

IOWA STATE UNIVERSITY

Department of Civil, Construction
and Environmental Engineering



Annual Update
2016-2017

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Meet Modern Challenges

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Construction and Environmental Engineering"
and "ISU ConE" for department LinkedIn pages



On the cover: Several members of ISU's NECA Green Energy Team take a leap outside of Edwards Elementary School in Ames. The student organization used the school's construction plans in its proposal for the 2016 ELECTRI/International Green Energy Challenge and earned first place for the third year in a row. Read more on page 18.
(Photo by Kate Tindall).



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Dear alumni and friends,

This past year has brought significant achievements in education and research to Iowa State University's Department of Civil, Construction and Environmental Engineering (ISU CCEE). Industry partners and peer universities know our department for its consistent production of top-quality engineers. We are proud of our faculty and staff for their constant efforts to create an outstanding learning environment for our students. The drive of our undergraduate and graduate students to gain real-world experience through their classes, research and extracurricular activities here at ISU inspires us. And we continue to be impressed by the creative, significant contributions our alumni make to their employers and communities.

I know of many points of pride that I would like to share with you. You will find these points throughout the contents of your annual update. The ISU student chapter of the National Electrical Contractors Association celebrated its Cyclone Energy team's third consecutive first place finish at the ELECTRI International Green Energy Challenge. Alumnus Paul Giroux received the Roebling Award from the American Society of Civil Engineers this spring and was recognized as a distinguished member by the society late last year. On campus, the Iowa State University Alumni Association Board of Directors chose alumna Nicole Schmidt as its newest chair. Paired with the impactful research conducted by our faculty and graduate students and combined with multiple national and university awards, it has been another successful and exciting year for ISU CCEE.

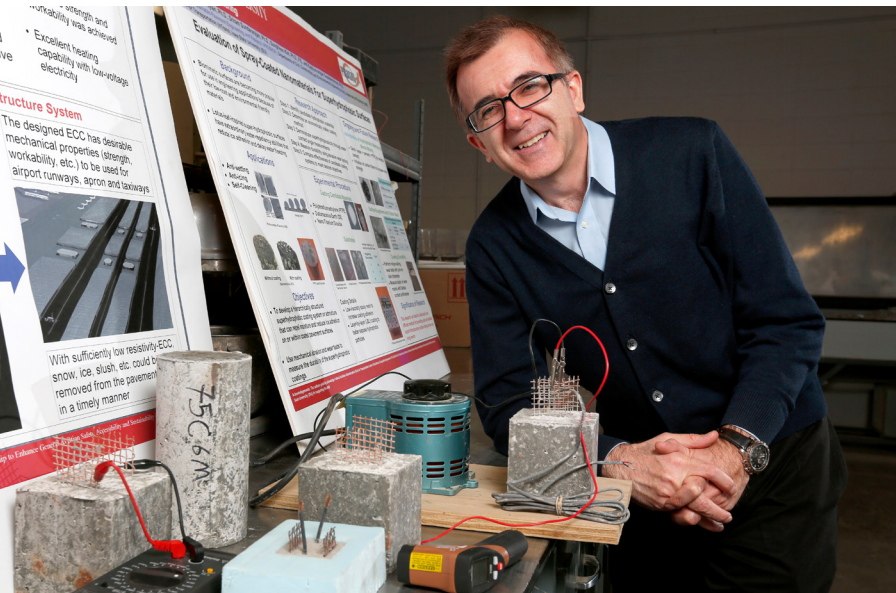
We are eager to announce new faculty hires in the focus areas of geotechnical, transportation and construction engineering. Our faculty serve as editors to scholarly journals and lend insight on various committees worldwide. Both faculty and staff attend and lead conferences and workshops. Our graduate program enrollment and research activities/expenditures continue to increase. This work would not be possible without the support of external partners, our advisory committees and generous donations of time and resources from you.

No doubt, there are challenges that face the 21st-century engineer. The National Academy of Engineering recently identified 14 grand challenges that engineers—our students and alumni—will face on a daily basis; however, ISU CCEE engineers are ready to meet those challenges.

Each year, I have the privilege of working with so many exceptional faculty, researchers, staff, students and alumni. With such a strong department, I am sure we will continue excellent research and will produce exceptional, prepared engineers. Thank you for your continued support,

Iowa State engineers test heated pavement technology at Des Moines International Airport

By Mike Krapfl
Published Mar. 28, 2017



Halil Ceylan with conductive concrete sample.
(Photo by Christopher Gannon).

Quick Look

Halil Ceylan and a group of Iowa State engineers are testing heated pavement technologies at the Des Moines International Airport. They've installed two test slabs of electrically conductive concrete. And so far, the special pavement has effectively cleared ice and snow. The research is supported by the Federal Aviation Administration's Center of Excellence Partnership to Enhance General Aviation Safety, Accessibility and Sustainability.

AMES, Iowa – Iowa State University's Halil Ceylan picked up his smartphone, opened up an app and called up the remote controls for the first full-scale test slabs of electrically conductive concrete installed at an American airport.

Late last fall Ceylan and his research team from Iowa State's Program for Sustainable Pavement Engineering and Research installed two, 15-by-13.5-foot test slabs of electrically conductive concrete into the apron at the southwest corner of the Elliott Aviation hangar on the north side of the Des Moines International Airport. The hangar is in the middle of the general aviation apron devoted to smaller aircraft.

Ceylan, an Iowa State professor of civil, construction and environmental engineering, still working the system's phone app, called up pictures of the slabs during one of this winter's rare snowfalls. The apron all around the test slabs was covered with an inch or two of white snow; the two slabs, marked by diagonally painted red stripes, were clear and drying.

"We have proven this technology does work," Ceylan said. "Our goal is to keep airports open, safe and accessible. We don't want any slips or falls, or any aircraft skidding off runways. Our technologies can contribute to providing a safe environment and fewer delays."

The cost of heating pavement

It's the first thing Ceylan brings up after noting the success of the test slabs at the Des Moines airport: "People wonder how much this costs."

Ceylan and his research group have run the numbers: Using 333 watts per square meter (about the energy used by three light bulbs) for seven hours, the operating cost is about 19 cents per square meter.

Seven hours “is way more than enough to melt an inch of ice or snow,” Ceylan said.

While the installation costs would be higher than regular pavements, the heated pavement technology also saves on the cost of plows, de-icing chemicals and wastewater treatment of chemical runoff.

How it works

The test slabs of electrically conductive concrete are made up of 1 percent carbon fiber and a special mix of cement, sand and rocks. The carbon fiber allows the concrete to conduct electricity, but there is some resistance to the moving electrons, which creates heat.

Alireza Sassani, a doctoral student in civil, construction and environmental engineering, led studies of the concrete mix. With help from the National Concrete Pavement Technology Center based at Iowa State, he prepared hundreds of concrete samples in the lab to find just the right combination of compressive strength, tensile strength, workability, durability and electrical conductivity.

The test slabs at the Des Moines airport are 7.5 inches thick in two layers – the bottom 4 inches are regular concrete, the top 3.5 are electrically conductive concrete. Between the layers are twelve metal electrodes, six per slab, running the width of each slab. The electrodes are wired to the nearby hangar’s power supply.

The slabs are also wired with various sensors: temperature probes, strain gauges, humidity sensors and more. There are two surveillance cameras mounted nearby. And the team just acquired its newest research tool – a high-grade thermal camera.

Airport perspective

Ceylan’s heated pavement research is part of the Federal Aviation Administration’s Center of Excellence Partnership to Enhance General Aviation Safety, Accessibility and Sustainability, or PEGASAS. The partnership was established in 2012 and is led by researchers at Purdue University. Other core members are from Iowa State, The Ohio State University, Georgia Institute of Technology, Florida Institute of Technology and Texas A&M University.

The program is providing about \$2.2 million for Iowa State’s full-scale demonstration of snow- and ice-free airfield pavements and other studies of heated pavements. The university is matching those funds.

