

# arkansas ENGINEER

From the College of Engineering at the University of Arkansas • Spring 2014

ELECTRONICS

ENERGY

HEALTHCARE

NANO

TRANSPORTATION

college of engineering

**RESEARCH STRENGTHS**



UNIVERSITY OF  
ARKANSAS  
COLLEGE OF  
ENGINEERING





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"University of Arkansas  
College of Engineering"  
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@UofAEngr on Twitter

College of Engineering alumnus Nehemiah Stephens, left, talks to current student Shawn Belcher. Nehemiah and Shawn are both part of the ECAP program, which helps students build a network of peers and mentors.



**John English**  
Dean of Engineering  
Irma F. and Raymond F. Giffels  
Endowed Chair in Engineering

**I**t is hard to believe that we are approaching the end of my first year as dean! It's been a great year, and this issue of the magazine will tell you about some of the things that makes my job so rewarding: the students, faculty and alumni that make the College of Engineering what it is. In this issue, you can read about the students in our award-winning ECAP program, and a few of the businesses run by Arkansas engineers that we are proud to call our own. This issue also highlights a project in the college that I am especially excited about: our Research Task Force Report.

As a land-grant research institution, our education mission goes hand in hand with the responsibility to break new ground and contribute to the economic well-being of our state. In order to make sure we are supporting and expanding the areas where we have the most to offer, the college formed a Research Task Force, led by Distinguished Professor and Twenty-First Century Endowed Chair in Mixed-Signal IC Design and CAD, Alan Mantooth.

The task force included representatives from each department: Julie Carrier from biological and agricultural engineering; Jia Di from computer science and computer engineering; Micah Hale from civil engineering; Ajay Malshe (holder of the Twenty-First Century Endowed Chair in Materials, Manufacturing and Integrated Systems) from mechanical engineering; Heather Nachtman from industrial engineering; Jim Rankin, vice provost of research and economic development; Ranil Wickramasinghe (holder of the Ross E. Martin Endowed Chair in Emerging Technologies) from chemical engineering and David Zaharoff (holder of the Twenty-First Century Endowed Professorship in Biomedical Engineering) from biomedical engineering.

I'm very pleased with their work, and I look forward to seeing how this improved focus will impact our national reputation and more importantly, our ability to serve students and serve our community.

A handwritten signature in black ink, appearing to read "John English".

## Brown Gift Benefits Chemical Engineering Department

University of Arkansas alumnus Kevin Brown and his wife, Marie, have created an endowed department head chair within the College of Engineering thanks to a \$3 million gift. The Kevin W. and Marie L. Brown Department Head Chair in Chemical Engineering was established by the Houston couple and will benefit the Ralph E. Martin department of chemical engineering at the University of Arkansas.

Buddy Babcock, department head for chemical engineering, said the endowed gift is very timely, because the department now stands at a crossroads with a new department head search underway.

Brown is originally from North Little Rock and came to the University of Arkansas after receiving an academic scholarship. "I came to the university to obtain a degree in chemical engineering," he said. "Not only did I receive the degree, I learned a number



**Kevin and Marie Brown**

of valuable life and professional skills while at the university. As a result of that early financial help and the skills learned, we have been blessed, and feel an obligation to share our success with future generations."

Brown believes his experience at the university directly impacted his ability to be effective in the business world. Today, he serves as senior vice president of

refining for LyondellBasell Industries in Houston, the third-largest independent chemical company in the world. His responsibilities include the refining segment and the procurement and utilities, global engineering services and global project services organizations. He has served as chair and vice-chair of the National Petroleum Refiners Association and is currently a member of the executive committee of the American Fuel and Petrochemical Manufacturers Association.

Brown, who received a Distinguished Alumni Award in 2011, serves on the university's Campaign Arkansas Steering Committee and the College of Engineering's Dean's Advisory Council, the College of Engineering's Campaign Arkansas Steering Committee and Arkansas Academy of Chemical Engineers. He and his wife are recognized in the Towers of Old Main.

## Ansel and Virginia Condray Gift of \$240,000 to Support College of Engineering

Ansel and Virginia Condray of Dallas have pledged \$240,000 to enhance the Ansel and Virginia Condray Endowed Professorship in Chemical Engineering, which was originally created during the Campaign for the Twenty-First Century, and provide support to the college through the Dean's Advisory Council fund. The gift to the professorship will allow the College of Engineering to support a highly qualified faculty member in the Ralph E. Martin department of chemical engineering by providing the resources needed to continue and further the scholar's contributions to teaching, research and public service.

Ansel Condray, who grew up in Little Rock, came to the University of Arkansas and majored in chemical engineering after enjoying chemistry in high school.

After receiving his bachelor's degree in 1964, Condray began work as an engineer, and his subsequent career touched on technology supervision,



Being engaged allowed me to reflect on a lot of things. It cemented the idea that the background and foundation I had been given enabled me to compete with people at big name schools. I knew that giving back would allow the university to continue to do that.

—Ansel Condray

operations management and general management before he retired as chairman and production director of ExxonMobil International Ltd. in 2002. The professorship and Dean's Advisory Council fund supported by the Condrays include funds from ExxonMobil's matching gift program.

Condray is a member of the College of Engineering Dean's Advisory Council. He was named an Arkansas Alumni Association distinguished alumnus in 1997 and was inducted into the College of Engineering Hall of Fame in 1998. He was a member of the Campaign for the Twenty-First Century Steering

Committee and now serves on the Campaign Arkansas Steering Committee. His wife, Virginia, is also a graduate of the university and holds a Bachelor of Science in Education from the College of Education and Health Professions. Because of their philanthropy, they are recognized in the University of Arkansas Towers of Old Main and the Heritage Society.

Christa Hestekin, associate professor of engineering, was selected to hold the Ansel and Virginia Condray Endowed Professorship in Chemical Engineering from Jan. 1, 2014 to July 1, 2015.

## Engineering Dean Makes Gift for Industrial, Electrical Engineering Departments

John English, dean of the College of Engineering, and his wife, Elizabeth, are establishing two scholarships at the University of Arkansas with a \$100,000 gift. The departments of industrial engineering and electrical engineering will both benefit from the contribution.

"It is always uplifting to see our faculty and staff give back financially, because it shows how dedicated they are to the university and its success," said Chancellor G. David Gearhart. "I applaud Dean English and his wife for leading by example with this gift and supporting our students with these scholarships. His past and present connections to the College of Engineering will be appropriately honored with this contribution and benefit generations of future engineers."

The Nancy Carolyn English Endowed Scholarship in Electrical Engineering and Sara English Crismon Endowed Scholarship in Industrial Engineering are each being established with \$50,000 endowments and will allow their respective departments to attract and retain academically qualified students.

English, who has a bachelor's degree in electrical engineering and a master's degree in operations research from the university, also has a doctorate in industrial engineering and management from Oklahoma State University. Prior to his appointment as the ninth dean of the College of Engineering, he served as dean of the College of Engineering at Kansas State University.

English and his wife are life members of the Arkansas Alumni Association, will be inducted into the Towers of Old Main and are members of the Heritage Society, a prestigious group for donors who have chosen to leave a legacy at the University of Arkansas through a planned gift.

## Colorado Couple Donates \$100,000 to Advisory Council

W.T. "Tom" Stephens and his wife, Alice, of Greenwood Village, Colo., have made a \$100,000 gift to the College of Engineering's Dean's Advisory Council. The contribution will allow John English, dean of the college, the flexibility to use the funds for areas of greatest need.

Stephens holds bachelor's and master's degrees from the College of Engineering. He was named an Arkansas Alumni Association distinguished alumnus in 1994 and served as the College of Engineering commencement speaker in 1995. He is a lifetime member

of the Arkansas Alumni Association and was recognized in the College of Engineering Hall of Fame in 2007. He retired from his position as chairman and chief executive officer of Boise Cascade Holdings LLC in 2008. He also has served as the chairman and CEO of Johns Manville, CEO of McMillian Bloedel, and CEO of Riverwood.

Stephens and his wife Alice are recognized in the University of Arkansas Towers of Old Main, a society that honors the university's most generous benefactors.



## R.R. Baxter Amphitheatre Gets Digital Upgrade

The R.R. Baxter Amphitheatre is the largest classroom in the Bell engineering Center and is used by students and faculty from across the campus. In 1998, Baxter Amphitheatre was transformed into the prototype classroom for engineering education in Arkansas by installing state-of-the-art technology. The interactive conferencing system in Baxter Amphitheatre allows the college to transmit classroom lectures and presentations to other locations.

