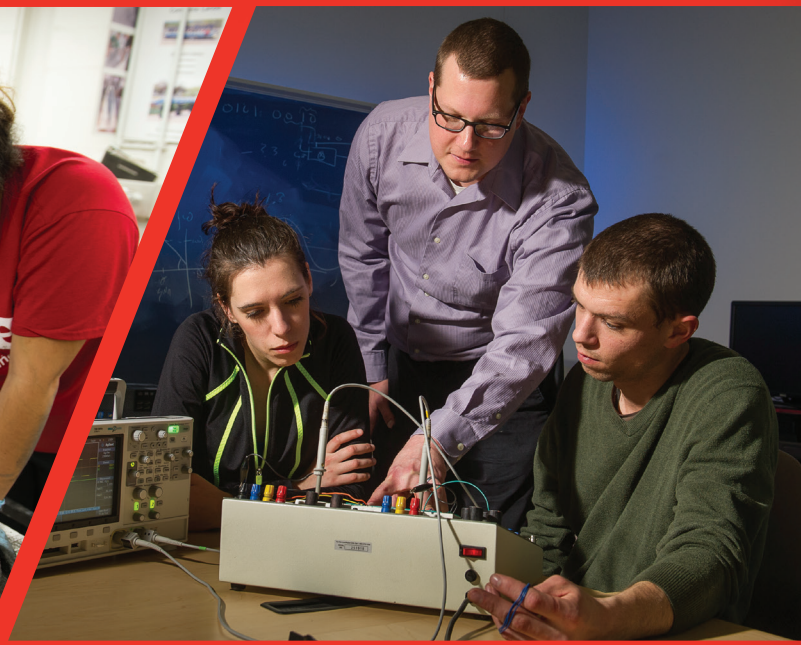
ENGINEERING COLLABORATION
DEAN'S REPORT 2016

siue.edu/engineering



SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE
SCHOOL OF ENGINEERING

MESSAGE FROM THE DEAN

As my first year as Dean of the SIUE School of Engineering comes to a close, I want to express my appreciation for our School family. Working collaboratively, we consistently improve the quality of education, research and service provided through the School.

The impact we have made together shows as:

- Our enrollment numbers continue to rise; demonstrating to us the faith our students and their families have in our dedication to students.
- We begin educating students in our new mechatronics and robotics engineering program.
- We watch the first phase of our Student Design Center become reality as we seek further corporate support for the center.
- We develop programs that foster entrepreneurship and innovation for faculty and students.
- We transform traditional internship programs into partnerships that benefit students, companies, faculty and the School.

When we work together with a progressive mindset, the potential to take the School to new heights is unlimited.

Sincerely,

Cem Karacal, PhD
Dean

ABOUT THE SCHOOL OF ENGINEERING

Increasingly high enrollment, rising academic qualifications of applicants, and a nearly 100 percent placement of graduates in the engineering fields are clear testimonies to the quality of engineering education at SIUE.

Since 1982, the School has prepared students to meet the growing needs in our region and nation for more engineers, computer scientists and construction managers. Fueling the prosperity of our region, the School has graduated more than 7,000 engineering professionals. More than 60 percent of our graduates have taken positions in the St. Louis metro area.

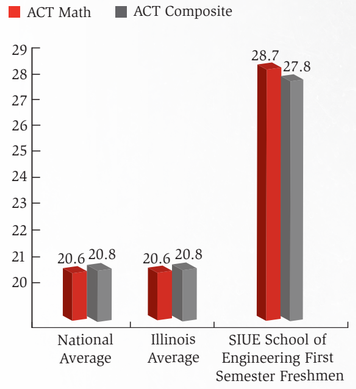
SCHOOL OF ENGINEERING MISSION

The mission of the School of Engineering is to provide excellent innovative engineering, computer science and construction education to citizens of Illinois, the greater St. Louis metropolitan area and representatives of the global community. The School focuses on strong undergraduate education and graduate programs that serve the needs of full-time students and employed professionals. The faculty conducts basic and applied research and outreach activities in partnership with others that contribute to technological advancement in our fields.

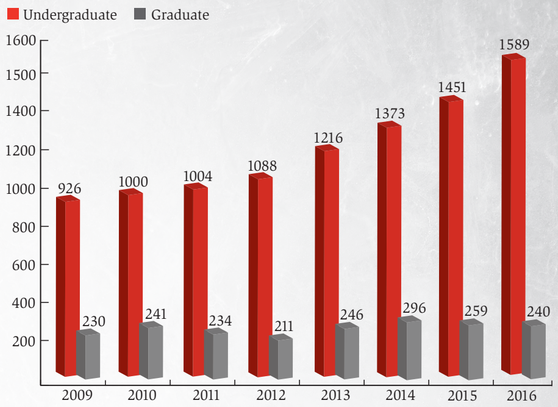
About SIUE

SIUE awards degrees in undergraduate, graduate and doctoral programs encompassing the arts, sciences, nursing, education, health, human behavior, business and engineering. The Schools of Dental Medicine and Pharmacy award doctor's first-professional degrees in dental medicine (DMD) and pharmacy (PharmD). Doctoral programs are available in nursing practice and educational leadership. Cooperative PhD programs in history, environmental resources and policy, engineering science, and computer science are offered with SIU Carbondale.

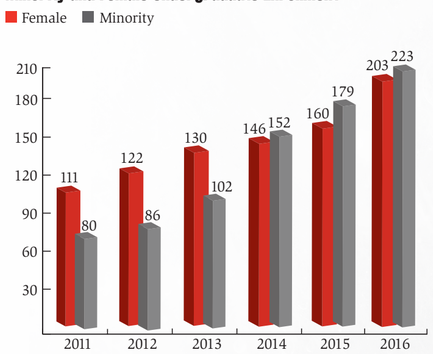
2016 ACT Scores



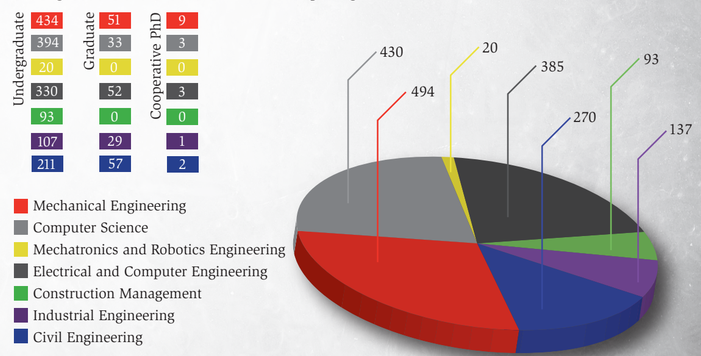
Record Enrollment



Minority and Female Undergraduate Enrollment



Undergraduate and Graduate Enrollment by Program



CONSTRUCTION LEADERSHIP INSTITUTE BUILDS LEADERS

Success in the highly competitive building industry requires exceptional leadership, management and communication skills. The innovative Construction Leadership Institute (CLI) has packaged those skills into a convenient, accelerated nine-week program. CLI prepares professionals from more than 100 firms to serve in leadership roles across the St. Louis regional building industry.