After early success with heated pavements in his campus lab, Ceylan and his research group were ready to move on to larger-scale studies. That led to discussions about airport tests with Bryan Belt, the director of engineering and planning at the Des Moines International Airport.

Belt identified a site and with the help of a project team from Foth Infrastructure and Environment, the test slabs were installed in October and November of 2016. Belt has checked on the test slabs three times during snowy or icy weather.

“It was fascinating to see that it worked,” Belt said, noting Ceylan is now “trying to beat the weather to the punch” by turning on the heated pavements even before the snow starts flying.

In addition to collecting more data on the electrically conductive concrete, Ceylan said the team will soon be adding a hydrophobic coating to one of the test slabs. The water-repelling coating is designed to keep snow and ice from sticking to the pavement, making it much easier to keep clear and dry. ■

A thermal image of the heated airport pavements.



Iowa State engineers dive into big data to develop better system to manage traffic incidents

By Mike Krapfl

Published Mar. 22, 2017

AMES, Iowa – The traffic data hits the REACTOR lab in continuous streams from across the state – video, traffic volume, speed, backups, weather and more.

Iowa State University researchers can call up all that data on the six big screens arranged around the Realtime Analytics of Transportation data lab, or REACTOR. The lab is part of the Center for Transportation Research and Education within Iowa State's Institute for Transportation. It features a fiber optic connection to the Iowa Department of Transportation's Intelligent Transportation Network.

The goals

"There is more data than you could ever imagine coming out of this system," said Neal Hawkins, the associate director of the Institute for Transportation. "We're getting data every 20 seconds from all over the state, we're getting high-definition camera feeds and we're getting sensor information every minute."

University engineers are helping the Iowa DOT by taking the data, analyzing it, making sense of it and finding ways to support improved decision-making, Hawkins said.

One example of putting the data to

use is development of a smart system for managing traffic when there's a crash, a stalled vehicle or bad weather. Iowa State researchers are calling the system they're developing TIMELI, or Traffic Incident Management Enabled by Large-data Innovations.

Real-life example

Anuj Sharma – an associate professor of civil, construction and environmental engineering, a research scientist for the Institute for Transportation and the leader of the TIMELI project – recently pulled out his laptop and called

Quick Look

Iowa State traffic researchers are developing technology that will take the huge amounts of data collected by the Iowa Department of Transportation, sort through it all and identify problems. The goal is early detection of traffic incidents and better traffic management. That would improve safety and mobility on Iowa's roads and highways.

Anuj Sharma talks to transportation researchers in the REACTOR lab.



up an example of the problems the new system is designed to solve.

At the Iowa DOT's traffic incident management center in Ankeny – staffed 24 hours every day and tasked with scanning traffic and spotting problems across the state – an operator took a few minutes to spot a growing traffic problem a few miles west of downtown Des Moines, call for help and post warnings to traffic message signs.

“There’s no reason something like that couldn’t happen at five places across the state all at once,” Hawkins said. “It’s an overwhelming task. These operators can only monitor so many things at once.”

Why the wait?

So why hasn’t some kind of automated system been developed to help monitor all that traffic data and quickly find problems?

“The technology was not there yet,” Sharma said. “In the last five years there has been so much progress in big data analytics. We can now process huge amounts of data and learn from it.”

Sharma means that literally – advancements in machine learning will allow the TIMELI system to learn from experience and find ways to do a better job analyzing the Iowa DOT's data streams, finding incidents and maybe even predicting problems.

The researchers’ work to develop TIMELI is supported by a three-year, \$1 million grant from the National Science

Foundation.

Their goal is to develop a prototype of the system using the REACTOR lab as a test bed. The prototype would also be tested and evaluated within the Iowa DOT's Traffic Management Center in Ankeny.

They hope the system will improve incident detection and support operator decision-making – ultimately improving safety and mobility for Iowa’s

transportation system.

Most importantly, a working, robust TIMELI system could help every driver on the road.

“Use of the system by state DOTs can reduce the duration and impacts of incidents and improve the safety of motorists, crash victims and emergency responders,” the researchers wrote.

After all, Hawkins said, “When there’s a crash, every second is critical.” ■

Iowa State's Neal Hawkins and Anuj Sharma, left to right, are using the REACTOR big data lab to help develop a smart system to help detect and manage traffic incidents. (Photos by Christopher Gannon).



RECENT RESEARCH ● ● ● ● ●

RESEARCH TIMELINE

SEPT 2016

Jeong leads NSF project to develop fast, efficient means of analyzing data

Construction Engineering Associate Professor David Jeong and a team of researchers are developing a system that can quickly search various civil infrastructure data terminologies for queried terms and conditions.



MAR 2017

Safety takes front seat in second phase of national highway program

Iowa State transportation engineering faculty are hitting high gear analyzing highway safety data in part two of the Second Strategic Highway Research Program (SHRP2). They will partner with state departments of transportation, including the Iowa DOT.

NOV 2016

Iowa State, Air Force Research Laboratory develop real-time structural health monitoring technology

Researchers at Iowa State University and the Air Force Research Laboratory Munitions Directorate are developing the fastest methods of conducting high-rate state estimation for complex systems, including aircraft and spacecraft. The project is funded by the Air Force Office of Scientific Research (AFOSR). Associate Professor Simon Laflamme is the university's project manager.



MAR 2017

Joint CBE-CCEE Bio-Polymer Facility celebrates first production run

The Iowa State University Bio-Polymer Processing Facility, which opened in 2015, recently launched its first production run of bio-polymers. Plant construction was spearheaded in part by Chris Williams, professor of geotechnical engineering.



DEC 2016

Bridge Engineering Center receives \$2.1m University Transportation Center grant for second year

Once again, Iowa State University's Bridge Engineering Center has been chosen to be a partner in a United States Department of Transportation Tier I University Transportation Center grant. Associate Professor Brent Phares is the director of the Bridge Engineering Center.



APR 2017

CCEE-ME professors pursue use of augmented reality in structural engineering curriculum

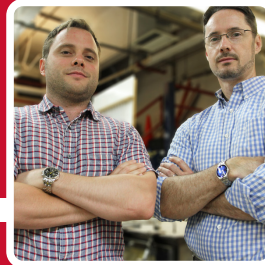
Three faculty members from Iowa State's College of Engineering are teaming up to bring augmented reality into civil engineering courses. CCEE's Aliye Karabulut-Ilgu and An Chen are on the research team that recently received a Miller Faculty Fellowship.

● ● ● ● ● FACULTY SUCCESS

JUL 2016

Promoted associate professors teach “cutting edge” engineering in ISU CCEE Department

ISU CCEE Structural Engineering Researcher Simon Laflamme and ISU CCEE Geotechnical Engineering Researcher Jeramy Ashlock (pictured right) both earned promotions from assistant to associate professor with tenure.



JAN 2017

NSF CAREER recipient Cassandra Rutherford joins CCEE

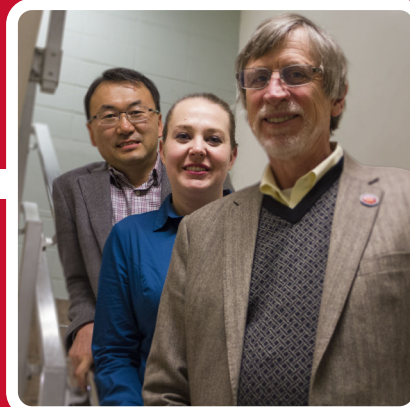
This January, Rutherford (pictured below) joined Iowa State in the department of civil, construction and environmental engineering. She is an assistant professor in geotechnical/materials engineering.



AUG 2016

Plymesser promoted to senior lecturer, brings real-world experience to construction engineering classes

Cliff Plymesser was promoted from lecturer to senior lecturer in the civil, construction and environmental engineering department. His classes at Iowa State University center on steel and concrete construction.



APR 2017

Construction engineering faculty take lead in ASCE Construction Institute

Iowa State faculty now claim three leadership positions within the American Society of Civil Engineers' Construction Institute (ASCE CI).

