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Annual Awards Dinner Recognizes Best in Civil Engineering Profession

On February 18, at the annual Awards Banquet, the Pittsburgh Section of the American Society of Civil Engineers distributed awards recognizing individuals and organizations that represent excellence in our civil engineering community.

Held at the Engineers Society of Western Pennsylvania in downtown Pittsburgh, this year's Awards Banquet featured keynote speaker Renee Piechocki, the founding director of Pittsburgh's Office of Public Art, a partnership of the Greater Pittsburgh Arts Council and the Department of City Planning. Ms. Piechocki spoke about the collaboration between engineering and art required for public projects.

Tanya McCoy-Caretti of ARCADIS Malcolm Pirnie gave the opening remarks. Karl Sieg, ASCE Pittsburgh Section President, acted as emcee and Terry L Downs of Gannett Fleming presented the awards.



Terry Downs, Head of the Awards Committee

The following is a list of the awards presented:

The "Civil Engineer of the Year Award" was awarded to Pat Kane, P.E. This award is given to an active ASCE member who has an established reputation for professional service and attainment, community service, character, and integrity. Mr. Kane has served as Manager of the Transportation Division at L.R. Kimball, as Senior Bridge Engineer at Michael Baker Corporation and has served ASCE and the civil engineering profession through numerous leadership roles.

The "**Young Civil Engineer of the Year Award**" went to Melissa M. Fontanese, E.I.T. This award is given to an active ASCE member under 40 who display technical competence, notable performance, and meritorious achievement. Ms. Fontanese holds both a Bachelor of Science and a Master of Science in Civil Engineering from the University of Pittsburgh. While in school, Melissa interned at PennDOT District 10 and L.R. Kimball; she also worked as an undergraduate researcher at Pitt.

The "**Civil Engineering Achievement Award**" was awarded to Parsons Brinckerhoff for the preliminary engineering and final design for the reconstruction of an eight-mile segment of the original Pennsylvania (PA) Turnpike between the Irwin and New Stanton interchanges. This award celebrates a civil engineering project that was completed in the year that the project goes into services within the ASCE Section's boundaries.

The "Professor of the Year Award" was awarded to Dr. Daniel Budny, a University of Pittsburgh professor who

teaches Fluid Mechanics, assists with water resources senior civil engineering design class, serves as the Academic Director to the freshman engineering program and teaches various freshman engineering classes. He has led student groups in service projects, and has traveled abroad with students to countries such as Brazil and China. This award is given to a professor that has been active with ASCE and demonstrated outstanding teaching ability.

The "Service to the People Award" went to Robert Stachel, the Executive Vice President and Co-Founder of HRV Conformance Verification Associates, Inc. This award is given to an individual to honor their service to advance the welfare of the people in our community. Among many other accomplishments, he is Project Manager for the Ecuador Water Project through Engineers Without Borders in Tingo Pucara, Ecuador and has traveled to that country several times to support the project.

The "Distinguished Engineer of the Year Award" went to Uzair (Sam) Shamsi, Ph.D., P.E. This award is given in cases of unusual and outstanding accomplishments. Dr. Shamsi is a Senior Technical Manager at Michael Baker Corporation in Pittsburgh and teaches GIS and Water Resources Engineering courses for several universities, ESRI, and ASCE. His accomplishments include 25 years of engineering, teaching, and research experience; nearly 150 projects, 30 guest lectures, and 100 publications.

"Government Engineer of the Year" was awarded to Jim Pillsbury, longtime Hydraulic Engineer for Westmoreland Conservation District. This award is given to individuals for excellent contributions to civil engineering in the public sector. Mr. Pillsbury holds a Bachelor of Science in Civil Engineering from Penn State and a Master of Science in Civil Engineering from Villanova University.

The "Award of Merit" is given to a local project worthy of recognition. This year's winner is the Grove City Borough Wastewater Treatment Plant Rehabilitation Project.

The "Journalism Award" was awarded to Kate Luce Angell, a freelance writer for the Post-Gazette and the PR Representative of both the Pittsburgh Section of ASCE as well as for statewide projects. This award is for the journalistic coverage of civil engineering projects including influencing legislation about vital infrastructure, licensing laws, or building codes.

