In this Issue . . .

- Centennial Celebration, 1908-2008
- A History of Auburn Engineering
- Then and Now: Leaders in Industry
- Equipping Engineers for Tomorrow
1. New Library (under construction).
2. New Engineering Hall (completed June, 1907).
3. New Dining Hall (under construction).
## Contents

<table>
<thead>
<tr>
<th>Article Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>From the Dean</td>
<td>2</td>
</tr>
<tr>
<td>A Letter from Dean Wilmore</td>
<td>4</td>
</tr>
<tr>
<td>History of Auburn Engineering</td>
<td>5</td>
</tr>
<tr>
<td>McKissick’s Major Role</td>
<td>12</td>
</tr>
<tr>
<td>Like Father, Like Son</td>
<td>14</td>
</tr>
<tr>
<td>Then and Now</td>
<td>16</td>
</tr>
<tr>
<td>Into the Lab</td>
<td>20</td>
</tr>
<tr>
<td>And the Award Goes to . . .</td>
<td>24</td>
</tr>
<tr>
<td>Homecoming Tailgate 2008</td>
<td>26</td>
</tr>
<tr>
<td>The Stack Comes Down</td>
<td>28</td>
</tr>
<tr>
<td>Auburn Engineering a Driving Force</td>
<td>30</td>
</tr>
<tr>
<td>Equipping Engineers</td>
<td>32</td>
</tr>
<tr>
<td>And the Rankings are in . . .</td>
<td>36</td>
</tr>
<tr>
<td>Five Minutes With</td>
<td>38</td>
</tr>
<tr>
<td>Baja: It’s Coming</td>
<td>40</td>
</tr>
</tbody>
</table>

*Inside front cover:* Taken from the *Gliomerata*, this page represents buildings added to Auburn’s architectural landscape in 1908, the date of the College of Engineering's founding. Mary Martin Hall, top, built as the Carnegie Library, provided resources to students until the construction of the Ralph Brown Draughon Library in 1963. Broun Hall, center, was constructed and dedicated solely to engineering instruction. It was razed in order to make room for the Harbert Center, home of the Department of Civil Engineering. Today, the O.D. Smith building, bottom, is home to Auburn’s outreach, distance learning and campus planning offices. As a dining hall 100 years ago, it accommodated 300 students for meals and also had accommodations for 40 on the second floor dormitories.
One hundred years ago – in the 1908-09 academic year – the College of Engineering was formally established.

While we offered civil engineering courses as early as 1869, and the A&M College established an engineering curriculum in 1872, it was not until 1908 that the institution had an engineering college in a true sense of the word. Charles C. Thach was president when he reorganized the faculty into three academic units, each with a head professor who reported directly to him.

One was in agricultural sciences, and another in what was then known as the academic department – what we would now call liberal arts or arts and sciences. The final one, of course, was in engineering, which initially included mining and architecture as well. About half of Auburn’s students were in the new College of Engineering, studying under a faculty of 22 professors and instructors.

A lot has happened in 100 years. In this one we have seen a true watershed in the history of Auburn Engineering. I can’t think of a more fitting time for a centennial celebration.

- We moved into the new Shelby Center for Engineering Technology
- Completed the most successful capital campaign in the history of the college and the university
- Scored our highest ranking ever in the U.S News & World Report rankings
- Obtained the highest ranking ever in the American Society of Engineering Education’s digest of research expenditures
- And enrolled one of the brightest and largest college freshman classes our history

We are now working with technology historian Art Slotkin to produce the story of the first 100 years of our college, which we expect to publish just about a year from now. This issue of Auburn Engineering offers a preview of his work with a look at the genesis of our engineering programs on the Auburn campus. Its publication will be an apt prologue to the completion of Phase II of the Shelby Center for Engineering Technology, which is scheduled for late 2011 or early 2012.

Phase I of the center has significantly affected our momentum, pushing the physical parameters that affect our quality rankings to levels never before seen. As I never tire of saying, we need a world-class faculty to attract the best and brightest students, and it is going to take state-of-the-art facilities to attract faculty at this level. We are making solid progress. Alums who visit us on campus can see it with their own eyes – as we hope you can, through the pages of Auburn Engineering.

This is certainly a time of reflection, not only of the successes of the past 100 years, but for the future as well. I don’t have a crystal ball, but I can look to some initiatives taking place in the College of Engineering now that should be major contributors in our efforts to move the Samuel Ginn College of Engineering into a top 20 ranking. In addition to innovative instructional programs that are placing emphasis on giving our students more opportunities for study abroad, we continue to build on our international presence within the college’s campus programs.

In terms of research, we are looking to expand into highly promising niche areas such as biomedical and pharmaceutical engineering. Projects are currently under way that emphasize personalized medicine; advanced drug delivery systems using contact lenses; diagnostics and detection of illness through systems engineering techniques; and tissue engineering to address cardiovascular disease. We have faculty members working towards improvements in clean energy through efficient production of ultra-clean fuels; renewable and conventional resources like mill waste, wood, algae and crop residues; and high-performance energy conversion and storage systems such as fuel cells and advanced batteries. We will be sharing these with you in issues of Auburn Engineering to come.

This college has been blessed with loyal, dedicated, committed alumni, faculty and friends. You have indeed made Auburn Engineering something special. As we move into our second century as a College of Engineering, we look to many more successes within the college – and by graduates such as yourself. We invite you to join us as we write the next chapters of the exciting story of Auburn Engineering.

Samp Bynfield
From the dean
A letter from Dean Wilmore, 1908

With this being our Centennial Celebration issue, we wondered what Dean Wilmore, the college’s first dean, would have reported at the conclusion of 1908, the midpoint of Auburn Engineering’s inaugural year. We assumed that Wilmore, no doubt, would have been proud of the year’s many accomplishments and optimistic about what the college’s future might hold. Based on documented activities, campus events, notes and written testimonies, here’s how we think he might have addressed his peers, faculty, staff, alumni and the community.

I am pleased to write to you, our alumni, students and friends of Alabama Polytechnic Institute College of Engineering and Mines, to provide this letter addressing our accomplishments during 1908, a year of increasing success, and midway through the first year of our new College.

Last year, the nation experienced a financial panic, a so-called banker’s panic caused by unsound banking practices. Although there is no clear, single cause of the financial panic, this event shook our financial system to its foundations. Fortunately the worst effects have failed to make much of an impact in Auburn.