This project was made possible by a gift from Reginald R. "Barney" Baxter and his wife, Jamie. The couple financed the original upgrade in 1998 with a \$150,000 gift, and in 2005, they

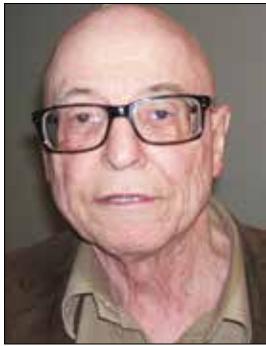
established a \$100,000 quasi-endowed maintenance fund for the classroom. In 2013, they supported a total upgrade, moving the amphitheatre from analog to digital technology. The latest renovation involved replacing virtually every component of the audiovisual system to ensure that the room can offer students and faculty the latest technology.

Baxter is a charter member of the Arkansas Academy of Chemical Engineers and the College of Engineering Dean's Advisory Council. He and Jamie serve on the university's Campaign Arkansas steering committee. Baxter was inducted into the College of Engineering Hall of Fame in 1985.

## Engineering Alumnus Supports Teaching with \$7.8 Million Gift

Alumnus Robert Biggadike from West Covina, Calif., has made an estate gift valued at over \$7.8 million to benefit the College of Engineering at the University of Arkansas. The gift will be used to establish the Robert Biggadike Endowment for Teaching in the college.

"This is a fantastic gift for the College of Engineering and the University of Arkansas," said Chancellor G. David Gearhart. "Bob's generosity is inspiring, and we are deeply touched by his support of his alma mater. His gift will allow the College of Engineering to make impressive advances and contribute greatly to their future success."



**Robert Biggadike**

Biggadike, a native of Newport, AR, received his bachelor's degree in mechanical engineering from the university in 1958 and began a career in the aerospace industry. He later returned to Arkansas and earned a master's degree in mechanical engineering. His aerospace career later took him to California, where he worked for companies

including Northrop Grumman, General Dynamics and Boeing. He was a control systems engineer, developing rigid and elastic body simulations of missiles and designing autopilot systems. He also earned the Degree of Engineer in mechanical engineering and computer methodology at UCLA while working full

time. Biggadike attributes his ability to provide this gift of support to the College of Engineering to wise investments throughout his lifetime. He explained that he feels "engineers tend to be productive citizens who make a contribution to society."

"A gift of this magnitude is outstanding and an excellent investment in our future," said Dean John English.

In 1983, Biggadike established a scholarship endowment in memory of his father, also in the College of Engineering. That gift is used to support juniors and seniors majoring in mechanical engineering. Because of his philanthropy, Biggadike is recognized in the Towers of Old Main, a society that honors the university's most generous benefactors.

## 'I want to be remembered.'

It's easy to do.

You can create lasting impact with a simple act.

Remember us with a gift in your will, or name us as a beneficiary of part of your retirement plan or life insurance.

We'd be happy to tell you how you can support the College of Engineering or your department now through this type of gift.



Office of Planned Giving

(800) 317-7526

email: legacy@uark.edu



## Environmental Protection Agency Recognizes Arkansas Student

Alex Moix, a junior chemical engineering major and Honors College student, has received a Greater Research Opportunity scholarship from the Environmental Protection Agency. The scholarship provides financial support for Moix's junior and senior year and an internship at an EPA laboratory. Moix was one of 40 students nationwide to receive the scholarship this year. The EPA's website explains that the purpose of this scholarship is to support students who are conducting research in environmentally related fields.

Moix, a Bodenhamer Fellow, is active in undergraduate research. Last year, he worked with Jamie Hestekin, associate professor and holder of the Jim L. Turtpin Endowed Professorship in Chemical and Biochemical Separations, researching faster and more efficient ways to grow algae for biofuels. This year, Moix is working on a different project with Hestekin, studying the use of electrodialysis to remove impurities from bio-oils. Moix plans to take advantage of his internship opportunity to learn more about environmental research and explore his options after graduation.

## Freshman Chemical Engineering Student Named ACS Scholar

Karla Morrissey, freshman chemical engineering and Honors College student, has been selected to take part in the American Chemical Society's Scholars Program. This program awards renewable scholarships to underrepresented minority students who want to enter fields related to chemistry.

As part of the program, Morrissey is assigned a mentor. Shannon Servoss, assistant professor and holder of the Ralph E. Martin Endowed Professorship in Chemical Process Engineering, will meet with Morrissey at least once a month to help her plan and carry out her academic goals, identify research projects to take part in and locate other extracurricular opportunities.

Morrissey, who was born in El-Salvador, became interested in chemical engineering during an internship with her aunt's company, Latinoamerica Renovable. This company promotes awareness of renewable energy in Latin American countries. After she finishes her bachelor's degree, Morrissey plans to stay in the chemical engineering field, doing research on biofuels or solar energy.



Inspire the next  
generation of engineers

The College of Engineering offers five different summer camps for students going into the 4th through 12th grade.

Find more information at [www.engr.uark.edu/home/summerprograms.php](http://www.engr.uark.edu/home/summerprograms.php)  
or call the Engineering Welcome Center at (479) 575-7780.



## Students Seek to Improve Water Quality and Drainage

Arkansas Engineers Abroad, an engineering student group, is working toward a brighter future for the town of More Tomorrow in Belize.

Eight students from the group traveled to More Tomorrow in early January to continue work on a project they began three years ago.

Currently the people of More Tomorrow collect water from a nearby river, shallow wells, and crude rainwater catchment systems such as rusted barrels, uncovered buckets, and tanks.

The students are well along on an effort to provide a source of clean water for More Tomorrow: they have built the foundation, installed piping and drilled a deep-aquifer well. They have also contracted for the design and construction of a 30-foot-tall water tower with a 2,500-gallon tank that will sit on top of the well, to be completed this spring. On this latest trip, their fifth to More Tomorrow, the students' goal was to perform door-to-door health surveys and take water samples.

The students also met with a representative of the Peace Corps, who encouraged them to create a project development plan. Peace Corps involvement in More Tomorrow has been limited up to now, but the organization is considering sending a volunteer there on a regular basis after meeting with Arkansas Engineers Abroad.



Honors chemical engineering student Erin Cooper examines a water sample from a villager's rainwater catchment system in More Tomorrow, Belize. The Arkansas Engineers Abroad student group has been hard at work building a water tower, conducting health surveys and working with community leaders in More Tomorrow to improve living conditions.

## U of A Student Named a New Face of Engineering by DiscoverE

Grace Richardson, a masters student in the department of biological and agricultural engineering, has been named a New Face of Engineering by DiscoverE. Since 2003, this organization has honored the work of up-and-coming engineers who are already making their mark on the industry and on society.

Richardson received a bachelor's degree in biological engineering from the U of A in 2008. Her first job after college was with BlueInGreen, a company that manufactures water treatment equipment, where she headed several projects. In 2012, Grace entered the master's program in biological engineering at the University of Arkansas. Her research focuses on treatment of lake sediments to reduce oxygen demand and extend the life of reservoirs while improving water quality.

## American Concrete Institute Honors Civil Engineering Student

In January, Cameron Murray, a civil engineering master's student, presented his research at the annual meeting of the Arkansas chapter of the American Concrete Institute. The chapter recently held a student paper competition for projects related to the concrete industry. Murray was selected from entries across the state. He received a \$500 prize.

Murray is researching ways to prevent alkali silica reactions, which can damage concrete. Specifically, he is looking at concrete columns in a food production facility. The soap used to clean the columns contains alkali, which mixes with the silica in the concrete to form a gel. This gel absorbs water and expands, which then causes the concrete to crack. Murray is studying the use of silane vapor barriers to treat the problem, and he is monitoring the columns and looking for ways to prevent this issue in the future.

# 50 Years in the Business

## Crafton Tull and McClelland Consulting Engineers, Inc.

In 2013, two companies with connections to the College of Engineering celebrated their 50th anniversaries. Crafton Tull was founded by Bob Crafton, BSCE 1957, and Lem Tull, BSCE 1958. Jim McClelland, BSCE 1967, is the chairman emeritus and CEO of McClelland Consulting Engineers, Inc.

### Crafton Tull

Bob Crafton grew up on a farm in Corning, Arkansas, the youngest of fourteen children. When one of his older brothers offered to loan him the money to attend college, he jumped at the chance and majored in civil engineering, because his favorite high school teacher suggested it. After spending two years at Arkansas Tech, Crafton transferred to the U of A, where he met Lem Tull. Tull was a North Little Rock native who had been interested in engineering ever since he helped a survey crew make a topographic map for his church.

