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# Capstone **ENGINEER**

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Look How We're  
**GROWING**

THE UNIVERSITY OF  
**ALABAMA**  
ENGINEERING

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## Dean's message



Dear **Alumni** and **Friends**,

As an alumnus of the Capstone, I still walk through the campus with a sense of awe, similar to my first campus visit almost 30 years ago. The grandeur of the historic buildings, the scenic serenity of the Quad and the excitement of the athletic facilities bring to mind so many good memories from my time as a student and as a teacher.

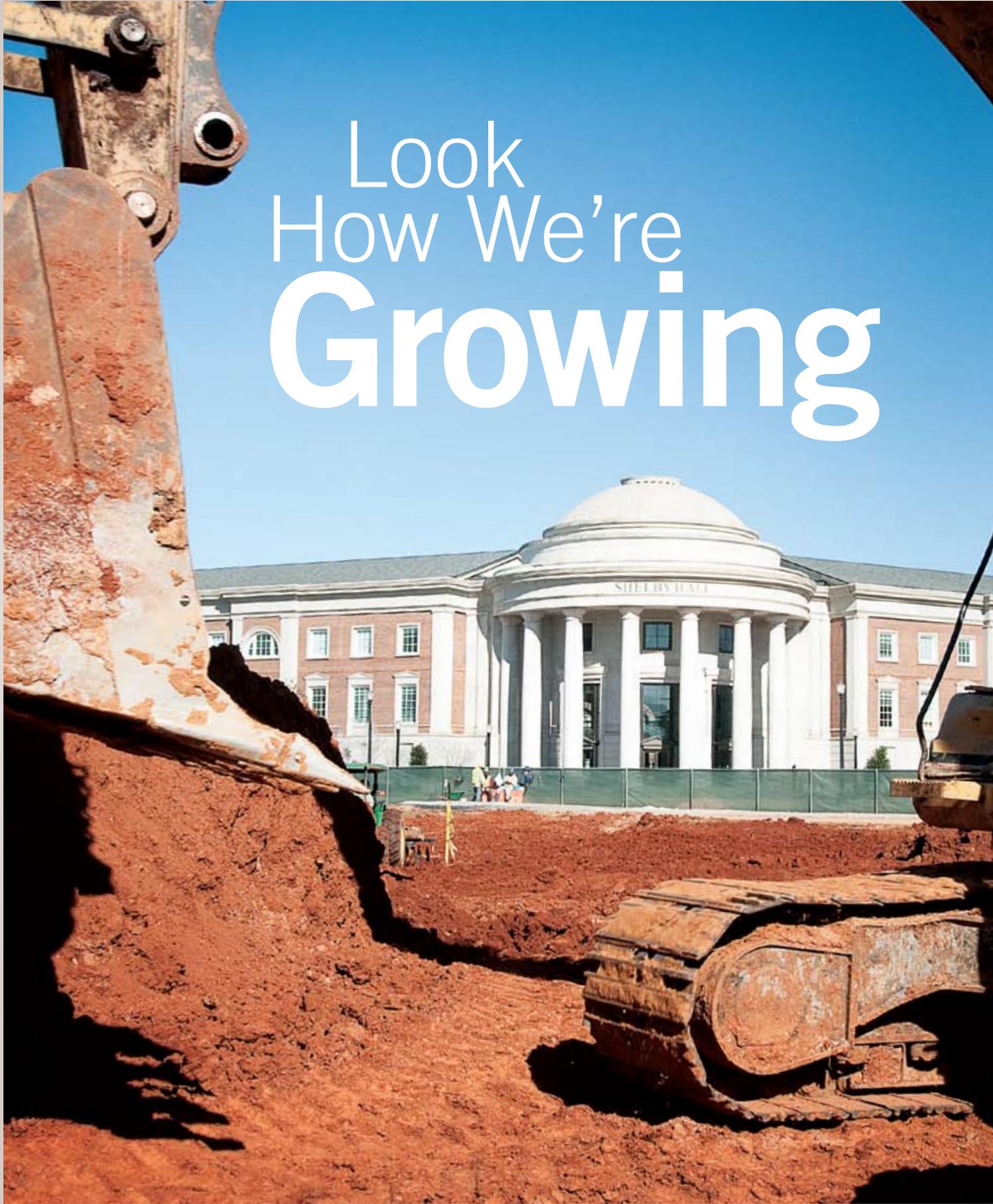
With our College being one of the oldest in the state and nation, it is not surprising that some of the engineering buildings are part of the University's great tradition. We are proud that engineering is still taught in some of the hallowed halls that began engineering on this campus. Although these are old buildings on the outside, the interiors still feature state-of-the-art labs and classrooms to educate tomorrow's engineers and computer scientists.

In addition to our historic areas, many buildings and roads have changed at the Capstone due to increased enrollment. If you have not visited campus lately, you will be greatly surprised at the new additions. In just the last five years, the north end of campus is completely different with the additions of Riverside, Lakeside and Ridgecrest residence halls and the expanding Science and Engineering Quad.

The new Science and Engineering Complex opened last August, and construction on Phase III began in December. Phase III of the Science and Engineering Quad will be completely occupied by engineering; therefore, the excitement about this new building is reaching a crescendo as the site work has begun. Faculty and students are eagerly awaiting its opening in November 2011 as the first new engineering building at the Capstone in quite some time.

I hope you enjoy this issue of the *Capstone Engineer*, which features our engineering buildings. As you will be able to see, from near and far, our exciting campus still holds wonder and amazement for all those who walk its grounds.

DR. CHARLES L. KARR  
DEAN



# Look How We're Growing

Site work begins on Phase III with Shelby Hall in the background.



**Enrollment has been expanding rapidly during the seven years since President Robert Witt joined the University. The initial goal of 28,000 students was met and exceeded with the 2009 academic class. But if you look around, students are only one piece of the entire picture. From new residence halls to classroom and research buildings, the campus has been steadily abuzz with changes.**

During Witt's tenure, enrollment has grown by more than 10,000 students, and 10 new residence halls have been built. In addition, applications from freshmen wanting to attend UA have grown from 7,000 in 2002 with 20,000 expected for this next academic year.