This year, we organized the Student Engineering Society with nearly 175 members. The main objective of the new organization is to present a forum for speakers to discuss technical or practical aspects of engineering work, to promote fellowship and to provide closer affiliation with practical engineers. The new field of aviation caught the attention of our students after the student newspaper, the Orange and Blue, reprinted a Scientific American article about the first Wright Brothers flight in 1903, and one of our professors spoke about this new field at a meeting this year. We have an exciting schedule of speakers for the 1909 collegiate year, for which we have invited five guests to present papers. The subjects will range from Southern Iron Ore Supply, Road Building in Alabama, Power Plant Economics, Steam Turbines and the Sewerage Problem of Birmingham and Vicinity and How Solved.

With an overall Auburn enrollment of 617 during the 1909 collegiate year (1908-1909), there is an increase of more than 50 percent since Dr. Thach became president. Campus construction is continuing under the supervision of the new professor of architecture, N. C. Curtis, who is serving as chief architect in addition to his teaching assignments. Our own engineering professors are helping with construction as well, completing the power plant and expeditiously installing equipment. The professor of mining engineering installed superior mining equipment in the new Broun Engineering Hall, making it perhaps the most thoroughly fitted department of Mining Engineering in the South. With the professor of civil engineering as consulting engineer, and with my assistance as professor of mechanical engineering, API has purchased a 120,000-gallon-a-day spring roughly two miles from town. We have secured the watershed rights and built a waterworks and electric powered pumping station with a 100,000-gallon tank atop a 200-foot tower in order to bring the water to campus.

Last summer, President Thach recognized the work of the Institute so that it would naturally fall under two heads, one for engineering and mechanics and the other for agricultural sciences, plus a third head to manage the remaining academic departments. The new College of Engineering and Mines has five degree-granting departments — civil, electrical and telephone, mechanical, mining and architectural engineering, plus two service departments of machine design and mechanical drawing as well as mechanic arts. The engineering college is also offering a one-year, non-degree curriculum in wireless telegraphy and two-year programs in the mechanic arts, applied electricity and road foreman and inspection. The College of Engineering and Mines has seven professors and 13 assistants providing instruction to 557 students, taught by the oldest and most extensive engineering staff of any institution in the South. The engineering college has sent out several thousand students who are leaders in railway construction, management of mines and industrial plants of every nature throughout the country, and the success of some of these men has been national in importance.

As Alabama Polytechnic Institute enters the 1909 academic year, the stars shine brightly on Alabama. The national and state economies continue to improve from the recession caused by the Panic of 1907, the country remains at peace and the Institute’s finances are in as good shape as they have ever been. Moreover, many of the men who will shape and lead Auburn Engineering into the twentieth century are in place.

John Jenkins Wilmore

John Jenkins Wilmore, ME, Dean of Engineering and Mines
A Centennial of Auburn Engineering: the Beginning by Art Slotkin

As we look at the centennial year of the Samuel Ginn College of Engineering, more than 3,000 students are enrolled, including more than 600 women and 400 African American students. More than 700 graduate students are working toward advanced degrees and the college’s global education initiative counts students at 37 sites in 10 countries on four continents. To be sure, there have been plenty of changes over the past century. But, the founding of the college and events leading to its assimilation to the university provide us with a peek into the past and a timeline for success from humble beginnings.
Alums who return to Auburn are almost always struck by the changes that occur over as little as two or three years as the campus grows, changes and reinvents itself. Graduates who have moved far and wide and spent a decade or more off campus can even be shocked when they return to a different looking community than the one they left — even if it’s still Auburn, whose storied academic halls bring back a rush of memories. Today, the newest face of Auburn Engineering is reflected in the imposing façade of the Shelby Center for Engineering Technology, which has redefined the north perimeter of the campus to visitors old and new. Indeed, this elegant facility reflects a coming of age for our engineering program, and makes a statement that we provide our faculty and students with the kinds of state-of-the-art facilities that will propel Auburn Engineering into one of the nation’s premier engineering programs.

One thing that has not changed would be the three most popular engineering curricula. Just as 100 years ago, the top three engineering fields of study at Auburn are mechanical, electrical and civil engineering, in that order. Aerospace engineering began as aeronautical engineering in 1932 as an option in the mechanical engineering curriculum. Chemical engineering? The School of Chemistry and Pharmacy taught it beginning in 1913, but it did not become a part of engineering until the 1960s. Industrial Engineering, an outgrowth of a joint program in industrial arts with the School of Education (and dropped from the curriculum after World War II) is back in the college as industrial and systems engineering. In 1928, cotton was king and the School of Textile Engineering came into being — but now it has morphed into the Department of Polymer and Fiber Engineering. Computer Science and Software Engineering is the college’s newest department, in terms of being founded from the ground up.

**Auburn Engineering in the 19th Century**

It all began for Auburn before the Civil War, when many Southern educators were actually hostile to an engineering education. They were advocates of a classical regimen and believed in teaching the bible, the ancient classics, *belles lettres* and pure mathematics and science. Moreover, they believed education was only for a relatively few privileged members of society and they opposed educating “farmers and mechanics.” In fact, this was the dominant educational philosophy in America when the Methodist Episcopal Church South established a small liberal arts college in Auburn to educate the sons of local planters. The East Alabama Male College, as they called it, with a faculty of six, taught moral philosophy, Greek and Greek literature, pure mathematics, natural science and applied mathematics. Founded in 1856, the college did not open its doors until 1859 (due to the financial panic of 1857) and closed them in 1861 as many students, and a few faculty members as well, left to serve the Confederacy.

As the trustees prepared for the return of students in the spring of 1866, they elected Col. James F. Dowdell, a prewar professor at the college, as president. The college opened in the spring and conferred two bachelor of arts degrees in 1867, the first since 1861. During its first 11 years of existence, the college had 15 alumni and it did not regain its prewar enrollment until 1870, five years after the end of the war. In an attempt to increase enrollment, they introduced electives for juniors and seniors, permitting them to select from eight “schools,” including a school of civil engineering, a broad program of study spanning just two semesters. However, the college did not grant degrees in engineering at that time and Auburn’s first engineers took their degrees in natural science or advanced mathematics.