Crafton and Tull graduated and parted ways, both going to work for the Arkansas State Highway and Transportation Department, but in different areas. One day, the two ran into each other and Tull asked Crafton if he could work for him. Crafton agreed, and Tull managed to get a transfer from bridge design to construction. After working together for a while, the two men decided to open their own business.

It was a difficult decision. As Crafton explained, he "had the

best of all worlds" at the highway department. "Things were going great, but I had the ambition to work for myself." Crafton and Tull agreed that although starting their own business was risky, there was a promising opportunity for a civil engineering company in the Northwest Arkansas area. They opened Crafton Tull in Rogers in 1963.

The company got off to a rough start, opening three days before John F. Kennedy was shot. Crafton and Tull both remember the sadness and uncertainty of that time, as not only their lives but the whole country was in upheaval. With the support of their families and each other, the two partners made it through those times. "It was tough getting started," Crafton remembered, "but we hustled and struggled and managed to make it."

Crafton Tull secured their place in the Arkansas landscape quickly, taking on several contracts for the highway department and embarking on a huge development project in the Beaver Lake area. For this project, the company purchased an IBM mainframe computer—the only one in the state at the time.

Over time, Crafton Tull expanded its services, offering architecture, landscape architecture, interior design and surveying. The company currently has offices in Rogers, Tulsa, Conway, Little Rock, Oklahoma City and Russellville. Its portfolio is broad, including projects at Hendrix College, the U of A, the Tulsa Regional Chamber of Commerce, the Tulsa Zoo, the Pulaski County Trail system, the historic Coleman Theatre, and many more.



We can think of no greater privilege than giving back to the people and organizations that have trusted us to build the towns where they live, work, play, and raise their families.

— Bob Crafton and Lem Tull



Crafton Tull realigned a 1,000 foot section of Kanis Road in Little Rock, Ark., in order to improve the safety of the road. The existing bridge and culvert were removed and replaced.



Crafton Tull planned, designed and constructed administration services for a water tower for the City of Duncan, OK and an extension of a water main to connect the new tower to the existing distribution system.

Crafton and Tull agree that the best thing about their company is its employees. "We worked really hard to have a good reputation," said Tull "to have our employees want

to work here." The company supports its employees, as well as its community. For its 50th anniversary, Crafton Tull committed to 50 acts of kindness in the communities it serves. In 2013, Crafton Tull employees gave blood, donated to food banks, planted trees, cleaned up highways and streams and participated in many other activities that supported local communities and community organizations. "We can think of no greater privilege than giving back to the people and organizations that have trusted us to build the towns where they live, work, play, and raise their families," the company's website explains.

Tull retired in 1996, and these days, he stays active in his church, and with his children and grandchildren. In the past, Tull has been very active with the university and civil engineering department as a member of the Arkansas Academy of Civil Engineering, as well as other boards and commissions in the community. These days, health issues have limited his involvement, and he is focusing on spending time with his family. His son, Jim Tull, is the chief financial officer of the company.

Crafton retired in 2000, and stays involved with his community. He has served as a member of the Rogers School Board, Rogers Chamber of Commerce, and the Board of Trustees of Northwest Arkansas Community College. He is currently a member of the Arkansas Higher Education Coordinating Board and the Good Roads Transportation Council. Crafton is a founding member of the Arkansas Academy of Civil Engineering, and he was named a Distinguished Alumnus of the College of Engineering in 2007. His son, Matt, is the current president and CEO of the company. The two families still live near each other in Rogers.



Above: McClelland has designed and overseen construction of the turf system in the Donald W. Reynolds Razorback Stadium three times in the past 45 years.

### McClelland Consulting Engineers, Inc.



the Fayetteville community, involved in his church, the Rotary Club and the city board.

McClelland explained that, after growing up in Fayetteville, attending the U of A was “a natural transition.” He has fond memories of his time as an engineering student, studying with his classmates for hours in the break room of Engineering Hall, doing practice problems on the chalkboards.

When he graduated, he worked for Melburger Engineers. “Max Melburger was a mentor and very influential on my career,” he remembered.

After ten years with Melburger, McClelland opened an

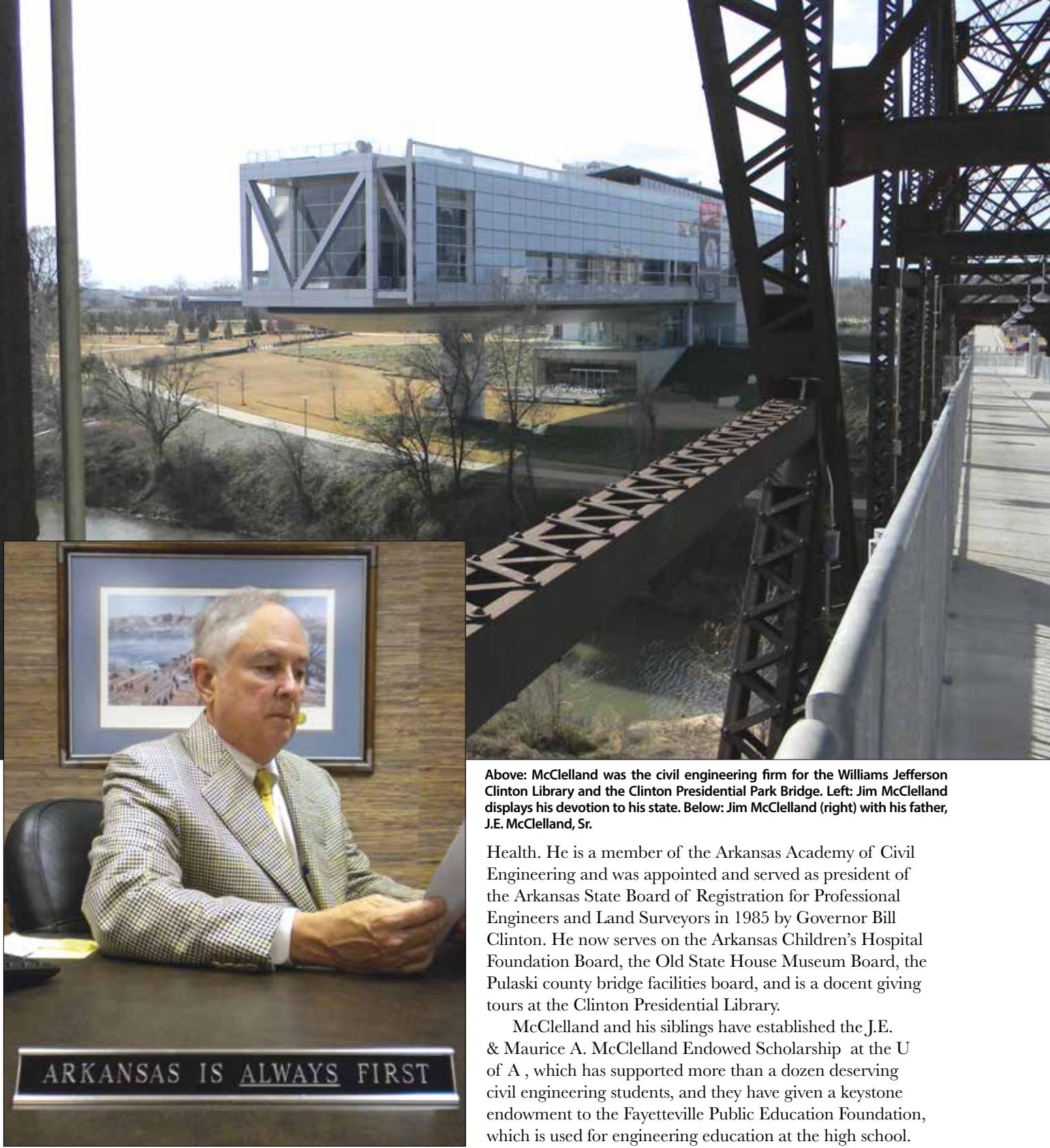
Jim McClelland grew up in the engineering world, the son of a consultant and engineer and grandson of C.K. McClelland, an agronomy professor at the U of A. His father, J.E. McClelland Sr., opened McClelland Consulting Engineers, Inc., in Fayetteville in 1963. “Mr. Mack,” as he was called, was very active in

office of his father’s company, McClelland Engineers, in Little Rock in 1977. When his father retired in 1986, McClelland moved the headquarters of the company from Fayetteville to Little Rock and ran the company until 2009, when he “semi-retired.”