Another exciting acquisition under Witt's leadership has been the purchase of the Bryce Hospital campus, which will grow UA's campus by 175 acres. UA will work with Alabama Department of Mental Health and Bryce officials to develop a timetable for taking possession of the property, and during this time the campus master plan committee is developing the most effective and efficient way to use the property.

As with the University's growth, the College also has been expanding. Growing from 1,617 undergraduate

students in 2005 to 2,445 in 2009, the College's undergraduate enrollment is only one area of many to brag about. Some of the nation's best and brightest are choosing the Capstone for engineering. The 2009 freshman engineering class had an average high school grade point average of 3.7 and a mean ACT score of 27.3.

The best and brightest are learning in some of UA's newest facilities. If you have visited the north side of campus lately, you were sure to notice the many building, facility and road changes. Engineering has expanded with roles in Shelby Hall, the Science and Engineering Complex and the under-construction Science and Engineering Complex Phase III. Following are brief area descriptions of the new facilities.

*Continued on page 4*



Site work on Phase III with the Rodgers Library for Science and Engineering in the background.





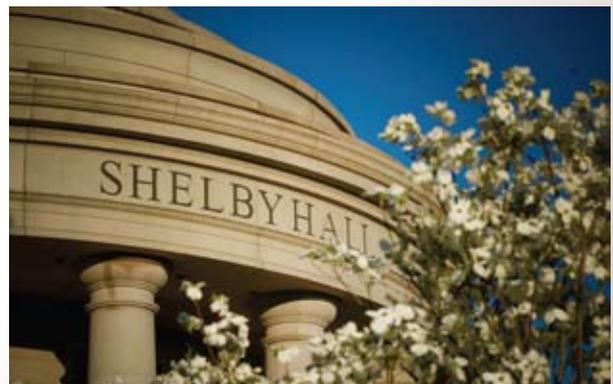
Students cross the street near Shelby Hall.



The exterior of the Science and Engineering Complex.



One of the many hallways in Shelby Hall.



Shelby Hall with the beautiful dogwoods blooming in the spring.



## SCIENCE AND ENGINEERING COMPLEX

Move-in was a hectic time in August 2009. From students arriving at the various residence halls to the new Science and Engineering Complex opening, campus was busy with activity.

Adjacent to Shelby Hall, the Science and Engineering Complex features state-of-the-art teaching and research labs as well as collaborative space to encourage

interdisciplinary work and student engagement. The new facility is U-shaped and similar to Shelby Hall in exterior appearance. The 212,000-square-foot structure connects to Shelby Hall on the northeast corner with first-floor access between the two buildings.

The Science and Engineering Complex is home to all freshman chemistry instructional laboratories, biological sciences teaching labs, faculty and students from the

chemical and biological engineering and computer science departments, science teaching labs for the College of Education, and space for the Science in Motion biology program. In addition, the building houses research facilities for faculty and students from the department of biological sciences.

Engineering research areas in the Science and Engineering Complex include biological engineering and networked systems.



Dr. Chris Brazel, associate professor of chemical and biological engineering, works in his lab in the new Science and Engineering Complex.



Dr. Monica Anderson, assistant professor of computer science, demonstrates her robotics lab in the new Science and Engineering Complex.



## SHELBY HALL

Dedicated in 2004, Shelby Hall is one of UA's largest academic buildings with more than 200,000 square feet. The pentagon-shaped hall is one of the most sophisticated campus science facilities in the nation and is home of the department of chemistry and UA research coalitions and centers in transportation, geosciences, energy, biosciences, chemical and material sciences.

Shelby Hall has more than 70 research labs, five teaching labs, three theater-style lecture halls, 40 offices for faculty and professional staff, and 80 offices for graduate students. In addition, an on-site glass-blowing facility creates glassware for use in research projects.

Engineering research in Shelby Hall includes software engineering.

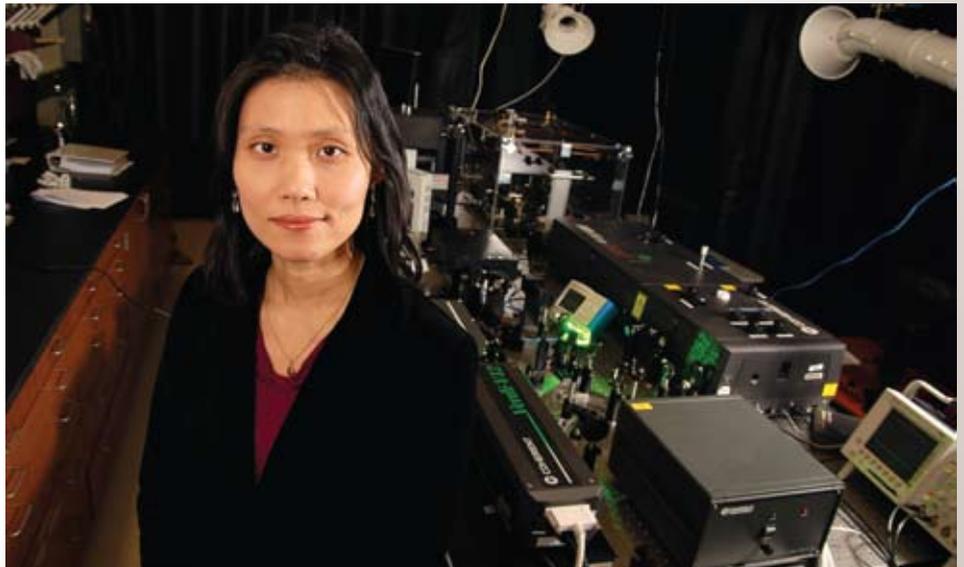
## AS WITH ALL THINGS IN LIFE, CHANGE IS INEVITABLE

At The University of Alabama, change is moving the campus in positive directions, helping our students become not only the best engineers and computer scientists but also well-rounded individuals making lasting impacts on society.

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Dr. Patrick Kung, assistant professor of electrical and computer engineering, in his research lab in Shelby Hall.