The year 1871 proved crucial for the East Alabama Male College and in late June the trustees finally faced its financial failure. The college was essentially bankrupt. Nonetheless, they opened as planned in September 1871. However, when the trustees met on Oct. 12 they proposed to “tender our college property to the State of Alabama for the establishment of the Agricultural and Mechanical College” under the Land Grant College Act of 1862. The act gave public lands to each state, including southern states when they returned to the union, to “provide Colleges for the Benefit of Agriculture and Mechanic Arts.” When it became law, there were only four agricultural colleges in operation in the United States.

When the governor initiated the process to obtain Alabama’s land grant, there were two key issues: where to put the college and its relationship to the University of Alabama. The university wanted the federal money to help rebuild after a federal raid...
destroyed part of the campus at the end of the war. However, the land grant act stipulated that states could not spend any of this money for construction or maintenance of buildings, which pointed toward one of the defunct church colleges in Alabama as the location for the new land grant college.

The donation of the Auburn campus to the state proved crucial in selecting the location. After much politicking and horse-trading by Lee County’s own state representative Sheldon Toomer, the legislature passed “An Act in Relations to the Agricultural and Mechanical College of Alabama” on Feb. 26, 1872, naming Auburn in Lee County as the seat of Alabama’s land grant college. Alabama filed papers for its land grant in 1869 and obtained 240,000 acres, which they sold for 90 cents per acre, resulting in an original endowment of $216,000.

Isaac Taylor Tichenor, a Baptist minister and planter (and a Confederate chaplain during the Civil War) became the Agricultural and Mechanical College of Alabama’s first president. The new state college then added curricula in agriculture and engineering along with modern languages, English literature, applied science, mathematics and military sciences to the traditional classical curriculum of East Alabama Male College.

While the first priority of the college was to educate “agriculturalists,” only about 17 percent of its graduates received degrees in agriculture while 39 percent received engineering degrees during the 10 year Tichenor administration. The school initially had six professors holding chairs in agriculture, engineering, languages, mathematics, moral philosophy and natural science, and this remained the basic structure of the faculty during the remainder of the Tichenor administration.

For the college’s first professor of engineering, Tichenor selected Robert A. Hardaway, CE, MA. A graduate of Spring Hill College in Mobile and Emory College in Georgia, Hardaway completed his education in 1850 and worked as a transit operator on a survey crew for the Mobile and Girard Railroad (where his father was the president), eventually rising to become superintendent. Professor Hardaway designed the engineering curriculum around his personal interests: drawing, surveying and railroad engineering, although he later increased the amount of fieldwork.

At the end of its first collegiate term in October 1872, the agricultural and mechanical college conferred five degrees—two master of arts, two bachelor of arts, and its first engineering degree, a postgraduate “Civil-Engineer” degree to Mr. W. E. Horne of Union Springs. In 1873, Hardaway changed the curriculum and the college then awarded a bachelor of engineering (BE) to its engineering graduates. By the end of the first collegiate year, 103 students matriculated, with an average enrollment of 95. In 1874, four cadets passed their first-class examinations and received degrees at commencement, including Mr. B. Huger Johnson, who earned a bachelor of engineering degree, the first recipient of the bachelor’s degree in engineering from Auburn.

Whether the lack of financial resources, disagreements about the cadet program, the engineering curriculum, a faculty salary cut or some other issue upset the professor of engineering, we do not know, but Hardaway resigned...
unexpectedly just before the start of collegiate year 1882, which was one of significant change at the A&M college for other reasons as well. At the end of the term, the chairs of agriculture and engineering were vacant, the former because of the death of the professor of agriculture and the latter because of Hardaway’s sudden departure. Finances, always tenuous, continued to trouble the college as the state struggled with its debt. Faculty salaries, reduced 10 percent the previous year, had depreciated by about 30 percent since 1872. Nonetheless, the remaining faculty took up the slack for the two missing professors and taught their courses. However, before the annual meeting of the board of trustees in June of 1882, Tichenor also resigned and the trustees selected William LeRoy Broun of Vanderbilt University to replace him.

Broun and the Mechanic Arts

Broun was a different sort of man than the Reverend Tichenor. He earned a graduate degree from the University of Virginia, “the leading university in the South,” in 1850 and remained in academia for the rest of his life. He had a background in physics, chemistry and mathematics and “was just getting well launched on his academic career when the Civil War interrupted all his plans.” Volunteering to serve the Confederacy, he became a lieutenant colonel of ordnance and took command of the Richmond Arsenal, where he used his knowledge of mathematics and science for the benefit of the South. After the war, Broun returned to the University of Georgia as professor of natural philosophy and in 1872 became president of the Agricultural and Mechanical College of Georgia, a branch of that university. In 1875, he went to Nashville as professor of mathematics at the new Vanderbilt University, remaining there until he accepted the presidency of the A&M College of Alabama in 1882.

General James H. Lane joined the faculty in Auburn as the professor of civil engineering and drawing in 1882, replacing Hardaway. However, while the latter designed the engineering curriculum during Tichenor’s administration, Lane did not have that role under Broun, who was a scientist, an experienced educator and a college administrator, who had his own ideas about technical education. He, not Lane, designed and implemented the college curriculum and moved the engineering course of study beyond civil engineering.

President Broun introduced the mechanic arts to the curriculum when he planned a laboratory for practical mechanics in 1884 to be “fitted up within the year,” thus allowing students to be “taught the practical applications of the principles of mechanics.” Broun said the new mechanic arts laboratory was “designed to be used as an auxiliary in industrial education and not to teach any special trade.” George H. Bryant, the holder of a mechanical engineering degree from MIT, was his choice for the instructor, thus ensuring that they taught his methods at Auburn.

Broun discussed a name change for the college in his 1885 annual report, having first suggested it in 1884. He wanted to use the name “Alabama Polytechnic Institute” because he said it better reflected the curricula now in place at Auburn. The president felt that the use of the word “agricultural” implied that graduates would become farmers. But, as he pointed out, owning a farm required land and capital, things that most new college graduates lacked. Wrote Broun, “There is an unfortunate and wide spread fallacy that the college fails in its purpose if it does not turn out farmers.”