OCT 2016

Sri Sritharan named interim assistant dean for strategic initiatives for Iowa State University's College of Engineering

The College of Engineering recently appointed ISU CCEE Professor Sri Sritharan as interim assistant dean for strategic initiatives. Sritharan is the Wilkinson Chair in the College of Engineering. His research interests range from earthquake-resistant structural design to wind energy systems. Last year, he played a key role in organizing the First International Interactive Symposium on Ultra High Performance Concrete, hosted by ISU CCEE.

ISU CCEE Associate Professor David Jeong leads the Digital Project Delivery Committee. Chuck Jahren, the professor-in-charge for construction engineering at ISU CCEE, is chair of the Construction Engineering Education Committee. ISU CCEE Associate Professor Jennifer Shane chairs the Management Practices in Construction Committee.

Active and hybrid learning take foothold in CCEE curriculum

By Kate Tindall

Published Mar. 8, 2017

BEFORE YOU READ...

Hybrid/blended learning

- The same thing. These methods combine traditional class time with on-line course work.

Ill-structured problems

- Problems where there are multiple answers to a question.

Active learning

- Any teaching method that engages participants in learning.

WANT THE WHOLE STORY?

Visit www.ccee.iastate.edu,
and click on CCEE News.

It's easy to catch Peter Savolainen using active learning methods. Savolainen is one of the eight ISU CCEE professors leading these types of classes. (Photo by Jim Heemstra | VISIONS Magazine | ISU Alumni Association).

AMES, Iowa – Some lecturers work with students. Aliye Karabulut-Ilgü works with professors to develop active and hybrid learning classes.

"Hybrid and flipped classes make use of the opportunities provided by on-line and face-to-face instruction," she explains. "Students can watch on-line lectures on their own time and at their own pace. The students I have talked to indicate that they like being able to pause a lecture and take notes. It also encourages them to be better prepared for face-to-face activities."

The lecturer joined the civil, construction and environmental engineering department in 2015. Her role is unique.

Not every department has a course development specialist.

"In the CCEE department, we have hybrid courses starting from freshman and sophomore levels to senior levels," she says. "Through active/hybrid classes, our instructors can create time during class to have their students work on real-life engineering problems."

Currently, ISU CCEE offers seven active/hybrid learning classes. ■



School to career:

ITE Midwest Student Leadership Summit explores transportation engineering

By Kate Tindall

Published Sept. 22, 2016

AMES, Iowa – If you're planning to be an engineer, you had better be ready to meet challenges.

"We really need good, bright leaders coming out of civil engineering programs if we're going to solve some of the issues that are in front of us," JoNette Kuhnau said.

Professional advice

Kuhnau is a civil engineering alumna of Iowa State. This past year, she served as a panelist for the 2016 Institute of Transportation Engineers (ITE) Midwest Student Leadership Summit.

Kuhnau, who is a professional traffic operations engineer at Kimley-Horn and Associates, Inc., hopes this event will encourage young engineers to participate in professional opportunities early.

First of a kind

This was the first student summit to be held in the Midwest region. The summit, hosted by ISUTSA and sponsored in part by the Institute for Transportation (InTrans), attracted more than 80 students representing the Great Lakes and Midwestern ITE Districts. During the three-day event, engineering

professionals—like Kuhnau—critiqued résumés, conducted mock interviews and explored industry trends with students.

"I see so many opportunities for really bright students who can, both in the classroom and outside of the classroom, work on their communication skills and work on leadership," Kuhnau said.

Summit events took place Sept. 16-18 on ISU's campus. Master's student Ellen Nightingale served as summit chair. Summit advisers included TSA Advisers Peter Savolainen (associate professor), Jing Dong (assistant professor), and Anuj Sharma (associate professor). ■

ISU CCEE students earn FHWA Eisenhower Transportation Fellowship for second year running

For the second year in a row, master's students Ellen Nightingale and Patricia Thompson were each awarded a Dwight David Eisenhower Transportation Fellowship from the Federal Highway Administration (FHWA). Thompson and Nightingale traveled to the Transportation Research Board (TRB) Annual Meeting in Washington, D.C., in January to present their research. In addition, Thompson earned best oral presentation at the 2017 Transportation Research Showcase.



STUDENT SUCCESS & ACHIEVEMENT

APR
'16



Civil engineering student Kaitlyn Aldrich earns recognition for her campus-wide involvement by being named a 2016 Wallace E. Barron All-University Senior

DEC
'16



ISU CCEE freshman students take part in Freshman Research Initiative, a new university program that encourages students to pursue research projects early in their academic careers

DEC
'16



Catherine Krezowski, a civil engineering senior, serves as the College of Engineering Fall 2016 Student Marshal

APR
'17



Civil engineering senior Glenna Lovig is awarded the College of Engineering Dean's Student Leadership Award

DEC
'16



Construction engineering student Brandon Ophoff is recognized by the College of Engineering Honors Program for his outstanding capstone research project

MAR
'17



Transportation engineering graduate students Willine Richardson and Jevan James submit a successful petition for a Morgan State University Chapter of Chi Epsilon, making Morgan State the first member of the Historically Black Colleges and Universities (HBCU) to house a Chi Epsilon Chapter

DEC
'16



The Sixth Annual CCEE Graduate Student Research Showcase and Poster Competition attracts almost 140 attendees and 60 poster presentations

BY THE NUMBERS

No. 1 LARGEST
undergraduate CCEE dept.
in nation
(Source: American Society of
Engineering Education
2016 data)

12th
UNDERGRADUATE
RANKING IN NATION
(PUBLIC ONLY)
(SOURCE: U.S. NEWS
AND WORLD REPORT)

1,068
UNDERGRADUATE
ENROLLMENT
(Fall 2016)

UNDERGRADUATE
STUDENT
EMPLOYMENT RATE
100%
(six months post graduation)

203
GRADUATE
ENROLLMENT
(Fall 2016)

215
UNDERGRADUATE
DEGREES AWARDED
(2015-2016)

25
PERCENT OF
UNDERGRADUATE DEGREES
AWARDED TO WOMEN AND
MINORITIES
(2015-2016)

More departmental statistics

- **Faculty hires from 2012-2017**
hired 21 full-time, permanent faculty members
- **Overall research expenditures**
reached more than \$14 million in 2016
- **Enrollment**
construction engineering undergraduate program
is the largest in the nation

ISU CCEE alums, students put education to work building U.S. Bank Stadium

By Kate Tindall

Published Jul. 29, 2016

Minneapolis, Minnesota – Iowa State University (ISU) alumna Ashley Kruger and her fellow engineers at Mortenson Construction take deadlines seriously.

They have to. They are one of two partner firms that have managed the construction of U.S. Bank Stadium in Minneapolis, Minnesota.

Kruger (third from left) stands inside U.S. Bank Stadium with fellow ISU CCEE alums and interns. (Photo courtesy Mortenson Construction).



On July 22, 2016, the Minnesota Vikings, Mortenson Construction and partners celebrated the ribbon cutting of the billion-dollar stadium. For engineers like Kruger, the ribbon cutting represents years of work.

Ahead of schedule

Back up to early June of 2016. Kruger, who earned her bachelor's degree in construction engineering from ISU's Department of Civil, Construction and Environmental Engineering (CCEE), says Mortenson Construction received the news that the certificate of occupancy for the stadium had come in six weeks ahead of schedule.

"It's really significant for the customer,"

Quick Look

In the summer of 2016, Iowa State engineering alums were busy constructing a Vikings fan's dream ... the recently-built U.S. Bank Stadium in Minneapolis, Minnesota. Check out how these alums are using their education from the department of civil, construction and environmental engineering to make a big impact in the sports world.

Kruger said, describing the impact of an early certificate of residency to both the Minnesota Sports Facility and the Minnesota Vikings. "It allows them to move in all of their equipment, work out any of the kinks that there might be in moving into a brand new building that they haven't been able to occupy before ... It also allowed them to schedule a few more events and feel comfortable doing so," Kruger said.

