



IOWA STATE UNIVERSITY

Department of Civil, Construction
and Environmental Engineering

CCEE STUDENT
2016-2017

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Cover photo: ASCE Steel Bridge member Joni Truong snapped this photo during the construction portion of the 2017 Midwest Steel Bridge Competition.





Welcome ...

HERE AT ISU CCEE (Iowa State University Civil, Construction and Environmental Engineering), we make your student experience exceptional in every way. From fantastic job placement to experienced professors to undergraduate research opportunities and active student organizations, you have a full engineering adventure ahead of you!

Our faculty have developed many courses based on industry experience and personal teaching methods. You will get hands-on practice in classes ranging from freshman-level to capstone. Team learning will facilitate the type of work you will see in your engineering career.

Want to get involved on campus? I suggest you join two organizations ... one engineering organization and one non-engineering organization. Find a club or group that compliments your area of study, be that civil, construction or environmental engineering. You can find many organizations in the pages of *CCEE Student*.

Beyond ISU CCEE, our university boasts more than 850 student organizations. So join our civil or construction engineering learning communities. Study abroad. Explore internships and co-ops. Above all, enjoy your adventure at Iowa State!

Emily Bowers
ISU CCEE Advising Center Coordinator

Iowa State students hold up under pressure in Steel Bridge Competition

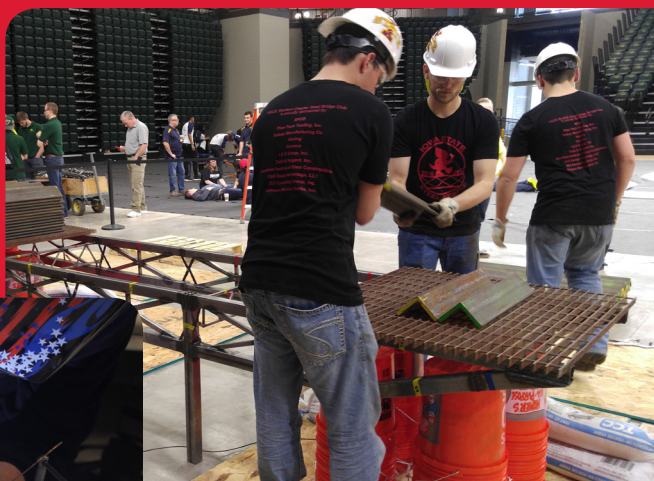
By Kate Tindall
Published Apr. 12, 2017

LATE IN MARCH of 2017, students in Iowa State University's chapter of the American Society of Civil Engineers, or ISU ASCE, brought home third place overall at the society's Midwest Steel Bridge Competition.

The 36-member team traveled to North Dakota State University to compete against nine other schools in the region, including schools from Canada, North and South Dakota, Iowa and Minnesota. First place overall went to Lakehead University and second to North Dakota State University.

Prepping for success

Prior to the contest, ISU Steel Bridge members created a 20-foot, 250-pound bridge prototype. Groups are required to create a 1-10 ratio-sized bridge. The structure can break down into separate





Photos courtesy Joni Truong and Michael Lundquist.

Designing the bridge

Instead, Klus and her team must build the best bridge to hold up under a variety of tests. Within individual categories, Iowa State took first place in bridge stiffness. This is the amount of give the bridge displays when load is applied. ■

Get involved!

Iowa State Chapter of Associated General Contractors (ISU AGC) donates \$5K to Appalachia Service Project

By Kate Tindall
Published Apr. 28, 2017

IF YOU RECEIVED \$5,000 right now, how would you use it? Though some of us may struggle with this question, the choice for students in the Iowa State University Chapter of Associated General Contractors (ISU AGC) is clear. Give it to someone who needs it.

The Race to Build

Fifteen members of ISU AGC spent a week in Bristol, Tennessee, where they competed—through wind and rainy conditions—in the Race to Build. The Race to Build is organized by the Appalachia Service Project, or ASP. In the race, three college teams competed to see which team could finish the outer shell of a house in an allotted 20-hour period.

This is the first year that the ASP has hosted the competition. Iowa State went head-to-head with Virginia Tech and the University of





Photos courtesy Charlie Sweeney.

Tennessee. ISU won the inaugural title by completing the most work, earning the team \$5,000 in prize money. Of course, the team didn't keep that money for long.

