
this event.

**CEE Newsletter
Fall/Winter 2010**

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Inquiries concerning application of these statements should be directed to the Provost, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-6684, or to the Vice President for Enrollment, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2056. Obtain general information about Carnegie Mellon University by calling 412-268-2000.

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