

LYLES SCHOOL OF CIVIL ENGINEERING

TRANSITIONS

PURDUE UNIVERSITY WINTER 2020



CURES
SET THE TONE
FOR GIVING

CONNERS
GIFT CREATES
TWO NEW
TEACHING LABS

PRACTICALITY
LEADS COUPLE
TO ESTABLISH
SCHOLARSHIP





MESSAGE FROM SCHOOL HEAD “G.S.” GOVINDARAJU



I would venture to guess that one of the words most often associated with civil engineering has to be “landmark” — and I believe that holds especially true for the Lyles School of Civil Engineering.

For more than 130 years, Purdue civil engineering alumni and faculty have been the driving force behind many of the world’s modern landmarks that have stood the test of time and continue to inspire the engineers of today.

We have helped create, preserve and maintain the Golden Gate Bridge, the Panama Canal and the Hoover Dam. We have also been part of many of the world’s most recent and significant international civil engineering achievements, including the Jeddah Tower, the Hong Kong-Zhuhai-Macau Bridge and the Riyadh Metro transit system.

Our alumni and faculty are also actively involved in some of the world’s most significant landmarks in civil engineering research. We continue to be on the cutting edge with advances such as incorporating designs found in nature to create stronger materials; improving the way future skyscrapers will be built; and utilizing new technologies to monitor and map shifts in the environment. We are also preparing for humanity’s next historic achievement through our research toward establishing habitats in space.

The achievements and pursuits led by Purdue civil engineers are not simply relegated to our breakthroughs and innovations, either. We have been an integral part of significant cultural landmarks, as well.

2019 marked the 125th anniversary of the graduation of David Robert Lewis, Purdue’s first black graduate and a civil engineering alumnus. I cannot begin to imagine the amount of courage it took to do what Mr. Lewis achieved in 1894, but I can say with certainty that his legacy will never be forgotten.

In this magazine, we detail both the life and accomplishments of Mr. Lewis as well as the heartfelt celebration we held in his honor back in February. The lecture, delivered by alumnus Mamon Powers Jr. (BSCE ’70, HDR ’14), was especially moving.

It is contributions like those of Mamon Powers — along with the efforts and support of so many of our dedicated alumni — that truly sets our school apart as one of the true landmark civil engineering institutions in the world.

In this edition of *Transitions*, you will see for yourself just how special our alumni base is — in both their loyalty and in their generosity. During 2019 alone, our alumni greatly improved our School, from assisting in physical improvements to Hampton Hall to further aiding in academic research and initiatives.

And, as always, there are many more stories to tell — and I look forward to sharing even more of our School’s accomplishments and successes with you as they come.

All the best,

A handwritten signature in black ink, appearing to read "G. Govindaraju". The signature is fluid and cursive, written in a professional style.

RAO S. GOVINDARAJU

*Bowen Engineering Head of Civil Engineering
and Christopher B. and Susan S. Burke Professor of Civil Engineering*

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COVER: Jim Cure (BSCE '75) and his wife, Carol, who have given more than \$5.25 million to Purdue's Lyles School of Civil Engineering.

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Hall of Civil Engineering
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Or email: heathk@purdue.edu
Or call: 765-494-2166

CURES RETURNING THE FAVOR

APPRECIATIVE COUPLE CONTINUES TO GIVE BACK





A Purdue education is a gift. Every Boilermaker should give back if they can. So says Jim Cure (BSCE '75), a second-generation Purdue graduate who built a career as a construction industry executive and consultant in the Portland, Oregon, area. Over the years, Jim and his wife, Carol, have committed more than \$5.25 million to the Lyles School of Civil Engineering.

Their gifts led to the creation of a named civil engineering professorship and the establishment of the Civil Engineering Advisory Council Scholarship, while also helping to fund recent renovations at Delon and Elizabeth Hampton Hall of Civil Engineering.

"A Purdue education is a gift, and we need to celebrate and support that," says Cure, who is president emeritus of Advanced Technology Group, a partner at Curetech LLC and a former vice president at Fullman Co.

"My feeling is that my education at Purdue gave me the tools to be successful in my career. My Purdue degree gave me immediate credibility in the industry," he says. "I wanted to give back, and I feel blessed to be in a position to do that."

Attracting the very best

In 2015, the Cures, who have a history of giving to Purdue and faith-based causes, contributed \$4.5 million to create their named professorship and the advisory council scholarship. In both instances, the Cures' reason for giving was simple: To attract the best and the brightest — faculty and students — to the West Lafayette campus.

The endowment establishing the professorship also provides funds to support civil engineering graduate students, which is another high priority across the College of Engineering.

"I felt the professorship was something Purdue needed as it continued to build on its strong reputation. Getting top professors is the best way to do that," says Cure, a recipient of Purdue's Civil Engineering Alumni Achievement Award and College of Engineering Distinguished Engineering Alumni/Alumnae Award.

"Providing seed money for the advisory council scholarship, and doing it in the council's name, was a great opportunity to establish a prestigious scholarship and attract the very best students to civil engineering at Purdue for years to come," he says.

In 2019, Jan Olek (PhD '87), a Purdue professor since 1994, was named the James H. and Carol H. Cure Professor in Civil Engineering. The first Advisory Council Scholarship recipient is Sam Messinger, a freshman from Melville, New York. He began his first semester in fall 2019.

Jim Cure, chairman of the advisory council, and the other council members previewed finalists based on their needs, qualifications and accompanying essays.

"When the scholarship committee selected the top 10 candidates, most of them had not yet said yes to Purdue. The group specifically looked for aspiring students who did not have the funds to attend Purdue," Cure says. "The committee recommended a student who probably wasn't going to come to Purdue without the scholarship. Going through the process was a great joy. To know that we're able to impact a specific individual's life in a positive way was very rewarding."

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Achieving goals

In many ways, the Cures' various gifts aligned with the goals of *Ever True: The Campaign for Purdue University*, which began in July 2012 and ran through June 2019. The priorities of *Ever True*, the largest fundraising effort in Purdue history, included placing students first, building on the University's strengths, and championing research and innovation.

"The Cures are driven by the desire to have far-reaching impact, which is in alignment with the School's mission," says Rao "G.S." Govindaraju, the Bowen Engineering Head of Civil Engineering and Christopher B. and Susan S. Burke Professor of Civil Engineering.

"Whether they give for a professorship, a scholarship or facilities, it is from the same desire — to benefit students," Govindaraju says. "What they're doing now for our students will stick with them throughout their future careers."

The Cures are also advocates of the annual Purdue Day of Giving, the University's popular one-day fundraiser in April. On the 2019 Day of Giving, the Cures gave \$750,000. Those funds supported renovations at Hampton Hall and the creation of a new laboratory, the Jim and Carol Cure Geomatics Teaching Lab.

Their contribution was part of a record-setting \$41.6 million in funds raised for the University during the 2019 Purdue Day of Giving. The Cures' 2015 gift also came on the Day of Giving.

