Student News

ASCE Concrete Canoe
In April, the Rose-Hulman Concrete Canoe team traveled to Urbana-Champaign, IL, to participate in the ASCE Great Lakes Student Conference. The team chose a tropical theme this year and named the canoe “Concrete Tropicale.” They worked hard throughout the year to construct the canoe and succeeded in racing the canoe for the first time in three years. The team cheered for our two-person male endurance racers as they braved the cold waters to race the canoe in spite of cracks and duct tape - that’s determination!

Pictured from left to right: Wenjun Dai, Jia Shen, Sijun He, Natalie Buckley, Brent Boardman, Kevin Dorn, Justin Castelino, Jake Gould

ASCE Steel Bridge
During the 2014 Great Lakes Conference hosted at the University of Illinois Urbana Champaign, Rose-Hulman CE students competed in the Steel Bridge Competition. This is the first entry in the competition for RHIT students in several years. The completion required that students design, fabricate, construct and test a steel bridge meeting a great number of design specifications. The competition was a fantastic learning experience for the students. For example, the students got to learn about the importance of lateral bracing by witnessing some pretty catastrophic buckling failures. Good news! The Rose-Hulman bridge did not buckle! Overall, it was great to see our students perform so well.

(Pictured: Brady Stefancik (ME ’15), Austin Thomas (CE ’15), Cody Reynolds (CE ’16), Matthew Wilson (ME ’14), Todd Clapp (CE ’15), Sarah Kemme (CE ’14))
ASCE Chapter News

The Cecil T. Lobo ASCE Student Chapter enjoyed an excellent 2013 and is off to a great start to 2014. The Chapter was recognized by ASCE with a Certificate of Commendation and a Letter of Recognition for Community Service for its 2013 activities. It was well deserved recognition for the officers and members that work hard to make the Student Chapter a great success.

The Chapter continued its relationship with the Will Center and its The Ramps for Freedom Program in Terre Haute. Students designed and built a wheelchair ramp for a well-deserving family. Many civils spent a long Friday and Saturday installing the wheelchair ramp. Despite some last minute design changes in the field the students finished the ramp with the last board attached under the stars. The Student Chapter was also able to help out the local cub scouts at their Pinewood Derby. The civil students ran and scored the races for the evening. These community service projects allow our students to give back to the local community.

In one of its more exciting field trips the Student Chapter was able to tour the Indianapolis Deep Rock Tunnel Connector. Students enjoyed walking through the hard rock tunnel 250 feet below ground. When complete the 18-foot diameter tunnel will be more than six miles long. The tunnel is part of Indianapolis’ Long Term Control Plan for its combined sewer overflows (CSO). The Student Chapter was also able to visit the Terre Haute Wastewater Treatment facility to view the construction activities during its 100 million dollar upgrade. It was an excellent opportunity to learn about the existing treatment processes as well as the new upgrades to the facility. In addition, our tour guides provided the students with some great advice on the construction processes. The Student Chapter is very thankful to all the Rose-Hulman civil alumni that work hard to provide the Student Chapter such unique opportunities.

As always, the Chapter remains Civil Proud!
Alumni Highlights

DEVIN COOK (2007) and his wife, Kristen welcomed their first child, Aria Brynn, on August 27, 2013. Devin and his family recently moved from Chicago to Indianapolis where he is a Senior Project Engineer for TLF, Indianapolis.

STEVE HAWKINS (2007) and his wife, Neeley, welcomed their second daughter, Ivy, on November 26, 2013. Steve is an Operations Supervisor with Marathon Petroleum Company LP in Robinson, Illinois. The couple resides in their hometown of Casey, Illinois.

GUILLAUME ROUSSON (2009) has taken a new position. He is now working for Columbia University as an Assistant Project Manager for its Manhattanville Development Group.

ALLEN MALCOMB (2011) had a busy year last year. He was married on August 13, 2013, to Ashley and they recently purchased a home. Allen is with the U.S. Army Corps of Engineers, Nashville District.

WALTER FLOOD IV (2003) received an award at this year’s National American Concrete Institute Convention for his participation as the Chairman of National Student Activities, in addition to his participation on some Technical Committees. This is all on top of his busy schedule at Flood Testing Laboratories and his many other commitments; including being a member of the Board of Advisors for the Civil department here at Rose-Hulman and his work with the pervious concrete committee at ASTM.

Freshman Design

Once again, the CE freshman class is engaged in design projects for clients throughout our community through the EM103 Introduction to Design course. We received some great projects this year that include design features, such as a river promenade, green infrastructure, bridge designs, fitness trails, and a church playground. As part of the course, CE faculty and students attend an all-day field trip to get a first-hand experience of various civil engineering projects. On May 14th, we are traveling to Louisville, KY, to visit the construction sites of the Ohio River Bridge Downtown Crossing and East End Crossing Projects, the Louisville Water Company’s Riverbank Filtration System, the Transit Authority of River City (TARC) transportation system and maintenance building, and the US Army Corps of Engineers McAlpine Locks and Dam. We are looking forward to a great day and an exciting experience for our students!

Mark Your Calendar

May 21 - Order of the Engineer Ceremony
May 24 – ASCE Golf Tournament
       Rea Park Course
May 31 – Class of 2014 Commencement
Engineers Without Borders

Introduction

Engineers Without Borders (EWB) is an international student-driven organization that engineers sustainable solutions to health and infrastructure problems in third-world countries. We envision a world in which the communities we serve have the capacity and knowledge to meet their basic human needs. We make this happen by collaborating with local community partners to design and implement student-designed engineering projects.