McClelland Engineers has worked on some of the most iconic facilities in Arkansas, including the William Jefferson Clinton Library and the Heifer International headquarters, both platinum LEED certified buildings.

The company has also been involved in the construction of almost all the sports facilities on the U of A campus, including the Bud Walton Arena, George Cole field at Baum Stadium and the Donald W. Reynolds Stadium. McClelland also led an effort to renovate and expand the Sigma Nu chapter house in the early 90s and then provided the civil design for a new house, pro-bono, in 2009.

McClelland explained that the focus of his career has been advancing the quality of life through infrastructure improvements all over Arkansas. A sign on his desk reminds everyone who comes into his office that “Arkansas always comes first.” Over the past 50 years, McClelland Engineers has improved many areas of the state, working on the water systems, transportation, drainage systems, airports and educational facilities in most of the 74 counties.



Above: McClelland was the civil engineering firm for the Williams Jefferson Clinton Library and the Clinton Presidential Park Bridge. Left: Jim McClelland displays his devotion to his state. Below: Jim McClelland (right) with his father, J.E. McClelland, Sr.

Health. He is a member of the Arkansas Academy of Civil Engineering and was appointed and served as president of the Arkansas State Board of Registration for Professional Engineers and Land Surveyors in 1985 by Governor Bill Clinton. He now serves on the Arkansas Children's Hospital Foundation Board, the Old State House Museum Board, the Pulaski county bridge facilities board, and is a docent giving tours at the Clinton Presidential Library.

McClelland and his siblings have established the J.E. & Maurice A. McClelland Endowed Scholarship at the U of A , which has supported more than a dozen deserving civil engineering students, and they have given a keystone endowment to the Fayetteville Public Education Foundation, which is used for engineering education at the high school.

McClelland is proud that 4 generations of his family have been involved with the U of A. He and his wife, Pat, have two sons, Jay and Kirk, and two grandchildren, Sophie and Nick.

A licensed Professional Engineer, McClelland has received numerous awards and recognitions over the years, including Professional of the Year from the Arkansas Public Works Association, Boss of the Year from the National Association of Women in Construction, and Engineer of the Year from the Arkansas Society of Professional Engineers.

He has served as president of the Arkansas Society of Professional Engineers and the Arkansas State Board of

# The Rogers Archive

## Mechanical Engineering Alumnus Helps Preserve the Story

**O**ur company is driven by the idea of preserving history,” explained Mac Hogan, BSME ’65. At a time when many organizations are struggling to switch from print to digital media, the Rogers Archive provides a valuable service—digitizing the photo collections of newspapers and private collectors. Not only does this ensure that valuable historical images are preserved, but now these images, which were trapped on paper and buried in store rooms, are given a new life on the Internet.

Hogan, who grew up in North Little Rock, has had a diverse and remarkable career. As an aerospace engineer at NASA, he worked on the Gemini and Apollo space programs. In the seventies and eighties, he served as partner and vice president of AGL Corporation. In this position, Hogan contributed to advancements in the field of laser surveying, and he holds six patents in that discipline. In addition to being a partner in Rogers Archive, he is currently owner and chairman of two startup companies, both market leaders: Poloplaz, Inc., which makes coatings for hardwood floors, and Air Tech Coatings Inc., which produces paints and coatings for antique aircraft.

The engineering world provides many opportunities for entrepreneurs, Hogan explained. “You work in arenas where there are lots of new products, new markets.” And Hogan’s knack for identifying new markets has been very beneficial for Rogers Archive.

The archive was created by John Rogers, who purchased his first newspaper photo archives—from the Detroit News and the Detroit Free Press—in 2009. When Hogan and Chris Cathey, of North Little Rock joined the company in 2011 as partners, it had an inventory of 43 million images. Thanks in part to Hogan’s marketing skills and international contacts and to Cathey’s input, the archive now contains 220 million images, by far the largest collection of its kind in the world.

The Rogers Archive has developed a unique system that benefits the company, newspapers and consumers alike. The

company travels to the headquarters of newspaper and collects the entire print photo archive. Hogan explained that this is usually “a massive amount of stuff.”

The photos are then sorted, cleaned and organized into two general categories. The majority document events and everyday life, but a select few photos stand out because of their quality, photographer or subject matter. “Every archive we go into has something of significance,” explained Hogan, referring to finds like long-forgotten shots of John F. Kennedy and the Beatles. Recently, the company discovered photos that Stanley Kubrick took for *Look* magazine, forgotten in the archive of the Sidney Herald.

After the photos have been sorted, they are scanned with the company’s custom designed high speed equipment. The company scans about 3.5 million photos and 3.5 million negatives per month. After the photos are digitized, the company applies metadata, including the date the photo was taken, the people in the photo, the setting, and other details that make the images searchable. Finally, the photos are uploaded onto the Rogers Archive site. Each newspaper has its own microsite within the website, so that its collection can be searched separately.

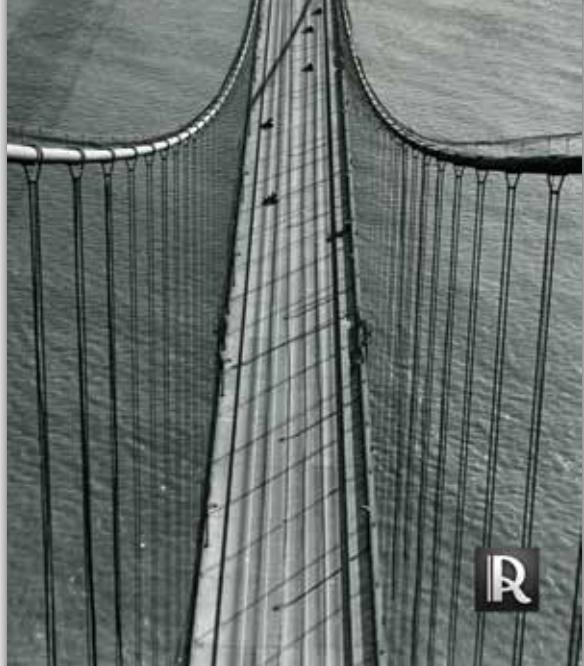
Once the images are digitized, they can be monetized. Rogers Archive is the largest

lister of items on eBay, where they sell many of their original photos. The company also sells original photos to private collectors and through auction houses. The company sells prints of its digital images, and it licenses digital images. This revenue is split between the company and the newspaper who supplied the photos.

Rogers Archive provides a valuable service at a crucial time, as financial difficulties put many newspapers in jeopardy, and the ease of digital storage provides a new opportunity to preserve and monetize old images. “If these collections are not digitized now, they won’t be here just a few years from now,” explained Hogan. “Preserving the story is our motto. It’s a high and noble purpose.”



Above: At the Rogers Archive website, [www.therogersarchive.com](http://www.therogersarchive.com), customers can browse photos, order prints and license images. Right: a selection of photos found in the archive. All images courtesy of the Rogers Archive.





## Engineering Career Awareness Program

### The Origin of ECAP

In 1965, Troy Alley left his home in Pine Bluff to pursue an engineering degree at the U of A. As an African American, Troy knew that life at the university would be challenging, but he wasn't sure how to prepare.

"You're going where?" a friend asked him. "You'll be back after the first semester." Troy made a bet with his friend that he would stay, and he did, earning an electrical engineering degree in 1969. Along the way, Troy learned how to succeed in college and in life, and he decided to help other young people overcome the same kinds of challenges that he had faced. It was this inspiration that led to the Engineering Career Awareness Program.

Many things have changed for the better since Troy was an engineering student, but some students still face doubts and barriers when they decide to study engineering. ECAP addresses these. The program provides full scholarships for students who are underrepresented in the field of engineering, including female and minority students. In addition to financial support, ECAP includes the summer bridge program, which familiarizes new students with life on campus, and the program also provides lots of support from peers and staff to help students do their best in college.

### The Question of College

In 2010, Sydney Dickson was a senior in high school in Carl Junction, Mo., and she had a lot of questions about college. She was a good student, and she knew she wanted to study engineering. But no one in her family had a college degree. She wasn't sure if she would fit in on a large university campus, and she had no idea how she would pay for a college education.

Sydney learned about ECAP on a visit to the U of A, and she thought, "Okay, college is a possibility now." Getting in was the easy part. Sydney was not only accepted to the U of A, she was also accepted into the Honors College. She just needed a way to pay tuition.

Sydney will never forget the day she got the letter inviting her to campus for an ECAP interview. "I freaked out," she said. When Sydney was accepted into ECAP, the first barrier between her and an engineering degree was removed. Her tuition would be paid for. She could make her family proud, without causing them financial stress.