Dr. Margaret Kim, assistant professor of electrical and computer engineering, in her research lab in Shelby Hall.



# Where We Started

By Amanda Coppock



Before there were teachers, students and buildings that were dedicated to educating engineers, Professor Frederick Augustus Porter Bernard taught the first engineering class at The University of Alabama. After much disagreement between the trustees over whether engineering and science should be allowed at the Capstone, these early classes in science and mathematics were quite an accomplishment. Bernard could not have possibly foreseen how many more accomplishments the University would see in engineering.

The University of Alabama is rich in history and tradition, and the College of Engineering is no exception. For more than a century, the College has left its mark on both the campus and its students. Not only was The University of Alabama the first to offer engineering classes in the state, it was also one of the first five in the nation. Through the efforts of its students, teachers and benefactors, the College of Engineering has become a well-known program that has continually thrived.

As you sat in your engineering classes, you were doing more than absorbing knowledge, you were surrounded by history. Did you ever wonder how the College of Engineering came to be? The following buildings are the ones that have housed engineering during the past century, many of which continue to provide a learning space for aspiring engineers and computer scientists.

*Continued on page 10*



### *B.B. Comer Hall (above)*

B.B. Comer Hall opened in 1909 upon the establishment of the College of Engineering as a separate division of the University. The building was named after Gov. Braxton Bragg Comer. At the time, it was considered one of the largest and best equipped engineering buildings in the nation. The first floor housed physics and electrical engineering. The second floor was used for the engineering library, dean's office, and classrooms for civil, electrical and mining.

Engineering no longer occupies space in B.B. Comer Hall, which currently houses the department of modern languages and classics and Capstone International.

### *Hardaway Hall (below)*

With increased enrollment, the College of Engineering had outgrown B.B. Comer Hall by 1930. With the assistance of funds from the Public Works Administration, Hardaway Hall was built in 1936 and named after the University's first full-time engineering professor, Col. Robert A. Hardaway. This space provided labs and classrooms for the mechanical and civil engineering programs.

The department of aerospace engineering and mechanics, the department of mechanical engineering and the Center for Advanced Vehicle Technologies currently occupy Hardaway Hall. The James Massey Hire Jr. and Mildred Ray Hire Design Clinic Laboratory is also in Hardaway Hall for engineering project design work.





### *H.M. Comer Hall (above)*

H.M. Comer Hall opened in 1962 as the Mineral Industries Building. H.M. Comer Hall was named after Hugh Moss Comer, the son of Gov. Braxton Bragg Comer, a Birmingham industrialist who served as the first chairman of the Greater University Development Campaign. H.M. Comer Hall became home to civil, chemical, metallurgical and mineral engineering.

H.M. Comer Hall currently houses the department of civil, construction and environmental engineering; the dean's office; Engineering Student Services; the Capstone Engineering Society; and some chemical and metallurgical engineering labs.

### *Houser Hall (below)*

When Houser Hall was built in 1950, it was the third-largest engineering building on campus. It was named after Dr. Shaler C. Houser, who was a civil engineering professor and past treasurer of the University from 1912 to 1948. Houser Hall became home to the departments of computer science and electrical and industrial engineering.

Houser Hall currently houses the department of computer science, the department of electrical and computer engineering and administrative offices for chemical and metallurgical engineering. The University's Cooperative Education Program is also in Houser Hall.

*Continued on page 12*





### *Lloyd Hall (above)*

Lloyd Hall was built in 1927 and named after Stewart J. Lloyd, who was the first dean of the school of chemistry, metallurgy and ceramics. Many of the University's distinguished professors of the field taught in Lloyd, including Frederick Barnard, who taught the nation's first courses in organic chemistry and became the University's first engineering professor. Since its opening, Lloyd Hall has housed the chemistry department and was home to the science library.

Engineering no longer occupies space in Lloyd Hall, which currently houses the University's Writing Center and classrooms for interdisciplinary sciences.

### *Rodgers Library for Science and Engineering (below)*

The Rodgers Library for Science and Engineering contains more than 220,000 books and bound journals and provides access to numerous specialized databases with electronic journals. The Rodgers Library was built in 1990 and named after Dr. Eric Rodgers, who was a physics professor and the dean of the graduate school from 1958 to 1971, and his wife, Sarah Rodgers, who was a statistics professor at UA. The science collection from Lloyd Hall and the engineering collection from the Bevill Building were transferred to Rodgers.



## The Tom Bevill Energy, Mineral and Material Science Research Building

The Tom Bevill Energy, Mineral and Material Science Research Building opened in 1990 as the first major energy research center in the Southeast and the first UA facility dedicated solely to research. It is named after U.S. Rep. Tom Bevill, who was instrumental in obtaining federal funding for the building. The 217,000-square-foot facility is home to the Center for Materials for Information Technology (MINT), geological sciences, environmental engineering labs, transportation engineering, metallurgical engineering and part of the aquatic biology program. Its resources allow engineers and scientists to conduct a variety of research.

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*Information from "A Promising Field: Engineering at Alabama, 1837-1987" by Robert J. Norrell, The University of Alabama Press, 1990, and "The University of Alabama: A Guide to the Campus by Robert Oliver Mellown," The University of Alabama Press, 1988.*

*Photos courtesy of UA Office of Photography and W.S. Hoole Special Collections Library.*

## UA ALUMNI INDUCTED INTO ALABAMA ENGINEERING HALL OF FAME

The State of Alabama Engineering Hall of Fame held its induction ceremony on Feb. 20, 2010. The following UA alumni received the prestigious honor. In addition, TTL Inc. was inducted as a corporation.

**Ronald W. Gray** has two lessons for the young engineers of today who hope to be the entrepreneurs of tomorrow: Technology and business innovation are the keys to the future, and giving back to the community is a legacy all should strive to achieve.



This is the legacy that Gray is forging for himself as a member of The University of Alabama Board of Trustees and with his endowment of three University of Alabama scholarships.