U.S. Bank Stadium

The stadium is an engineering feat. The Minnesota Vikings compared the new U.S. Bank Stadium to the old Mall of America Field. According to the team's official website, the new stadium spans 1,750,000 square feet. It fits 70,000 seats at maximum capacity, about 6,000 more than its predecessor.

ISU Construction Engineering Program Professor-in-Charge Chuck Jahren toured the stadium site in November 2015. Those tours were led by alums (like Kruger) working for Mortenson Construction.

"It's a lot more complex than a typical project," Jahren said of the stadium.

Jahren says that department students get the industry-standard training they need even before they step onto construction sites.

"They bring a lot of insight into that process," Jahren said, "... Then eventually in our capstone classes, they

end up working in teams like the kind of teams that they'll have to work with in order to build that kind of building."

Iowa Staters on site

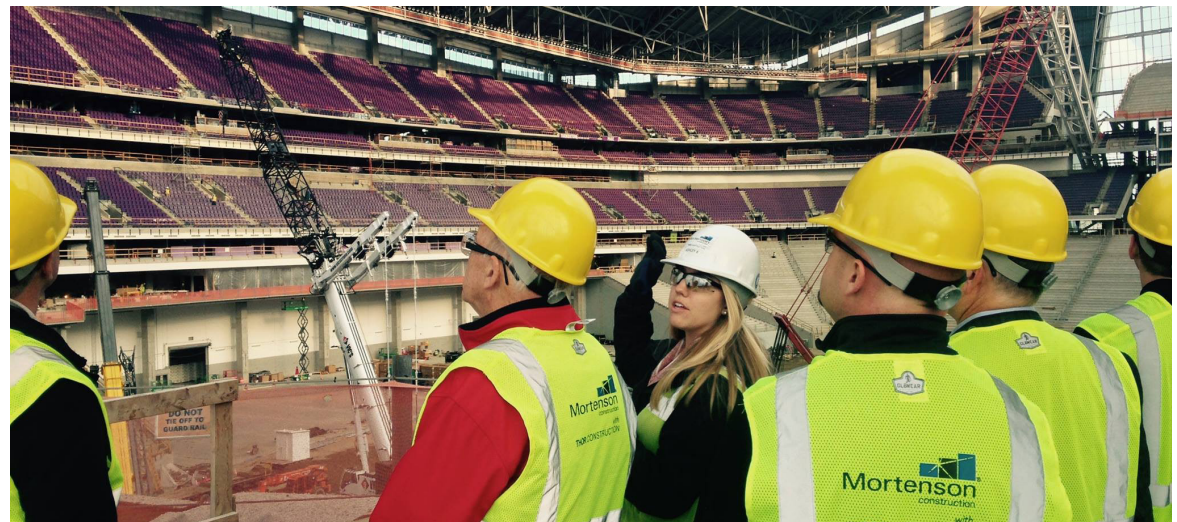
Kruger wasn't the only Iowa Stater on the U.S. Bank Stadium construction site. Several ISU construction engineering graduates and interns from Mortenson Construction worked on the stadium. Beth Hartmann is an ISU CCEE senior lecturer. She has had some of the alums and interns in class. She also took the November 2015 stadium tour.

"Stuff happens on construction projects every day, and you have to improvise and you have to be able to think on your feet," Hartmann said. "I

think that's what our program does for our students. It trains them on how to be problem-solvers and flexible so that they can find a solution that may not be right there on the drawing boards."

Back in Minnesota, Kruger says her ISU CCEE experience impacts her work constantly.

"I know that all of us who graduated from that construction engineering program really feel the same way, that it was a great program, that it really gave us the knowledge that we needed to do well in this industry," Kruger said. ■



Kruger (middle in white hard hat) gives a tour of U.S. Bank Stadium to the ISU CCEE Construction Engineering Industry Advisory Council. (Photo by Beth Hartmann).

Lifetime learning: CCEE alumnus completes bucket list goal at Iowa State

By Kate Tindall
Published Nov. 15, 2016

AMES, Iowa – DeWayne Heintz has been convinced for a long time that Iowa State University (ISU) is unique.

“I remember the first time I went to the ISU campus, when my parents took me there on a class visit in February of ‘81,” Heintz said. “I just thought it was the most beautiful place I had ever been.”

Non-traditional experience

Heintz (pictured right) isn’t your typical student. He graduated from Prairie High School in Cedar Rapids, Iowa,



Quick Look

When DeWayne Heintz turned fifty, he had a family and a successful career. But there was one thing Heintz didn’t yet have. It was his college degree. After more than 30 years out of school, he came back to Iowa State to get the engineering degree he had started back in 1981.

in the spring of ‘81. By the fall, he had enrolled at ISU to study civil engineering and took classes until 1987. At that point, he decided it was time to make a call on whether to continue his studies.

From the age of 12, Heintz had worked summers at his family’s asphalt company, Cedar Valley Asphalt, in Cedar Rapids. So, in 1987, he left ISU to work for the family business. After Cedar Valley Asphalt was sold to Cedar Rapid’s LL Pelling Company in the early 2000s, Heintz went to work for LL Pelling as an estimator and project manager. He was well-respected in the industry, including being an active member of the Asphalt Paving Association of Iowa (APAI). In addition, he raised two children. Heintz now had a family and a successful career. A continued pursuit of education could have

Continue YOUR education

Contact the ISU CCEE Advising Center.
Visit www.ccee.iastate.edu/academics/advising/

slipped to low-priority status.

Return to ISU

But Heintz was troubled by something: the unfinished degree he had started in 1981. The idea of coming back to school was both tantalizing and daunting.

“I was always kind of embarrassed to broach the subject to anybody, because I thought, ‘Well, gosh, what if they tell me no?’” he confessed.

He decided to voice his interest to a fellow member of the planning committee for APAI’s Greater Iowa Asphalt Conference: Chris Williams, a professor in ISU’s Department of Civil, Construction and Environmental Engineering.

“The man turned into the



NON-TRADITIONAL STUDENTS

Did you know that ...

Nearly **SEVEN PERCENT** of the student body at Iowa State University is made up of non-traditional students?

Energizer Bunny,” he said, describing Williams’ reaction to the interest. “He was already signing me up for summer school to get me in there right away.”

The two had first met almost a decade earlier while working on APAI’s conference committee.

“I saw that this was something that he brought up, so it was something that was bothering him, it was something that he wanted to achieve,” Williams said.

Class time

Now, in his fifties, Heintz prepared to finish a bucket list goal 35 years in the making. Williams, fellow faculty members and departmental advisers worked to help get the engineer enrolled in classes for the Fall 2014 semester. For the next two years, Heintz made the two-hour drive from Cedar Rapids to Ames several times a week. He got up at 2 a.m. and would report to LL Pelling by 4 a.m. in the morning. He worked with company leadership and faculty to develop a schedule that would allow him to work and attend school part-time. It was a tremendous endeavor.

“The first day I walked into class I was as nervous as a thief in a china shop,” Heintz said. “... But as I took more classes, it felt a lot more comfortable.”

His experience and curiosity was a welcome addition.

“He brought a lot to the classroom because he wasn’t afraid to ask questions, he wasn’t intimidated,” Williams recalled.

Graduation

In the spring of 2016, Heintz fulfilled all requirements to earn his degree. The value, he says, is the new knowledge gained through the process.

“There’s always benefits to education, even if it’s not always monetary,” he said. “Just the self-satisfaction of knowing that you did something. Much like a mountain climber or a distance runner when they run their first marathon, I just got that feeling that I’ve accomplished this.”

“He made himself successful,” Williams emphasized. “We just provided him with the reasonable pathway so this could be done.”

It’s a testament to the perseverance of a lifelong learner. ■

*Pictured: DeWayne Heintz on a jobsite.
(Photos courtesy LL Pelling).*

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Iowa State construction engineering student earns spot on Team USA

By Kate Tindall

Published Feb. 21, 2017



AMES, Iowa – If the first round of semester tests is stressful for you, imagine navigating class responsibilities while balancing an athletic schedule.