Projects

Dominican Republic

Our five-year collaboration with our partners in the Dominican Republic culminated this year with a final monitoring trip. The main goals of our trip were to inspect the integrity of our past projects and to talk to the community about the impact of our projects and their continued plans for project ownership. This included discussing maintenance, improvements, expansions, and replications of the projects along with the transfer of the design and construction knowledge between community members.

Gomoa Gyaman, Ghana

Gomoa Gyaman is a community with a population of approximately 2,500 residents. Stable jobs are scarce in the community, and most residents are self-sufficient farmers. Residents lack clean, usable restroom facilities. In summer of 2013, six Rose-Hulman students including a professional engineer undertook an assessment trip to Gomoa-Gyaman. The goal of this trip was to ascertain the feasibility of the project in the community. Our ultimate goal is to provide a healthier environment for the citizens of Gomoa-Gyaman by improving sanitation.

Department News

Welcome Michelle Marincel Payne

We are happy to introduce our newest faculty member, Michelle Marincel Payne, who joined us in November 2013 from the University of Illinois at Urbana-Champaign where she is completing her PhD in Environmental Engineering. A native of the St. Louis, Missouri area, Michelle earned her baccalaureate in Nuclear Engineering at the University of Missouri-Rolla. She earned her master’s degree in Environmental Engineering from Missouri University of Science and Technology (same school, new name). Michelle and her husband, Brian, who is a civil/water resources engineer, are happily settling into their new life in Terre Haute. Brian is working for American Structurepoint, Inc. in Indianapolis.
CE490 Railroad Engineering

The students in CE 490 Railroad Engineering designed and constructed a 60-foot section of track for the Wabash Valley Railroaders Museum. The Museum is acquiring a rare WWII Troop Car - a modified Pullman car - that will be displayed at the museum on the constructed track. The track was designed to comply with Federal Railroad Administration and CSX Railroad specifications. Students set out the ties, located the tie plates, and spiked the rail in place. Due to the use of reclaimed ties and bent rail, meeting specifications for horizontal and vertical alignment was a major challenge. RHIT Facilities provided assistance with the excavation of the subgrade and placement of the sub-ballast and ballast.

RHIT AREMA Student Chapter

The Rose-Hulman AREMA (American Railroad Engineering and Maintenance of Way Association) Student Chapter received its initial charter in early 2013. Currently the Chapter has 22 members - Civil, Mechanical, Electrical, and Computer Engineering students. Since the initial formation, the chapter has held 16 monthly meetings with speakers from the rail industry and conducted 12 field trips to rail facilities around the Midwest. Some of the sites visited were: Indiana Harbor Belt RR, Gibson Yard, Hammond, and Blue Island Yard, Chicago; Indiana RR Hiawatha Yard, Jasonville; AMTRAK - Beech Grove, Indianapolis; Canadian National RR Kirk Yard, Gary; Norfolk Southern RR Decatur Yard; and the Peabody Bear Run coal mine. The chapter also participated in the annual National AREMA Conference in Chicago, as well as Indianapolis.
From the Department Head’s Desk

The Department of Civil Engineering has not published CE Echoes since December 2012. We could share a variety of excuses for this hiatus, but the simple reason is that yours truly simply did not get around to it. Time flies when you’re having fun, and the past 16 months have been very busy, but especially fun.

The CE Echoes publication gap means we have about 14 months of news to share with our alumni and other friends on our mailing list. However, one could argue that only new news is good news. We’ve thus tailored the other articles in this issue of CE Echoes to focus on the new news. However, I’d like to share some significant news highlights over the past 16 months, in case you haven’t heard.

Kathy Nicolson retired in May 2013 after 30 years of service to the department. Angela Tanner has now been our department secretary for almost 12 months. Kathy remains in regular contact with the department, attends department events, and still likes to hear from all of our alumni and friends.

The Cecil T. Lobo ASCE Student Chapter was awarded national recognition with a Certificate of Commendation and a Letter of Recognition for Community Service in May 2013 for its 2013 activities. The chapter remains very active under the student leadership and guidance of Faculty Advisor Michael Robinson.

The Department of Civil Engineering was reaccredited by ABET. We were notified during late summer of 2013 after submitting a June 2012 report and hosting a November 2012 visit. Our next accreditation year is 2018.

Course-based masters degrees were approved for the Department of Civil Engineering by the institute. Beginning this current academic year (2013-14), we have a course-based, 12 months Master of Civil Engineering with an emphasis in structures/geotechnical, and a course-based Master of Environmental Engineering with an emphasis in environmental/water resources engineering.

Our Civil Engineering Board of Advisors continues to be actively involved with the department. Our Board of Advisors for 2013-14 are: Anthony Broadax, Bruce Carter, Charity Dudley, Mark Federle, Walter Flood III, Pat Goodwin, Greg Henneke, Mickey Hines, David Maxwell, Glen Morrow, Jon Stolz, and Martin Wessler. We deeply appreciate all of the time and assistance given us by our Board members.

Board of Advisors members Fred Clayton (22 years on the Board) and Roger Ward (17 years on the Board) moved to Emeritus status. Fred and Roger observed many departmental changes during their years on the Board and gave us unprecedented service over the decades. We are so thankful for the time and wisdom they shared and continue to share.

The above are a few of many news highlights. However, so much more is going on that simply won’t fit in a newsletter. I wish I could allow all of our alumni and friends some time to just experience the day-to-day activities of the staff and faculty here in the department. Not a day goes by without discussions about how to improve learning, guide and support students, or extend ourselves to keep the practical elements in our program. We feel an urgency to maintain the high standards set by our predecessors, to continue to lead in civil engineering education, and to honor the legacy that has helped our alumni to successful careers. We also are very thankful for all of the support provided by our alumni and other friends of the department and look forward to the next time we can visit with each of you.

Kevin Sutterer, P.E.