A joint program of the Department of Construction and the School of Business, the CLI has seen many of its more than 300 graduates advance to prominent positions across the building industry.

“Our mission is to improve the processes and outcomes of the building industry by preparing the next generation of leaders,” said Chris Gordon, PhD, associate dean and co-director of the CLI. “We achieve this mission through a vibrant partnership with building industry leaders to identify the leadership needs for the region.”

The instructional team includes building industry professionals and subject-matter experts. The final session features a panel of building industry leaders sharing their strategies for success.

SUMMER CAMP OPENS DOORS TO FUTURE ENGINEERS

Dedicated to enhancing communities through outreach and by supporting science, technology, engineering and math (STEM) initiatives, the Phillips 66 Wood River Refinery and the Monsanto Fund provided grant assistance for the School of Engineering’s annual summer camp. The grants support scholarships, supplies and instruction costs for the weeklong residential camps.

“As an industry, we need strong students from all backgrounds,” said Melissa Erker, director of government and community affairs for Phillips 66. “The earlier we can provide this type of educational experience for students, the better it is for us in the long term.”

To reach students at the pre-college level, the School has welcomed campers for more than a decade. Since 2011, approximately 300 campers from 12 states have received hands-on experiences in the world of engineering. In the past year, 17 previous campers returned to SIUE to begin their studies.

“Today’s students will be tasked with addressing global challenges like climate change and how to feed a growing population using fewer resources. Engineering skills will be key to meeting those challenges,” said Michelle Insco, Monsanto Fund program officer. “To nurture those next big ideas, it’s important that universities, nonprofits and others in the private sector work together to improve access to science resources.

“The School of Engineering opens doors to future science leaders through its annual summer camps, and the Monsanto Fund is proud to invest in talent that will drive innovation in the future.”

Engineering summer camp experiences include:

Touring Phillips 66 Wood River Refinery
Programming robots
Working on hovercrafts
Building water filters and circuits
Developing four-dimensional construction projects
Working with engineers from MiTek to design and test trusses

PARTNERSHIPS KEEPS INDUSTRY ON TRACK

With more than 100 years of experience designing heavy-haul equipment, Amsted Rail’s industry-leading innovations make it possible for railroads all over the world to haul heavier loads over greater distances with improved reliability and performance.

Heavy haulers count on Amsted Rail to perform in the world’s toughest rail environments. Amsted Rail counts on the School of Engineering.

Through a long-term partnership with Amsted Rail, the Department of Mechanical Engineering provides technical support and conducts experimental investigations.

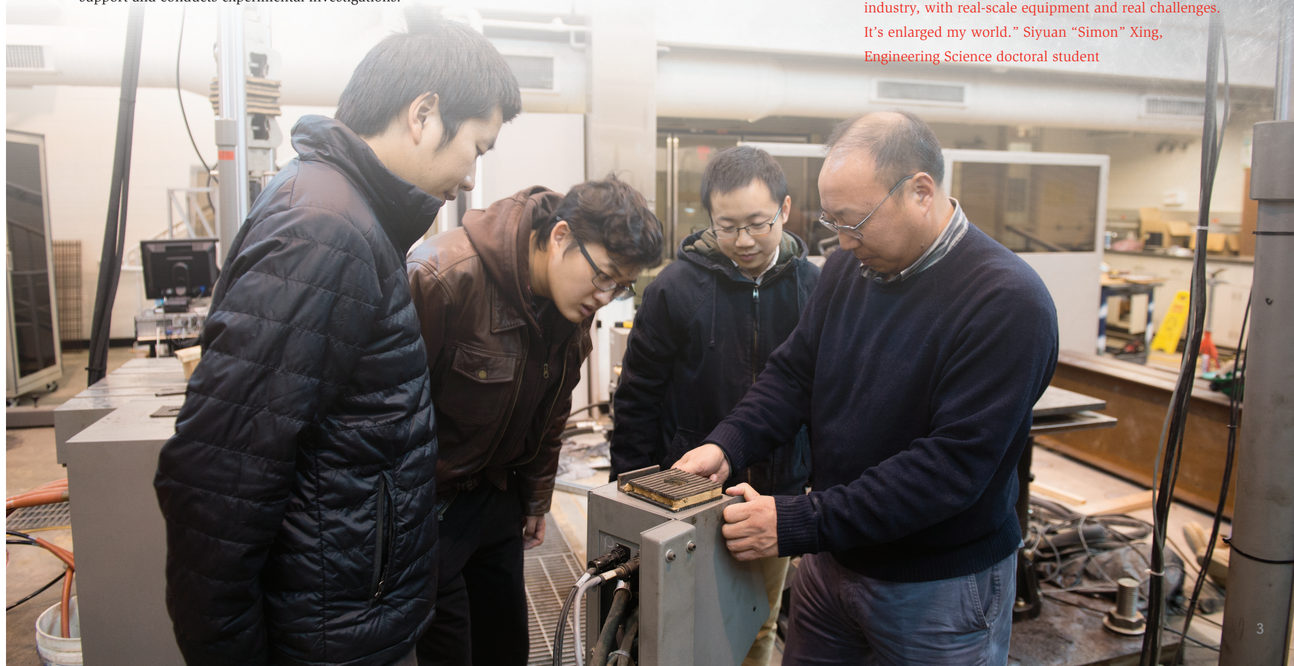
“It’s a two-way street,” said Tom Petrunich, manager of test at Amsted Rail. “We provide SIUE students and staff meaningful industry projects. They provide us with useful test services that we typically wouldn’t be able to provide internally.”

One recently completed project, “Fatigue Verification of Train Springs,” investigated the fatigue life of suspension springs in cargo trains. This research assisted Amsted in finding the correct mechanical properties of suspension springs in trains. This can reduce the corresponding vibration, thereby enhancing mechanical part life.

“These types of partnerships allow us to solve practical problems for local industry,” said Albert Luo, PhD, professor of mechanical and industrial engineering. “At the same time, we are helping students obtain first-hand experience from industry and learn to better communicate with engineers.”

“We’re thankful to Dr. Luo and his students for always accommodating us and working tirelessly to provide their services and support through the years,” Petrunich said.

“Amsted projects have helped me better understand industry, with real-scale equipment and real challenges. It’s enlarged my world.” Siyuan “Simon” Xing, Engineering Science doctoral student



2+2 AGREEMENTS PROVIDE SOLID PLAN FOR COMMUNITY COLLEGE STUDENTS

The School of Engineering's 2 + 2 programs are ideal for students starting their college journey at a community college with plans to pursue an engineering degree at a four-year university."Beginning at a community college can be a wise decision for some students," said Cem Karacal, PhD, dean of the School. "Our 2 + 2 agreements with community colleges create a smooth transition and give students a solid plan for earning their degree on time."

The agreements outline specific curriculum for the first two years at community college, allowing students to efficiently progress toward completion of a bachelor's degree in engineering, and ensuring they are well-prepared for the final two years of their engineering curricula.