To his thinking, the development and dissemination of information about scientific agriculture was the proper role of the institution, not necessarily teaching individuals to become farmers. Responding to Broun’s request in August 1885, the board approved the use of the name, “Agricultural and Mechanical College and Polytechnic Institute of Alabama,” although the official...
name remained unchanged because the state constitution contained the name of the college in it, and the trustees did not want to get involved with the politics of amending it. Adopting the authorized name, the 1885 catalog said, “By the college . . . becoming a distinctive School of Industrial Science, or POLYTECHNIC INSTITUTE, work of great value to the youth of the state may be done.” However, in 1887, Broun changed the wording around to say, “The College in fact has become a . . . POLYTECHNIC INSTITUTE — a title which by resolution of the trustees is permitted to be inscribed on the catalogue.” (The capitalization here is used in the original documents, revealing its importance to Broun.)

Broun highlighted the new mechanic arts laboratory established in the basement of Langdon Hall in his 1886 annual report. He noted that 93 of the institute’s 145 students “enjoyed the advantages of manual training.” This laboratory cost $6,736.86 to equip, but the president said that he could not overemphasize its importance to the future of the institute, and he planned three one-year shop courses. The first was woodworking, which included “carpentry, turning, etc.” Next was a “forge and foundry” course in the second year, including “black-smithing, moulding and casting.” The third year was a machine shop course, including “chipping and filing, and machine work in metals.”

In 1888, the new laboratory director hired two assistants, including as his “1st assistant” John J. Wilmore, a graduate of Purdue University with degrees in mechanical engineering. In that same year, mechanic arts students built a 10-horsepower engine, which became the power source for a Weston dynamo “used for lighting the halls” and supplying electricity to the laboratories. Thus, less than 10 years after Thomas Edison first announced his platinum filament incandescent lamp, API began applying this new technology. The dynamo would soon power the town of Auburn as well.

Broun spoke about establishing a new physics laboratory in his 1890 annual report, writing that the growth of the college “demands it should be provided with a well equipped Physical Laboratory.” Moreover, “Electrical engineering, [is] now rapidly coming into importance as a profession, and can only be developed though a physical laboratory of which it is a part.” Congress passed a second land grant act in 1890 that increased federal funding for the college and paid for the first electrical engineering laboratory established at Auburn. As a result, Broun added an adjunct chair in electrical and mechanical engineering and the trustees elected A. Foster McKissick, BSEE, AM, a graduate of the South Carolina College and Cornell University, to fill it. (A story on this pivotal faculty member is on page 12.) With the addition of the electrical engineering curriculum in 1892, and a year later mechanical engineering, students moved toward new, rapidly emerging fields.

In 1893, Auburn granted its first degree in electrical engineering to Frank McLemore Mosely, who earned his bachelor of science degree in 1892, although he officially earned the first “Electrical and Mechanical Engineer” degree because the two departments were still combined. The engineering faculty in 1893 consisted of three professors and several instructors and assistants. John J. Wilmore replaced Bryant as instructor and director of the mechanic arts laboratory when Bryant resigned in 1892, and Broun appointed Wilmore to the new chair of professor of mechanical engineering in 1893. Professor McKissick held the chair in “mechanical and electrical engineering” in 1892, but with Wilmore’s appointment this changed to “professor of electrical engineering” in 1893. General Lane remained professor of civil engineering.

In 1898, the Alabama General Assembly officially changed the name of the college and the 1899 catalog carried the new
name—Alabama Polytechnic Institute—on the outside cover, while
the inside cover reflected the wording in the authorizing legislation:
“Alabama Polytechnic Institute” with the additional tag line, “State
College for the Benefit of Agriculture and the Mechanical Arts.”
Broun’s 13-year quest was over, but no sooner had the name
officially changed to Alabama Polytechnic Institute than some
started calling it “Auburn,” although it took more than half a
century before the name officially changed again.

**Beginning of the 20th Century**

The first three decades of Auburn Engineering – from its founding
on the cusp of the 1870s through its growth into the turn of the
century – were critically important. Ideas had been tried, changed,
discarded and improved upon as educators sought to find out
what worked out and what didn’t, not only in the framework of
the technology of the times, but the political climate as well. Just
as the century turned, graduates were being produced in what
would be the first of a long line. Michael Thomas Fullan was the
first recipient of the mechanical engineer degree in 1905; he had
received his first degree, in electrical and mechanical engineering,
in 1898. The college awarded the degrees of electrical engineer for
the first time in 1906 to Harry Young Hall, BS, and Enoch Lester
Miller, BS.

McKissick resigned at the end of
August 1899, and the trustees
elected Arthur St. Charles
Dunstan, BS, CE, ME, class
of ’89, as his replacement.
Returning to Auburn as
professor of physics and
electrical engineering,
Dunstan remained for 52
years before retiring in 1951;
he died in 1959. At the beginning of the 1901 collegiate year, the
engineering faculty had 11 members: three full professors, three
assistant professors, one instructor and four laboratory assistants.
Gen. Lane remained professor of civil engineering and drawing,
with one drawing assistant until his death in 1907. Dunstan, in his
second year as professor of electrical engineering and physics,
had one assistant professor and a laboratory assistant.

Wilmore, as professor of mechanical
engineering and director of the mechanic
arts laboratory, had the largest
engineering department, with two
assistant professors, an instructor
and two laboratory assistants.
Broun, almost 75 years old and in his
twentieth year as president, passed
away in Auburn on Jan. 23, 1902 and
Charles Coleman Thach, BE, class
of ’77 replaced him. President Thach
reorganized the management of the faculty
and established the College of Engineering
at the beginning of the 1909 academic year, i.e.,
September 1908.

When Thach charged Wilmore with the creation of an engineering
faculty for the 1908-09 school year, it was impossible for him to
know of the profound changes that would sweep the South, and
the country, during his tenure. Indeed, Wilmore would remain
as dean of engineering until his death in 1943, when the nation
was deeply immersed in the second world war. During Wilmore’s
tenure, the country’s transportation infrastructure went from dirt
roads to a growing web of two-lane blacktops; airplanes went from
being spindly, wood and fabric curiosities to powerful aluminum-
body fighters. The chemical engineering community began to
grow from a cottage industry to one that would take advantage of
the many new materials and technologies that would change the world. And while civil engineers helped turn villages into towns, towns into cities, and cities into huge metropolitan regions with hugely complex infrastructures, mechanical engineers found ways to build entire industries as America became the world’s industrial leader.