"I think the Day of Giving campaign is fantastic, and I wanted to raise those numbers again," says Cure, a Martinsville, Indiana, native. "I come from a long line of Purdue people, including my father and four of my siblings. We've been blessed to have a Purdue education. I think there are a lot of people who feel the same way I do about Purdue and the role it played in their success. We feel we owe Purdue something, and I think it's important that we instill that in all our graduates going forward." ■

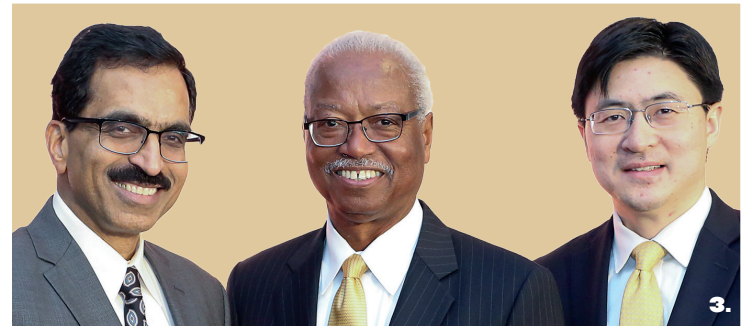
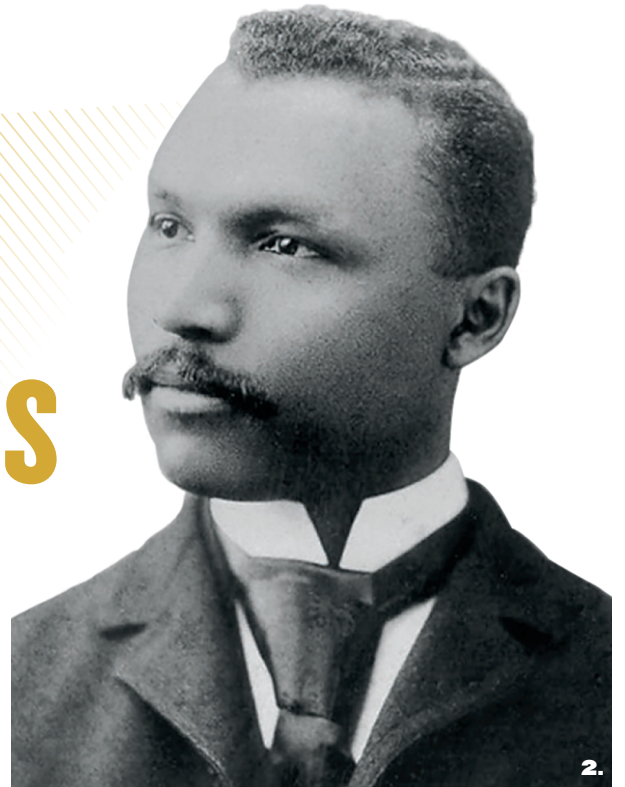


ENJOYING LIFE: Jim Cure (BSCE '75) and his wife, Carol, who have given more than \$5.25 million to Purdue's Lyles School of Civil Engineering, in and around their home in the Portland, Oregon, area.



CELEBRATING DAVID ROBERT LEWIS

POWERS HONORS FELLOW CE GRADUATE



One distinguished Purdue civil engineering graduate honored another when Mamon Powers Jr. (BSCE '70, HDR '14) visited campus in February 2019.

Powers appeared as part of a Lyles School of Civil Engineering celebration honoring David Robert Lewis, who became the University's first African American graduate when he earned a civil engineering degree in 1894. Speaking at the David Robert Lewis Lecture, Powers gave a talk called "The Path is the Same, but the Journey is Different."

Powers, who received an honorary doctorate from the University in 2014, is chairman and CEO of Powers & Sons Construction Co., a 50-year-old firm that serves Indiana and Illinois. A Purdue Board of Trustees member from 1996 to 2011, Powers is a College of Engineering Distinguished Engineering Alumni/Alumnae Award winner. He also has received the Civil Engineering Alumni Achievement Award.

"I'm pleased that the school of civil engineering has taken the opportunity to continue to recognize David Robert Lewis and what he was able to achieve. It speaks volumes," Powers said during his presentation. "As I've had the opportunity to engage with my fellow Purdue alumni, especially as a trustee, I learned that their college experience was very, very different from mine. Hearing their stories caused me to come up with my topic."

Noting that his February appearance at Purdue coincided with Black History Month, Powers connected an in-depth study of Lewis' life and times with a history of the African American educational struggle and his own family's experiences.

"History tells us that Lewis' journey at Purdue may have been very different from that of a typical student. History also tells us that, between the Civil War and 1900, there were only nine African American graduates from Indiana colleges," Powers said. "History is important because it's important

1. Mamon Powers (BSCE '70, HDR '14) speaking at Purdue. **2.** David Robert Lewis, circa 1894. **3.** From left, Bowen Engineering Head and Burke Professor of Civil Engineering Rao "G.S." Govindaraju, Mamon Powers and Edwardson Dean of the College of Engineering Dean Mung Chiang.

to know where you've been so you can know where you're going."

Powers traced his own success back to African American educators like Lewis, many of whom were forced into academia — usually at institutions that later became what we know as historically black colleges — because they couldn't get jobs doing what they studied.

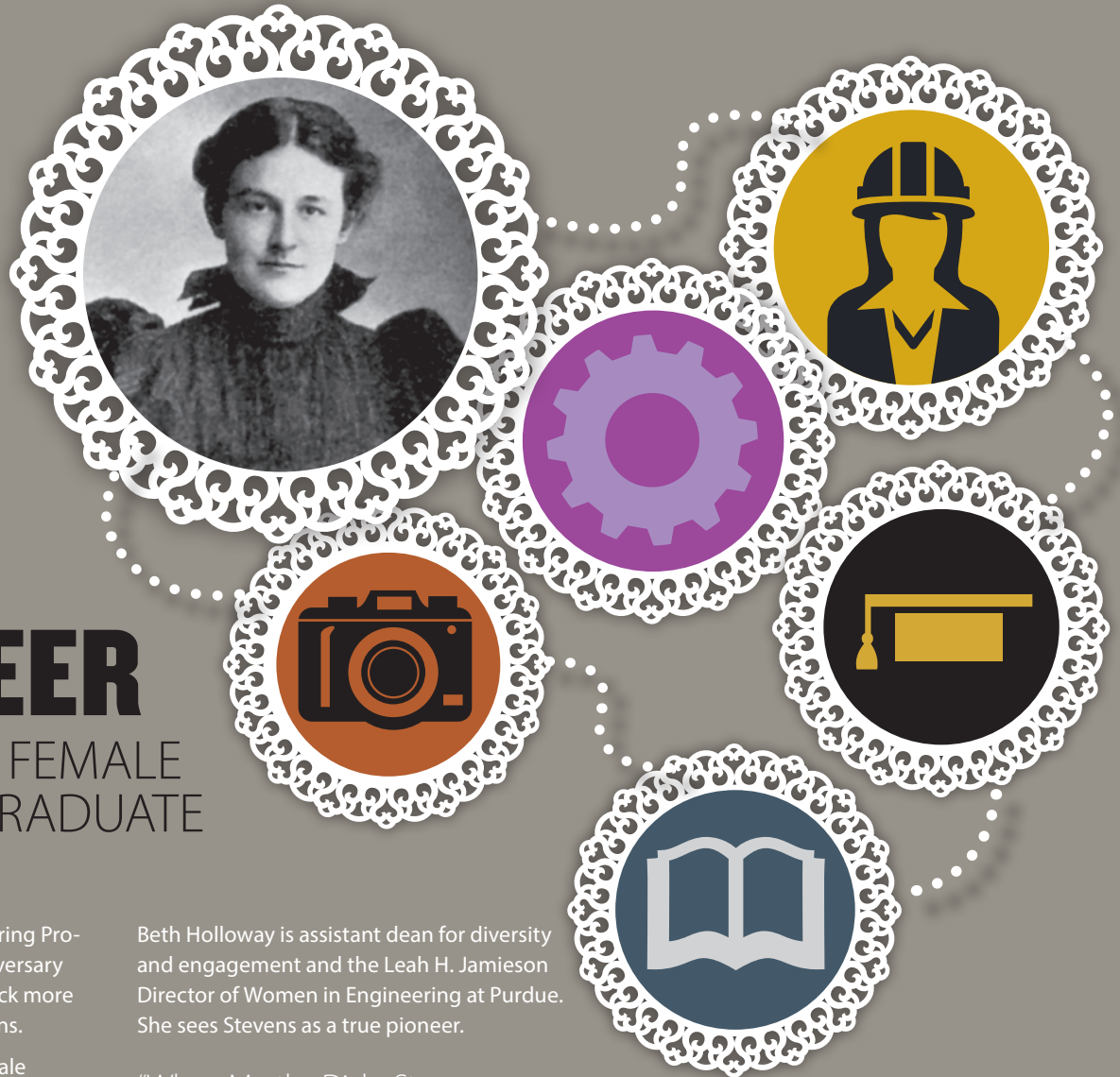
After graduating from Purdue, Lewis took a teaching position at Virginia's Hampton Normal and Agricultural Institute, now Hampton University. Educational opportunities for African Americans were limited at that time, Powers said, and Hampton was founded to teach former slaves agriculture and vocations.