Gray graduated from the Capstone in 1981, and, shortly after, began his career at Birmingham's Combustion Engineering Inc. as a research and development engineer. In 1985, he moved to Huntsville to continue research and development with President Ronald Reagan's Strategic Defense Initiative. In 1992, Gray was named vice president and Huntsville operations manager for a major federal government contractor. In 1998, Gray and his wife, Cindy, started Gray Research Inc. that has now been recognized twice with NASA Marshall Space Flight Center's top honor. In 2008, Gray sold Gray Research, but with the agreement that he would remain in charge.

**Philip E. LaMoreaux Sr.**'s name has become virtually synonymous with the hydrogeology of karst, or areas of landscape with sinkholes, sinking streams, caves and springs that are indicative of water. His contributions to civil engineering are immeasurable because of his geological expertise.

LaMoreaux graduated from Denison University in 1943 and was appointed to the U.S. Geological Survey in Tuscaloosa as a geologist. He served as chief of the Ground Water Branch in Washington, D.C., from 1959 to 1961, when he returned to Tuscaloosa as a state geologist for Alabama and director of the Oil and Gas Board. LaMoreaux received a master's degree in geology from UA in 1949 and received his doctorate from Denison University in 1972.

LaMoreaux was a prolific writer, authoring more than 150 publications. He was active in his company until 2008, when his son, Dr. Jim LaMoreaux, succeeded him as president. Philip LaMoreaux passed away on June 23, 2008.



**Robert M. Lightfoot Jr.** has been a model leader at NASA for the past 20 years. Whether he was working at the NASA centers in the South or at the national headquarters in Washington, D.C., his dedication to space has significantly contributed to NASA's mission, as he has helped pioneer the future in space exploration and scientific discovery.

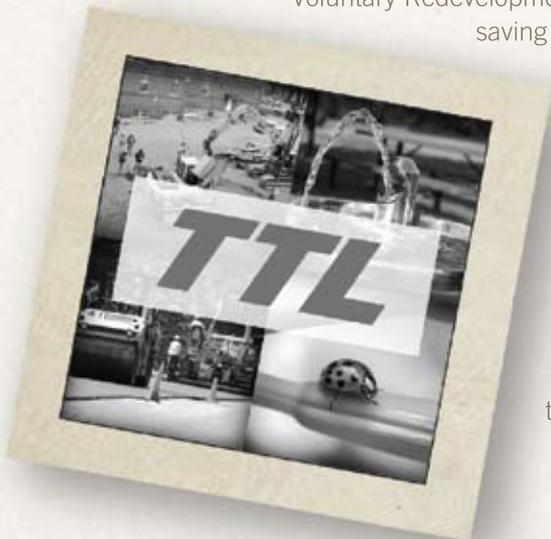
After graduating from UA with a bachelor's degree in mechanical engineering, Lightfoot began his NASA career at the Marshall Space Flight Center in Huntsville, Ala., as a test engineer and program manager. In 1999, he joined the Stennis Space Center in Mississippi as chief of propulsion test operations, and he was named director of the Propulsion Test Directorate in 2002. Lightfoot's devotion to NASA brought him to the nation's capital in 2003 following the Space Shuttle Columbia accident. Serving as an assistant associate administrator for the space shuttle program, he led the headquarter's space shuttle return to flight efforts. Currently, Lightfoot is the director of the Marshall Space Flight Center and is responsible for managing one of NASA's largest field installations and leading more than 8,400 civil service and contractor employees.



**TTL** has been involved in many memorable projects that have defined the company as an innovative and pioneering firm. These projects fall across a wide spectrum and include geotechnical, analytical, materials and environmental engineering. Among some of its notable achievements, TTL was the first engineering firm to have a project accepted by the Alabama Department of Environmental Management under the Alabama Brownfield Voluntary Redevelopment Act. The company also designed a more efficient and cost-

saving system for landfills, and it was the first commercial Alabama laboratory to use ICP-AES technology to provide services essential to the health and well-being of Alabama residents.

TTL is a supporter of education from the elementary to the university level. TTL spearheaded a successful program to reward reading at Martin Luther King Jr. Elementary School in the Tuscaloosa city school system. At the middle school level, TTL is a long-standing supporter of the adopt-a-school program. TTL's passion for advanced education is seen not only in the hours dedicated to volunteering and guest lecturing but also through endowed scholarships for prospective engineers at the Capstone.



## BIG THANKS

We appreciate our recent partners in UA's College of Engineering family for their support of our students and programs.