"The successful 2 + 2 students are as prepared as our own students for the discipline-specific courses," Karacal said.

Students in the 2 + 2 program also benefit by receiving a waiver of SIUE's admission application fee, an ongoing automatic evaluation of transfer credit each semester, academic advisement when applicable, and periodic program updates.

The School of Engineering is also working on 3 + 2 agreements with regional liberal arts colleges for dual diploma programs.

The School of Engineering has 2 + 2 program agreements with the following community colleges:

Kaskaskia College, Centralia
Lewis and Clark Community College, Godfrey
Southwestern Illinois College, Belleville
Rend Lake College, Ina

STUDENTS PROVIDE UPGRADED HVAC TO AREA RESIDENTS

Residents of Beverly Farm in Godfrey have a new HVAC (heating, ventilation and air-conditioning) system in their building, courtesy of the prowess of engineering students in the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) student chapter.

"Beverly Farm is an assisted living facility for the mentally challenged. We chose it because it's an excellent organization that is helping a lot of people," said Paul Cefaratti, president of the student branch of ASHRAE, and senior majoring in industrial engineering and minoring in mechanical engineering.

"We gained invaluable engineering experience and an edge over other students hoping to receive jobs in related engineering disciplines."

The opportunity to pioneer a Community Sustainability Project in cooperation with the St. Louis Chapter of ASHRAE came as a result of the School of Engineering having the most active ASHRAE student branch in the region.

To make a more energy efficient and sustainable building, the team upgraded the entire HVAC system in the Chappee Cottage. One of 23 buildings on the property, Chappee Cottage is a women's facility that houses approximately 25 residents.

Nine student engineers took on the project with the help of professional engineer Pat O'Brien, owner of Dynamic Engineered Systems in O'Fallon, Mo. Kane Plumbing, Heating and Air Conditioning in Alton also worked as a contractor. The project was completed in May.

The students presented the Community Sustainability Project at the 2016 Annual ASHRAE Conference in St. Louis. The annual conference attracts close to 1,000 industry leaders and engineers from across the world.

CREATIVITY SHOWCASED AT ROBOTICS COMPETITION

Middle and high school students engage their minds and their robots each spring at the School of Engineering's annual Botball tournament, a regional competition coordinated through the KISS Institute for Practical Robotics. This was the 18th Botball season and the 13th year SIUE hosted the region's tournament.

"Each year, we try and define some unique, challenging tasks that allow both the novice teams and those with more experience to succeed by scoring in the competition," said Gary Mayer, PhD, associate professor of computer science and the event organizer.

The game board changes annually around a central theme, such as Mars Mission crewmember rescue and prospecting in the New Mexico desert.

"As an educator, it's a great thing to see. Everyone should be proud of what these students accomplish," Mayer said.

COOPERATIVE DOCTORAL PROGRAM EXPANDS EDUCATIONAL OPPORTUNITIES

Through the Cooperative PhD Program in Engineering Science, the School of Engineering is expanding high-quality educational opportunities to the doctoral level.

The School partners with Southern Illinois University Carbondale (SIUC) to offer cooperative doctoral degrees in engineering science and computer science to highly qualified students. Through a memorandum of understanding, SIUC designates SIUE as an approved residence center where all coursework can be completed using the School of Engineering's state-of-the-art laboratories for research and instruction.

Among the 18 students currently enrolled in the program, research assistant Siavash Zamiran has received multiple accolades for his research projects conducted in the SIUE soil laboratory. Zamiran is the 2016 recipient of the International Association of Foundation Drilling's (ADSC-IADFD) internationally acclaimed Endowed Civil Engineering Graduate Study Scholarship.

"Being the recipient of this scholarship is incredibly motivating, as it is well known in the geotechnical and civil engineering communities," Zamiran said.

His extensive research activity includes the study of retaining walls' behavior during earthquakes, subsidence and stability evaluation of Illinois coal mines, and the study of levees due to flooding and soil erosion, among other projects.

Zamiran has also been awarded the inaugural GeoConfluence Research Scholarship from the St. Louis Chapter of the Geo-Institute of American Society of Civil Engineers (ASCE). The scholarship will support his dissertation research, "Seismic Investigations of Retaining Wall Structures."

Abdolreza Osouli, PhD, assistant professor of civil engineering, serves as Zamiran's faculty advisor through the cooperative PhD program.

"With Siavash's motivation, I have been able to direct him to excellent performance in all capacities of teaching, research and professional service," Osouli said.

By offering a multitude of educational and scholarly opportunities, the cooperative PhD program is training the next generation of creative thinkers and innovators who will continue the advancement of the engineering industry.

"The Cooperative PhD program expands the high-quality educational opportunities in the doctoral level to students at SIUE by utilizing the educational resources available at both SIUE and SIUC."

Keqin Gu, PhD, Program Director and Distinguished Research Professor of Mechanical and Industrial Engineering

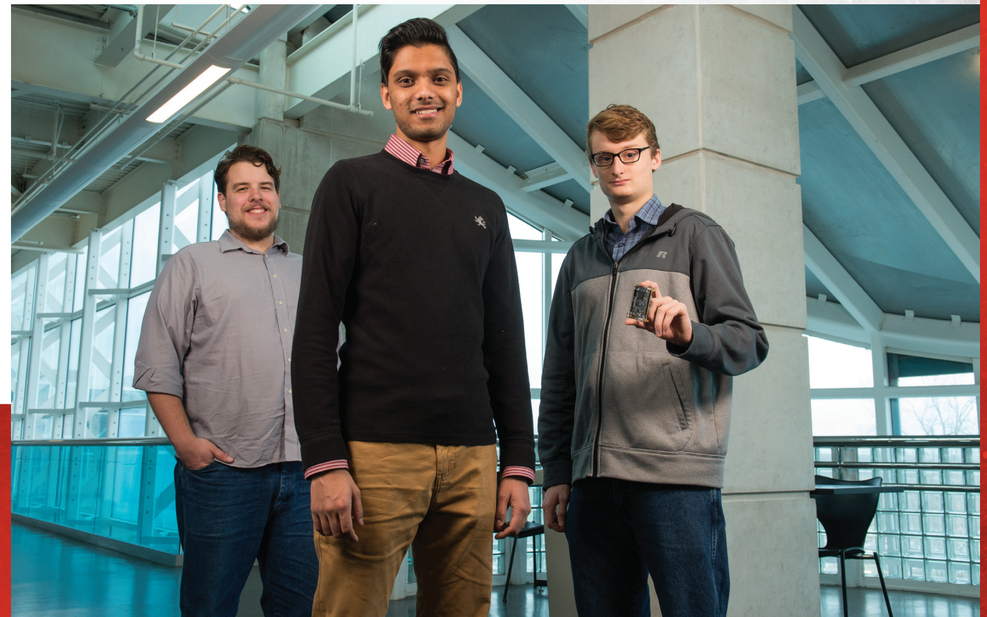
STUDENTS EXCEL IN BLACK BOX COMPETITION

After taking first place in the 2015 Institute of Electrical and Electronic Engineers (IEEE) St. Louis Section Black Box competition, the School of Engineering hosted the 2016 competition. Students in the contest are given electronic circuits enclosed in a box and asked to draw the electrical schematic of the circuit inside. The box only contains four terminals, which the teams can use to make electrical measurements to help them unravel the mystery of what is inside the box.