"He was an accomplished engineer at Purdue, but the journey of David Robert Lewis led him only to teaching mechanical drawing and mathematics at the junior high level," Powers said. "At that time, many highly educated African Americans with master's degrees and doctorates taught at our universities and other academic institutions. While there was a professional disadvantage for David Robert Lewis and others, the beneficiaries were us. Our academic careers were greatly enhanced because of their presence. I don't think you can say enough about how valuable that is."

Powers recently was named the 2019 Engineer of the Year by the Indiana Society of Professional Engineers. ■

MARTHA DICKS STEVENS: ENGINEER AND PIONEER

PURDUE'S FIRST FEMALE
ENGINEERING GRADUATE



The Purdue Women in Engineering Program celebrated its 50th anniversary in 2019, but its origins date back more than 120 years to Martha Dicks Stevens.

Stevens was the University's first female engineering graduate, earning her civil engineering degree in 1897. Her landmark achievement blazed a trail for female engineers at Purdue and around the country at a time when the women's suffrage movement was treading water. American women didn't get the right to vote until 1920.

Stevens, who also earned a bachelor's and a master's in the College of Science, was an ambitious student who served as president of the Purdue Photographic Club and as vice president of the University's Philalethean Literary Society.

The University's Lyles School of Civil Engineering celebrated the 120th anniversary of Stevens' graduation with a yearlong celebration in 2016-17. Among the featured events were Civil Engineering Milestones Lecture appearances by Martha Rees (BSCE '73) of DuPont USA and Doreen Mitchell (BSCE '81) of the Walt Disney World Co.

Beth Holloway is assistant dean for diversity and engagement and the Leah H. Jamieson Director of Women in Engineering at Purdue. She sees Stevens as a true pioneer.

"When Martha Dicks Stevens earned her engineering degree at Purdue, she proved that Purdue engineering wasn't just for men," Holloway says. "Purdue's rich history with regard to welcoming and educating women in engineering started with Stevens and her accomplishments. She inspired countless other women to follow in her footsteps — at first slowly, and then by giant leaps."

Stevens' impact on Purdue engineering, Holloway says, was both immediate and enduring. This included the accomplishments of Lillian Gilbreth, who became the first female engineering professor in the United States when she earned an appointment in Purdue's College of Engineering in 1935.

"The atmosphere at Purdue, and the vision of its leaders at the time, created an opportunity for Lillian Gilbreth to become the first female engineering professor," Holloway says. "Following that, progress continued with the founding of the oldest continuously chartered student section of the Society of Women Engineers in 1954, and then the creation of the first Women in Engineering Program in the country in 1969. Today, almost 125 years after Martha's graduation, there are over 3,300 women studying engineering on Purdue's campus. It all started with her." ■

AWARDS AND HONORS

DISTINGUISHED ENGINEERING ALUMNI AWARD

The College of Engineering's Distinguished Engineering Alumni/ Alumnae Award is presented to men and women who have distinguished themselves in any field in ways that reflect favorably on Purdue University, the engineering profession or society in general. These alumni/alumnae are engaged in cutting-edge engineering work, and their record of accomplishments is indicated by their growth into positions of increasing responsibility.

IN 2019, PURDUE CIVIL ENGINEERING ALUMNA ANNE BIGANE WILSON (BSCHEM '79, MSCE '81) RECEIVED THE AWARD.



Anne Bigane Wilson

Wilson says that what she learned at Purdue about the importance of collaboration has been crucial throughout her 38-year career: "Construction is a very collaborative business. At least, it should be. I have found that projects are the most successful when all stakeholders are working together."

And Wilson has seen a great deal of success. She has been an innovator with her family's fourth-generation business, Bigane Paving Co., diversifying it by acquiring the Chicago-area asphalt manufacturing operations Reliable

Ogden LLC and Ogden Avenue Materials. Both are now part of the Bigane portfolio.

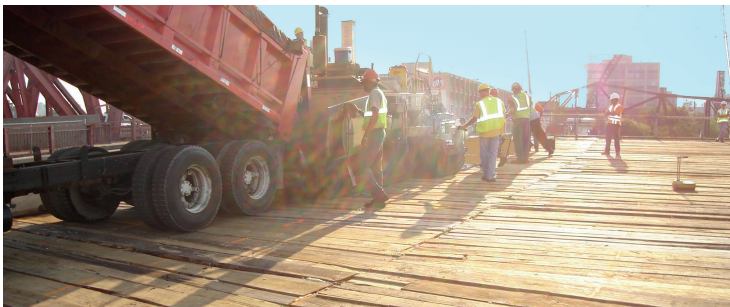
Wilson also credits much of her success to the women engineers who came before her. So, she naturally felt it was right to act as a guide and inspiration for those who follow her.

"It's very important to me that I pay it forward and make sure it's easier," she says. "I stand on the shoulders of the women who came before me. They led by example and showed me that I, too, must live and work as an example for the next generation of engineers."

In addition to her previously mentioned professional successes, Wilson has, time and time again, given back to her community in Chicago and to her alma mater. Throughout her decades of success, she also has been at the forefront of ethical practices, green initiatives, and the promotion of women in science, technology, engineering and mathematics.

This commitment to STEM promotion extends to Purdue, where she continues to partner with the College of Engineering to ensure that the women engineers of tomorrow have every possible opportunity to succeed. To her, though, this is simply her way of "paying back" for all the opportunities that were afforded to her.

"These young people, they're the next generation of engineers — they're the ones with the new ideas that will take our world further ahead," Wilson says. "It's only natural we should help and encourage them. It's a benefit to everyone." ■



NORTH AVENUE BEFORE AND AFTER: One of Wilson's most memorable projects was for Chicago's North Avenue Bridge reconstruction project in 2005. Her company developed an asphalt mix for a temporary bridge during the reconstruction that withstood the Windy City's notoriously harsh winter weather. The bridge would be used for more than a year and withstood the traffic and weather throughout.

AWARDS AND HONORS

CIVIL ENGINEERING ALUMNI ACHIEVEMENT AWARD

Purdue University's Lyles School of Civil Engineering has a long history of educating outstanding engineers. The Civil Engineering Alumni Achievement Awards (CEAAA) give the School an opportunity to recognize the career accomplishments of some of its most influential graduates.

IN 2019, THE SCHOOL RECOGNIZED SIX OF ITS ALUMNI WITH THIS PRESTIGIOUS AWARD.

Kari Craun (MSCE '87) is the director of the U.S. Geological Survey's National Geospatial Technical Operations Center, an organization with over 200 government and contract staff and an annual budget of approximately \$100 million. She came to Purdue in 1986 after she was selected to participate in the Defense Mapping Agency's long-term training program. She studied photogrammetry at Purdue under civil engineering professor Ed Mikhail and graduated in 1987 with a master's in civil engineering.

Margery Hoffman (BSCE '75, MSCE '76) is a retired lead for the Naval Air Systems Command's Aircraft Systems Integrated Product Team. After completing her master's in 1976, she took a job at the U.S. Air Force Flight Dynamics Laboratory Structural Test Facility at Wright-Patterson Air Force Base in Ohio. From 2011 to 2017, she managed a project for the Office of Naval Research that involved a complex system integration for a future maritime patrol aircraft used for anti-submarine warfare missions.