Jake Uglen doesn't have to imagine. Balancing responsibilities is a regular thing for the Cyclone Hockey defenseman.

Making the team

Uglen, an Iowa State University (ISU) senior studying construction engineering, returned last spring from playing for the U.S. Men's National University Team at the 2017 Winter World University Games in Kazakhstan.

"It was just super cool to be able to wear a USA jersey," Uglen said. "You dream of doing that growing up as a little kid, and it actually happened for us."

"Us" refers to both Uglen and his brother, Tony. The siblings are teammates on ISU's Cyclone Hockey Division 1 Team.

*Jake Uglen is a key player for Cyclone Hockey.
(Photo by Craig Carrol Photography).*

They went down in the records this year for being only the second pair of brothers to play together for Team USA in the Winter World University Games.¹

"We really never imagined something like that would happen," Uglen said of the experience. "We've been playing together forever."

A family sport

The brothers grew up playing hockey in Minnesota. Concussions prematurely halted the hockey career of Nick Uglen (a third Uglen brother). But Jake and Tony continued to play right through to their acceptance at Iowa State. For the Uglen family, hockey is more than a

Quick Look

Cyclone Hockey's Jake Uglen is striking a balance on the ice and in class. A senior in construction engineering, Uglen earned a spot on Team USA last spring for his skills as a defenseman. It's his ability to prioritize that helps this engineering student balance practice and class work.

game.

"I started skating when I was probably 4" Jake said. "I've just played my whole life."

Balancing time between practice, games and classes has become a lifestyle for the construction engineering student. At the start of his college career, Uglem toyed with which major best fit him. He was interested in design, and ultimately chose construction engineering for its ties to architecture and design-build fields.

Striking balance on and off ice

Uglem's schedule is packed. The Central States Collegiate Hockey League playoffs started at the end of February, followed in March by the 2017 American Collegiate Hockey Association National Tournament. When asked what advice he could give fellow students for optimal time management, he encouraged Iowa Staters "not to get too stressed out, because that will definitely, definitely slow you down."

"Ask your classmates and teachers for help if you need it," he said. "Don't try to put it all on your shoulders." ■

¹ Hall, Brian. "Jake and Tony Uglem Relishing Chance to Play Together on Team USA." teamusa.usahockey.com/news_article/show/753258?referrer_id=2889715.



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Pictured (from top, counterclockwise)

MJ Kamin, Julian Good-Jones, Branna MacDougall, Vince Horras, Braxton Lewis, Celia Barquin and Mauricio Ramirez.
(Photos by ISU Athletics).

Not pictured: Keegan Pullis, Brennan Drea, Brett Walker, Travis Havel.



Cyclone Energy earns third consecutive first place finish in Green Energy Challenge

By Kate Tindall

Published Oct. 23, 2016

AMES, Iowa – Mid-September in a Cyclone Energy practice session. Ten students listen as their peers, one by one, run through a presentation for an ELECTRI/International NECA Green

Quick Look

For the third time in as many years, the ISU CCEE student organization called Cyclone Energy has swept up first place in the Electri/International NECA Green Energy Challenge. Everything about the team screams energy. The students are smart. The adviser is tenacious. It's a recipe for a winning group. At time of publication, the team is gearing up for a four-peat at the 2017 competition.

Energy Challenge (GEC) proposal. One member, Regan, makes edits to the PowerPoint. The group throws comments up rapid-fire style. There is joking, but there is also an edge in the room. This is a two-time GEC championship team. They aim for a three-peat.

Early October. The team is standing on a stage in Boston. Each member's job? Present a 50-page energy upgrade proposal for Ames' Edwards Elementary School. And bring home a third consecutive first place finish for Iowa State University

(ISU). No pressure ...

The leaders

Caleb Bonderer is a senior in construction engineering. This year, he's the president of the ISU National Electrical Contractors Association (ISU NECA). His first experience of Cyclone Energy came during a 15-minute class consultation with department of civil, construction and environmental engineering (CCEE) Senior Lecturer Beth Hartmann.

"Forty-five minutes later I was walking out the door, and I was signed up

for Green Energy Challenge,” Bonderer says, repressing a small laugh. “I didn’t really know what had happened, but she had recruited me to be a part of the team.”

Through the immense work of the GEC proposal submission, poster and oral presentations, Bonderer says Hartmann drives the team. He admits that working for her “really is like working for your mom, which is kind of fun.”

The ISU NECA president knows how his advisers and his team click. He’s been a member of Cyclone Energy for the last two years. Since the team swept their third consecutive first-place finish this October, the road to a four-peat will be tricky.

“I think they definitely have a target on their backs,” Bonderer says of Cyclone Energy team members. “There’s no doubt about it.”

But this is the team that doesn’t quit. Bonderer foresees Cyclone Energy trying new and exciting competitions. He even wants to start prepping now for GEC’s 2017 national competition in Seattle.

“The moment we can, we start,” Bonderer says. “And we try to hit hard.”

Guidance

Beth Hartmann’s team calls her “Momma Bear.” Meeting Hartmann, you understand the nickname. Words like “amazing,” “hilarious” and a “handful” are all affectionately used to describe Hartmann by Cyclone Energy members.

She will challenge them to succeed. That’s not just because Hartmann has created an independent study out of the tough work her students do for GEC, but also because she knows the significance of that work.

“It is about how to be successful in our industry, how to communicate with our industry partners and people that are giving us advice,” Hartmann emphasizes.

The two faculty advisers to the group, Hartmann and ISU CCEE Senior Lecturer Jenny Baker, knew the 2016 GEC proposal prompt would be exciting. Each proposal needed to design an energy update for a community school. The team picked Edwards Elementary, and unique challenges cropped up.

“How do we show and recommend improvements on this building that’s only a couple years old?” Baker remembers thinking shortly after the decision to use the newly-constructed school was made.

Baker further explained that members did an extensive audit of

Continued on page 20

Page 19: This year’s Green Energy Challenge was held in Boston, Massachusetts. When the team wasn’t competing (top, right) they were touring the sites of the city, including a stop to Harvard University (bottom, right). (Photos by Beth Hartmann).

Cyclone Energy takes a leap (page 18) and sports shades in front of Edwards Elementary School (page 19, middle). (Group photos by Kate Tindall).

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 Search "ISUConE"



THOUGHTS FROM CYCLONE ENERGY

Team members were asked to submit thoughts concerning their three-peat victory at the Green Energy Challenge. These are the highlights that stuck with Cyclone Energy students ...

DYLAN BUSBY

"A competition like Green Energy Challenge not only shows you exactly what you need to improve on, but surrounds you with people who are willing to teach you any of your unknowns."

SCOTT MILLER

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

TRISTEN GIROLAMO

"The most important lesson I learned was the value in working in teams and how to communicate effectively with the group to become successful."

MAGGIE HOLT

"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."

NOAH REDDIG

"I've gained a ton of technical knowledge in the electrical topics of construction, as well as more confidence in speaking with employers in the industry."

REGAN SMILEY

"The Green Energy Challenge is not just a competition to be recognized for research or writing skills, [but] rather a chance to show how our future industry members can implement new change."

HELI

FELIX-NASCIMENTO

"Working among so many talented and intelligent people motivates me every day to become better to help the team achieve its goals as well as succeed in the competition."

Continued from page 19

the facility. They suggested LED lighting, shading for glare control and further lighting control options.

In the months leading up to competitions, Cyclone Energy calls on the state chapter of NECA and its contractors (some of which are ISU alumni) for advice. Feedback for the proposal, Q&A sessions during the final competition preps ... the advising is crucial.

"In the university setting, you learn a lot of stuff from books," Hartmann explains. "You need people with industry experience to help make that connection of, 'Here's what I learned in the book, and here's how I'm going to apply it in our industry.'"

So when the 2016 GEC rolled around, the work paid off.