"I was delighted by the performance of our student teams," said George Engel, DSc, professor in the Department of Electrical and Computer Engineering.

Winners in the analog category included senior Justin Haque, of O'Fallon, and junior Corwin Fritts, of DuQuoin, who took second place with a $300 prize. Seniors and Belleville natives Kristen Collins and Peter Weigel earned third place and $200. In the digital category, junior Nathan Counts, of Troy, and senior Oren Pincock, of Edwardsville, took the third place prize.

The IEEE is comprised of engineers, scientists and students. It is one of the largest professional organizations for engineers in the world.



STUDENTS DEVELOP ENTREPRENEURIAL SKILLS IN BUSINESS COMPETITION

Providing students an opportunity to take business ideas through the stages needed to launch a product or service, The Other40 Business Plan Competition is a unique annual program administered by the Illinois Small Business Development Center at SIUE. TheOther40 derives its name from data that shows approximately 60 percent of startups fail within five years. The goal of the program is to find, engage and support "the other 40" percent.

For the second consecutive year, industrial engineering students took first place. The 2016 winning team's business concept was +Perception. Its first product is +Cane, a "smart" cane for the visually impaired that incorporates smart technologies into the traditional white cane, including a 911 help button and Bluetooth connectivity.

Team leader Mert Gover and his teammates Ozan Eryilmaz, Ezgi Aras, Deniz Ersan and Mervenur Eralp, all seniors in industrial engineering and participants in the dual-diploma program with Istanbul Technical University, received $5,000 as the first-place winner. +Perception plans to use its contest winnings to produce working prototypes and begin marketing efforts to the visually impaired community.

CONSTRUCTION UNDERWAY ON STUDENT DESIGN CENTER

As the School of Engineering continues to grow as a center of engineering excellence in the region, enrollment of first-rate students steadily climbs. With the increase in student enrollment comes a need for additional space for students to design and create.

The School of Engineering broke ground in September for the new Student Design Center. The addition will provide much-needed space for students involved in senior design projects, collegiate competition teams, clubs and organizations. The two-story, 14,000-square-foot addition will include design team workspaces, a project prototyping workspace, a 3D printing and electronic workspace, a conference room, and design labs.

The first phase of construction is scheduled for completion at the end of the spring semester. This phase includes the core and shell of the building, and the complete fit-out of the first floor. Most of the $5.7 million needed for this project has been secured. An additional $1.1 million is needed to fund the second phase of construction, which includes completion of second floor labs, office suites, and a conference room.

“The School’s current space is no longer enough to house the wealth of ideas and activities our students are developing,” said Chris Gordon, PhD, associate dean of the School. “The Student Design Center will transform the educational experience for our students.”

The Student Design Center will provide more than physical space. It will improve workflow, provide more hands-on learning and collaborative opportunities for students, and allow for better monitoring of work areas.

Various opportunities are available for individual and corporate giving, from naming opportunities to matching gifts. See the enclosed giving envelope, or give online at siue.edu/student-design-center.

MORE THAN MOTORS: PARTNERSHIP HELPS STUDENTS TURN DREAMS INTO REALITY

Air warms. Cars drive. Phones vibrate. Computers operate. The day begins, and throughout the course of it, most people interact with motors dozens of times without a second thought.

Some people, like Greg Levine, executive vice president and general manager of Nidec Motion Control, spend their days giving them a great deal of thought. The largest motor company in the world, Nidec Motor Corporation makes motors for cell phones, cruise ships and everything in between.

“Every day we use things that rely on motors, and that reliance is only growing,” Levine said. “Yet, very few universities in the U.S. are investing in curriculum and labs for motor engineering.”

The School of Engineering, however, garnered Nidec’s interest with its focus on design and analysis of electrical machines and drives, automatic control, power systems, and robotics. By partnering with the School for a co-op program, Nidec provides a vital role in providing opportunities for students to practice and enhance classroom concepts. The School continually impresses Nidec with high-caliber students, many of whom go on to full-time employment with the company.

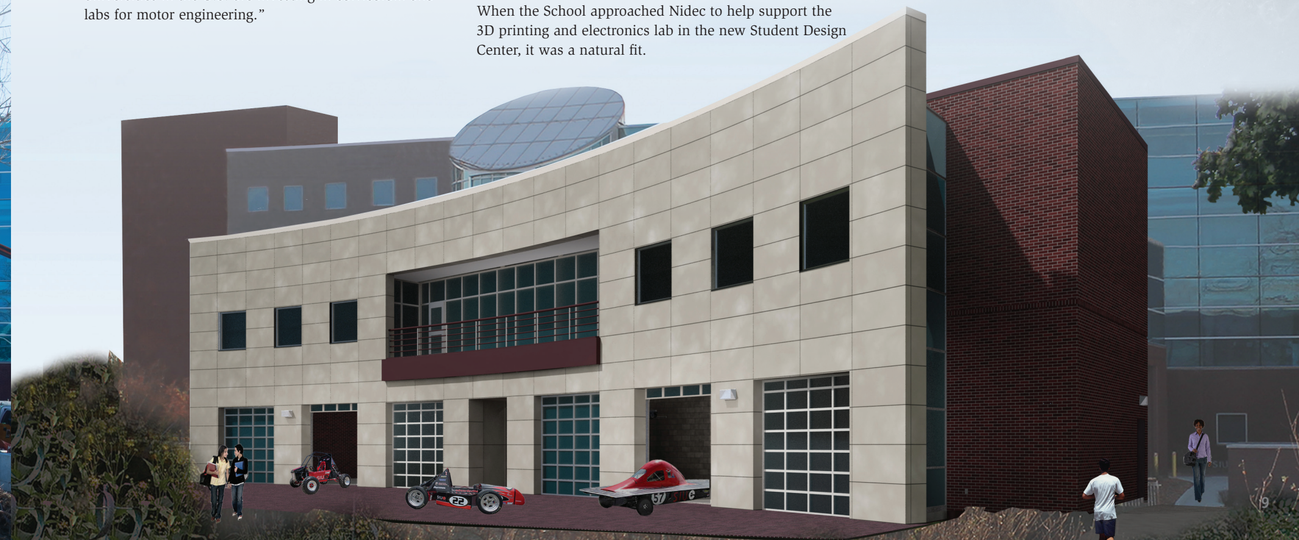
Levine gained further insight when he joined the School’s Industrial Advisory Board in 2015.

“I came away from my first board meeting impressed and excited about the vision and future of the School,” Levine said. “This is a fast-growing school with a good read on what is happening in industry.”

When the School approached Nidec to help support the 3D printing and electronics lab in the new Student Design Center, it was a natural fit.

“Nidec’s slogan is ‘All for Dreams,’” Levine said. “We believe everyone has a dream for themselves and the company they work for. In the Student Design Center lab, we are supporting future engineers who have those dreams and giving them the ability to make them a reality.”