From left, S. Trent Parkhill, Bryan Petriko, Kari Craun, Margery Hoffman, Bowen Engineering Head and Burke Professor of Civil Engineering Rao "G.S." Govindaraju, Daniel Schuller, and Charles Klinge, Jr.

Charles "Chuck" Klinge Jr. (MSCE '98) served in the U.S. Army Corps of Engineers in Los Angeles, New York and Dallas. He also commanded both the Honolulu and Fort Worth, Texas, districts. Klinge's 28-year military career culminated in an assignment as the commander and district engineer of the Fort Worth District, where he was responsible for over 1,000 military and civilian personnel with an annual budget of \$1 billion. Since retirement from the U.S. Army, he has been working in environmental services with a focus on ecological restoration and mitigation banking. Also, Klinge is serving as the director of operations for Ecological Service Partners.

S. Trent Parkhill (MSCE '79) is senior fellow at Kleinfelder, an international engineering, construction management, design and environmental professional services firm. His interest in innovation also led him to publish a 150-year history of the evolution of geotechnical construction, and to create new approaches in information systems that led to a national "top chief technology officer" award. In recent years, Parkhill has also published and presented on the relationship between structural and geotechnical engineers in an effort to help structural engineers better understand geotechnical recommendations and reduce project costs and risks associated with geotechnical work.

Bryan Petriko (BSCE '84) is the vice president and principal environmental engineer at August Mack Environmental Inc. In 1988, he opened August Mack Environmental with Geoff Glanders. The company performs environmental investigations, remediation, due diligence and regulatory compliance services for attorneys, developers, financial institutions and industrial facilities. Petriko has also acted as an expert witness in legal cases related to the Clean Air Act and other EPA initiatives, helping to decontaminate millions of square feet of industrial facilities.

Daniel Schuller (BSCE '91, MSCE '93, PhDCE '99) is the executive vice president and chief financial officer at Aqua America Inc., a water and wastewater utility company that serves about 3 million people in Texas, the Midwest and along the East Coast. Schuller joined Aqua America in 2015 to lead strategy and corporate development. He was promoted to chief financial officer in 2018. As CFO, he is responsible for the company's accounting, reporting, planning, treasury and tax functions, and for financing its \$500 million annual capital expenditure program. ■



CONNERS GIVE WITH THE FUTURE IN MIND



Rick Conner (BSCE '76) believes civil engineering is an important component of every construction project, and he has built a successful career on this belief. Now, he wants to ensure that future Purdue civil engineering graduates have the same opportunity.

Conner and his wife, Penny (BA Elementary Education '76), recently provided funding for the creation of two new engineering laboratories in the Lyles School of Civil Engineering. The Rick and Penny Conner Labs, each of which focuses on a different aspect of civil engineering, are located on the newly renovated ground level of Hampton Hall.

"The way the Lyles School offers its curriculum is very important to me, and labs are a big part of that," says Rick Conner, majority owner, president and COO of the Indianapolis-based engineering and architectural consulting firm American Structurepoint.

"My Purdue education set the stage for everything that came after that for me, and hands-on, real-world experiences such as lab learning were an important part. I want every civil engineering student who passes through Purdue to feel that same way."

Penny Conner's reasons for giving are similarly simple.

"Outside of getting married and having children, my time at Purdue was the best four years of my life," she says. "Purdue set the foundation for our success in so many ways. We've lived a good life, and we want to keep that going for future generations."

The Connors, who have donated a total of \$1.8 million to Purdue civil engineering over the years, gave \$800,000 toward a structural engineering lab and \$750,000 toward an architectural engineering lab. The Conner Structural Engineering Lab covers 1,395 square feet, and the neighboring Conner Architectural Engineering Lab covers 1,735 square feet.

"I think testing your knowledge firsthand, alongside your professors and your peers, is the best way to learn," Rick Conner says. "You need to get in there, work with a team and analyze the results. That's learning how to work in the real world, and there's always room for more of that."

Rick Conner, a recipient of both the Civil Engineering Alumni Achievement Award and the College of Engineering Distinguished Engineering Alumni/Alumnae Award, says he built his career around a well-rounded engineering education. He started at American Structurepoint as an apprentice drafter when he was just 16 years old, and he continued working there during summers while he was at Purdue. His professional career with the company included leadership in its bridge group, its structural group and even its architecture group, an unusual opportunity for an engineer.

"I focused on structural engineering as a specialization within civil when I was at Purdue, and I worked my way up as a structural engineer at a company that is truly multidisciplinary. My first jobs were on all sorts of structures," Conner says. "Civil engineering is a very important component in nearly every project, including architecture and so many other areas, and these laboratory teaching experiences will become the foundation for a thorough understanding of the underlying engineering principles at work."

Rick Conner visited the finished labs for the first time in summer 2019 when he and grandson Blake Conner, the oldest of seven grandchildren, were on campus to take part in Purdue's Grandparents University program. The program allows families to live the college life and take tailored coursework for two days each summer. The Connors enrolled in the "Engineering Everywhere" curriculum, which included classes at Hampton Hall.

"We give back because Purdue has such an excellent civil engineering program and we want that to continue for the generations that follow," Rick Conner says. "And when we refer to future generations, we're not kidding." ■

RENOVATIONS AT HAMPTON HALL

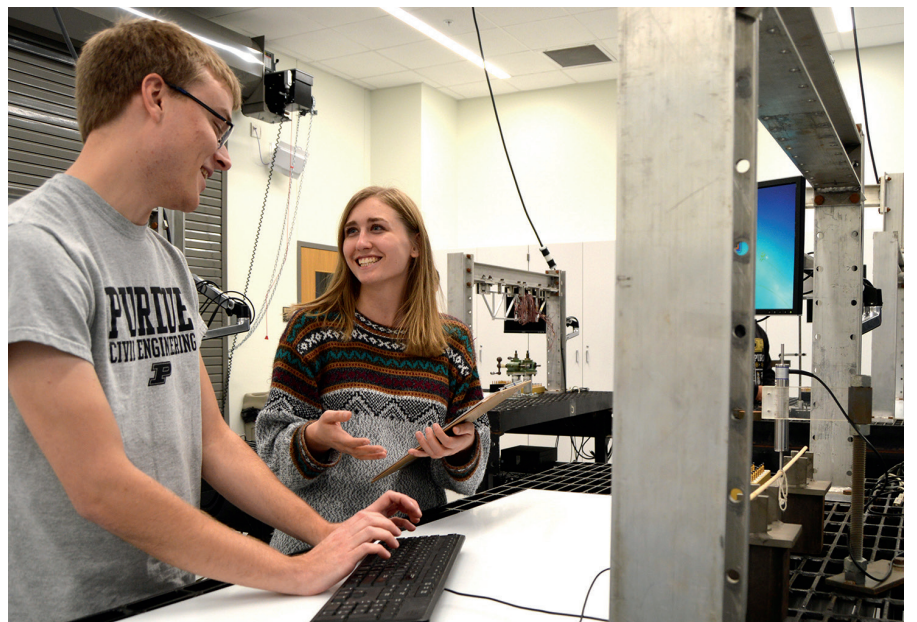


Beginning in December 2018, touring donors, interested alumni and current students were able to experience and take advantage of recent improvements to the Delon and Elizabeth Hampton Hall of Civil Engineering. These renovations represent the first phase of a \$5 million project.