The "**Employer Recognition Award**" was awarded to Buchart Horn, an international engineering and architectural firm founded in York, PA with offices in Pittsburgh and 4 additional PA locations, 7 other states, Washington D.C. and Germany. This award goes to a firm that actively supports ASCE



Karl Sieg, President of the Pittsburgh Section and Pat Kane, Civil Engineer of the Year



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Joint EWRI/Geo Institute Event on Marcellus Shale Environmental and Geologic Impacts



ENVIRONMENTAL & WATER RESOURCES INSTITUTE



On January 19 at Foster's Restaurant in Pittsburgh the Environmental and Water Resources Institute (EWRI) and Geo-Institute co-hosted an event focused on potential impacts to domestic ground water supplies and seismic impacts caused by the Marcellus Shale natural gas extraction process. The event is part of a continuing series of meetings sponsored by these ASCE branches to bring together professionals in an open forum to stay abreast of the environmental and engineering issues and solutions developing around the efforts to tap into natural gas resources in our region. The event was attended by 104 engineers, scientists, and related practitioners from across the area.

Dr. Peter M Duncan, founding President of MicroSeismic, Inc., a Houston-based geophysical service company, presented an overview of passive seismic monitoring used by MicroSeismic to monitor geologic impact of the gas and oil drilling operations. Dr. Duncan presented case histories of downhole and surface arrays used to provide real-time monitoring of the impact of hydrofracking the deep geologic formations. The technology provides real-time information on fracture location and geometry helping operators increase production and recovery while helping to identify risks associated with preexisting natural faults that intersect the wellbore.

Bryan Swistok, Water Resource Specialist at Penn State University, presented results from a research project studying the potential impacts of Marcellus gas drilling on private water wells throughout Pennsylvania. Swistok identified challenges and issues with current procedures requiring drillers to test and report to domestic water well owners within the potential impact area prior to drilling. Additionally, research findings revealed many poorly designed and installed well systems with pre-existing pollution issues that complicate evaluating impact from drilling events.

A fruitful open question and answer discussion also took place. Judging from the lively audience participation, EWRI and the Geo-Institute in Pittsburgh will continue to sponsor Marcellus-themed events.

GAI Consultants, Lennon, Smith, Souleret Engineering and Rhea Engineers & Consultants were gold-level sponsors of the event.



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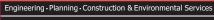
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CMU YMF Visits Nashville



On January 19, 2012, six Carnegie Mellon University students joined the Pittsburgh YMF group on a ten-hour drive to Nashville, Tennessee for the 2012 ASCE Workshop for Student Chapter Leaders (WSCL) conference. We had our first taste of the southern City of Music through an authentic family-styled southern dinner.

The WSCL officially began the following afternoon, and we met with students from over 35 ASCE chapters from four regions. As an introduction, each chapter shared the challenges that they have faced and successes that they have achieved over the past years. We discovered that we were not alone in trying to improve student

involvement in the chapter. Following that, we had an ice-breaker where we had to build a 10-inch tall card tower strong enough to hold up a Yellow Pages. Although our towers failed the test, we all had immense fun working together as a team.

The rest of the conference was filled with presentations and focus sessions on effective leadership and the development of a strong ASCE chapter. These sessions brought up key learning points, such as the importance of agenda-setting and smooth leadership transitions. In particular, we found the Q&A session with the ASCE President Andrew Herrmann, President-Elect Gregory DiLoreto and Executive Director Patrick Natale engaging and inspiring. The interactions we had throughout the conference broke down the barrier between students and professionals. We actually got to know our Practitioner Adviser, Linda Kaplan, and the rest of the YMF group personally, and found out that they are just like us: young at heart.

Although the presentations and activities ended on January 21, the exchanges with like-minded student leaders and the relationships with professionals will last well beyond that weekend. Through this conference, we gained not just leadership skills, but a deeper appreciation of what ASCE means as an organization. It is no longer just a student organization to us, but part of a larger network with Civil Engineering professionals and leaders.