The role of the Auburn engineer has been significant in the growth and prosperity of the state of Alabama, the Southeast and the nation. Outstanding contributions by Auburn alums have had a huge impact on technological progress, and the stories of some of these men and women are recounted in this issue of Auburn Engineering. Yet the very act of seeking out this history has been an education in technology. In sifting through Auburn University’s archives, managed by librarian Dwayne Cox and his talented staff of dedicated archivists, it is striking to see how communication took place, back in the day. Much of the source material – notes from the dean, the president and the board secretary – were handwritten, all through the 19th century and well into the 20th. Telegraph messages, perhaps seen by us as cumbersome and perhaps even Paleolithic, nevertheless come across as . . . text messaging of the day. And even before the automobile, trains moved people, with a half a dozen different ones stopping in Auburn every day.

There was a constant that was present even when there was too little money – for the starving student, the modestly living faculty member with a growing family – and presidents, deans and trustees who had to work hard to find the kinds of funding it took to move the institution ahead. It was ingenuity and a strong desire to move ahead, to get to the next level. The former quality, ingenuity, is a word that has a shard heritage with another word, engineering. The latter quality is one that we still find in Auburn people, whether they are students, alumni, faculty or staff in the Samuel Ginn College of Engineering – it is moving ahead, finding a better way and sharing it with those around us. It is our hope that the next century of Auburn Engineering finds our commitment deeper, wider and stronger.

Auburn alum Art Slotkin is a 1968 aerospace engineering graduate with a master’s in civil engineering and flight structures from Columbia University. After a diverse career, he retired from the computer services industry in 2003. He then attended Georgia Tech to obtain a master’s in sociology and history of technology and science. Slotkin has conducted much of the research for his book and this article in the Auburn University Library, Archives and Special Collections Department, with help from the university’s professional team of archivists.
On Field and Off, McKissick Played Major Role at Auburn

By Sally Credille
Engineer. Professor. Athlete. In the early days of the university, an Auburn man could be all three. Although it may not have been that common, it wasn’t unheard of for a student’s teacher to be his teammate as well. Today, more than 100 years later, it cannot be imagined.

Anthony Foster McKissick, hired in 1890 to fill the adjunct chair in electrical and mechanical engineering, was all three.

In the classroom and laboratory, he taught a class of 35 young men—Auburn’s first electrical engineers—including Miller Reese Hutchison, a talented undergraduate whom McKissick not only trained but mentored as well. Hutchison assisted McKissick in successfully developing an X-ray machine in the electrical engineering lab, demonstrating its power by taking an image of a metal key. McKissick in turn was the first to X-ray a bullet inside the human body. Hutchison, an inventor and entrepreneur in his own right, was later hired by Thomas Edison as his chief engineer at the turn of the century.

McKissick’s development helped doctors to use the new technology for diagnoses and never accepted payment, prompting an article in the Montgomery Advertiser that read “...science and medicine owe much to the genius of Prof. A. F. McKissick, for the first apparatus used in the U.S. for the demonstration of the X-ray. A star fell on Auburn where Prof. McKissick gave his valuable apparatus to the world.” Of course, one has to wonder if there is more to this successful research story than what can be found in browning books and aged newspapers, but it has been lost to history with many others.

On the field, McKissick was fast and powerful and a constant threat to the opposing team. He was big and bruising and joined the football team as center. McKissick led his teammates to victory, including a championship season in 1892. He also served on the faculty athletic committee and helped form the school’s first athletic advisory board. It not only raised funds for athletics, but it also selected the manager and coach of the football, baseball and track teams, and even the editor-in-chief and business manager of the Orange and Blue, the university’s first newspaper.

During the past century, engineers like McKissick and Hutchison have honed their skills at Auburn, going on to share their knowledge and innovations with the world around them. They represent 139 consecutive years of Auburn Engineering and the many graduates who have become astronauts, inventors and CEOs, while others have revolutionized the alternative energy, telecommunications, construction and wireless industries.

Though the first engineering classes began two decades before McKissick and Hutchison came to the Plains, we remember them fondly during the college’s Centennial Celebration, along with the multitudes of alumni who have left their mark on Auburn and the world.

Miller Reese Hutchison (1876-1944), electrical engineering, class of 1898, was the inventor of the first electrical hearing aid, which he called the Acousticon; one of the first eavesdropping devices, the dictograph; and the Klaxon horn. In 1913, he gave his alma mater its first radio station. Located on the second floor of Broun Hall, the station was operated under the call letters 5YA and could be heard as far away as Indianapolis. At the station dedication, Hutchison read the first message, transmitted on a note to Thomas Edison at his New Jersey Laboratory:

“This wireless formally christens the two-and-a-half kilowatt apparatus which I have this day presented to the Alabama Polytechnic Institute in commemoration of the first homecoming of the alumni. The president, the faculty, the alumni, and the student body join me in expressing love and esteem to the father of electrical development.”

13
Most students remember the one class they were determined to ace. It was a signature class in their major, one taught by the hardest professor or the subject that was the most difficult to master. For Tom Lowe, it was hydraulic engineering — a class taught by his father, Professor Thomas M. Lowe, Sr.

“I’d sit at the breakfast table and ask him questions,” said Tom. “I had the highest average in the class . . . and then I nailed the exam. He had to give me an A.” Tom also recalls the other class he took under his father, contracts and specifications. He made a B.

Professor Lowe began teaching at an early age. By 16, he was teaching in a one-room school house in Blackshear, Ga. He went on to attend Georgia Tech and later graduated from MIT in civil engineering in 1925. He accepted a job with the University of Florida where he taught until the spring of 1939 before accepting the position of chair of the Department of Civil Engineering at Auburn, then known as Alabama Polytechnic Institute.

When he came to interview, Tom Sr. asked Shell Toomer, then a member of the board of trustees, if he knew of a place he might live until his family could join him in Auburn. Toomer responded, “Yes, at my house. It is right across the street from your office.” So, Tom Sr. began his career at API with a short walk to Ramsay Hall.

Tom Sr. served as the civil engineering chair until the spring of 1951 when he moved to Louisiana State University to be head of the new School of Hydraulics. “Dad always said the beauty of his work at LSU was that the Mississippi River ran through his lab,” said Tom.