Renovations to the Lyles School of Civil Engineering's facilities included upgrades to the ground floor and basement areas. Improvements to the building are an accessible entryway, improved air circulation, updates to existing laboratories for state-of-the-art civil engineering teaching and research, and new flexible-use teaching laboratories. Specific renovations included:

- **The Casteel Geomatics Field Equipment Laboratory**
- **The Rick and Penny Conner Architectural Engineering Teaching Laboratory**
- **The Rick and Penny Conner Structural Engineering Teaching Laboratory**
- **The Jim and Carol Cure Geomatics Teaching Laboratory**
- **The Jo and Cliff Swanlund Civil Engineering Student Lounge**
- **The Shiva Haghighi Student Success Center**





SHIVA HAGHIGHI STUDENT SUCCESS CENTER

In honor of two-time Lyles School of Civil Engineering graduate Shiva Haghighi, who passed away in 2014 at age 28, three rooms in Hampton Hall were recently renovated and dedicated as the Shiva Haghighi Student Success Center. Haghighi received her undergraduate degree in 2008 and her master's in 2011.

Haghighi was an enthusiastic student leader during her time on campus. She acted as a CE Ambassador and served as president of CE's Student Advisory Council as an undergraduate, then participated in the CE Graduate Student Advisory Council as a graduate student.

Haghighi always envisioned an improved, dedicated space in Hampton Hall where students could meet, study and work. Haghighi's mother, Atossa Rahmanifar, funded the effort to honor her daughter's vision.



From left: Nina Haghighi (Shiva's sister) and Atossa Rahmanifar.





PURDUE AND THE PANAMA CANAL

PRESIDENT'S COUNCIL VISITS ENGINEERING MARVEL

The Lyles School of Civil Engineering's connection to the Panama Canal goes back for more than a century. From the canal's original construction to its expansion and continued oversight, Purdue civil engineers have been integral to this modern wonder of the world.

In January 2019, the Purdue University President's Council ventured out on a cruise through and around the Panama Canal. Attendees were treated to a weeklong trip that included tours throughout the modern wonder and the country itself, as well as a guest lecture by Antonio Bobet, the Edgar B. and Hedwig M. Olson Professor in Civil Engineering and a member of the Panama Canal Geotechnical Advisory Board.

"It was a great experience," Bobet says. "Purdue and the Panama Canal have had a long history together and it remains one of the greatest civil engineering achievements of humanity."

Bobet, who has been on the advisory board since 2012, provided technical expertise for the \$5.5 billion expansion that effectively doubled the canal's size.

The project was completed in 2016.

As a board member, Bobet says, his primary role now is to provide the Panama Canal Authority with guidance on issues related to geotechnical engineering — specifically, on matters of stability and preparedness for natural disasters such as landslides and earthquakes.

"From a geotechnical point of view, this is one of the most challenging projects in the world," Bobet says. "It is exciting to be involved, but also very humbling. It carries a lot of responsibilities."

There are also a few perks to being a board member, such as serving as guest lecturer on the January cruise. Bobet delivered a pair of lectures during the trip. One lecture was on the Panama Canal itself, and the other was on another of his more notable projects: The Resilient ExtraTerrestrial Habitats (RETH) program.

Established in 2017, the RETH program is a multi-disciplinary effort at Purdue that researches how humankind can establish settlements in space. In



Antonio Bobet

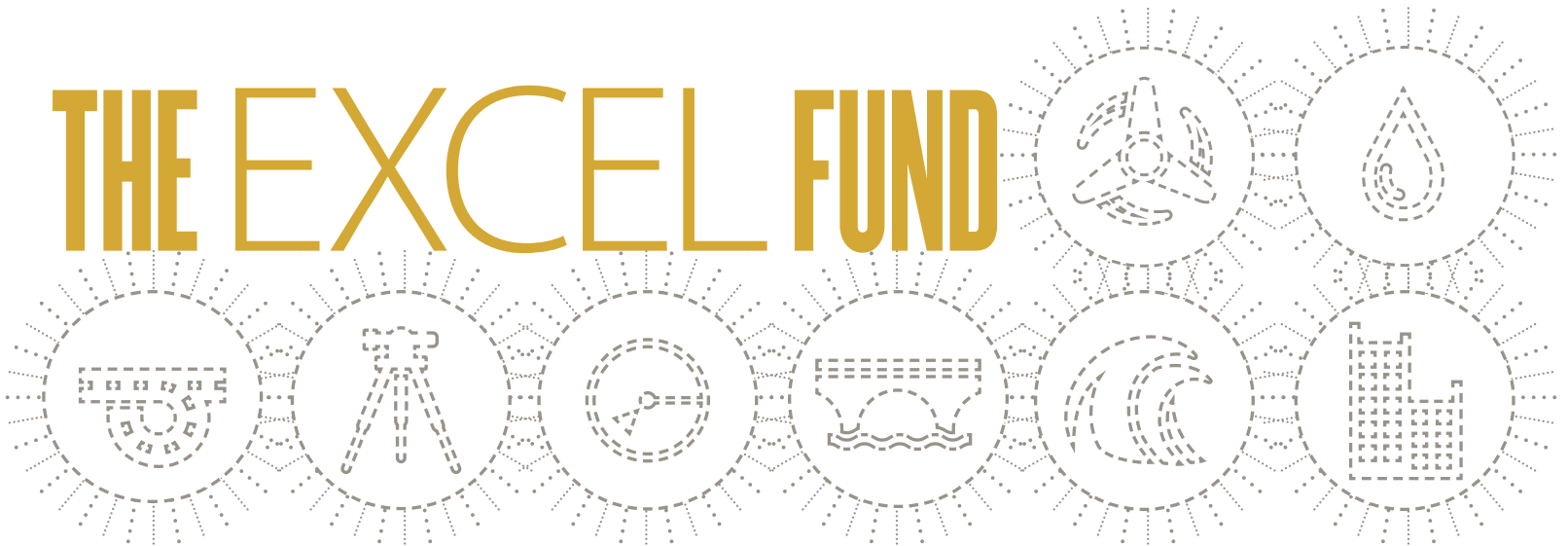
early 2018, NASA announced that Purdue would be one of the two universities to lead its new Space Technology Research Institute. The institute was created to advance space habitat designs using resilient and autonomous systems.

"Going in, I wasn't sure if the general audience would be so interested in the Panama

Canal or what we are doing with RETH. But everyone seemed to be really engaged and wanted to know more," Bobet says. "I guess it just goes to show you that no matter what your background is, if you are a Purdue alum, you maintain a high level of interest in a great many things."

The Purdue President's Council represents a tradition of support that ensures the University's continued excellence by helping to create new scholarships; increasing faculty support; funding cutting-edge facilities and innovative programs; and keeping a Purdue education affordable. Visit purdue.edu/pc for more information. ■

THE EXCEL FUND



RECRUITING AND RETAINING FUTURE CIVIL ENGINEERS

What comes to mind when you think of civil engineering? Roadways, skylines and bridges? Renewable energy, clean water and sustainable environments?

You know that civil engineering is all of these things, and much more. You know that civil engineering is an exciting career, vital to the world we live in today. But how can we help others understand the varied paths and opportunities that a career in civil engineering offers? Enter the EXCEL Fund. This fund provides monetary support that helps us spread the word to K-12 students about civil engineering concepts and careers, and also assists current students with resumes, interview skills, internships and co-op opportunities.

In the past year, the Lyles School of Civil Engineering participated in several outreach opportunities, both on campus and in the local community. The STEP (Seminar for Top Engineering Prospects) summer program hosts rising high school seniors on Purdue's campus for a weeklong residential opportunity to explore engineering disciplines.

The student participants often say they are grateful for the interaction they have with current CE students. "I learned a lot about civil engineering and it was nice to hear from a student similar to me," one student says. "It was amazing being able to see different labs and hear firsthand about a grad student's project."

The Lyles School of Civil Engineering also participated in a new campus program called Purdue's Clues. In this program, local high school students spent the day on campus, exploring Purdue engineering activities in an "Amazing Race"-style event. In addition, we held a CE Day at Imagination Station, a local science center. There, children and their families interacted with current civil engineering students while exploring civil engineering-themed children's activities.