The past

The ISU student chapter of NECA was first established in 1998. 2009 ushered in the first GEC, with ISU competing. Alumnus Matt Jahnke (B.S.ConE 2010) was a member of the first team.

"It really takes a roll-up-your-sleeves and get-to-work attitude," Jahnke remembers.

By 2010, Hartmann had arrived at ISU and was advising the team. That team, says Jahnke, has become a powerhouse.

"I see them continuing to excel,"

Jahnke replied when asked about where the team can go from its latest win. As for tackling each proposal?

"This problem is exactly what design professionals have to make on a daily basis," Jahnke asserts.

The future

What is next? Bonderer says the competition is tightening.

"They were looking for blood," he admits when asked about fellow competitors.

But he also knows Cyclone Energy is far from losing steam. His enthusiasm aligns with the goals of his advisers. Both see potential to strengthen Cyclone Energy's competitive streak.

So where does the team go? Baker has a simple answer: "A four-peat!"

Hartmann echoes the sentiment.

"I would tie it back to the learning," she points out. "What didn't we quite hit the mark on this semester that we can improve on next semester? I think that's actually the key to our success."

Above all, the team has a work ethic that is unrivaled and plenty of energy to spare.

"All the hard work our team puts in is why we're successful," Baker says. "We just put in the hours and the blood, sweat and tears in some cases. That does the trick." ■

Iowa State students hold up under pressure in steel bridge competition

By Kate Tindall
Published
Apr. 12, 2017



*Members of ISU ASCE Steel Bridge construct their model bridge at competition.
(Photo by Joni Truong).*

FARGO, North Dakota – In April, 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.

Within individual categories, Iowa State took first place in bridge stiffness. This is the amount of give the bridge displays when load is applied.

Megan Klus was the

president of ISU ASCE Steel Bridge during the Spring 2017 semester.

"People think it's mostly structural. Like, if you're interested in structural engineering, you should do this club," Klus said. "That is not the case. I'm a geotech (geotechnical engineering) emphasis. We've had environmental emphasis presidents. We have a ME (mechanical engineer) on the team this year. So it's a very diverse group. I don't think you have to be a structural emphasis to do well in the club." ■

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ISU CCEE teams bring home honors from Associated Schools of Construction regional competition

By Kate Tindall
Published Nov. 4, 2016

NEBRASKA CITY, Nebraska – Mackenzie 'Mac' Alberts first joined ISU's Associated Schools of Construction (ASC) competition teams as a sophomore. She remembers every aspect of the competition.

"It was 18 hours of being in a room with five other people that I barely knew and working on this proposal," she said.

After competition, Alberts (now an alum of ISU) knew her teammates quite well indeed. Her words sum up the intensity of the ASC Region IV Construction Management Student Competition. This year, ISU teams cleaned up first place in three divisions: commercial, specialty-mechanical and design-build. Heavy-highway brought home second place. In the competition's history, ISU has now placed first 45 times. ■

ASC members hold up plaques. The group is made up of team members from heavy-highway, specialty-mechanical, design-build and commercial. (Photo by Phil Barutha).



Design-Build Institute of America team wins third consecutive regional competition

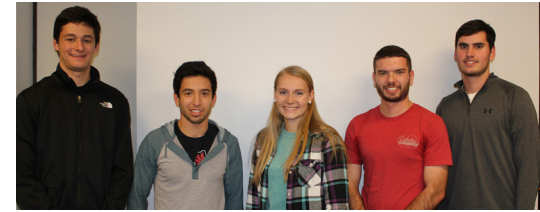
By Kate Tindall
Published Nov. 20, 2016

Ames, Iowa – ISU's Design Build Institute of America competition team was a finalist in this fall's Midwest regional competition of the National DBIA Student Competition. The competition requires every team to submit a request for qualifications (RFQ) for a campus development project based in the United States. Submitted RFQs have to meet specific requirements for budget, square footage and space needs.

To add a level of difficulty, the entire electronic submission process is condensed to about a month's time. At the end, judges evaluate teams based on delivery solutions and team collaboration. It is the third time that ISU has scooped up the regional title. This year, the team went on to place fifth nationally.

ISU CCEE Associate Professor Jennifer Shane is the faculty adviser to ISU DBIA. The competition is an opportunity for students from different disciplines to work together.

"That's what they're going to have to do in real life," Shane said, explaining how the competition mirrors the working relationships between engineers and architects. "It's multi-disciplinary." ■



Members of the 2016 ISU DBIA team. (Photo by Jennifer Shane).

Construction engineering students aid South Carolina families in post-hurricane destruction

By Kate Tindall
Published Mar. 28, 2017

NORTH CHARLESTON AREA,

South Carolina – A disabled veteran. A widowed grandmother raising three grandchildren. A single mom working two jobs. John Raimer can list family after family that has benefited from the work of Iowa State's Associated General Contractors Student Organization.

"We depend on volunteers to repair homes damaged from the hurricane and the flooding," Raimer, who is the construction manager for the Charleston Area United Methodist Church of South Carolina Disaster Response Team, said.

The ISU construction engineering group (ISU AGC, for short) volunteered to help families, many of whom had been

waiting for help for a year and a half.

"For some families, this was the second time the house was flooded (once in October 2015, and then again in October 2016)," Raimer said.

Student leadership

If uplifting spirits is a qualification for ISU AGC members, Iowa State senior Kurtis Schreck hits the mark. Schreck is vice president of the organization and two-time coordinator of the break volunteer opportunity. A die-hard proponent of the trips, Schreck says he would encourage any classmate to get involved. After all, it's the way he got hooked on AGC.

"I didn't even do an AGC event before I went on a spring break trip my freshman year—both me and the current president," Schreck said with a grin. "We went on the trip and had a great time. We happened to get a really good crew and built an entire home



AGC members take a quick break outside one residential work site.
(Photo courtesy Kurtis Schreck).

from foundation up in four days. That was the most fun thing ever for me!"

Getting to work

While volunteering in South Carolina during this year's spring break, Schreck and his fellow students used their time to fix houses. They hope that, by

Continued on page 24

Quick Look

This spring, members of Iowa State University's Associated General Contractors used their semester break to volunteer in the North Charleston area. They fixed six houses, donating nearly 1,700 hours of community service.

GIVING IS FULL-TIME



In addition to fall and spring break trips, ISU AGC members take part in various volunteer opportunities throughout the year. In 2016-2017, students paired with Des Moines Public Schools to donate holiday presents to local families. They also competed and won the first annual Race to Build, sponsored by the Appalachia Service Project. After scooping up first place, the group donated its winnings back to the service project.

Continued from page 23

mending holes in floors and leaks in roofs (or building a new roof), they can alleviate worry and allow homeowners some freedom to think beyond the basic needs of shelter.

"Growing up in an unsafe house can lead to unsafe housing becoming a norm," Schreck explained. "Giving someone either a waterproof house or just one that doesn't leak or doesn't have holes in the floor lets that person focus on other parts of life."

Experience

The trips offer an opportunity to network as well. This spring, AGC toured the Mercedes-Benz Stadium and Clemson University student housing projects, both offered through industry relations at Holder Construction. These interactions between students and employers become "second nature," as Schreck puts it.

"It opens so many opportunities," Schreck said. "You meet so many

contractors, and it's so easy to talk to them once you've talked to a hundred of them."

In all, 36 students completed nine projects (or nearly 1,700 hours of work) for families in the North Charleston area. This will be the last volunteer trip Schreck will organize, as he steps down from his role as vice president at the end of the school year.

"I'll miss the responsibility in planning the trip," he said. "It's really cool to leave my own mark on it."

"This group is highly skilled and very organized," Raimer said. "...Your school should be very proud of what this group does." ■



RT @DMschools (On ISU AGC volunteering):

Thanks to our friends and partners at @IowaStateU for supporting two of our students' families this holiday season.

FACULTY AND PROFESSIONAL & SCIENTIFIC STAFF AWARDS

JERAMY ASHLOCK

Associate Professor Jeramy Ashlock was recently awarded the Richard L. Handy Professorship.