YMF Hosts First Interview Workshop

By Lauren Terpak ASCE Pittsburgh YMF President

As part of the ASCE Pittsburgh Younger Members Forum (YMF) technical seminar series, the YMF hosted their first Interview Workshop on Monday, February 13. Participants included seventeen civil engineering students from both the University of Pittsburgh and Carnegie Mellon and fifteen interviewers that graciously donated their free time to help improve upon the students interviewing aptitude. Interviewers included section leaders such as Vice-President William Gross P.E., senior employees of local engineering firms, and younger members. Through collaboration with the University of Pittsburgh Student Chapter President, Matthew Gilfillan, the YMF was able to host the workshop on Pitt campus at the O'Hara Student Center.

The event format included a half hour presentation given by Matthew J. Pierce P.E. and Jonathan D. McHugh P.E. of Gannett Fleming, Inc. on the Dos and Don'ts of interviewing. Matt and Jon were able to share tips and some of their personal interview stories with the crowd and cover topics from body language during an interview to what not to wear. Shortly following the presentation students were paired up with an interviewer for 30-minute mock interview sessions. Each student was given two to three opportunities to interview and receive critique.

Overall the workshop was very successful and well-received by both the students and interviewers. One student, Stephanie O'Neil, followed up by saying "I have been to mock interviews before, and it was refreshing not only to talk with engineers for once, but also engineers who were noticeably well prepared, and genuinely interested in giving interview advice and critique." In a time where entrylevel positions are limited, it was a great opportunity to help the students build upon their interviewing skills and hopefully increase their employment opportunities. The YMF looks forward to hosting a similar event annually.



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EWB Marks Milestones In Projects

Pittsburgh-area engineering students and professionals continue to challenge their abilities and social impacts of their skills through charitable work with Engineers Without Borders-USA (EWB). The three area chapters Pittsburgh Professionals (PPC), University of Pittsburgh (Pitt) and Carnegie-Mellon University (CMU) have continued to develop their programs in developing communities on three different continents, for which their experiences are making a difference in advancing the profession close to home.

EWB students work side-by-side with professionals in an atmosphere in which both groups enhance their technical skills while also improving the guality of life in the developing world. The social and cultural lessons learned, management skills and practices of sustainability benefit all parties involved and serve the vision of creating a better world one community at a time.



The Tingo Pucara, Ecuador potable water project is nearing completion. In August 2011 the EWB team completed the 3000 gallon holding tank, the last major structure. Since then the Pitt and CMU students along with the Pittsburgh Professionals met weekly to continue design of the pipeline, pump, valves and electricity. The students, in between classes and finals, continued to write the Operations and Maintenance Manual. The community of Tingo Pucara has also been hard at work by completing excavation of a four foot deep trench nearly three quarters of a mile down the steep slope of the Andes mountain on which they live. The

trench was dug by hand and completed in one week. The pipeline was also installed connecting the pump tank at the bottom of the mountain to the holding tank at the top. Pittsburgh Professionals Craig Johnston, Mark Barlow and Robert Stachel are scheduled to visit Tingo Pucara on January 28 through February 5, 2012. The mission is to complete the piping and electrical hook-ups and to turn on the switch that will finally send clean drinking water to the top of the mountain. An emotional celebration is sure to follow.

At Pitt, the oldest EWB chapter in the Pittsburgh region is in a time of transition as their five-year effort is nearing formal completion in Mali, Africa. In the mid-Northern Malian village of Makili, the chapter has worked to design and implement a fish farm for a malnourished community of 1500 villagers. Success has been met with the community experiencing its first tilapia harvest in the summer of 2011. Continued



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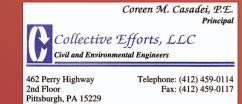




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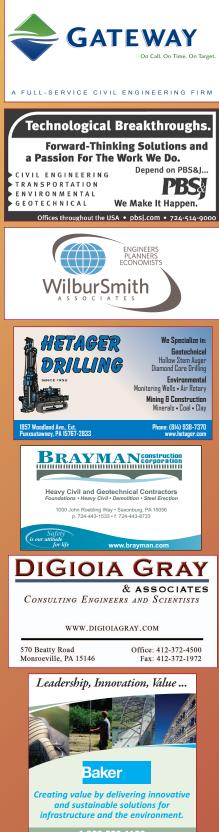
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monitoring will occur in 2012 to ensure the sustainability of the farm.