Outreach to grade school and high school students is not the only way the EXCEL Fund supports our efforts to educate the next generation of civil engineers. The External Relations Office provides assistance for current students who want to enhance their educational experience by participating in internships and co-ops. Students also have the opportunity to develop their career search skills through resume review, interview preparation and networking with industry partners, both on campus and through the careers section of our webpage.

Our students value the services we provide as evidenced by their feedback:

- "The CE website and External Relations Office were very helpful this past year with my full-time employment search."
- "Civil has done a great job sending out job opportunities. It made my search much easier."
- "Thanks for all of your help! I can't wait to see the impact I can make with my education."

Civil engineering impacts our society on a daily basis. The EXCEL Fund helps to support outreach efforts for prospective students and their parents, and provides current students the assistance and guidance they need to be successful as they enter their careers and beyond.

If you or your company would like to learn more and support the EXCEL Fund, please contact Courtney Schmidt in the CE Development Office at **765-496-0116** or **caschmidt@prf.org**. ■

Purdue's Clues

Internships and Co-ops

Interview Skills and Resumes

K-12 Student Outreach



CE Day at Imagination Station



STEP Summer Program





Q & A PURDUE SOCCER PLAYER ALEXIS "LEXI" MARKS

Alexis "Lexi" Marks, a junior in the Lyles School of Civil Engineering, just finished her third season as a defender on the Purdue University women's soccer team. Marks says that soccer and engineering have been her passions ever since she was a child, and the fact she is able to pursue both at Purdue is a dream come true.

She sat down with us for a Q&A.

.....

Major: Civil engineering
Year: Junior
Hometown: Granger, Indiana

.....

Why did you choose civil engineering as your major?

I've always been interested in coastal and environmental engineering, and I knew Purdue has one of the best engineering programs in the world. So, I knew it would be a great choice to pursue my degree. Then, during

my freshman year, I was able to learn more about the Lyles School of Civil Engineering and how well it matched with what I wanted to do.

What do you see yourself pursuing as a career?

I have always been interested in studying natural disasters and how we both respond to and prepare for them. I would love to work on building safer infrastructure and studying how cities rebuild after a disaster.

So you haven't considered a professional soccer career?

(laughs) No, no — I haven't. I love soccer, and I've been playing for years. But I definitely want to be a professional engineer.

How has your experience been on the Purdue women's soccer team?

It's been great. It's a lot of hard work, of course, but it's really been great. I love my teammates and my coaches — and the fan support we get is incredible. It's also a little like living out a childhood dream.

Playing collegiate soccer was a longtime dream?

Definitely. I remember having a conversation with my parents back in middle school. I told my parents this was something I wanted to seriously pursue, and they supported me the whole way. From then on, I was playing soccer almost year-round, either for school teams or in clubs.

You've been balancing school and athletics for some time now. How has that been at Purdue?

It's definitely tougher here, but it's doable. My coaches and professors are all understanding, and they work with me so that I can succeed and never fall behind. You definitely have less time to socialize than regular students, but I manage to find time here and there to enjoy the full college experience.

What has been your most memorable college experience?

That would have to be the 2018 Purdue vs. Ohio State football game, when we blew them out 49-20 at home. It was a night game, the stadium was packed and everyone was just going insane the whole time. It was something I'll never forget. ■



PRACTICALITY LEADS WIERINGAS



TO ESTABLISH CE SCHOLARSHIP

Emily Wieringa (BSCE '99) considers herself a practical person. It is no surprise, then, that Wieringa and her husband, Steven (BS Technology '99), chose to be practical about their giving to the Lyles School of Civil Engineering.

Seeing college debt as an increasingly significant burden for today's students, the Wieringas made the decision to address that issue by creating a scholarship fund. The couple, who now live in the Columbus, Ohio, area, established the Wieringa Family Civil Engineering Scholarship in 2017.

"Helping others is just the right thing to do, and this is one way of doing it," says Emily Wieringa, director of construction and project engineering at the Columbus Zoo and Aquarium. "Steve and I were blessed to have parents who helped financially during college so that we could graduate without a huge amount of debt. Loans can be overwhelming, and sponsoring a scholarship is one way to help lighten the load for a student. It just makes sense."

Emily Wieringa is no stranger to hard work and dedication. A fourth-generation engineer, Wieringa says that engineering "did not come easy" for her, but she stayed with it because she knew it would provide a strong foundation. Being

a woman in a field frequently dominated by men also offered challenges.

"As a female civil engineering student at Purdue, I didn't feel in the minority because people are people in college. However, fast-forward to my first day on a construction site — now that was a major awakening," she says. "I was 15 years junior to most of the men in the field, and there definitely were no other females. When you're thrown in the water, you either sink or swim. I was never going to be the one to sink. At the core, if you're a hard worker with integrity, the respect will follow."

Almost 20 years later, Wieringa's hard work, patience and practicality have paid off. She oversees an array of projects at the zoo while Steven Wieringa works as a commercial pilot for United Airlines.

The Wieringas, college friends who married after graduation, have two young daughters. The hope of

shaping their daughters' outlook on generosity, combined with their Purdue experiences, have fueled the Wieringas' desire to give back.

"Purdue's competitive, rigorous engineering program strengthened my self-discipline and determination. It trained me to work diligently," Emily Wieringa says. "As the cliché goes, Steve and I feel we're paying it forward to someone else who is dedicated to working hard and making an impact. In addition, we're planting seeds for our daughters. Leading by example and showing empathy for others can provide a foundation for them." ■



Emily Wieringa

SCHOLARSHIPS AND AWARDS



The Crawford, Murphy & Tilly (CMT) Scholarship winners (from left): Abdullahi Akorede, CMT President Bill Bailey (BSCE '88, MSCE '89), Amanda Lefebvre.



The Charles A. Ellis CE Scholarship winners (from left): Casey Rodgers, Bonny Stites, Alexina Benedict. Stites is the granddaughter of scholarship founders Fred (BSCE '41) and Yvonne Apsley.



The Thomas Helbing Memorial Scholarship winners (from left): Alexandra Gray, Thomas Dietmeyer, Kathleen Helbing, Alexandre Tomaszewski, Donald Fuerstenau, Jason Randall. Kathleen Helbing is the widow of Thomas Helbing (BSCE '67, MSCE '68).



James and Deborah Kirk Family CE Scholarship winner (from left): Jim Kirk (BSCE '87), Roger Rossics. This is the first time the Kirk Family Scholarship has been awarded.