- **Dr. Glenn J. Ahrenholz** for establishing the H. William Ahrenholz Emerging Technologies Fund
- **Mrs. Jane K. Bolton** for continuing support of engineering scholarships in memory of Michael John Bolton
- **Dr. Robin B. and Mr. William P. Buckelew** for continuing support of engineering scholarships
- **Chevron** for continuing support of the Chemical Engineering Gift Fund, the Chemical Engineering Scholarship Fund, the Chevron Mechanical Engineering Scholarship, the Mechanical Engineering Gift Fund, the Multicultural Engineering Gift Fund and the Society of Women Engineers Gift Fund
- **Mr. Alsey C. Clements Jr.** for continuing support of the Alsey Clements Parker Memorial Endowed Engineering Scholarship
- **Mr. and Mrs. Clint Coleman** for establishing the Clint Coleman Endowed Engineering Scholarship
- **Mr. and Mrs. John W. Covington III** for establishing the Linda T. and John W. Covington III Endowed Scholarship
- **Mrs. June N. Crowder** for establishing the William E. Crowder Endowed Scholarship in Engineering
- **Mr. and Mrs. Matt Dooley** for continuing support of the Gary and Carolyn Dooley Endowed Scholarship
- **Eastman Chemical Co.** for continuing support of the Chemical Engineering Fund, the Engineering Co-Op Gift Fund, the Eastman Chemical Co. Engineering Scholarship, the Civil Engineering Gift Fund and the Multicultural Engineering Gift Fund
- **Mrs. Christine George** for establishing the Ben Jay George Memorial Endowed Scholarship in mechanical engineering
- **Mr. and Mrs. Ronald W. Gray** for continuing support of the Mr. and Mrs. Clifford S. Gray Endowed Scholarship
- **Mr. and Mrs. Samuel R. Hart Jr.** for establishing the Samuel Robert and Corinne Donnelly Hart Endowed Scholarship
- **Mr. and Mrs. Robert H. Haubein** for continuing support of the Mr. and Mrs. Robert H. Haubein Endowed Engineering Scholarship
- **KBR/BE&K** for continuing support of the BE&K Endowed Scholarship
- **Mr. David D. Libbers** for establishing the Robert D. Libbers Endowed Engineering Scholarship
- **Mr. and Mrs. Richard M. MacKay** for continuing support of the Rick and Barrett Brock MacKay Chemical Engineering Discretionary Fund
- **McAbee Construction Inc.** for continuing support of the McAbee Construction Inc. Endowed Scholarship
- **McAbee Foundation** for continuing support of the McAbee Foundation Scholarship
- **Mr. and Mrs. Terry Neeley** for continuing support of the Terry L. Neeley Endowed Scholarship
- **Northrop Grumman** for support of the Aerospace Engineering Gift Fund
- **Mr. and Mrs. M.A. Oztekin** for continuing support of the Oztekin Family Endowed Scholarship
- **Mr. and Mrs. Mark A. Roberts** for continuing support of the Mark A. and Chrystine B. Roberts Endowed Engineering Scholarship
- **Robins & Morton** for continuing support of the Robins & Morton Scholarship
- **Mr. Robert S. Ryan** for continuing support of the Aerospace Engineering and Mechanics Endowed Scholarship and the Engineering Scholarship Fund
- **Saiia Construction LLC** for continuing support of the Saiia Construction LLC Endowed Support Fund
- **Society for Information Management – Alabama Chapter** for continuing support of engineering scholarships
- **Mr. Dennis Schroeder** for continuing support of the Dennis A. Schroeder Endowed Scholarship
- **Mr. and Mrs. Charles A. Sipe Jr.** for continuing support of the Charles A. Sipe Jr. and Nelle Sipe Endowed Scholarship
- **3M Foundation – Decatur** for continuing support of the Minnesota Mining and Manufacturing Minority Scholarship and the Minnesota Mining and Manufacturing Co. Scholarship
- **United States Steel Foundation Inc.** for continuing support of the U.S. Steel Foundation Co-Op Annual Support Fund
- **Von Braun Center for Science and Innovation** for establishing the Student Rocketry Support Fund
- **Vulcan Materials Co.** for continuing support of the Vulcan Materials Co. Endowed Support Fund
- **Walter Schoel Engineering Co. Inc.** for continuing support of the Walter Schoel Co. Endowed Scholarship



## SHOW YOUR PRIDE IN THE COLLEGE OF ENGINEERING WITH TOP-QUALITY APPAREL AND GIFTS.

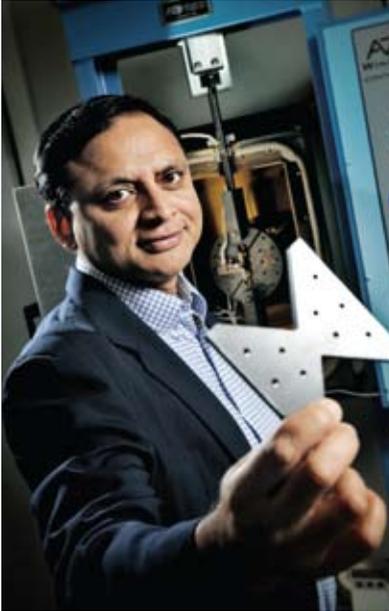
Choose from polo shirts, coffee mugs, baseball caps and more.

Profit generated from the sale of these items contributes to the Capstone Engineering Society, which provides scholarship funds to UA's College of Engineering.

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THE UNIVERSITY OF  
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## AEM Professor Named ASME Fellow



Dr. Samit Roy

Dr. Samit Roy, William D. Jordan Professor of Aerospace Engineering and Mechanics, was recently elected as a fellow of the American Society of Mechanical Engineers. The election to the grade of fellow is the highest honor awarded to ASME members. Roy was selected for his significant achievements and contributions to the engineering profession.

Since he joined UA in 2005, Roy has been involved in several research projects, including modeling and characterization of cross-linked silica aerogel for on-board cryogenic fuel storage, prediction of the degradation of composite materials for emerging army facilities, life prediction of composite materials subjected to long-term mechanical and environmental loading conditions, and nanoclay reinforced thermoplastics.

## MTE Professor Selected for Professional Development Award



Dr. Nitin Chopra

Dr. Nitin Chopra, assistant professor of metallurgical and materials engineering, was recently selected for the 2010 TMS Electronic, Magnetic and Photonic Materials Division Young Leader Professional Development Award. Chopra is the third faculty member in UA's department of metallurgical and materials engineering to receive this award. The Young Leaders Program was created in 1993 to encourage young professionals to increase their involvement in The Minerals, Metals & Materials Society (TMS).

## Acoff Appointed as ChBE Head



Dr. Viola Acoff

Dr. Viola Acoff, professor and head of metallurgical and materials engineering, has been named department head of chemical and biological engineering. Acoff began working at The University of Alabama in 1994 as an assistant professor of metallurgical and materials engineering. She was promoted to associate professor in 2000 and then promoted to professor in 2004. In 2008, Acoff was named the interim head of chemical and biological engineering, and in 2009, she was named head of metallurgical and materials engineering.

## Back Appointed as Director of Construction Engineering Program

The College of Engineering named Dr. W. Edward Back as the director of the construction engineering program. Back, an associate professor of civil, construction and environmental engineering, will lead the growing program that encompasses an active research program with national and international sponsors and enrollment of more than 120 undergraduate students and over 20 graduate students.

Back specializes in project management, project controls, cost and schedule management, and optimization of construction operations and engineering processes. He has been awarded approximately \$4 million in externally funded research, and he has authored or co-authored more than 30 journal articles, technical papers and research reports.