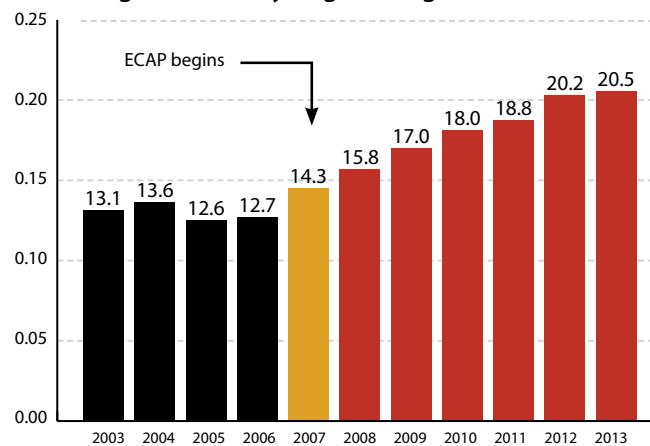
Sydney still had worries, though. She had no idea what to expect when she got to Fayetteville. Would she be able to find friends? Would she succeed in her classes? Or would she be lost in the crowd?

### ECAP Answers

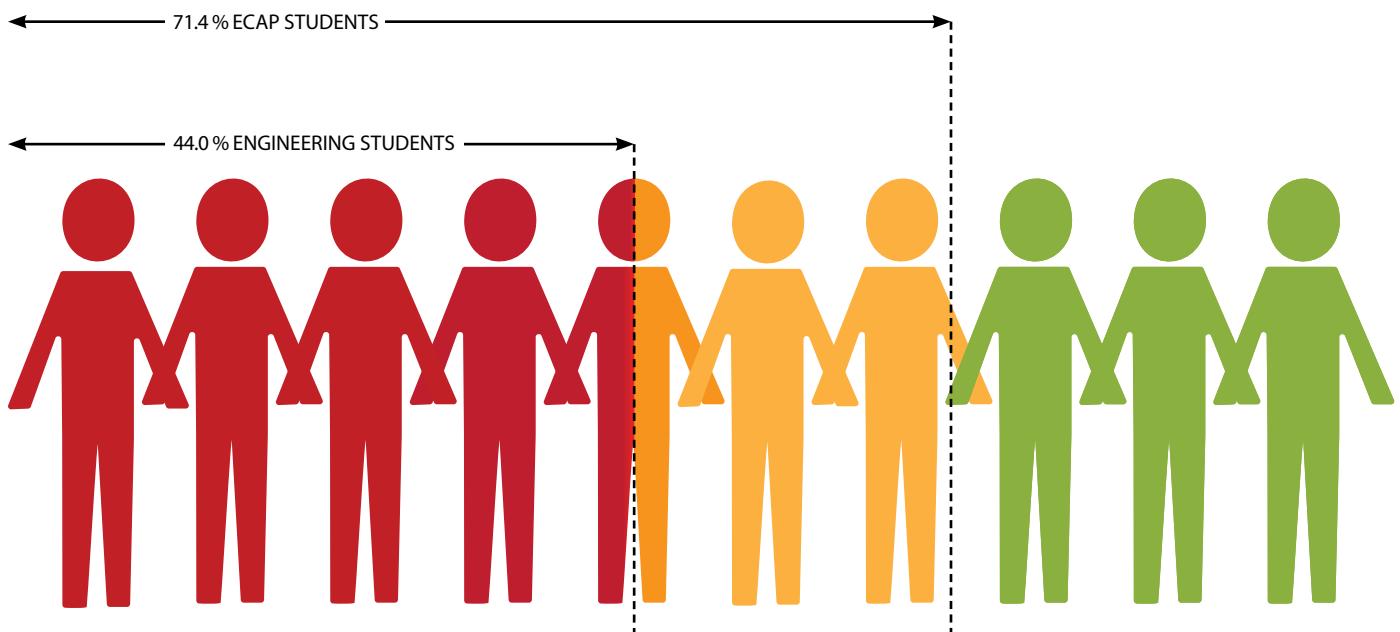
By the end of the summer bridge program, Sydney felt much better. "Those three weeks were bonding time," she said. ECAP students live close to each other in the dorm, and Sydney and her fellow ECAP students quickly learned that, even though they came from different backgrounds, they could count on each other. "It was nice to have them there when I needed help with homework," said Sydney. "They're my family. If I'm talking to someone and ECAP comes up, it's instant brotherly/sisterly love."

ECAP students also find support in the engineering deans' office. During the bridge program, Sydney got to know two of the assistant deans: Thomas Carter III, or TC, and Bryan Hill. Sydney explained that these relationships were especially helpful during her freshman year, when large classes and a new environment could have made her feel overwhelmed. "It's so nice to be able to waltz into their office whenever I have a question," she said.

Percentage of minority engineering students



## Six-year graduation rate of engineering students



### The Strongest Vehicle You Have

It's no coincidence that Sydney has a strong support network. Alley knew the importance of personal connections. As a college student, he benefitted from the relationships he developed with his professors, and connection is one of the founding principles of ECAP. "Your network is the strongest vehicle you have," he explained. "It's more important than money."

ECAP students become part of a network that extends beyond campus. Each summer, they are required to take part in activities such as study abroad, internships and research. Sydney, who is majoring in civil engineering, has studied abroad in Belize and India. She has completed one internship and is making plans for a second. During her senior year, she'll focus on her honors thesis project, which involves figuring out a way to prevent damage to concrete by changing the ingredients that go into the mortar component.

### Life After ECAP

T C explained that the ultimate goal of the ECAP program is to bring diversity to the field of engineering. "Engineering is a tough major and it's not for everyone," he explained. "But there are a lot of talented students out there who don't

consider engineering. The goal of ECAP is to remove barriers for those students, so they can focus on doing well in their classes and becoming great engineers."

ECAP students graduate at a higher rate than the general engineering population, and one hundred percent of the students who have graduated through ECAP are now attending graduate school or working in engineering. Nehemiah Stephens is one of these. Nehemiah graduated in 2013 with a bachelor's degree in mechanical engineering, and he returned to campus the following spring to conduct interviews for his employer.

When he visited campus, Nehemiah was amazed at how many current ECAP students had 4.0 grade point averages. "I get to see the great talent here," he said. "ECAP makes academic excellence number one. They want to support and really honor those people who do well in school. I'm glad I got to graduate from it."

Sydney is now a junior, considering the next phase of her life. She's thinking about adding an MBA to her resume. Or maybe she'll find inspiration in her next internship, or her research project. Whatever she does next, she will have plenty of help and support from her ECAP family. It was ECAP that brought Sydney to the U of A, but what she appreciates most is what she will take with her when she leaves: the friendships she's made and the network she's built. "Those relationships mean a lot more than the dollar amount," she said.



**They're my family. If I'm talking to someone and ECAP comes up, it's instant brotherly/sisterly love.**

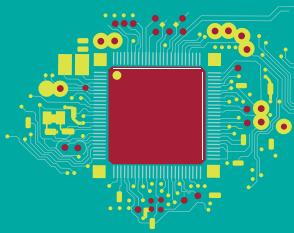
Sydney Dickson,  
engineering student

# college of engineering RESEARCH STRENGTHS

## EXISTING research areas

In January 2014, a research task force appointed by dean John English identified existing and emerging strengths in the college. Existing strengths are those areas where the college is already nationally recognized. Emerging areas are fields where the college has some key presence, expertise and momentum. These are expected to emerge into strengths with additional investment. The full report can be found at [www.engr.uark.edu/home/4969.php](http://www.engr.uark.edu/home/4969.php).

## EMERGING research areas



### Electronics

The College of Engineering has been producing graduates focused on electronics for over 30 years. Researchers in this area are developing new materials for circuits and photovoltaic cells, designing and modeling circuits, creating packages that protect and integrate electronic devices and creating and testing new technologies to improve our power grid.



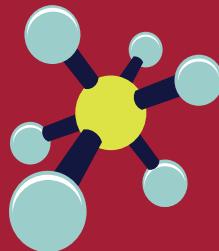
### Energy

The broad area of energy has a foundation in electronics, but has expanded to include power systems, energy storage, smart grid innovation, biofuels and oil and gas research. As the world struggles to find and integrate safer and more sustainable sources of energy, research in this field is more important than ever.



### Healthcare Systems Engineering

This research area focuses on reducing costs and improving quality in the healthcare industry optimizing the way supplies and therapies are administered. Researchers look at many different aspects of the healthcare industry, including supply chain costs, medical decision making, therapy scheduling, statistical monitoring and detection of epidemics.