Tom remained in Auburn to complete his degree and likes to tell the story of how he met his wife Bettye one rainy afternoon. “I was driving down Samford Avenue in my 1941 Chevy with a buddy, we noticed a girl walking home from school. I offered her a ride and she has been keeping me in line ever since,” said Tom. “When we dropped her off, my friend and I talked about who would be the first to ask her to a movie and I beat him to it.”

Bettye Mathison Lowe was raised in a little house on Auburn’s campus where her father Cullman Mathison was a long-time employee with the university’s dairy science unit. She agreed to go to the movie with Tom that day and married him in June 1950 at the age of 17. They have been married for 58 years and have two sons, two daughters and seven grandchildren.

Upon graduating in civil engineering in 1949, Tom accepted a job with Michael Baker Engineers in Oregon, where he worked for seven years in heavy construction and design of highways, railroads and earth filled dams.

Tom and Bettye’s first son, Tom III (Tim) was born in Oregon, and in late 1952 they were transferred to Jackson, Miss., where their second son Scott was born. In 1957, Tom and Bettye moved to Atlanta where he organized Lowe Engineers, Inc. — a company that remains instrumental in the planning, design and construction supervision
Nearly 70 years ago, Auburn Engineering began a relationship with the Lowe family that continues to impact the college today. During the “It Begins at Auburn” campaign, Tom Jr. and Bettye made a $2 million commitment to ensure the construction of the Sen. Richard C. and Dr. Annette N. Shelby Center for Engineering Technology. In recognition of their generosity, the university named the grand foyer, lobby and vestibule of the Shelby Center in their honor.

“There have been three major influences in my life,” said Tom Jr. “My mama who got me started, my wife who pushed me along, and Auburn where I learned how to think things through.

“Our gift was very much a joint decision. Bettye and I have always done things fifty-fifty; she is just as much a part of our success as I am,” he said. “This has allowed us to do something for Auburn and it gives us great satisfaction.”

Since retiring, Tom has continued to develop commercial and industrial properties in metro Atlanta and surrounding states. Tom was elected to the Fulton County Board of Commissioners in 1974. His district includes the Buckhead area of Atlanta, Sandy Springs and Roswell. In his thirty-fifth consecutive year, he is the board’s longest-serving member. In addition to past service on the Fulton County Pension Board, Tom is a longtime member of the Atlanta-Fulton County Water Resources Commission and the Atlanta-Fulton County Recreation Authority, as well as numerous civic and professional organizations.

He is a world-class skeet shooter and member of the National Skeet Shooting Senior All-American Team. He was instrumental in the development of the 1996 Olympic shooting competition venue which has since been renamed The Tom Lowe Shooting Grounds in his honor.

Bettye has served as a volunteer for many charitable organizations and she shares Tom’s interest in politics. This interest led her to run for a county-wide seat representing Fulton County in the Georgia House of Representatives. She was the first Republican elected county-wide since Reconstruction. With two elected officials in the same family, she is quick to point out that she outranked Tom. Bettye served from 1979 until 1983 on the Banks and Banking and Industry and Public Safety committees. In 1983, she opened a business handling air travel and meetings for various corporations. She is now fully retired except for taking care of Tom – a job she describes as “a handful.”

The Lowes continue to boast Auburn graduates in the family. Daughter Cynthia graduated in 1982 with a degree in journalism and mass communications while Kathryn graduated in 1987 in mathematics and 1989 in civil engineering. Grandsons Patrick Coughlin graduated in December 2008 and Nicholas Lowe will graduate in 2010.
Matthew Scott Sloan  
Electrical, API, 1901; master's, mechanical, API, 1902; doctorate, Union College  
Sloan began his career in the utility industry, first at New Orleans Power and Light and then at New York Edison, where he became president. In 1933, this bold and shrewd businessman was asked to take the helm of the near-bankrupt Missouri-Kansas-Texas Lines, better known as Katy. As president, he oversaw the rapid development of a railway that grew in conjunction with the dynamic population explosion of the southwestern U.S. and would eventually link the business centers of Kansas City, St. Louis, Oklahoma City, Dallas, Fort Worth, Austin, San Antonio, Houston and Galveston. Though his tenure as president coincided with the depths of the depression, revenues increased three-fold, from $26 million to $80 million. Harvard Business School considers him one of the 20th century’s great American business leaders.

Linda Figg  
Civil, Auburn University, 1981  
Figg leads a family of companies founded by her father, which is recognized internationally for its bridge designs — famous for their sustainable, world-class bridges that are also cost-effective, innovative and sensitive to environmental construction techniques. For the past 30 years, Figg Bridge Engineers, Inc. has worked on bridges with construction values exceeding $8 billion. From the Seven Mile and Long Key bridges in the Florida Keys to the I-275 Sunshine Skyway Bridge in Tampa and the Natchez Trace Parkway Arches near Nashville, Figg’s firm has created bridges that capture the powers of imagination, function and technology. While presenting the first Presidential Award for a bridge, Ronald Reagan said of Figg’s Blue Ridge Parkway Viaduct around North Carolina’s Grandfather Mountain, “... it belongs to and is part of the mountain.” Within days of the 2007 collapse of the I-35 West bridge linking Minneapolis and St. Paul, the Minnesota Department of Transportation contracted with Flatiron-Manson, a joint venture with Figg’s firm as the design engineer to create a new 10-lane interstate replacement bridge. The new St. Anthony Falls Bridge was designed and built in 11 months. This innovative concrete bridge for the future sets a new example for the advancement of bridges in America.
Maj. Gen. Wilton Burton “Jerry” Persons  
**Electrical, API, 1916**

Persons was a career officer who entered the U.S. Army Coast Artillery in 1917 and advanced through the ranks to major general in 1944. He served with honor in both the American Expeditionary Force in World War I and in the European theater in World War II, where Gen. Douglas McArthur considered him to be essential to the nation’s war efforts. As head of the office of legislative liaison for the Department of Defense, he is credited with keeping the lines of communication open during turbulent times. Two years after his retirement, the “mellow, Scotch-sipping, storytelling Alabamian” was called back to active duty as a special assistant to Gen. Dwight D. Eisenhower at Supreme Allied Headquarters in Europe. He participated in Eisenhower’s presidential campaign in 1952, and became deputy assistant to the president in 1953 and then assistant to the president in 1958. He served throughout the Eisenhower presidency, eventually becoming chief of staff and representative in the transition of government between the Eisenhower and John F. Kennedy administrations.