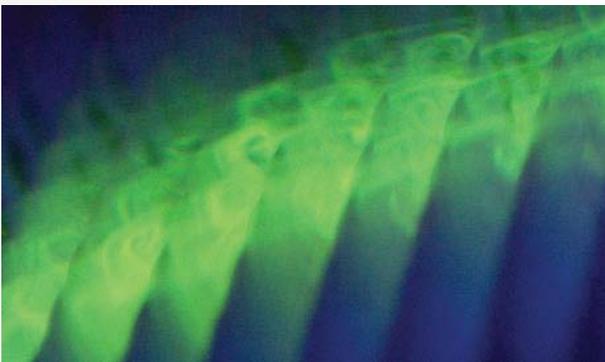
Dr. W. Edward Back



## UA Engineering Continues Drag Research Through Shark Skin Simulations



Dr. Amy Lang next to the water tunnel research tank



Through grants from the National Science Foundation, the NASA Alabama Experimental Program to Stimulate Competitive Research and the Lindbergh Foundation, Dr. Amy Lang continues researching what designers of aircraft and underwater vehicles could learn by imitating nature's design of shark skins.

During the past two years, Lang, an assistant professor of aerospace engineering and mechanics, has researched how flexible shark scales can lead to the formation of embedded vortices between the scales in areas when the flow is about to separate from the shark's body. This could lead to increased maneuverability and reduced drag. Lang, like others, is convinced that evolutionary adaptations of shark skin structure have developed boundary layer control mechanisms. She hopes to apply her findings to aircraft and underwater vehicles.

The grants total \$251,581 and will allow for the purchase of additional equipment and models. Previous work confirmed the formation of the embedded vortices, and the new grants will focus on mechanisms within the bristled shark skin geometry that lead to separation control, decreased drag and increased maneuverability for the shark.

---

## AEM Student Selected as a NASA-MUST Scholar

Nichole Ramirez, a senior majoring in aerospace engineering, was selected as one of almost 100 undergraduate students nationwide to participate in NASA's Motivating Undergraduates in Science and Technology Scholarship Program for a second consecutive year. The MUST program provides a scholarship of up to \$10,000 toward tuition assistance and a required internship with any of the 10 NASA Centers around the country.

---

## UA Engineering Student Wins Society of Women Engineers' Poster Competition

Amy Frees, a senior majoring in chemical and biological engineering, was selected as the national winner of the Society of Women Engineers' undergraduate poster competition. Frees traveled to the national conference held in Long Beach, Calif., as a finalist in the poster competition, and she was named as the winner of the undergraduate division of the competition.

Her poster, "Novel Materials for Triggered Cancer Therapy: Pulsed Release from Thermally-Responsive Polymer Gels," was based on research done with Dr. Chris Brazel, associate professor of chemical engineering. The research aims to deliver chemotherapy to individual cancer cells and activate the drug by heat through magnetism without damaging the surrounding healthy cells.



Amy Frees





## touching lives

### Leading by doing.

The University of Alabama is leading future generations through teaching, research and service. The greatest example of this can be seen in our stellar students. From helping students in Tuscaloosa schools with afterschool tutoring, to rebuilding baseball fields in the Black Belt, to working in Vietnam and Cambodia to improve water sanitation efforts, our engineering students are touching lives and making a positive difference in the lives of the Tuscaloosa community, the state and far beyond.

As a member of The University of Alabama, you join a time-honored tradition of excellence. To find out why so many outstanding students call the Capstone their home, visit [www.ua.edu](http://www.ua.edu).

**THE UNIVERSITY OF ALABAMA**

[www.ua.edu/touchinglives](http://www.ua.edu/touchinglives)

## Jobs/Promotions/Awards

1971

**Lt. Col. Joseph R. Stone**, BSCE '71, was elected president of the National Guard Executive Directors Association, a national organization comprised of 54 state and territory National Guard professional association executive directors.

1978

**Mike Gough**, BSEE '78, was promoted to general manager for Calpine Corp.'s Morgan Energy Center and Decatur Energy Center. Both facilities are state-of-the-art 800 MW combined cycle power plants located in Decatur, Ala. Each site uses clean natural gas as a fuel source and can supply the electrical requirements of more than 800,000 homes.

1980

**Daniel B. Graves**, BSEE '80, joined the law firm of Sirote and Permutt, where he focuses on financial institutions and corporate and securities law.

**Bo McKenzie**, BSEE '80, joined Global Hunter Securities as a senior analyst on the energy research team.

1981



Terry K. Spencer

**Terry K. Spencer**, BSPetE '81, was elected to the board of directors of the general partner of ONEOK Partners.

1984

**Peggy Vonsherie Allen**, BSCE '84, released her memoir, published by The University of Alabama Press, titled "The Pecan Orchard."

1985

**Jerry W. Hall**, BSCE '85, was promoted to general manager of the northern region for Norfolk Southern Corp.

**John Clayton Weldy Jr.**, BSPetE '85 and BSME '90, was appointed to board director for Morgan Creek Energy Corp.

1986

**Mark McLellan**, BSCE '86, was assigned to a special project that is the culmination of various assignments for the Downstream Headquarters of ExxonMobil in Virginia.

1989

**Linda Blevins**, BSME '89, was named one of Purdue University's 2009 Outstanding Mechanical Engineers.

1991

**Anthony Eugene Carroll**, BSEE '91 and MSE '99, was appointed as a business relations committee trustee for the Whitfield Healthcare Foundation, the philanthropic sector of the Hamilton Health Care System.

1992

**Gregory Paul Alexander**, BSME '92, has moved from Jakarta, Indonesia, to Sugar Land, Texas, and has accepted a position as the project controls manager for Fluor Corp.'s Integrated Services.

**Bob Schafer**, BSCE '92, was installed as the president of the Florida East Coast Chapter of the Associated General Contractors of America.

2000



Dennis Nunez

**Dennis Nunez**, BSEE '00, joined Gonzalez Saggio and Harlan's new Nashville branch of the large minority-owned law firm as a patent attorney.

2002



Kevin Garrison

**Kevin Garrison**, BSCE '02, an associate at Baker, Donelson, Bearman, Caldwell & Berkowitz, was selected as a finalist for the Green Advocate of the Year award from the *Birmingham Business Journal*.