“Together with Nidec, the world’s electric motor industry leader, we are developing one of the nation’s best electrical machine and drive labs at SIUE,” said Dr. Xin Wang, assistant professor of electrical and computer engineering. “Our new lab facilities supported by Nidec will provide an intimate, hands-on learning environment, focusing on practical industrial applications.”



FULBRIGHT PROGRAM TO FOSTER COOPERATIVE RESEARCH IN WATER MANAGEMENT

With one of the fastest growing economies, Brazil's rapid urbanization and population growth is placing high demands on infrastructure and causing severe urban water management problems. Likewise, in the U.S., water infrastructures in many cities require the investment of billions of dollars to address their physical and environmental issues.

"Green infrastructure offers a holistic approach to solve urban water problems by integrating storm water management with landscaping," said Jianpeng Zhou, PhD, professor of civil engineering.

Zhou has received a Fulbright U.S. Scholar grant, awarded by the U.S. Department of State and the J. William Fulbright Foreign Scholarship Board, for a research project on "Adaptive Green Infrastructure for Urban Water Management," at the Institute of Hydraulic Research of the Federal University of Rio Grande do Sul (UFRGS). UFRGS is one of the largest federal universities in Brazil, located in the City of Porto Alegre, with more than 27,000 undergraduate and 9,300 graduate students.

Zhou will travel during spring and summer 2017 to conduct his work.

"By working with the faculty at UFRGS, I hope to establish collaboration for future joint research," Zhou said. "Shared learning and development of adaptive green infrastructure will benefit engineering applications in both the U.S. and Brazil."

"It is an honor to join the esteemed alumni of the Fulbright program. I am excited not only to broaden my research and scholarship, but also to foster increased cooperation and collaborative research in urban water management."

Jianpeng Zhou, PhD, Professor of Civil Engineering

COLLABORATIVE INVENTION TO EXPAND UNDERGRADUATE RESEARCH

Corrosion tests, solar cells, battery development, and small-scale chemical syntheses are among the applications that require a digital potentiostat. The instrument carefully controls how voltages are applied, and records the actual voltages and currents experienced by a system.

Brad Noble, PhD, associate professor of electrical and computer engineering and Mike Shaw, PhD, distinguished research professor in the Department of Chemistry, believe that the high cost of potentiostats has made them inaccessible to many potential users.

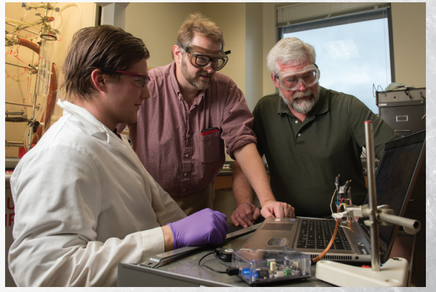
With the typical cost ranging from $6,000-$20,000 per instrument, and with more than 20 needed for an undergraduate lab, potentiostats have typically been reserved for high-end research applications. Actual electrochemical practice has been scarce at the freshman and sophomore undergraduate level, and among small start-up firms. In response, Shaw and Noble developed a sensitive, versatile, programmable and affordable potentiostat.

"We designed a 'no frills' potentiostat for teaching environments," Shaw said. "The circuit was designed to minimize cost, yet still delivers high-quality data for a limited range of functions suitable for the teaching lab."

The patented design is optimized to provide the fundamentals that most researchers and educators would need at a cost consistent with the end-user's budget, i.e. perhaps five percent of the cost of a high-end commercial instrument.

"After spending several years of research time in order to achieve a viable, inexpensive design, it is understandable why there are no comparable potentiostats on the market," Noble said.

Noble and Shaw plan to commercialize the units so they can be incorporated into a broad range of educational settings for use by more undergraduates, high school students, and possibly home-schooled students.



"With the growth of intelligent autonomous systems comes the increased need for improved energy storage. It's more important than ever for electrical and computer engineering students to understand battery and fuel cell chemistry, and working with a potentiostat in their chemistry classes is an essential step towards developing better designs in the future."

Brad Noble, PhD, Associate Professor of Electrical and Computer Engineering

MILLER TRACKS TRAJECTORY OF SUCCESS TO SIUE

School of Engineering alumnus Scott Miller, PE, BS civil engineering '96, is leading a world-class team of engineers across the U.S., setting engineering design guidelines and helping to establish the direction of engineering software for MiTek USA, Inc. In 2016, the diversified, global supplier of software-engineered building products and services, promoted Miller to vice president, engineering.

Miller joined MiTek 20 years ago, soon after graduating from SIUE. The opportunities and faculty members here impacted the trajectory of his success.

"I felt like SIUE cared about me as a person, and that was important to my success" he said. "The focus is on more than research, numbers and money. It is on developing well-rounded students."

Brad Cross, PhD, professor of civil engineering and chair of that department, was a valuable mentor to Miller. Cross was the faculty advisor when the steel bridge competition began, which Miller was involved in from the inception.

The competitions not only provided Miller with hands-on experiences, they also gave him the opportunity to connect with area businesses to request building materials and donations to support the team. "That was a great experience, because in the workforce, you have to ask people for things," he said.

As a student, Miller was no stranger to the workforce. He entered the School as a nontraditional transfer student after attaining his associate's degree at a community college.

"For me, the community college experience was incredibly helpful. I needed that stepping stone to gain confidence and complete my general education requirements. When I came to SIUE, I was able to jump into the engineering curriculum."

Since graduating, Miller has maintained his relationship to his alma mater in various ways, including serving on the Industrial and Professional Advisory Council and facilitating MiTek's annual sponsorship of senior capstone projects.

ERTC AND CIVIL ENGINEERING ALUM HAS WASTEWATER CINDERELLA STORY

As a young mother who was unsure of her career path, Rebecca Coyle enrolled at the Environmental Resources Training Center (ERTC) at SIUE.

"People don't know about water and wastewater treatment careers," Coyle said. "I didn't until my brother went through ERTC in the '80s. The nice thing about it is, when you complete the program, you are a licensed operator with the skills and experience you need to do the job."

ERTC's water quality control operations program consists of two semesters of water and wastewater operations training, followed by a 10-week internship at a treatment plant.

After Coyle completed the ERTC program in 1992, Metropolitan St. Louis Sewer District (MSD) hired her as an entry-level operator in wastewater treatment at the Bissell Point plant. After steadily climbing the ranks, she set her sights on becoming plant manager, but realized she could only go so far without a bachelor's degree.

"In 1996, I went back to school to study civil engineering. I chose SIUE because it's close to my home, and it's a great school," Coyle said. "It took 10 years to earn my degree. As hard as it was to juggle school with working and raising kids, it was worth it."

Coyle was promoted to MSD plant manager just two years after earning her bachelor's in 2006, and has since surpassed her original goal. She is now the division manager of the Bissell Point plant where she began her career 24 years ago.

"Mine is a wastewater Cinderella story. I've worked my way up from the bottom, and I can't stress enough that none of that would have been possible had I not gone back to SIUE and earned my degree."