Lt. Gen. Leslie F. Kenne  
**Aerospace, Auburn University, 1970; master’s, procurement management, Webster College**

The daughter of a World War II veteran, Kenne grew up with a love for flight. At age 19, pilot’s license in hand, she signed on as the first female ROTC cadet at Auburn University, graduating with honors. However, the military did yet not accept female pilots. Instead, she earned her wings in the back seat of T-38, F-4, F-16 and U-2 spy planes at the U.S. Air Force Test Pilot School where she trained as a flight test engineer. In a distinguished career that spanned more than 30 years, she advanced rapidly through the ranks, eventually leading programs to develop and purchase the nation’s major weapons systems. Considered an expert in complex military systems and their integration, Kenne was named Air Force lieutenant general in 1999. After the Sept. 11 attacks, the Air Force called upon Kenne to improve and develop systems to better combat imminent threats.
Marvin “Pip” Pipkin
Chemical, API, 1913

As a student, Pipkin was known for developing his own methods in the chemical laboratory, a skill that he put to good use when he went to work at General Electric’s incandescent lamp department. Early lamps (today’s light bulbs) were acid etched on the outside to prevent damage to the naked eye from the bright filament. However, this process made the glass fragile and caused the bulbs to capture dust, reducing the amount of light they emitted. In 1927, Pipkin patented a process for frosting the inside of bulbs and a year later a patent was issued for the first electric light bulb frosted on the inside with sufficient strength for commercial handling. He was also responsible for a second technological leap forward when, in 1947, he patented a process for coating the inside of the lamps with silica — a technology that is still used today.

NEW TECHNOLOGIES

Walter S. Woltosz
Aerospace, Auburn University, 1969; master’s, Aerospace, Auburn University, 1977; master’s, administrative science, University of Alabama-Huntsville, 1976

Early in his career in the aerospace industry, Woltosz managed the development of innovative simulation and modeling software for key space and military systems. But in 1980, when his wife’s mother became ill, he turned his attention to the development of augmentative communication systems for persons with severe disabilities. Since 1981, his firm, Words+, Inc., has been a leader in creating state-of-the-art products that “unlock the person” by providing the highest quality communication and computer access tools available — products that have been recognized by the Smithsonian Institute. When world-renowned astrophysicist Sir Stephen Hawking’s ability to communicate was compromised by ALS, it was Woltosz’s Equalizer and EZ Keys programs that allowed him to continue his groundbreaking work. In the late ’90s, Woltosz turned his inventor’s eye to the development of simulation and modeling software for drug discovery and development. Today, his products are used by the world’s top 25 pharmaceutical firms, helping to analyze new products and saving millions of dollars in research and development costs.
Benjamin S. Gilmer  
Electrical, API, 1926

Gilmer built his career with telecommunications giant Southern Bell, serving the firm in a series of increasingly responsible positions before being named president in 1957. In 1965, he joined AT&T as executive vice president, advancing to president two years later. With his keen business sense, Gilmer guided the firm through an era of technological change that included the growth of microwave technology, the development of satellite communications for the firm’s long-distance network and the transition from electromechanical to electronic components — resulting in new, more powerful and less expensive customer and network equipment. On his watch, AT&T launched data-phone service that permitted high-speed data transmission over regular telephone circuits; touchtone and Trimline phones; self dialing of international long distance calls and the introduction of 911 as a nationwide emergency number.

Anthony J. Topazi  
Electrical, Auburn University, 1973; Advanced Management Program, Harvard University

Topazi began his career at Alabama Power in 1969 as a cooperative education student and was hired full time after graduation. He advanced rapidly, taking on positions of increasing responsibility before being named president and CEO of Mississippi Power, where he led his company in a remarkable recovery in the aftermath of Hurricane Katrina. He is widely credited for the firm’s performance in restoring electric service to every customer in only 12 days. A deep interest in economic development throughout his career has made him a leader in the region. He had a primary role in recruiting Mercedes Benz to the state of Alabama. After Katrina, Topazi led the effort to create the Gulf Coast Business Council, a 185-member business organization of top business leaders focused on crucial public policy issues. He was also instrumental in creating the Renaissance Corporation, a non-profit company dedicated to the redevelopment of workforce housing along the Gulf Coast.
A team of researchers in Auburn University’s Samuel Ginn College of Engineering has produced new antimicrobial coatings with potential to prevent diseases from spreading on contaminated surfaces – possibly solving a growing problem not only in hospitals but also in schools, offices, airplanes and elsewhere.

Led by Virginia Davis, assistant professor in the Department of Chemical Engineering, and Aleksandr Simonian, professor of materials engineering in the Department of Mechanical Engineering, the Auburn researchers mixed solutions of lysozyme, a natural product with antimicrobial properties found in egg whites and human tears, with single-walled carbon nanotubes, or SWNTs, which are strong, microscopic pieces of carbon. SWNTs, at one nanometer in diameter, are a perfect cylinder of carbon and keep the lysozyme intact in the coating.

“Lysozyme is used in some commercial products such as Biotene mouthwash,” said Davis. “However, lysozyme...
itself is not as tough. Single-walled carbon nanotubes, on the other hand, are among the strongest materials known to man. While they are 100 times as strong as steel, they have only one-sixth the weight.”

By using a process called layer-by-layer deposition, the team demonstrated the inability of intact Staphylococcus aureus cells to grow on antimicrobial surfaces.

“Disinfection generally requires rigorous cleaning with solvent that must remain wet for a given period of time to ensure that surface germs are killed,” said Davis. “In contrast, we have created a surface that is inherently antimicrobial, so how long it is wet is not an issue.”

Davis’ research paper, “Strong Antimicrobial Coatings: Single-Walled Carbon Nanotubes Armored with Biopolymers,” was recently featured in NanoLetters, a premier journal in the field frequently cited by top researchers.

“The material presented in NanoLetters is only the beginning,” said Davis. “We plan to adapt processing to enable the assembly of coatings on a much larger scale. As a foundation for future applications, the combination of single-walled carbon nanotubes with DNA, proteins and enzymes enables a range of possibilities for sensing and smart-functionality capabilities.”