2007

**Drew Crawford**, BSCS '07, accepted the position of software engineer with Jack Henry and Associates.

2009



Martha Addison

**Martha Addison**, BSAE '09, received an Outstanding Collegiate Member Award from the Society of Women Engineers.

**Sarah Grano**, BSME '09, received an Outstanding Collegiate Member Award from the Society of Women Engineers.

**H. William Ahrenholz**

William Ahrenholz died April 26, 2009. After receiving his bachelor's degrees in geology and mining engineering from Lehigh University, Ahrenholz began his career with New Jersey Zinc Co. He then joined the faculty of West Virginia University, where he was an associate professor of mining engineering. He joined The University of Alabama in 1957 as a professor of mining engineering, and he was named head of the department in 1961. He re-entered industry in 1973, joining Paul Weir Co. (Weirco) as vice president, and he retired from the company in 1982. In 2009, Ahrenholz' son, Dr. Glenn Ahrenholz, established the H. William Ahrenholz Emerging Technologies Fund in his father's memory. If you would like to make a donation, please mail it to Brandi Lamon, The University of Alabama College of Engineering, Box 870200, Tuscaloosa, AL 35487-0200.

**Daniel Brannon**

Danny Brannon, 21, of Birmingham, Ala., died Nov. 28, 2009. He was a junior majoring in mechanical engineering. Brannon worked through the co-op program at Mercedes-Benz USA.

**Brennan Andrew Cox**

Brennan Cox, 19, of Arlington, Texas, died Dec. 11, 2009. He was a sophomore majoring in chemical engineering.

**William E. Dunn**

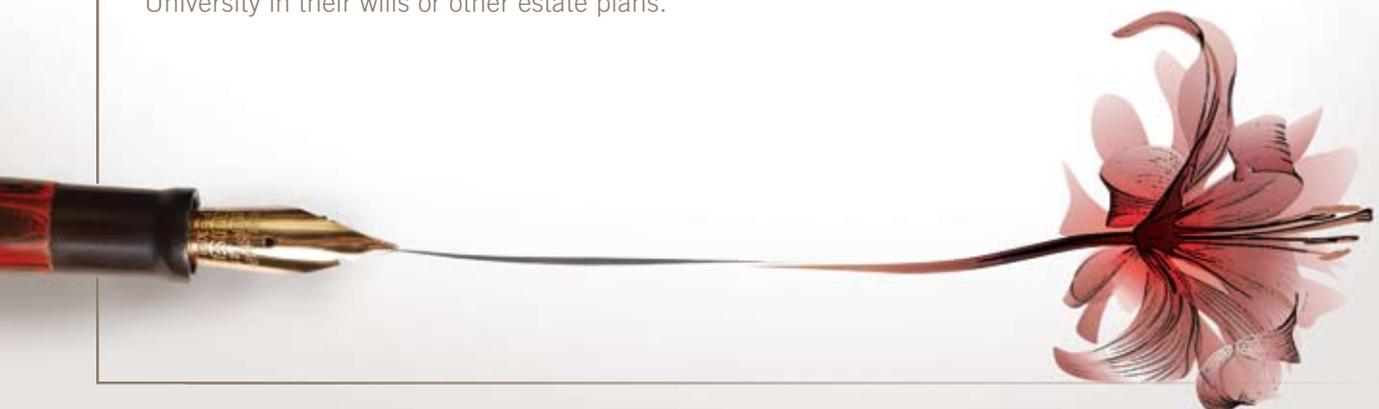
William E. Dunn died Nov. 7, 2009, in Moraga, Calif., at the age of 70. A 1963 graduate of the University, he was employed by Standard Oil, which was later known as Chevron. In his 34 years with Chevron, he enjoyed various assignments throughout the country until his retirement in 1997. Dunn was a loyal donor to the Capstone Engineering Society.

**Owen W. Hocutt**

Owen Woodrow Hocutt died Aug. 20, 2009, at the age of 91. Hocutt graduated from the Capstone with a bachelor's degree in mechanical engineering. He enjoyed a long and fulfilling career at Alabama Power. He was a dedicated UA football fan and a donor to the Capstone Engineering Society.

**Paul T. Howse Jr.**

Paul T. Howse Jr. died Sept. 30, 2009, at the age of 78. Upon his high school graduation in Birmingham, he served in the U.S. Air Force for three years. He fulfilled his goal of becoming a mechanical engineer with his graduation from the University. Howse was employed by Monsanto Textiles Co. in Pensacola, Fla., for 31 years, retiring in 1993. During his years at Monsanto, he obtained eight patents for textile yarn processing and equipment. Howse was named a Distinguished Engineering Fellow in 1994 and a fellow of the American Society of Mechanical Engineers in 1986. Howse was a member of the Denny Society, which is UA's recognition society that is reserved exclusively for those alumni and friends who have named the University in their wills or other estate plans.



### Dr. Chang Keng “C.K.” Liu



Dr. Chang Keng “C.K.” Liu died Aug. 31, 2009, at the age of 89. Liu was born in Soochow, China, where he received his bachelor’s degree in mechanical engineering from Chiao Tung University in 1943. During World War II, he participated in the relocation of his university and was subject to detention and hardship. Upon release from confinement, he came to the United States, where he received a master’s degree in mechanical engineering and a doctorate in theoretical and applied mechanics from the University of Illinois. Liu joined the faculty of The University of Alabama’s mechanical engineering department in 1954. During his 32 years at the University, he published more than 30 papers in technical journals and was an excellent teacher of engineering and mathematics.

### Fred Sleyden McFarland



Fred McFarland died Oct. 29, 2009, at the age of 87. McFarland graduated from the College of Engineering in 1944. He became a charter member of the Capstone Engineering Society and was named Distinguished Engineering Fellow. McFarland served with the 1st Marine Division and 3rd Amphibious Comps in the Pacific and China in World War II and was awarded the Purple Heart. He worked for Alabama Power and Southern Company Services before being employed by Sullivan, Long and Hagerty, where he rose to the position of vice president. McFarland was a charter member of the Denny Society, the University’s recognition society reserved exclusively for alumni and friends who name the University in their wills or estate plans. The Fred S. McFarland Gift Fund’s purpose is for improving and enhancing civil and environmental engineering laboratories and equipment.