### Nanomaterials Science and Engineering

The nanotechnology area has existed for about 15 years. Researchers in this area use computational modeling to design and model novel nanoscale materials, synthesize them, integrate them into devices and device packaging, create advanced nanomaterial coatings, use nanoscience to improve photovoltaic and thermoelectric technologies and study biological materials on the nanoscale in order to create new bio-inspired surfaces and materials.



### Transportation and Logistics

The College of Engineering has been a national leader in transportation and logistics for more than twenty years. Researchers are looking at distribution, transportation, information technology and software solutions and maritime and multimodal transportation.

#### Aerospace

The U of A is moving to respond to this area, which is the single largest export market from the state of Arkansas.

#### Big Data/ Analytics

Technology has increased the amount of data we produce, leading to an increased need to analyze this data.

#### Cybersecurity

Researchers are looking at increasing digital security and information assurance, especially in the areas of transportation and the power grid.

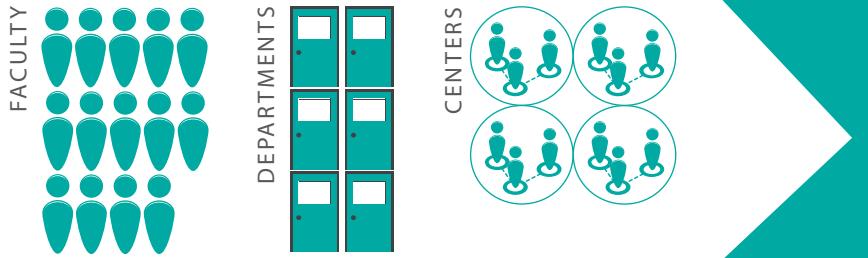
#### Healthcare

With the new biomedical engineering department, the college is poised to marry technical and biological research in this area.

#### Infrastructure

As a land-grant institution, the U of A has a responsibility to maintain the nation's water and electric resources, communications and transportation.

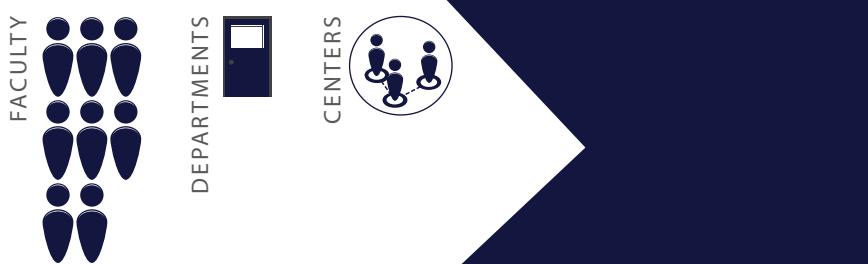
- Centers in this area include High Density Electronics Center, the Institute for Nanoscience and Engineering, Grid-Connected Advanced Power Electronics Systems and the National Center for Reliable Electronic Power Transmission
- Over \$5 million per year in research expenditures
- Several startup companies have emerged from this area



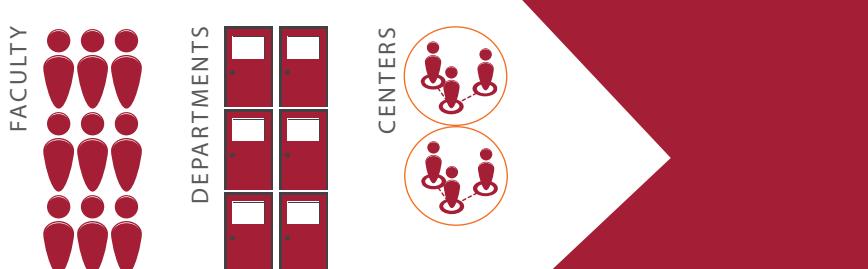
- The GRAPES and NCREPT centers are focused on energy research, with research expenditures of \$2 million per year
- Biofuel research in chemical and biological engineering is supported by the National Science Foundation, the Department of Energy and the Department of Transportation
- Combining electronics and non-electronics energy research could lead to the development of future research centers



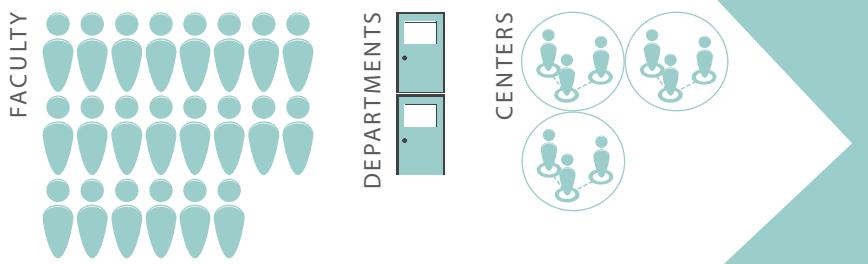
- Much of the research in this area is conducted through the Center for Innovation in Healthcare Logistics
- CIHL has had \$3 million in research expenditures over the past 5 years
- Researchers in this area collaborate with industry and share findings with the healthcare community



- Nanomaterials research is conducted at the Institute for Nanoscience and Engineering and supported by micro-fabrication facilities at HiDEC and in labs throughout the college.
- Annual research expenditures for the college in this area are approximately \$2 million per year.
- Companies such as the award-winning NanoMech, co-founded by a faculty member in mechanical engineering, are demonstrating successful tech transfer in this area



- Centers include the Center for Excellence in Logistics and Distribution and the Mack-Blackwell Rural Transportation Center
- Research expenditures total approximately \$2 million per year
- The college works closely with the Arkansas State Highway and Transportation Department and many other transportation stakeholders across the nation



## Materials and Manufacturing

**Keeping manufacturing jobs in America and maintaining our competitiveness in this area is key for economic growth.**

**Optoelectronics**  
This field is emerging from the broader field of electronics. It involves new semiconductor materials, biophotonics and photovoltaics.

**Sustainability**  
Faculty across the college are engaged in some form of research involving sustainable practices, design or technologies.

## Systems Integration

**This area encompasses research in automation, robotics and systems and process control, and inspires keen interest in our students.**

## Water

**Research in this area includes water quality, wastewater treatment and watershed management.**

## University of Arkansas Joins Energy Consortium

The University of Arkansas has joined the Foundations for Engineering Education for Distributed Energy Resources, or FEEDER, Consortium. This consortium, which consists of seven universities, two national laboratories, eight utility companies and seven industrial companies, is led by the University of Central Florida.

To support its participation in this consortium, the U of A received funding from the Department of Energy through the Grid Engineering for Accelerated Renewable Energy Deployment program. This grant will allow the U of A to collaborate with other FEEDER members to educate and train an electric utility workforce knowledgeable in distributed generation and smart grid technologies.

## Christa Hestekin Named Vice President of AES

Christa Hestekin, associate professor of chemical engineering, was named vice president of the AES Electrophoresis Society. Hestekin will serve a two-year term in this position.

AES is an organization for scientists in the field of electrophoresis, the movement of ions using electricity. Hestekin applies this technique to Alzheimer's research. She uses microchannel electrophoresis to analyze the amyloid beta proteins that are associated with the disease. By separating and studying the oligomeric forms of these proteins, she hopes to learn more about how they contribute to the disease.

Hestekin will oversee annual AES meeting planning, lead workshop development, organization, and execution, participate in committees and coordinate monthly communications to members.

## Visiting Professor Contributes Expertise

Greg Parnell, visiting professor of industrial engineering, joined the department in August, and will be teaching and conducting research at the U of A for two years. Parnell is retired from his position as professor of systems engineering at the U.S. Military Academy at West Point. He has also served as a distinguished visiting professor at the U.S. Air Force Academy, associate professor of mathematical sciences at Virginia Commonwealth University, and head of the operational sciences department at the Air Force Institute of Technology.

Parnell's research focuses on decision analysis, risk analysis, and resource allocation for defense, intelligence, homeland security, and environmental applications. He has received over \$1.9 million in research funding over the course of his career. At the University of Arkansas, Parnell will be working with the Center for Innovation in Healthcare



Greg Parnell

Logistics, using decision analysis techniques to determine ways to improve the healthcare supply chain. He will also be drawing on his fourteen years of experience with strategic planning and resources allocation to assist Dean John English and the College of Engineering in developing an updated strategic plan.