SHAUNA HALLMARK

Professor and Director of the Institute for Transportation (InTrans) Shauna Hallmark was awarded the Paulsen Professorship in Civil, Construction and Environmental Engineering.

DOUGLAS WOOD

Associate Scientist Douglas "Doug" Wood received the Professional and Scientific Excellence Award.

SIMON LAFLAMME

Associate Professor Simon Laflamme earned an Early Career Engineering Faculty Research Award.

SRI SRITHARAN

Sri Sritharan, a professor of structural engineering, was recently named the Wilkinson Chair in the College of Engineering and was the recipient of the D.R. Boylan Eminent Faculty Award for Research.

ROBERT STEFFES

Robert "Bob" Steffes, program manager for InTrans, was recognized as the recipient of the Regents Award for Staff Excellence.

CHRIS WILLIAMS

CCEE Professor Chris Williams (along with university faculty member Robert Brown) was recognized for receiving a patent for research on bio-oil formulation as an asphalt substitute.

LARRY CORMICLE

Senior Lecturer Larry Cormicle was awarded a Superior Engineering Adviser Award.

SUNGHWAN KIM

InTrans Assistant Scientist Sunghwan Kim received the Professional & Scientific Outstanding New Professional Award.

DAVID JEONG AND PETER SAVOLAINEN

At the 2016 Annual Civil Engineering Fall Banquet, Associate Professor Peter Savolainen was awarded the Charles W. Schafer Award for Excellence in Teaching, Research and Service. Associate Professor David Jeong was awarded the Joseph C. and Elizabeth A. Anderlik Award for Excellence in Undergraduate Teaching.

BETH HARTMANN

Senior Lecturer Beth Hartmann was awarded a Superior Engineering Teaching Award.

Unless otherwise noted, the faculty and staff listed above received recognition at the university-wide 2016 Faculty and Staff Awards Ceremony and College of Engineering Convocation.

Engineering emeritus faculty engage with ISU while keeping professional relationships strong

By Kate Tindall

Published

Sept. 1, 2016



Quick Look

Two emeritus faculty are experts when it comes to keeping ties to Iowa State.

Meet Jack Cleasby (pictured, left) and Wallace Sanders. (Photo by Kate Tindall).

AMES, Iowa – More than 70 years. That's a lifetime, a career.

And that's how much experience Jack Cleasby and Wallace Sanders have dedicated to Iowa State University (ISU).

Cleasby and Sanders are both emeritus faculty of ISU's Department of Civil, Construction and Environmental Engineering (CCEE). While their stories are different, their commitment to ISU and CCEE is similar.

Career at ISU CCEE

Cleasby first started his career at ISU in 1954. He had been working at a Chicago consulting firm when he spotted an advertisement for a faculty position posted in the firm's offices.

Cleasby says the advertisement disappeared from the firm soon after his application to ISU.

"I don't suppose the boss was happy about that, because it enticed me away," Cleasby said with a smile, describing the advertisement's disappearance.

Sanders came to ISU a decade later in 1964.

"I came in as an associate professor with tenure, and then five years later I became a full professor and it just kept skyrocketing," Sanders said of his research experience.

Both professors would create outstanding careers at ISU. Cleasby became a distinguished professor in the College of Engineering and was elected

to the National Academy of Engineering. Sanders would ultimately become the associate dean of research for ISU's College of Engineering. Both Cleasby and Sanders retired in the '90s.

Binding ties

Still, they stay connected to ISU CCEE. Why? The professors put department faculty and students at the top of the list.

"I think it's unique in the fact that there are [five] important divisions, quite different emphases, and yet they seem to be able to work together and produce graduates that are in good demand for employment," Cleasby said.

"It just seemed like we clicked together," Sanders said of fellow faculty. "We always remained friends and worked together."

Giving back

Currently, both Cleasby and Sanders give to ISU. Sanders and his late wife Julia donated money for a scholarship (the Wallace W. and Julia B. Sanders Scholarship in Civil Engineering). In addition, they gave a substantial gift for the Wallace W. and Julia B. Sanders Structural Engineering Laboratory. Wallace has also given to the Marston Hall Fund, a recent project on campus.

"When I came here, I made a commitment to Iowa State to

make it as good as I could help make it," Sanders said. "We (faculty) seemed to have a feeling of wanting to make it the best department we could."

In the late 2000s, Cleasby and his wife Donna set up a fellowship to encourage students to pursue research in environmental engineering. Cleasby says the fellowship is distinct in its potential to encourage new research.

"The purpose of this fellowship was to try to have money available that one of the current faculty could give to a student and tell them, 'Pick a topic and make a proposal of what you want to do,'" Cleasby said.

The two men keep their friendship and professional relationship strong both on and off campus. They regularly connect at the semi-annual department breakfast for emeritus faculty. Both golf, enjoy friendly competition on the course and a good laugh. Cleasby and Sanders both live in Ames, Iowa. ■

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ALUMNI ACHIEVEMENT ● ● ● ● ●

Anson Marston Medal awarded to Joel Cerwick

Conferred by the College of Engineering, this award was presented to Cerwick (B.S. CE'66, M.S. CE'68) during Iowa State Homecoming 2016 (pictured right).



Alumni honored by American Academy of Environmental Engineers and Scientists

Three engineers from FOX Engineering have been inducted into the American Academy of Environmental Engineers and Scientists (AAEES). Those alumni are Steve Troyer (B.S. ConE'93, M.S. CE'97), Lance Aldrich (B.S. CE'94) and Laurie Twitchell (B.S. CE'94).

Paul Giroux awarded Roebling Award from ASCE

Giroux (B.S. ConE'79, pictured right) received this prestigious award from the American Society of Civil Engineers (ASCE) in March. He was recognized as an ASCE Distinguished Member in October 2016.



David A. Sabatini named 2016 recipient of national award for global outreach

David Sabatini (Ph.D. CE'89) received the Steven K. Dentel Association of Environmental Engineering and Science Professors Award for Global Outreach.



Sandra Larson receives Roy W. Crum Distinguished Service Award

Sandra Larson (B.S. CE'88, B.S. BIOL'75) received the Roy W. Crum Distinguished Service Award from the Transportation Research Board. Larson (left) retired from her position as director of the Iowa Department of Transportation's Systems Operations Bureau in June.

Alumni receive honors from PCI, ASCE

The Precast/Prestressed Concrete Institute (PCI) recognized Justin VanderWerff (Ph.D. CE 2014) and Rick Snyder (M.S. CE 2010) with the Martin P. Korn Award. Ann-Marie Cox (M.S. CE 2007), Jin-wei Huang (M.S. CE 2011) and Muhannad Suleiman (Ph.D. CE 2002) received the George D. Nasser Award. Ataur Rahman (Ph.D. CE 2008) received the ASCE's T.Y. Lin Award. Professor Sri Sritharan was a collaborator for all awards.



Nicole Schmidt chosen to chair ISUAA Board of Directors

Nicole Schmidt (B.S. ConE 2009, M.S. CE 2013) assumed responsibilities as chair of the Iowa State University Alumni Association (ISUAA) Board of Directors. Schmidt (left) was recognized in May.

Advisory council updates



Kent Meyn

*Chair, Construction Engineering Industry Advisory Council
(B.S. ConE'85)*

The 30-member Construction Engineering Industry Advisory Council met in October 2016 and April 2017 with continued focus on our three-year strategic plan.

From research to outreach to fundraising, we partner with the ConE faculty to develop the next generation of construction engineers and industry leaders.

Our Greenlee Leadership Series guest speaker, Jim Nissen (B.S. ConE'81), addressed more than

200 engineering students on work-life balance and the character qualities of a leader. At our AGC-Construction Engineering Spring Awards Banquet, David Pepper (BSConE'85) of Pepper Construction was inducted into the Construction Engineering Hall of Fame.