Rebecca Coyle, BS Civil Engineering '06

NIEDERNHOFER APPOINTED TO ALUMNI HALL OF FAME

In 1989, Thomas Niedernhofer PE, BS Civil Engineering '80, traveled from St. Louis to San Francisco to assist the U.S. Army Corps of Engineers with building assessments after the Loma Prieta earthquake. He fell in love with the work and became part of the Corps' first graduating class of Structure Specialists in 1992.

"After two solid weeks of training, I thought they would never call me," Niedernhofer said. "Then came Hurricane Andrew, the Northridge quake, the Oklahoma City bombing and the World Trade Center response."

Now as program manager of the elite Urban Search and Rescue team (US&R), Niedernhofer leads his team into an area immediately after a destructive incident has occurred. The US&R work to quickly assess damaged structures, mitigate dangers and recommend temporary shoring so that rescuers can more safely attempt recovery of survivors and victims. The US&R provides technical and operational support to the Federal Emergency Management Agency US&R program and other state, local and international US&R programs.

Niedernhofer credits the School of Engineering for teaching him the engineering foundations and discipline needed to shape his engineering career.

"There are great professors here who are mentors and leaders," Niedernhofer said. "SIUE does a good job of teaching individual students about being organized and regimented. You carry that on through life."

Originally from Alton, Niedernhofer now resides with his wife in the Monterey Peninsula in California.

"When you're presented a problem in the day-to-day world, in the relative calm of your office, you have enough time for several assessments before you make a big decision. Being decisive amid death and chaos is not for everybody."

Thomas Niedernhofer, BS Civil Engineering '80

SCHOOL OF ENGINEERING INDUSTRIAL AND PROFESSIONAL ADVISORY COUNCILS (IPAC)

Civil Engineering
Jeffrey Abel, BS '91
Illinois Department of Transportation

Garry Aronberg
Bernaardin, Lochmueller & Associates, Inc.

Geri Boyer, BS '91
Kaskaskia Engineering Group, LLC

Eddie Brauer, BS '04
U.S. Army Corps of Engineers

Tom Cissell, BS '97, MS '04
Oates Associates Inc.

Pat Judge, BS '96
Gonzalez Companies LLC

Charles Juneau
Juneau Associates, Inc.

Vicki LaRose, BS '90
Civil Design, Inc.

Scott Miller, BS '96
MiTek Industries

Lora Rensing, BS '00
Illinois Department of Transportation

Ruofei Sun
Cannon Design

Computer Science
Charles Beatte, BS '95
NJVC, LLC

Jeff Croxell, MS '09
VITL

Greg Drysdale
Build-A-Bear

Ryan Durham, BS '12
CareOtter

Hal Gentry, BS '82
Capital Innovators

Douglas Huettegger
NISC

Michael Katich
ESS Data Recovery, Inc.

Gary Kochan, BS '77, BS '88
Enterprise Holdings

Kim Rakers
AT&T

Paul Scheibal, MS '90
Laclede Gas Co.

Joe Smith
Monsanto

John Spyers
Perficient

Steve Totten
Object Computing, Inc.

Ebony Williams
AT&T

Construction Management
David Antognoli
Goldenberg Heller & Antognoli, P.C.

Brad Barnard, BS '91
Contegra Construction

Mark Bengard
Murphy Company

Tom Buchheit
BRiC Partnership LLC

Ken Cates, BS '96
Northstar Mgmt. Co. LLC

Ron Covarrubias, BS '88
Alberici Constructors

Michael Dunda, BS '85
Ameren Services

Scott Green
Tarlton Corporation

Phillip Hocher
Pace Construction Company

Tim Holland, BS '98, MBA '05
Kay Bee Electric Co.

Daniel Hunyar
Premium Outlets

Tom Lavelle, BS '03
Keller Construction

Josh Lawrence, BS '99
McCarthy Building

Jason Mantle
The Korte Company

James Peterson, MS '07
Self-Employed

Matthew Pfund, BS '96
Tarlton Corporation

Donna Richter
Southern Illinois Builders Association

Paul Smith
AGC MO

Ron Wiese
Alberici Constructors

Electrical and Computer Engineering
Kevin Baker, BS '00
Anheuser-Busch InBev

Mike Basler
Basler Electric

John Bechtoldt, BSE '90, MS '93
Scott Air Force Base

Rob Beutel, BS '96, MS '00
USTRANSCOM

David J. Bolton
Nidec Motor Corporation

Joseph Brinker, BSE '88, MSE '91
The Boeing Company

Jeff Burnworth
Basler Electric

Jonathan Fowler, BS '10
Donco Electrical Construction

Paul Galeski, BS '83
MAVERICK Technologies LLC

Michelle Isenberg
Ameren Missouri

Dan James, BS '02
EATON Phoenixtec, MMPL CO., Ltd

George Mues
Ameren Missouri

David Rice
Bitrode Corporation

Industrial Engineering
Ed Adelman
Union Pacific

Jeff Bothe, BS '97
Intelligrated

Daniel Crain, BS '07
Pinnacle Foods Inc.

Bill Frank
Retired

Jeff Gaines, BS '95
Air Products and Chemicals Incorporated

Megan Harris, BS '05
The Boeing Company

Dr. Michael McCoy, BS '75
Washington University in St. Louis

Dr. Yildirim "Bill" Omurtag
Retired

Kip Polley, BS '05
Pale Night Productions, LLC

Chris Rigdon, BS '06
Northrop Grumman Corporation

Cory Whitaker, BS '04
The Boeing Company

Rami Younes, BS '04, MBA '06
Emerson Climate Technologies

Mechanical Engineering
Jamison Bloebaum, BS '96
Rock Hill Mechanical Corp.

Steve Bright, BS '99, MBA '09
Basler Electric Co.

Richard Burns
The Boeing Company

Chet Firebaugh
Jet Aviation St. Louis, Inc.

Jason Hill, BS '93
Emerson Tool Company

Jerrod Hock, BS '04
Alipro USA LLC

Brad Korte
Highland Machine

Sesha Madireddi
Nurturenergy Inc

Tom Miller
Marcal Rope and Rigging Inc

Tom Petrunich, BS '94, MS '04
Amsted Rail Company, Inc.

Charles R. Saff
Retired

Richard C. Smith, MBA '02
Triumph Fabrications

Pat Walsh
Ehrhardt Tool and Machine Co.

Chad Winkler
The Boeing Company

Environmental Resources Training Center
Tim Albers, BA '96, MS '09
American Water Co., Inc.

Becca Coyle, BS '06
Metropolitan Sewer District

Susan Czerwinski
Lewis & Clark Community College

Penny Pinkerstaff
City of Lebanon

Martin Reynolds
Retired

Patti Schaake
City of Edwardsville Water Plant

Jim Zhou, PhD
SIUE

ENGTEC
David Boulay
IMEC

Rick Burns
The Boeing Company

Daniel Crain, BS '07
Pinnacle Foods Inc.

Jason Hill, BS '93
Emerson Tool Company

Kim Luebcke, BS '12
The Boeing Company

David Rhein
Turner Electric

Ray Varady
Maruka U.S.A. Inc.