Pitt has also developed local community efforts to benefit the city that supports them. They are constructing a sustainability workshop and community teaching lab in the basement of the Carnegie Library of Braddock. For the past two years Pitt has been working with the library and currently looking for sponsors to support this partnership. An additional local effort has Pitt students working with the First United Methodist Church soup kitchen in Shadyside. Early in 2012, the Pitt chapter will continue its local efforts, but also will be selecting a new international project, likely a water distribution project in Central or South America.



Carnegie-Mellon engineering students also have been enhancing their education through implementation of a solar energy project in India. Working in the Northern Indian community of Rampur, Uttar Pradesh, the CMU team is managing the installation of a 5.5 kW solar array to meet the needs of a primary school of 400 k-5 students. The school

does not have a reliable electrical supply and must endure the noise and exhaust of an inefficient diesel generator to have the ability to run lights or ceiling fans on days of over 110 degree heat. CMU students intend to oversee the construction of a solar array while educating the primary school students on the benefits of clean energy. CMU students are contracting local construction workers to build the system, in hopes of building their skills and expand the sustainability of solar energy in the region. Installation of the project is scheduled for May 2012, the hottest point of the year and the team hopes for a successful installation to bring the students a bit of relief from the heat.

The three regional EWB chapters are entirely volunteer-driven in their effort to help people in need around the world. However, there is a continued need to raise funds and recruit new members of both technical and non-technical expertise who want to carry forward the vision. For more information on any of the following projects, please contact EWB Pitt President Maia Hoffman (Hoffman.maia@gmail.com), PPC Project Manager Bob Stachel (restachel@hrvinc.com) and CMU Project Manager Tejank Shah (tejank.shah@gmail.com).

ASCE Supports the Future Cities Competition

The Pittsburgh Regional Future City competition was held at the Carnegie Music Hall on Saturday, January 21, 2012. For this event, middle school students design and model cities of the future using SimCity software, then construct physical models of their designs using only recycled materials. Each year, student teams compete for best city design, essay and presentation. The regional winners move on to the national competition. The Pittsburgh Section of ASCE sponsors 2 awards in the regional



competition: Most Innovative Design of Infrastructure and Best Integrated City. Members of the Section evaluate the entries and grant awards to the teams whose cities best satisfy the award criteria. This year the winners were Beaty-Warren Middle School in Warren, PA, for Most Innovative Design of Infrastructure and Saint Thomas More Middle school in Bethel Park, PA, for Best Integrated City.

The Beaty-Warren city, "Kauae Raro," is a walkable city located in New Zealand. The city features pedestrian and bicycle paths as well as an energy-efficient public transportation system. Residents are encouraged to make use of community gardens and composting facilities. A constructed wetland treats wastewater and provides a habitat for endangered animals.



"Helios Aeolus," designed by Saint Thomas More Middle School, is a self-sustaining city located 15,000 feet above the earth. The city is powered by solar, lightning and wind energy sources and maintains its altitude by reacting "arcanium," a futuristic element found in air. To protect the residents, the city employs a meteor defense system. Water is extracted from the vapor in clouds, and wastewater is treated for reuse. The residents grow food and medicinal plants and enjoy a variety of social and sporting activities.



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WE LOOK INTO THE EARTH

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membership by hosting a large number of ASCE members at both the local and national level, paying for employee dues and subscriptions, and time off for ASCE activities.

Also honored were the **American Bridge Leadership Award** finalists, Brian Ditzler, Lauren Dziagwa and Matthew Hansen. Presented by Andrew Deao, Student Award Foundation chair, these awards recognize scholastic achievement, extra-curricular activities and honors and awards for engineering students.

Future Cities Special Award Winners were also recognized. Winner of the Most Innovative Design of Infrastructure was Saint

Thomas Moore School, and winner of Best Integrated City was Beaty-Warren Middle School.

Sponsors for the Awards Banquet were ARCADIS Malcolm Pirnie, Buchart Horn, Inc., HRV Conformance Verification Associates, Inc., and Lennon, Smith, Souleret Engineering, Inc. Door prizes were donated by Gannett Fleming, HRV Conformance Verification Associates, Inc., SAI Consulting Engineers, Inc., and Swanson School of Engineering at the University of Pittsburgh. The event photographer was Erica Delicer Photography.

Congratulations to all the award winners!

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Pittsburgh Section Newsletter

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