Giving back

"We just felt like we really didn't need the money," said Dan Carlson, a leader of the team. "What [ASP] is doing down there, they deserve the money more than we do."

The team donated the entire sum of its winnings back to ASP so the organization could finish the houses. Each house went to a single mother from the local community. ■

Get involved!

In addition to community projects, ISU AGC members take part in both fall and spring break volunteer opportunities. Find ways to connect with this group on page 16.

“Learning Legacy”: ISU CCEE teams bring home honors from Associated Schools of Construction regional competition

By Kate Tindall
Published Nov. 4, 2016

MACKENZIE ‘MAC’ ALBERTS never forgot her first Associated Schools of Construction (ASC) competition.

“It was the first real ConE experience that I had,” Alberts said. “I was so happy after getting third place in this competition that it was almost overwhelming.”

The competition

Alberts knows the intensity of the ASC Region IV Construction Management Student Competition. In 2016, ISU teams cleaned up first place in three divisions: commercial, specialty-mechanical and design-build (Alberts’ team). ISU’s Heavy-Highway Team brought home second place.

In the competition’s history, ISU has now placed first 45 times. Schools compete from states across





Photos courtesy Phil Barutha.

the Midwest, including Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota. And each team faces its own assignment, or RFP (request for proposal).

A learning legacy

In December 2016, Alberts graduated. Will she miss the team? “Completely, 100 percent,” she admits.

But the key behind success isn’t one member. Alberts instead says it’s a continuation of a learning legacy.

“I think that’s what sets us apart, our want to learn and to make ourselves better,” she said. “To build not just the buildings, but to build people.” ■

Get involved!

Interested in getting involved with one of ISU's ASC competition teams? Find out more on page 16.

Morgan State University to be first HBCU with a Chi Epsilon Chapter, thanks to current ISU-InTrans students

By Brandy Haenlein
Published Mar. 27, 2017

“WE SET THE TREND, so hopefully other HBCUs (Historically Black Colleges and Universities) will follow suit,” said Willine Richardson, a current transportation engineering master’s student at Iowa State University’s Institute for Transportation (InTrans).

Morgan State University, located in Baltimore, is Maryland’s largest HBCU. Richardson, who received her bachelor’s degree in civil engineering from Morgan State, recently served as president of the university’s Civil Engineering Honor Society (CEHS).



(From Left) Jevan James and Willine Richardson.
Photo courtesy InTrans.

With the help of other executive board members, including fellow ISU-InTrans master’s student Jevan James, Richardson submitted a petition package in the hopes of transitioning their CEHS into a Chi Epsilon Chapter.

Since both Morgan State’s CEHS and Chi Epsilon have similar goals—to develop civil engineering students with the attributes necessary for a successful engineering career—this was a natural next step. ■

Since then ...

The Morgan State Chapter of Chi Epsilon was officially initiated in April 2017. Richardson and James are chronicled as two of its founding members.

Students prep for 2017 Undergraduate Seismic Design Competition

By Kate Tindall
Published Feb. 17, 2017

ON MARCH 7-10, Iowa State University's Earthquake Engineering Research Institute (EERI) student organization traveled to Portland, Oregon, to compete in the 2017 Undergraduate Seismic Design Competition.

"It's about how to work with others, how to work on a team, and what it means to be a team member," Phuong Vo, the team's captain, said of both the competition and the work leading up to it.

Vo previously attended the 2016 competition in San Francisco, California. At the competition, teams construct model buildings on a shake table that simulates an earthquake. The goal is to build a model that can withstand the earthquake simulation. Teams from across the world travel to compete in this event.



Photo courtesy Jacob Eull.

"This has been a very long journey," Vo said. "It's not something where we just one day say, 'OK, let's do it,' and we get rolling. It takes a lot of preparation to pull something like this together." ■

Prep time ...

Long before competition, Iowa State EERI members start working on their model building. Completion takes the length of the school year.

STUDENT RESOURCES



Academics

From the first day of school to graduation, Engineering Student Services offer many resources.

Visit them on-line at

www.engineering.iastate.edu/student-services/



Learning Communities/Advising

ISU CCEE hosts two unique learning communities - one for civil engineering students and one for construction engineering students.

Connect with our academic advisers to learn more.

www.ccee.iastate.edu/academics/advising/



Engineering Career Fair

Iowa State boasts one of the largest engineering career fairs in the nation!

www.engineering.iastate.edu/ecs/students/career-fair-students/



ISU CCEE Study Abroad

Venice, Rome, London, Edinburgh ... travel the globe during your time here at ISU CCEE by participating in our study abroad program!