### Frank A. Rhodes Jr.

Frank Alexander Rhodes Jr. died Aug. 11, 2009, in Newport Beach, Calif., at the age of 93. A Montgomery, Ala., native, Rhodes graduated with high honors in aeronautical engineering, including membership in Tau Beta Pi. Rhodes was recruited by Lockheed Aircraft in Burbank, Calif., where he engineered and managed the building of aircraft in the years surrounding World War II. There he met Gill B. Causey, with whom he formed a building and development partnership in the 1940s. For 55 years, they built a diverse array of projects throughout the California area.

### Michael H. Romine

Michael H. Romine died Jan. 10, 2010, at the age of 41. Romine was a longtime resident of Hayden, Ala. He graduated from the Capstone in 1992 and became a professional engineer and project manager at CRS Engineering in Birmingham, Ala. The Michael H. Romine Memorial Scholarship is being established in his memory through the College of Engineering.

### Dr. Robert L. Wright

Dr. Robert L. Wright died Dec. 7, 2009, in Tuscaloosa at the age of 81. Wright was born and raised in Missouri. He received his bachelor’s, master’s and doctoral degrees in metallurgical engineering from the Missouri School of Mines and Metallurgy. He was a professor at the University of Western Michigan before coming to The University of Alabama, where he was a professor for 11 years.



## Friends We Will Miss

**John William Bray**, BS '49, died Oct. 19, 2009.

**Mary Virginia Wilson Cox**, BSME '68, died Aug. 4, 2009.

**Richard H. Creighton**, BSME '65, died Dec. 27, 2009.

**John W. Etchison**, BSChE '60, died Dec. 13, 2009.

**Joseph Edward Fikes**, BS '48, died Dec. 10, 2009.

**Bruno Filippini**, BS '48, died Oct. 8, 2009.

**Hugh Anthony Gerst**, BS '47, died Nov. 14, 2009.

**James Douglas Harris**, BSCE '84, died Sept. 20, 2009.

**Robert M. Hunt**, BSAE '48, died Oct. 30, 2009.

**Steve Acton Hunter**, BS '62, died Oct. 21, 2009.

**James Yeatman Jackson**, BS '59, died Oct. 30, 2009.

**Larry R. Knox**, BS '71, died Jan. 6, 2010.

**Donald E. Mace**, BSME '57, died Dec. 21, 2009.

**Louis Meier**, BSCE '48, died Jan. 4, 2010.

**Timothy Nash**, BS '01, died Sept. 8, 2009.

**Larkin A. Spence**, BSChE '43, died Jan. 3, 2010.

**Miriam K. Still**, died Aug. 17, 2009.

**Lawrence O. Wear**, BSME '58, died Nov. 15, 2009.

**Hugh I. Williamson Jr.**, BSCE '49, died Jan. 24, 2010.



## 'COE Does ART' Presents 'The Bachelor King'

The students involved in UA's "College of Engineering Does Amateur Radical Theater" showcased their acting skills by presenting "The Bachelor King" during two performances at the end of November. "The Bachelor King" is a comedy filled with chaos and spoofs of popular reality shows, including "American Idol," "The Bachelor" and "Survivor."



## Homecoming Tailgate Party

More than 250 people enjoyed the CES tailgate party on the Shelby Science and Engineering Quad before the game on Oct. 17. Engineering alumni and friends relished fried fish and barbecue while discussing old times and awaiting victory over the South Carolina Gamecocks.



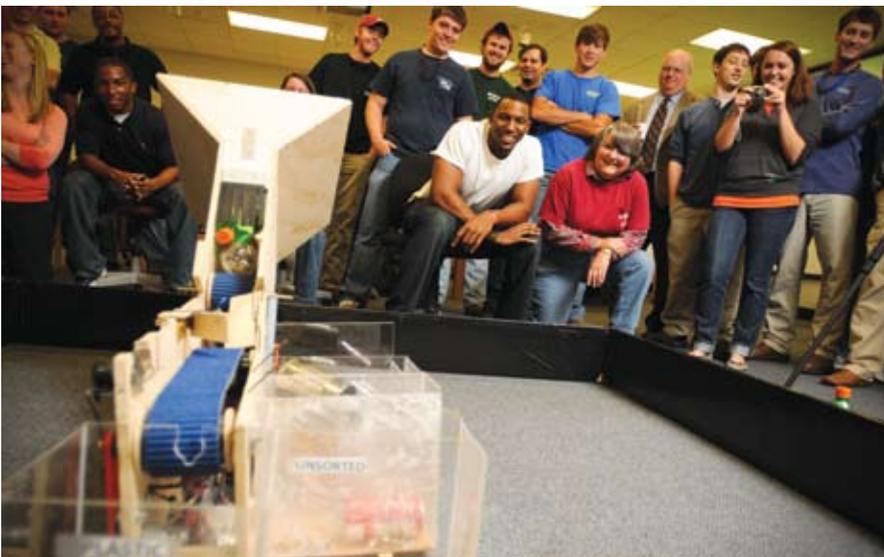
## Engineering Day

On Oct. 1, the College of Engineering hosted Engineering Day, or E-Day, an open house for high school students and their families. E-Day hosted more than 500 visitors wanting to gain a realistic view of the College of Engineering. Lunch was provided by the McAbee Pigfitters.



## UA Engineering Students Compete with Recycling Devices

UA senior mechanical engineering students competed with their newly designed recycling systems Nov. 19. Students designed devices that sort plastic and glass bottles, aluminum and steel cans, and unclassified waste with the push of a button. The device could be no larger than a case of paper, had to be powered by over-the-counter rechargeable batteries, and had to identify the materials to be able to separate the waste.





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# Congratulations!

Thrilling Alabama fans across the country and abroad, the Crimson Tide won its 13th national title after defeating the Texas Longhorns, 37-21, in the 2010 Citi BCS National Championship Game.

# ROLL TIDE!