## Online Master of Science Program Ranked 23 by U.S. News

The Master of Science in Engineering online degree was ranked No. 23 of 55 online graduate engineering programs in U.S. News and World Report's "Best Online Programs" rankings. The program is up from No. 25 last year among public and private institutions, and it landed at No. 18 among the public universities on the list. In July, the MSE program was listed as No. 4 on a list of best values in online graduate engineering programs by GetEducated.com.

The Master of Science in Engineering program has been offering online degrees since 2009. It is a fully-accredited program taught by graduate faculty from the College of Engineering. This program is designed for students who want to further their education in a variety of engineering topics, and its graduates are well-prepared for a career in engineering and management of engineering systems, processes and organizations.



Ed Pohl, director of the Master of Science in Engineering online program

The Master of Science in Engineering program is open to students with a bachelor's degree in any engineering field and incorporates classes from the traditional master of science degrees in biological, chemical, civil, computer systems, electrical, environmental, industrial, mechanical and transportation engineering, as well as operations management.

## Naseem Named Fellow of National Academy of Inventors

Hameed Naseem, a professor of electrical engineering at the University of Arkansas, has been named a fellow of the National Academy of Inventors.

Naseem is the first faculty member from the university to be elevated to fellow status by the academy.

Election to NAI Fellow status is a high professional distinction accorded to academic inventors who have demonstrated a highly prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development and the welfare of society, according to the academy.

Naseem, who came to the U of A in 1985, directs the Photovoltaics Research Lab. Through the last two and a half decades he and his graduate students have found ways to increase sunlight-to-electricity conversion efficiency and reduce the cost of expensive materials



Hameed Naseem

needed for solar cell production.

The U of A is a charter member of the National Academy of Inventors, a nonprofit organization founded in 2010. In December, the academy named 143 innovators, including Naseem, to NAI Fellow status.

## NSF Awards Grant to Computer Engineer for Smart Cameras

The National Science Foundation has awarded Christophe Bobda, associate professor of computer science and computer engineering, a \$370,586, three-year grant for a research project that would create self-coordination in cooperative smart camera networks by incorporating “system-on-chip reconfiguration.” His research team will design and deploy a set of collaborative, embedded and self-coordinating smart cameras, with the goal of monitoring large areas.

Bobda’s group at the U of A, which includes almost a dozen graduate students, have built smart cameras and attached them to model racing cars that simulate the movement of mobile devices that would hold the recorders.

Bobda works to make the design and implementation of multi-camera sensor networks easier — and his research has the potential to save lives.

The bombings at the Boston Marathon in April 2013 is an example



Christophe Bobda

of the importance of the potential deployment of distributed embedded cameras. If there were better intelligence and coordination of these cameras, Bobda said, perhaps security officers would have detected two people who placed their backpacks on the street and left the area. It was later discovered that the suspects remotely detonated pressure cooker bombs inside the packs.

## Researcher Receives Grant for Cancer Research

David Zaharoff, assistant professor of biomedical engineering, will use a \$416,897 grant from the National Cancer Institute to continue developing a new therapy for bladder cancer.

Zaharoff has previously demonstrated that chitosan, a natural polysaccharide derived from the exoskeletons of crustaceans, can enhance delivery and anti-tumor efficacy of a drug known as Interleukin-12 (IL-12), a powerful cytokine that stimulates the body's immune system to attack a range of cancerous tumors. IL-12 held great promise as a therapy for cancer but was shelved in the 1990s because of its high toxicities. Zaharoff's research focuses on addressing this issue.

Zaharoff is holder of the Twenty-First Century Professorship in Biomedical Engineering in the College of Engineering.

## U of A Researchers Join National Center

U of A engineering researchers will join the Membrane, Science, Engineering and Technology Center, a multi-campus collaboration supported by the National Science Foundation. The center is focused on developing materials for energy production, water treatment, pharmaceutical purification and chemical processing.

The university received a total of \$900,000 from NSF and industry partners to join the center, which includes researchers at the University of Colorado and the New Jersey Institute of Technology.

U of A researchers are developing advanced membranes, which are filters with tiny pores that remove pollutants and minerals from drinking water.

**CLASS NOTES**

**JAMES EDWARD STICE BSCE'49**, Austin, TX, was awarded the Benjamin Garver Lamme Gold Medal by the American Society for Engineering Education. The medal is the oldest award that the society confers, in recognition of distinguished contributions to the advancement of engineering education.

**MARTIN MONROE SCROGGIN JR. BSCE'52**, Huntington Beach, CA, retired from Hughes Aircraft Co. after 33 years of service as the system engineering manager.

**JERRY R. ROGERS BSCE'63 MSCE'64**, Houston, TX, has received the John A. Focht Jr. Citizen Engineer Award. He also has retired from the University of Houston after 43 years of service.

**JOE E. TARVIN BSCE'66 MSCE'70 and CAROL TARVIN ADN'78**, Fayetteville, celebrated their 50th wedding anniversary on Aug. 31, 2013.

**PHILLIP K. FEENEY BSCE'69 MSCE'71**, Leesburg, VA, retired as senior vice president at the national environmental consulting firm of Brown and Caldwell where he served as project manager, client service manager and southeast business unit manager.

**KENT MCALLISTER BSCE'87** is the vice president of offshore operations at Jacobs Engineering.

**ROBERT RAGLAND BSME'88 MSE'93**, Rockville, MD, was promoted to emergency response coordinator within the Division of Nuclear Security and Incident Response, U.S. Nuclear Regulatory Commission from his former position as project manager.

**TIMOTHY JARMOLUK SMITH BSME'05** and Anne Long were married on Sept. 21, 2013, and reside in Little Rock.

**JORDAN B. MOUROT BSCE'05** and Valerie Mourot announce the birth of their son, Jake Avery, Aug. 3, 2013, in Houston, Texas.

**BRETT GILBERT BSCE'11** and Lyndsay McReynolds were married in June 2013, and reside in Houston, TX. Brett also accepted a position as a drilling and completions engineer with Statoil in January. He graduated with master's of engineering in petroleum engineering in May 2013.

**STEPHANIE GUENTHER GERARD BSIE'98** and Jeff Gerard announce the birth of their son, Hunter William, Nov. 11, 2013, Lakewood, CO.

**RIE LEE ISHIDA BSCE'99**, Los Angeles, CA, has been named to Engineering News Record's Top 20 Under 40 list, which recognizes outstanding contributions of AEC professionals under the age of 40.

**BENJAMIN HOUSTON DYE BSIE'01** and Tara Dye announce the birth of their son, Flint Houston, born on Sept. 21, 2013, Springdale. Benjamin was recently awarded the "Pushing the Envelope Award" in 2013 by his employer, Harrison Energy Partners. He also was promoted to direct sales team leader at the Harrison Energy Partners.

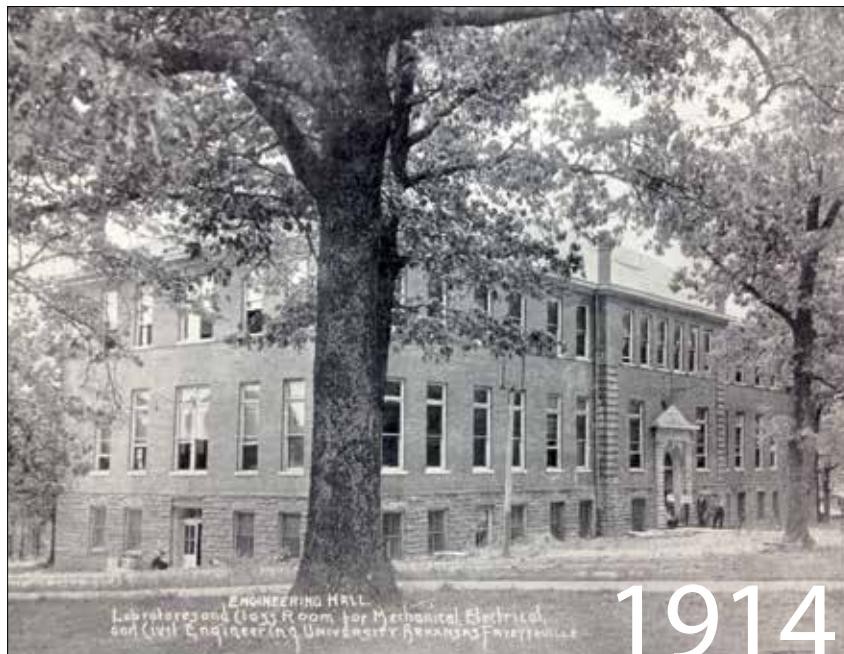
**JAVIER ENRIQUE MELENDEZ BSIE'04** and Gabriela Melendez, Tomball, TX, announce the birth of their son, Tiago Enrique, on Oct. 8, 2013.