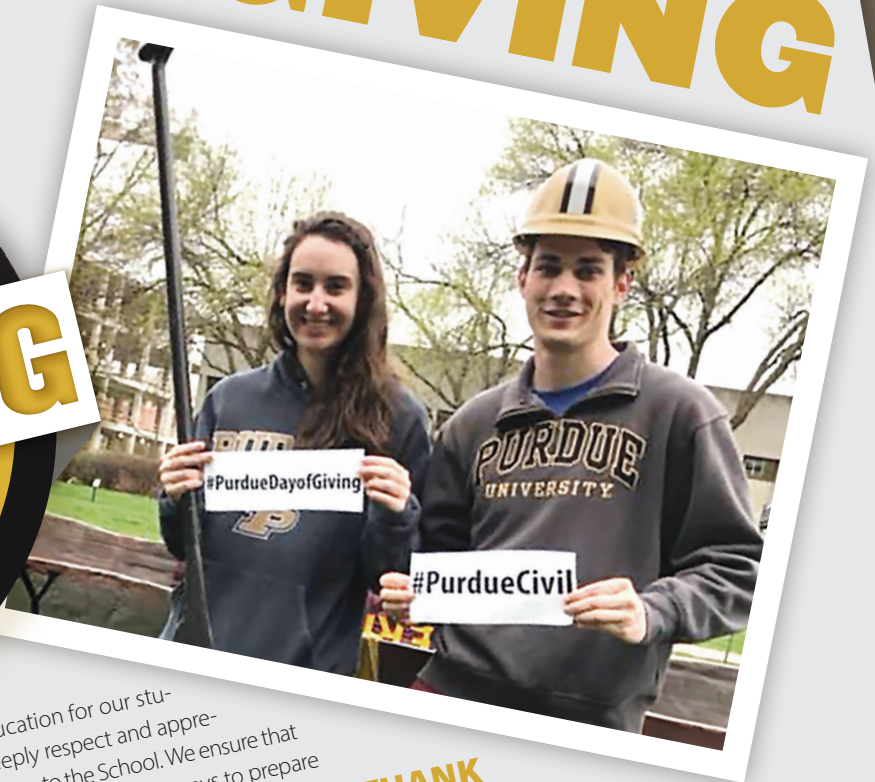
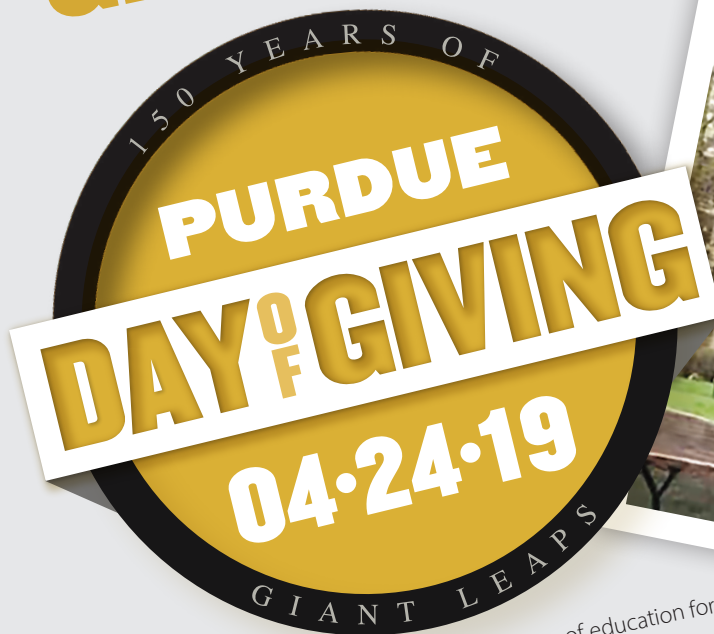


Richard S. McKee Scholarship in CE winner (from left): Kathleen Kowalski, Riley Boris. Kowalski is the daughter of Richard S. McKee (BSCE '56).



Keith Rupel Scholarship in CE winners (from left): Alyssa Dang, Elizabeth Miller, Darby Roberts, Jade Woodson, Sandy Gentry, Alexander Swanson. Gentry is the daughter of Keith Rupel (BSCE '50).

LYLES SCHOOL OF CIVIL ENGINEERING GIANT LEAPS IN GIVING



A big thank you to every-
one who participated in the
2019 Purdue Day of Giving!

In just 24 hours, the **LYLES SCHOOL OF CIVIL ENGINEERING** received **212 GIFTS TOTALING MORE THAN \$1.15 MILLION**. Overall, Purdue University raised more than \$41.6 million — a record for the daylong fundraising event. In fact, the Purdue Day of Giving has set new single-day fundraising records every year since its inception in 2014, leading to \$146.9 million in total gifts.

Giving to Purdue Civil Engineering directly influences and improves the experience and quality

of education for our students. We deeply respect and appreciate those who give to the School. We ensure that gifts are used in the best possible ways to prepare the Purdue civil engineers of tomorrow.

We would also like to thank all the students, faculty and staff who helped make the day even more special with their on-campus participation. We held events in Hampton Hall and on the front lawn, where hundreds of guests stopped by, joined in our games, and learned about our school and student activities. ■

**THANK
YOU AGAIN,
EVERYONE — AND
JOIN US FOR THE NEXT
PURDUE DAY OF GIVING
ON APRIL 29!**



EVER TRUE GIFTS FROM LYLES SCHOOL OF CIVIL ENGINEERING EXCEED \$76 MILLION

PURDUE CAMPAIGN RAISES MORE THAN \$2.5 BILLION OVERALL

Launched in 2012 and publicly announced by Purdue President Mitch Daniels in 2015, *Ever True: The Campaign for Purdue University* set a goal of raising \$2.019 billion. Upon the campaign's conclusion in 2019, the 150th anniversary of Purdue's founding, the University surpassed that goal by 25 percent with \$2.529 billion raised.

"*Ever True* has been a historic undertaking," Purdue President Mitch Daniels said. "Our University was created from a remarkable act of generosity: John Purdue's gift of \$150,000 and 100 acres of farmland. Throughout this campaign, the Purdue family has followed our founding benefactor's lead and made generous contributions that support people and initiatives across the entire Purdue system. We celebrate the alumni and friends who have invested in Purdue University, and we are profoundly thankful."

With \$1.024 billion raised, Purdue Engineering was a key part of surpassing Purdue's overall campaign goal. The Lyles School of Civil Engineering played a major role in that with over \$76 million in total gifts. The generosity of CE alumni and friends allows the school to further its mission of advancing civil engineering learning, discovery and engagement in fulfillment of the University's land-grant promise. This generosity also allows the school to help Purdue adjust to the evolving responsibilities of a global university.

We are civil engineers. Together, we build and we provide incredible opportunities to our students and to the public at large. Thank you again for partnering with us as we continue to lead the civil engineering profession as one of the most sought-after civil engineering programs in the country.

The campaign finale celebration was held Oct. 11 at the France A. Córdova Recreational Sports Center as part of the President's Council Annual Dinner. Additional details about President's Council Annual Weekend events can be found at purdue.edu/events.

Civil Engineering Net Giving: \$76,474,711

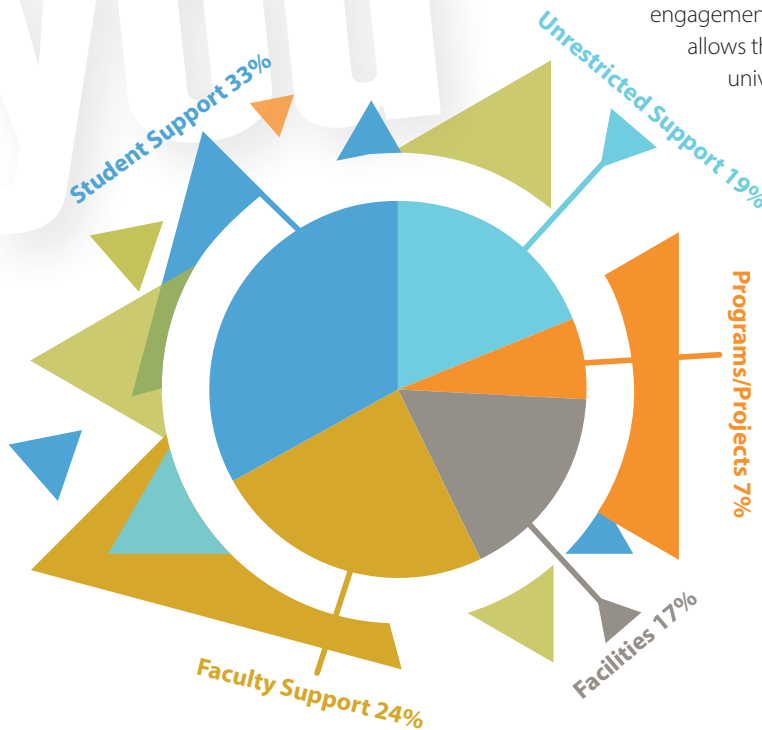
Unrestricted Support: \$14,171,945

Programs/Projects: \$5,556,143

Facilities: \$12,618,060

Faculty Support: \$18,577,147

Student Support: \$25,551,415





A rendering of the new Loeb Stadium in Lafayette, Indiana, which should be fully renovated by fall 2020.