For more information, contact Program Coordinator Judy Thomas by emailing jathomas@iastate.edu or calling (515) 294-1866.



Engineering Honors Program

The Engineering Honors Program is a part of the Iowa State University Honors Program.

Learn how this program adds to your ISU experience.
www.engineering.iastate.edu/engrhonors/



Engineering Diversity & Inclusion

Diversity is critical to maintaining excellence in all our endeavors. Get involved with a group, check out fellowships and find new activities.

www.engineering.iastate.edu/diversity/



Campus Resources

Connect your engineering experience to other resources on campus!

Student Counseling Services: www.counseling.iastate.edu
Student Wellness: www.studentwellness.iastate.edu
International Students & Scholars Office: www.issso.iastate.edu
University Student Organizations: www.stuorg.iastate.edu
Office of Greek Affairs: www.greek.iastate.edu
Thielen Student Health Center: www.cyclonehealth.org
Recreation Services: www.recservices.iastate.edu
Department of Residence: www.housing.iastate.edu
ISU Dining: www.dining.iastate.edu

Need more info?

Check out this full list of student resources, offered by ISU's Division of Student Affairs.

www.studentaffairs.iastate.edu/resources/student-services/

Cyclone Energy earns third consecutive

IN OCTOBER 2016, Cyclone Energy competed in the ELECTRI/International National Electrical Contractors Association (NECA) Green Energy Challenge (GEC). The group swept the competition and earned first place. Not only did the group take the competitors by storm, but its victory marked the third consecutive year in which Cyclone Energy has earned the top place at the GEC.

THOUGHTS FROM CYCLONE ENERGY

*"This is probably **THE PROUDEST MOMENT** in my college career! All of our time and hard work finally paid off!"*

-Scott Miller

*"**'COMPLETENESS.'** After being a part of GEC for three years and finally winning first place myself, the experience became real – like seeing something from a postcard in real life."*

-Caleb Bonderer

*"A mix of relief and reward. After the countless hours that went into the proposal alone, but then practicing close to 10 hours a week, whether it was as a group or individual, **THE EFFORT WAS WORTH IT.**"*

-Regan Smiley

*"Being a part of ISU NECA has shown me that **WE ARE LIFE-LONG LEARNERS.**"*

-Dylan Busby

first place finish in Green Energy Challenge



Photo by Kate Tindall.

"I was a member of Cyclone Energy for four years, four competitions, and three trips to the national convention. **THE EXPERIENCE, FOR ME, WAS TRANSFORMING.** I found my confidence, my voice, and my people."

-Maggie Holt

"The most important lesson I learned was **THE VALUE IN WORKING IN TEAMS** and how to communicate effectively with the group to become successful."

-Tristen Girolamo

FOUR-PEAT?

Cyclone Energy is made up of members of the Iowa State chapter of NECA. The team recently competed in the 2017 GEC. They swept first place for a fourth time!

SCHOOL to CAREER:

ITE Midwest Student Leadership Summit explores transportation engineering

By Kate Tindall
Published Sept. 22, 2016

IN SEPTEMBER 2016, transportation engineering master's students at Iowa State hosted the ITE Midwest Student Leadership Summit. ITE stands for Institute of Transportation Engineers.

The ISU Transportation Student Association (TSA) took on the task of organizing and executing the event. This was the first student summit to be hosted in the Midwest and attracted more than 80 students representing the Great Lakes and Midwestern ITE Districts. ■

Student-led ...

With some help from ISU CCEE-InTrans faculty members, graduate students organized and led the entire ITE Midwest Student Leadership Summit.



Photos by Kate Tindall.



Photo courtesy Chris Williams.

EXPLORE A WORLD OF ENGINEERING

*"Not only did I get to visit **AMAZING PLACES**,
but I also made **INCREDIBLE FRIENDS** that
will, no doubt, be a part of my life for a long time."*

*-Heather Jenkins
2017 Trip to Great Britain*

*"I think just going into unfamiliar territory and
LEARNING DIFFERENT METHODS
TO ACHIEVING THE SAME GOAL
is invaluable knowledge in any industry."*

*-Grant Albansoder
2016 Trip to Rome, Italy*

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