**IN MEMORIAM**

**RICHARD V. HALL BSCE'40**, Texarkana, Jan. 12. He was the owner of Hall Surveying and Engineering. Survivors: his wife, Julianne, one son, two daughters, five grandchildren, five great-grandchildren and three great-great-grandchildren.

**HERMAN THOMAS THURMAN BSEE'49**, Benton, March 15. He served in World War II in the U.S. Army Air Corp. He was employed at Reynolds Metals Co. for 30 years, where he was the superintendent of the power house. Survivors: one daughter, one sister and one brother.

**JAMES OLLIE KING BSME'49**, Versailles, KY, July 18, 2012. He was a navigator in the U.S. Army and flew 25 missions over Germany. He retired from Texas Gas Transmission Corp. Survivors: his wife, Iola, three daughters, four grandchildren and two great-grandchildren.



1914

100 Years Ago

Number of Students: around 80

Dean: William Gladson

In 1914, the College of Engineering had four departments: chemical, civil, electrical and mechanical engineering. All classes were held in the original Engineering Hall, which was built in 1903.



1964

### 50 Years Ago

Number of Students: 1,001  
Dean: George F. Branigan

The picture above shows contestants in the St. Patricia contest. Every year, engineering students chose a male and female student to represent them as St. Patrick and St. Patricia. While the college still celebrates engineering during Engineer's Week, the beauty contest has become a thing of the past.

**JOHN W. KENNEY BSCE'49**, Orion, IL, Feb. 10. He served in the U.S. Army during World War II, retiring from the U.S. Army Reserves in 1984. He worked at the Rock Island Arsenal and later the Picatinny Arsenal, N.J., where he retired as an accounting manager. Survivors: four sons, one brother, seven grandchildren and 11 great-grandchildren.

**GEORGE ANDREWS BSEE'51**, Tulsa, OK, Feb. 23. He served in the Navy for three years in the Pacific during and after World War II. He was a registered professional engineer and worked for Nelson Electric, Sun Oil and Williams Companies. Survivors: one daughter, one son, one stepdaughter, one brother, four grandchildren, three step-grandsons and three great-grandchildren.

**LAURENCE H. LAMBERT BSCE'51**, Rolla, MO, Feb. 23. He was a veteran of the U.S. Marine Corps, serving during World War II. He retired from the U.S. Geological Survey in Rolla in 1990 with 41 years of service. Survivors: his wife, Dorothy, two daughters, two sons, one brother, 10 grandchildren and one great-grandchild.

**MOSE A. STRINGFELLOW BSEE'51**, Fayetteville, Jan. 11. He served as a radio mechanic for the 158th Army Airways Communication System in World War II. He worked for many years developing and installing GE radar systems. Survivors: his wife, Evelyn, two sons and one grandson.

**GEORGE E. ELLEFSON BSEE'54**, Little Rock, March 2. He served in the Naval Air Corps for three years during World War II. He owned and operated an electrical engineering consulting firm since 1961. Survivors: his wife, Claire, two daughters, four grandchildren and one great-granddaughter.

**JOHN L. MILLER BSME'57**, Tulsa, OK, February 7. He went into the Army and served in Germany as a lieutenant. He worked with Abe Silverstein in the development of the liquid fuel mixture. In April 2012 he was inducted into the Arkansas Academy of Mechanical Engineering. Survivors: his wife, Carolyn and one son.

### JIMMY IRBY BRANNAN BSCE'59,

Fayetteville, Jan. 18. He spent four years in the U.S. Air Force. He retired after 22 years of service from McGoodwin, William and Yates engineering firm in 1977 and then spent the next 10 years consulting for the firm. Survivors: his wife, Geneva, one daughter, two sons, six grandchildren, seven great-grandchildren and great-great-grandchild.

### BILLY G. WOOD BSME'62

Collinston, LA, Feb. 26. He retired from the University of Louisiana at Monroe Physical Plant in 2000. Survivors: his wife, Fay, three daughters, one brother, one sister and eight grandchildren.

### BILLY LEE FRANKS BSEE'64

Prairie Grove, Jan. 20. He served in the U.S. Air Force. He works as a civilian contractor at Tinker Air Force Base, OK. Survivors: his wife, Mary, mother, one daughter, one son and one granddaughter.

### GERALD E. GLASS MSME'68

Springfield, MO, Feb. 11. He served in the U.S. Air Force. He was employed at Custom Metalcraft for more than 20 years. Survivors: one daughter, one son, two brothers and four grandchildren.

### CHARLES H. MOSES JR. BSCE'71,

Crossett, Jan. 24. He was a chemical engineer, working in the paper industry.

### ALAN HUMPHREY MILLER BSIE'85,

Little Rock, March 15. He worked in the telecommunications industry while working for Network Design Engineers, ALLTEL, Windstream and most recently Century Link. Survivors: his wife, Elizabeth, mother, three children, two sisters and two brothers.

### VADIM LEO GRABOVSKI MSE'95,

Fayetteville, Jan. 6. Survivors: his wife, Natalia, parents and two daughters.

### SHARE YOUR NEWS

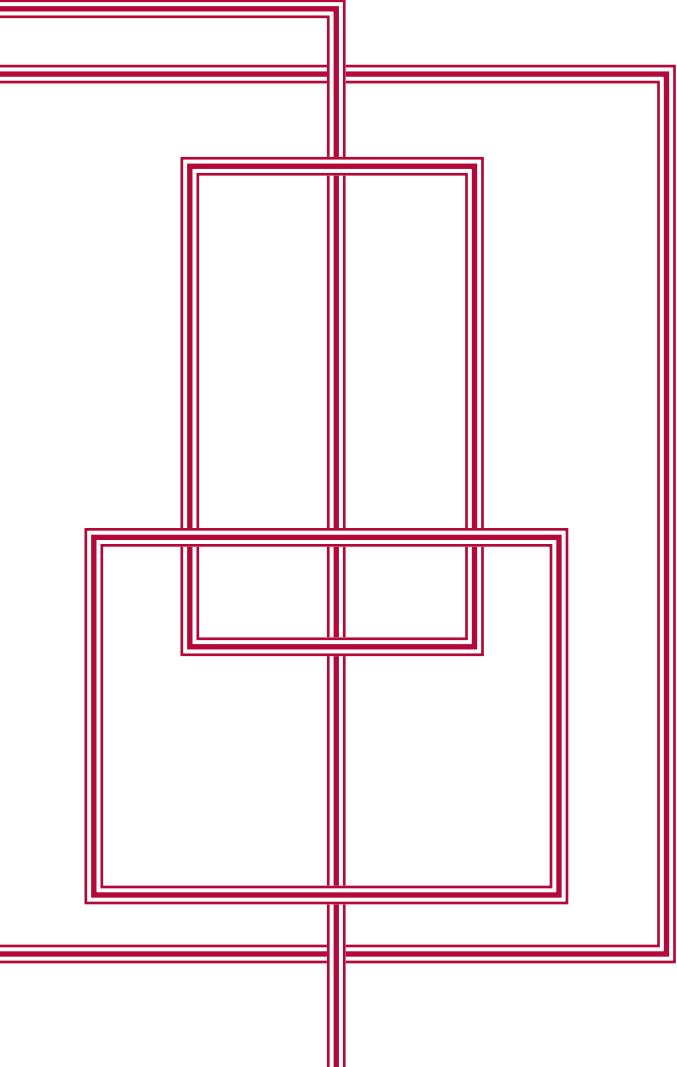
Send to your class notes to:  
[records@arkansasalumni.org](mailto:records@arkansasalumni.org).  
Please include your degree and graduation year.

They will be published in the Senior Walk section *Arkansas* magazine and in *Arkansas Engineer* magazine.



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The University of Arkansas  
College of Engineering announces its

# 2014 Alumni Award HONOREES

## HALL OF FAME

Bob Davidson  
Neil Schmitt

## DISTINGUISHED ALUMNI

Tracy Black  
Jean Leger  
Charles Mayfield  
Dana Sedgass

## EARLY CAREER

Drew Harrison  
Douglas Hutchings  
Robin Prince  
Kyle Rogers  
Greg Schluterman  
Kevin Speer  
Richard Welcher  
Greg Whitsitt

**JOHN L. IMHOFF AWARD FOR OUTSTANDING TEACHER**  
Douglas Spearot

**JOHN L. IMHOFF AWARD FOR OUTSTANDING RESEARCHER**  
Jia Di  
Fisher Yu