School of Engineering Industrial Advisory Board

Mike Blakey, BS '93, MBA '99
Maintenance Improvement Manager
Anheuser-Busch InBev

Bill Butler
Vice President, Engineering
Emerson Climate Technologies

Paul Galeski, BS '83
Chairman and CEO
MAVERICK Technologies LLC

Hal Gentry, BS '82
Partner
Capital Innovators

Melissa Glauber, BS '03
Patent Prosecution Professional
Intellectual Property Management
The Boeing Company

Edward Grady, BS '72
President and CEO
Electro Scientific Industries

Kay Guse, BS '88
Director EO&T Policies,
Procedures and Processes
The Boeing Company

James Heinz, BS '83
Vice President
MC Hotel Costruction

Todd Korte
President and CEO
The Korte Company

Greg Levine
Executive Vice President, Technology
Nidec Motor Corporation

Rich Oller, BS '76
Executive Vice President
MBCO Engineering

Derik Reiser, BS '92
Assistant Vice President
Enterprise Holdings

Victor Reznack, MBA '89
Retired

Bruce Schopp, BS '82
President and COO
Oates Associates Inc.

Charles A. "Al" Wentz Jr., MBA '86
Retired

The faculty, staff and students of the School of Engineering extend sincere appreciation to our alumni, friends, corporate partners, foundations and organizations who contributed to the School in fiscal year 2016 (July 1, 2015-June 30, 2016). We are grateful for your investment. On behalf of everyone at the School, thank you for making a difference in the lives of our future engineers, computer scientists and construction managers.

Cem Karacal, Dean, School of Engineering

Individuals

$5,000 - $9,999
Raghupathy & Saila R. Bollini '80
Hal H. '82 & Jean Gentry
Charles & Catherine V. Juneau
Hasan Sevim
Rollie G. Thouvenot '72

$2,000 - $4,999
Michael J. '93 '99 & Verbal J. Blakey '93
Paul M. '83 & Kay Guse '88
Todd & Julie A. Korte '91 '96

$1,000 - $1,999
Timothy L. Bailey
Harold A. Klotz Jr. '78
Brian Rehg
Duane O. & Melanie Steiner

$500 - $999
George C. Andres '72
Dale V. '73 & Karen L. Keller
Richard M. Kutta
Felix F. Lee & Guim Kwon
Nancy A. Meyer
John Odak '83
David J. & Sharon E. Sherrill
Bernard M. & Anita L. Waxman
John A. Wegener '81
Terry X. Yan & Cynthia A. Wang

$250 - $499
Junaid Ali '12
Daryl G. Beetner '90
Todd D. Burke '13
Gary D. Doty '82
Mel A. Glauber '03
Sanjay Gongalore '90
Joseph A. Hamilton '89 '00
Megan M. Harris '05
Bob D. '74 & Kathy M. Hotz
Thomas E. '88 & Michelle A. Klasner
Ben R. Klene '12
William D. Krause '09
Gary R. '04 & Kristin J. Mayer '01 '04
Kenneth C. '78 & Toni M. McDonough '79
Joseph M. '85 & Diane T. Moffatt
Kevin A. '08 '13 & Nicole M. Nesselhauf '12
David Novak '72
Glen A. '76 & Renee Seganfredo
Mark S. Shashek '87
Gregory & Mary L. Stephen
Brent M. Vaughn '95 '99
Christopher L. Walker '05

$100 - $249
Vincent D. Andrews '95
Kevin M. Baker '00
Michael P. '92 '94 & Lori A. Beatty '92
Audrean D. Beecher '93
Muhamed R. '03 & Becky Beluli
Andrew A. '71 '83 & Paulette J. Berkbigler
Dennis C. '79 & Anna M. Bouse
Dennis J. Bouvier
Warren A. Carter '80
Travis J. Cory '11
Jeffrey R. '06 '09 & Christine M. Croxell '05 '11
Rosette G. Dawson '78 '80
Clint E. Dougherty '08 '09
Glenn R. '84 & Peggy A. Drenkhahn '73
Robert S. Eck '73
Ben J. Erschen '04 '05
Gregory M. Feeny '83
Thomas G. Fellner '92
Matthew W. '98 & Stephanie L. Gardner '94
David A. & Carol A. Gentry
Robert K. '75 & Linda Germann
Allen F. Gilliard Jr. '95
Russell D. Glenn '83
Christopher B. Gordon
Ramakrishn N. Gowda '05
Keqin Gu & Xinxin G. Zhu '96
Mark D. Haag '80
Victor L. Hagler '05
Michael D. '82 & Barbara A. Hasamear
Jim J. '83 & Deborah M. Heinz
Lyndel L. Helmkamp '71
Jill Hempen
Kay M. Hoffmeyer '91
Sean M. '95 & Sheila J. Honer
Xiapin Hua '96
Padmanabhan Iyer '88
Yiming K. Jia '99 '00 & Qing M. Yang '99 '04
Jacob L. Johnson '11
Sam M. Jyawook '71
Cem C. Karacal
Randall C. Kinder '74
Thomas W. Kirner '80
Don E. Kocher '94
Tom G. '90 & Mara G. Koerkenmeier '00
John C. Lacopo '84 '11
Kyle S. Loyd '98
Matthew M. McDonald '10 '13
John R. Moffatt '82
Majid Molki
Raymond C. II '84 & Janet E. Munzert
Michael R. '95 & Wen-Cheng Muzzarelli
Dallas H. Myers '07
Richard L. Nelson '81
Robert D. Niemietz '73
Donald L. Noeth '74
Leslie J. Nolan '87
Elaine A. Ostdiek '98
Arthur C. II '01 & Sandra K. Partridge '00
Sridhar C. Ramalingam '94
Brandon M. Rapp '06 '07
Nicholas J. Raycraft '10
Derik Reiser
Jeffrey R. '98 '01 & Lora S. Rensing '00
Bertin Reyes
David N. '84 & Melanie M. Richter
Richard J. '79 & Elaine Rinehimer
Alan J. Ringhausen '84 '96
Matthew D. Sambora '96
Jeffrey T. Schafer '87
John L. '91 & Linda A. Sedlacek
Dave A. '78 & Mary J. Shadowen '78
Jessie Shi
William L. Spurgeon '75 '88
Scott Stone
Joseph P. '90 & Cathie L. Stricker '94
Byron E. Truax Jr. '89
Gregory R. Umbaugh '78
Scott E. '82 & Jeanie M. Umbaugh
William H. Viehweg '00 &
Bridget C. Rose-Viehweg '05
Anthony Y. Vinson '92
Sandra M. Von Kampen
Mark D. Wagner '02
David F. Warchol '81
Keith A. Winkler '93
Huaiyu M. Zhang '95