INDY COMPANY, CE GRADUATES GIVING BACK THROUGH WORKS



American Structurepoint Inc., which already has strong ties to Purdue University and the surrounding community, is building on that relationship with the renovation of Lafayette's historic Loeb Stadium.

The Indianapolis-based engineering and architectural consulting firm, which is owned by a Purdue civil engineering graduate and employs more than 100 Purdue grads, is overseeing the estimated \$21 million project. Construction on the Columbian Park baseball stadium began in August 2019 and is scheduled to be completed in fall 2020.

Rick Conner (BSCE '76), a recipient of Purdue's Civil Engineering Alumni Achievement Award and a prominent supporter of the Lyles School of Civil Engineering, is majority owner, president and COO of American Structurepoint. He says 40 of his staff worked on the project design, including a dozen who are Purdue civil engineering graduates.

"We've hired a tremendous number of Purdue civil engineers over the years. Simply put, Purdue produces some of the finest civil engineers out there," Conner says. "Working on Loeb Stadium is really cool for us because it's a project right in our community. We've done tons and tons of local projects — at Purdue, in Lafayette, around Indianapolis — and they're all a way of giving back. For civil engineers like us, we believe our projects enhance the quality of life for the communities we serve."

Conner says his company has designed many projects on campus and in Greater Lafayette. This includes designing the new Rolls-Royce building and working on renovations for Stone Hall, Hampton Hall, the Physics Building, State Street, Lindberg Road through the Celery Bog Nature Area, and several locations in downtown Lafayette. The company even has a named conference room in Hampton Hall.

This symbiotic relationship comes full circle on the Loeb Stadium project, where Purdue graduates hired by American Structurepoint return to Lafayette to transform the aging baseball stadium into a multipurpose facility — a cornerstone, city officials believe, of Lafayette's continued economic development.

Jeromy Grenard, Lafayette's city engineer and director of public works, personifies this arrangement. A Lafayette native, 2001 Purdue civil engineering graduate and former American Structurepoint employee, Grenard now is responsible for overseeing the municipal portion of the Loeb project.

"This is one of those projects that only comes along once in a lifetime. The previous Loeb Stadium has been a part of this community since 1940, the same year that Elliott Hall of Music was dedicated and the Boilermaker Special was introduced as Purdue's mascot," Grenard says. "It's great that both the city and our design and construction teams include Purdue civil engineering alumni and other Purdue graduates." ■

CIVIL ENGINEERING INITIATIVES

As Purdue University continues to position itself as a premier teaching, learning and research institution, the Lyles School of Civil Engineering will proceed with its support of students, faculty, programs and facilities through various initiatives.

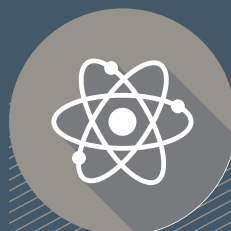
UNDERGRADUATE STUDENT SUPPORT

Purdue was recently ranked as the No. 5 undergraduate civil engineering program in the nation, and endowed scholarships enable the Lyles School to continue its commitment to quality and diversity by recruiting and retaining the best, most creative students. Of the 529 undergraduate students enrolled in Civil Engineering for 2019-20, 38% are Indiana residents and 30% are women. Meanwhile, international students represent 13% of this class, compared with an international undergraduate student enrollment of just over 18% for the broader College of Engineering. We want to build on these numbers.



GRADUATE STUDENT SUPPORT

To be competitive, and to build on our ranking as the No. 6 graduate program in the nation, we must be able to offer appropriate levels of tuition and living stipends to our graduate students. Endowed fellowships attract outstanding graduate students, bolstering the reputation of Purdue Civil Engineering as a nationally ranked program and drawing high-quality faculty and increased research funding.



FACULTY SUPPORT

Endowed professorships attract and retain top faculty, and the Lyles School added eight endowed professorships during Ever True: The Campaign for Purdue University. Currently, 17 members



of the faculty are recognized for their professional accomplishments with named professorships. We look to grow that total even further.

Rising Star faculty endowments recognize and retain accomplished early-career professors who are not yet candidates for named professorships. To help retain our talented faculty, an early-career faculty award may be given to assistant or associate professors and provide significant incentives, including annual discretionary funds for innovation, education and research. Access to this type of financial support enables young scholars to realize their full potential while maintaining a focus on teaching and research.

SUPPORT OF PROGRAMS

The Civil Engineering Global Scholars Program allows Civil Engineering students to earn academic credit while traveling internationally with faculty and staff. Through this program, students visit major civil engineering projects taking place in an international context. Broadening experiences like these are important for our students, and we look to grow the program to include at least 25% of all undergraduate Civil Engineering students.

Virtual laboratories allow students to become familiar with the equipment and laboratory protocols before they enter the physical laboratory setting. Completing initial training online allows students to be more efficient with experiments and accelerates the proficiency of every student in the class.

Purdue Engineering announced a new online MS degree option for civil engineering, and we are scheduled to launch the program with the first cohort of graduate students in fall 2020.



SUPPORT FOR FACILITIES

The repair, renovation and repurposing of the teaching laboratories and research spaces throughout Hampton Hall of Civil Engineering help to educate and equip future civil engineers. These efforts are part of our ongoing commitment to increase building efficiency, improve circulation and configure current spaces to meet the contemporary needs of our students and educators. ■



GREETINGS FROM ERIC PUTMAN

Chief Development Officer for Civil Engineering



It has been a warm welcome to the Lyles School of Civil Engineering! As the new chief development officer, it has not taken me long to build an immense appreciation for the generosity and commitment of the friends and alumni of Purdue Civil Engineering.

My predecessor, Don Fry, established a very special set of relationships with many in the extended Boilermaker community, and I look forward to serving in a similar manner.

While I am new to Civil Engineering, I am not new to Purdue, as I previously served in a similar role in the College of Agriculture. My affinity for Purdue also touches other parts of campus, with a daughter well into her sophomore year in Health and Human Sciences and my wife working in the Krannert School of Management.

I have enjoyed meaningful conversations this semester with Civil Engineering alumni and friends, and I look forward to meeting many more over the course of the new year.

Each one of you has your own unique experience with Purdue, and I look forward to learning how your education, the motivation you received from inspiring faculty, and the varied internship and co-op opportunities you enjoyed became foundational experiences for your personal success.

In October, we formally concluded *Ever True: The Campaign for Purdue University* and celebrated the deeply personal commitments made by so many.

Your support has made a difference, establishing the Lyles School as a leader in educating the best and brightest civil engineering leaders of the future. Thank you for all you are making possible!

The Lyles School is among the best in the nation. With over 12,000 living alumni, and with undergraduate and graduate programs consistently ranking in the top 10 by sources such as U.S. News & World Report, it is clear the school continues to have a meaningful and lasting impact on society.

Providing a world-class learning experience to students is a timeless challenge given to each generation of faculty and staff. In many respects, we stand on the shoulders of those who have worked diligently to lead the Lyles School to the place of prominence it enjoys today. Our challenge in each new season is to commit to an ever-higher level of excellence.

With full appreciation and respect for the traditions that have served us well, it is my sense there is an equally strong commitment to innovation and continued improvement. I look forward to working with you to equip this new generation of Boilermakers to make their mark on the world.

Hail Purdue!

Eric Putman

EAPutman@prf.org

Chief Development Officer — Lyles School of Civil Engineering
University Development Office — Purdue Research Foundation

**#5 UNDERGRADUATE
CIVIL ENGINEERING
PROGRAM IN THE U.S.**
U.S. News & World Report

**#6 GRADUATE
CIVIL ENGINEERING
PROGRAM IN THE U.S.**
U.S. News & World Report

**#17 CIVIL
ENGINEERING
PROGRAM
IN THE WORLD**
Shanghai Ranking

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