This fall we will be interviewing students from learning community freshman to graduating seniors. These interviews provide a student's perspective of the health of the program and ensure we are seeing the outcomes required in the ABET (Accreditation Board for Engineering and Technology) accreditation process. ■



Scott Werner

*Chair, Civil Engineering External Advisory Board
(B.S. CE'88)*

The members of the Civil Engineering External Advisory Council look forward to our biannual meetings for our continued dialogue with the CCEE staff and undergraduate students.

As always, Terry Wipf and his staff work tirelessly toward continuous improvement of the department. The council appreciates the opportunity to support the department through our observations, opinions and experiences in the civil engineering world.

The department is already preparing for the next ABET review in the fall of 2018 and the council is ready to help. The board has also welcomed several new members this past year due to retirements and term limits based on the board's bylaws. A task force was created to work on recruiting diverse members to the council that cover all aspects of civil engineering.

The board's fall meeting was held in Ames while our spring meeting was a joint meeting in Iowa City with the University of Iowa advisory board. Discussion highlights from the past two meetings include curriculum feedback, importance of design software, on-line cross course offerings, learning threads and learning communities. ■



Upcoming Events

ConE IAC Meeting
Oct. 27, 2017

CE EAC Meeting
Nov. 28, 2017

ISU CCEE **GOLD** MEMBERS

ANDREW "AJ" BARONE

*Member
(B.S. CE 2012)*



TIM SCHLOSSER

*Co-Chair
(B.S. CE 2015)*

KAYLA HANDSAKER

*Secretary
(B.S. ConE 2012)*



JENNY HERRERA

*University Liaison
(B.S. CE 2016)*

BRANDON NIEBUHR

*Member
(B.S. CE 2015)*



*"ISU CCEE GOLD is **THE GROUP** to
reconnect with old classmates and
network with new friends!"*

-AJ Barone, ISU CCEE GOLD Chair

WHAT IS ISU CCEE GOLD?

Iowa State University Civil, Construction and Environmental Engineering Graduates of the Last Decade (ISU CCEE GOLD) is a group of alumni from ISU's Civil, Construction and Environmental Engineering Department. These alumni have graduated within the last 10 years.

ISU CCEE GOLD provides opportunities to foster relationships amongst members, students and faculty through professional development, mentoring and collaboration. Our goal is to create a network of alumni who are actively engaged with students, faculty and staff.

Get involved

If you're a graduate of ISU CCEE within the last 10 years, you are eligible to be a part of ISU CCEE GOLD! You'll get to plan alumni events, serve as a mentor to young engineers and initiate exciting opportunities for friends of ISU CCEE.

jeand@iastate.edu 

Email ISU CCEE Outreach Coordinator Jean Dubberke to join,
or call (515) 294-5105.

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 Louis Circeo
 Susan & Randy Clarahan
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 John & Leisa Cline
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 David & Judy Everds
 Julie & Lance Eybers
 Vincent Fadden
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 Bertha Fellows
 Shirley & Richard Fidler
 Loren & Lenore Field
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 Marcia & Michael Foley
 Leonard & Dorothy Follmann
 Frank Forbes
 Doris Forbes
 Andy & Kelley Frank
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 Kent Friedrichsen
 James Fritcher
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 Jack Gethmann
 Joan Gethmann
 Abigail Ginsberg
 Bradley Gipple
 Mary & Michael Goodkind
 Charles & Mary Kay Graber
 Douglas Gransberg
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 Don & Sharon Greenwood
 David & Ellen Greffenius

Jack & K. Marie Gregersen
 Kendall & Suzanne Griffith
 Gwenda & Wilhelm Groskurth
 Jonith & Steve Grundmann
 Mark & Lisa Guetzko
 Jack & Jolene Guinn
 Orhan Gurbuz & Gilda Ates
 Joan & Daniel Hackbarth
 Marcus & Daphne Hall
 Nizar Hamad
 Michael Hameister
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 Duane & Jill Meyer
 Melvin & Barbara Meyer
 Kenneth & Betty Milford
 Maurice & Denna Miller

Continued on page 32



Upcoming Alumni Events

ISU CCEE Homecoming Tailgate
 Oct. 28, 2017

ISU Construction Engineering Reunion
 Oct. 26, 2017

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Albert & Lois Miller
W. Owen & Karen Miller
John & Amy Moberg
David Moeller
Darcy Moeller
William & Margaret Moelling
Dale & Cheryl Moore
Shahzad & Shahzad Moosa
James Moyer
Kyle Mueller
George & Ginny Mulholland
Jeffrey & M. Myhre
Carrie & Steven Naber
Ryan Nelson
Judith & James Nelson
Catherine & Andrew Nicholas
Helen & Eugene Niebuhr
Robert & Terri Nielsen
James & Rhonda Nissen
Ronald & Vicki Norby
Gene & Linda Nott
Thomas Novak & Debra Johannes-Novak
Edward O'Connor
Timothy & Nancy O'Connor
Dea & Ronald Oleson
Richard Olin
Chris & Kathy Olson
Robert & Cheryl Ooten
Marcia & Douglas Otte
Fred & Luara Pech
Lowell & Patricia Penning
David & Jolyn Petermeier
Gerald & Ruthann Petermeier
Michael & Stephanie Peterson
Gale & Becky Peterson
Patsey & Albert Peterson
Robert & Lynn Peterson
Lisa Peterson-Nelson & James Nelson
Scott & Christine Poska
Howard Preston & Laurie McGinnis
Dorothy & Richard Pride
Gus & Mary Psihoyos
Danny & Catherine Pudenz
Stephen & Anne Quigley
Lorraine & Victor Randecker
Randy & Sonja Reimer
Mary Jean & Maurice Reimers
Kevin & Amy Rens
Janice & Joseph Reutter
Peggy & Patrick Richter
Eldon & Becky Rike
Nancy & Allan Rockne
Gilbert & Sharon Roderick
Dorothy Rotolo

Leonard Rotolo
Brian & Lori Rumpf
Eugene & Mary Russell
Eric Ryan
Robert & Patricia Ryken
David & Frances Sabatini
Matthew & Leah Santee
Nancy & Charles Sapp
Frank & Stacy Sarno
Georgalee & John Sawyer
Steven & Pamela Scanlan
Deborah & Jeffery Schebler
Thomas Schmall
Rick & Cornelia Schmid
Bryan & Nicole Schmidt
Matthew & Rachael Schmitt
Jacob Schneider
Russell & Pamela Schroeder
Richard & Suzanne Schultze
Tim & Cynthia Seibert
Leslie Seppamaki
Neil Shatek
Craig & Nancy Shirey
Patricia Simmons
Terri & Tim Simodines
Paul & Shelli Slack
Dennis & Jane Smith
Kurt Snitker
Susan & Kenneth Sorensen
Gust & Rita Soteropolos
Michael & Christine Specht
Marie & Kevin Stamm
Russell & Janet Stammer
Robert & Joan Stanley
Andrew & Lorri Stapleton
Troy Stephens
Jean & James Stoker
Charles Stone
Gregory & Julie Stonehouse
Hildegard & Wain Stowe
Jude Studer
Jared Stumme
Wayne & Paula Sunday
Chetan Swarn
Randall & Laura Teague
Shirley Templeton
Robert Templeton
Chad Tenold
Robert & Jean Thoen
Mary & Paul Tilp
Lee & Carol Tippe
Eric & Terri Torkildson
Quyen Truong
Brad & Debra Uitermarkt
Cynthia Ustrud & Dennis Rollins
David & Barbara VanHorn

Henry & Molly Veenstra
John & Anne Veenstra
Lynn & Jim Verry
Bryan Volk
Richard Von Langen
Gavin Walhovd
Jackie & Craig Wallace
Roger Walton
David & Lisa Warning
Carol & Allen Wassenaar
Stephen & Judy Weber
Carol & David Weiss
Lynn & Wendy Wenger
Steven & Joan Westby
John Whisler
Shawna & Justin Widdel
Sharon & H. Dale Wight
Spencer Wignall
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