$1 - $99
Munib M. Ahmad '93
Roger L. Alexander '96
Robert L. Barco '89
Sanjeev K. Basavatia '04
John J. Benda '90
Stephanie A. Bender '91
Kent T. Berry '02
Bin L. Qi '03 & Lin L. Bin '04
Andrew D. Birdsley '05
Scott E. '88 '94 & Charisse G. Black '83
Rajashekar Bolloju '12
John R. Burke '97
Ying A. Chen '00
Trudy Deters
Keith A. Detmer '09
Russell D. '84 & Diana H. Dienell
Kenneth G. Dodds '85 & Kathleen McVoy
Ted J. '81 & Amy L. Dragovich '08
Roger L. '85 & Lynn A. Driskell
Ashley M. Ford '10
Ryan N. Fries
James A. '74 & Nelma J. Fritsche
Gary R. Garrison '77
Bentley M. Gedris '13
Clayton Gonsalves
Sridhar S Goshike '94
John Gram
Benjamin D. '04 '07 &
Courtney M. Grodeon '07 '12
Jeffrey A. Gunnells '88
Jeffrey S. Gusewelle '92
Dane A. Hardware '97
Cory M. Hart '05
Larry A. '79 & Laura J. Hartman '80
Bonnie M. Hassell '92
Douglas D. & Agnes M. Hatch
Rob W. '08 & Sonya J. Heer '08 '13
Matthew M. '06 & Melanie A. Hussey '06
Robert E. Johns '90
Garfield S. Jones '02
Roger A. Jones '13
Bruce E. Kerkemeyer '89 '92
John R. Kniepmann '99 '02
Kevin Koehler
Richard A. '93 & Johnna K. Laing
Jianyong Li '88 & Meifen Xin '91
Jie Lu '95
Robert E. McClellan Jr. '73 '76
Curtis P. '02 & Clarice M. McKay '03
Jeffrey L. McKean '90 & Angela West
Mark & Elizabeth McKenney
Scott W. Miller '96
Steve J. '93 '00 & Tami Muren
Shane L. Oertwig '07 '10
Jason L. Pense
Gina L. Prevett '95 '96
Guru P. Rajaram '93
Colin J. Santel
Troy S. Saunders
Steven O. Schmeder '93 & Amy Smith-Schmeder
John M. Schmitt '82
Carol A. Schreiber '95
Steve Schroll
Mohammad Shavezipur
Susanna Siebert '11
Michael A. Spanberger II '13
Ronald J. Sroka
Michael J. Stedelin '02 '15
Ethan W. Steinacher '05 '11
Mark A. '77 & Sheryl Steyer
Christopher R. Stoddard '02
Marce P. Tebbe '78 '82
James D. Thomas '87
Steven W. '80 & Robin L. Totten '85
Randy G. '07 '13 & Stephanie A. Venhaus '07
Fengxia Wang
Wayne A. Weber '09
Sarah L. Wiszkon '07
Laura A. Wolff
Patricia A. Yates '83 '89
Michael R. Yerion '79

Corporations

8760 Engineering, LLC
A. Waldbart & Sons Nursery
Acme Erectors, Inc.
Acoustical Ceilings, Inc.
Ahern Fire Protection
Alberici Constructors
All Precision Manufacturing LLC
AME Constructors Inc.
Ameren Corporation
American Institute of Steel Construction
American Society of Civil Engineers
Anheuser-Busch Companies, Inc.
Associated General Contractors of Saint Louis
AT&T
AT&T Operations, Inc.
Basler Electric Company
Bell Hog Farm
Boyer Fire Protection
BRiC Partnership, LLC
BSA Lifestructures Inc.
Budrovich Excavating, Inc.
Buzzi Unicem USA Red-E-Mix, LLC
Byrne & Jones Enterprises Inc.
Care Otter
Caterpillar Inc.
Centene Corporation
Civil Design, Inc.
Construction Financial Management Association
Crown Toyota - Scion
Darr Roofing
Emerson Climate Technologies
Enterprise Holdings, Inc.
Enterprise Holdings, Inc., Group 9899
Fenix Construction Co. of St. Louis
France Mechanical Corporation
Fusion Marketing
Gen Automotive Solutions
Geotechnology Inc.
Goedecke
Guarantee Electrical Company
Guarantee Electrical Construction
Harold O'Shea Builders
Hayden Wrecking Corp.
Helmkamp Construction Company
Henricksen
Holland Construction Services, Inc.
Hyde Heating & Sheet Metal Inc.
Icon Mechanical Contractor, LLC
Illinois Asphalt Pavement Association
Illinois Professional Land Surveyors Association
Illinois Professional Land Surveyors Association
- DBA Southwest Chapter IPLSA
Imperial Ornamental Metal Co., Inc.
J. F. Ahern Co.
J. F. Electric, Incorporated
Joseph H. Beetz Plumbing Co., Inc
Juneau Associates, Inc., P.C.
Kadean Construction Inc.
Keller Construction, Inc.
KF Construction and Excavating, LLC
Kone Elevator
Kone, Inc.
Korte & Luitjohan Contractors, Inc.
L. Keeley Construction
Lithko Contracting, Inc.
McCarthy Building Companies, Inc.
Mechanical Solutions, Inc.
Miller & Associates Development Company, Inc.
Missouri Valley Glass Co., Inc.
Monsanto Company
Murphy Group Holdings, Inc.
National Information Solutions Cooperative
Network for Good
Niehaus Building Services, LLC
Northstar Management Co., LLC
Oates Associates, Inc.
Oates Associates, Inc. Charitable Contribution Fund
Object Computing, Inc.
Oculus Inc.
OneSpace
Otis Elevator Company
Paric Corporation
Phillips 66 Wood River Refinery
Phillips Interior Exterior Systems, Inc.
Poettker Construction Company
Rhodey Construction Inc.
RJN Foundation, Inc.
Ross & Baruzzini, Inc.
S. M. Wilson & Co.
Sachs Electric
Sheppard, Morgan & Schwaab, Inc.
Siemens Corporation
Siemens Industry, Inc.
Simmler, Inc
Southern Illinois Builders Association
Southern Illinois Construction Advancement Program
Southern Illinois Sheet Metal Contractors
St. Louis Prestress, Inc.
Stevens Industries, Inc.
Sunbelt Rentals & S.R.E.
T. J. Wies Contracting, Inc.
The Boeing Company
The Korte Company
The Western Construction Group
Toyoda Gosei
Vogel Sheet Metal & Heating, Inc.
Walsh Construction Company
WRB Refining LLC

Matching Gift Companies

Ameren Corporation Charitable Trust
Anheuser-Busch Companies Foundation
Caterpillar Foundation
Silicon Valley Community Foundation
The Boeing Company
The Korte Company
U.S. Bancorp Foundation
YourCause, LLC Trustee for AT&T

SOUTHERN ILLINOIS UNIVERSITY
EDWARDSVILLE
SCHOOL OF ENGINEERING

Box 1804
Edwardsville, IL 62026-1804
618.650.2541

NonProfit
U.S. Postage
PAID
Permit No. 4678
St. Louis, MO

FSC
www.fsc.org
MIX
Paper from responsible sources
FSC® C013836

SIUE is proud to support responsible use of forest resources.

Printed by authority of the State of Illinois, 3/17, 7,500, 17070096