Davis’ research and teaching expertise is related to SWNTs, their dispersion and shear alignment, which involves nanotube exploitation of specific properties and alignment across large spaces. She is a former student of Matteo Pasquali, associate professor of chemical and biomolecular engineering at Rice University, and Nobel Prize winner Richard E. Smalley. Simonian is a recognized expert in smart bio-functionalized materials and bio-sensing. He founded the biosensors laboratory at Yerevan Physics Institute in Armenia and serves as a member of the Auburn University Detection and Food Safety Center.

Graduate student Shankar Balasubramanian, whose expertise is in biosensors and antimicrobial materials, and postdoctoral fellow Dhriti Nepal, whose background is in SWNT-biopolymer dispersion, contributed to the project.

Davis’ paper can be read online at http://pubs.acs.org/cgi-bin/abstract.cgi/nalefd/asap/abs/nl080522t.html
computer interaction and educational technology. Faculty from the physics education research group at Kansas State will provide domain expertise, while usability testing will be conducted at the Information Design Department at Bentley. Wisconsin’s college of education will deploy and evaluate the system in schools. The researchers hope to carry out several design and test cycles during the three years of the project in order to produce a proven system ready for national dissemination.

**Electrical and Computer**

Adit Singh, James B. Davis Professor of Electrical and Computer Engineering, has received two research grants from the National Science Foundation. Totaling $570,000, both grants will continue through September 2011.

The first project, “Silicon calibrated scan-based timing tests for delay defect detection,” focuses on the integrated circuit testing and reliability area. Small manufacturing flaws that cause integrated circuits to fail in operation have become a major concern in nano-scale technologies. Such defects can potentially be identified during manufacturing tests by their subtle impact on signal timing. However, separating defect-caused timing changes from the normal signal timing variations caused by manufacturing tolerances and environmental noise can be challenging. The research addresses this problem for state-of-the-art circuits such as high-performance, multi-core microprocessors.

The second, “Dynamic Vertically Integrated Power-Performance-Reliability Modulation in Embedded Digital Signal Processors,” is a collaborative project with Georgia Tech that aims at sustaining the growth in the capabilities of embedded digital processing systems, even in the face of challenges from excessive leakage power, manufacturing variations and defect rates. Novel circuit and system level tuning techniques for managing power, performance and process variations are being investigated, along with fault tolerance schemes to address the high defect rates anticipated in end-of-the-roadmap nano-scale, complementary metal-oxide-semiconductor technology.

**Civil**

*Soils Magic*, a book by civil engineering faculty member David Elton, has sold more copies than any other American Society of Civil Engineers’ (ASCE) book, exclusive of conference proceedings. It is used by universities, Boy Scouts, public schools and service organizations to explain inexpensive, simple experiments that often have unexpected results. In the book, Elton teaches the principles of soil mechanics in an amusing and insightful way. His *Soils Magic* experiments have been performed in venues all around the U.S., including the Stardust Hotel in Las Vegas, Nev.

Elton recently was awarded a National Science Foundation grant based on *Soils Magic*. The three-year, $300,000 grant, written with James Hanson of California Polytechnic State University – San Luis Obispo, involves innovative methods and technologies for teaching soil mechanics. Their work will be distributed globally and designed for universal access. *Soils Magic* videos are available on YouTube.

**Computer Science and Software**

CSSE professor N. Hari Narayanan is collaborating with researchers at the University of Wisconsin-Madison, Kansas State University and Bentley College to design a virtual science experimentation platform for middle school science instruction. The project is supported by a $1.5 million grant to the four institutions from the Institute of Educational Sciences in the U.S. Department of Education.

“This project will help introduce students to computational tools. It will also create an advanced physics simulation system, with an interface customized to children for building and running virtual experiments,” said Narayanan, whose research has previously been supported by the National Science Foundation and Office of Naval Research. “We will test the system in schools in Wisconsin and Kansas, and ultimately make it available to science teachers nationwide.”

The project is designed to draw on the strengths of each partner institution. Auburn will lead computer science research and development, leveraging Narayanan’s expertise in human-computer interaction and educational technology. Faculty from the physics education research group at Kansas State will provide domain expertise, while usability testing will be conducted at the Information Design Department at Bentley. Wisconsin’s college of education will deploy and evaluate the system in schools. The researchers hope to carry out several design and test cycles during the three years of the project in order to produce a proven system ready for national dissemination.
that Tippur has developed from previous Department of Defense grants will be used during the research effort.

**Materials**

Jeffrey Fergus, associate professor of materials engineering, has received $420,000 from the Department of Energy to study materials used to improve the performance of solid oxide fuel cells (SOFCs). With additional funding over the next two years, the grant will total almost $450,000.

Fergus’ research stems from recent interest in the development of clean, efficient fuel cells. To date, work in this area has focused primarily on polymer electrolyte membrane (PEM) fuel cells. However, these cells are intolerant of typical impurities, such as carbon monoxide, commonly found in hydrogen fuel. SOFCs work at higher temperatures, making them more tolerant to impurities. The higher operating temperature, however, can also cause materials degradation, the understanding of which is the focus of Fergus’ work.

Jeffrey Fergus, associate professor of materials engineering, has received $420,000 from the Department of Energy to study materials used to improve the performance of solid oxide fuel cells (SOFCs). With additional funding over the next two years, the grant will total almost $450,000.

Auburn University is partnering with Pacific Northwest National Laboratory to improve the performance of SOFCs, which are crucial for use in a wide variety of fuels, including hydrogen, methane, diesel, gasified coal and renewable biofuels, to supplement the use of oil.

**Polymer and Fiber**

Through a grant from the Air Force Research Laboratory, faculty member Yasser Gowayed, along with a team of researchers from the Department of Polymer and Fiber Engineering, is designing and constructing a high-temperature capable, lightweight blades for gas turbine engines. The blades are constructed from advanced ceramic matrix composites (CMC), which can operate 400-800 degrees Fahrenheit hotter and 75-200 pounds lighter than traditional metal engines. Using the blades can reduce fuel usage and engine size, decrease gas emissions, extend range, reduce operational cost and increase payload.

The college is working with Goodrich Company, Rolls Royce North America Technologies and the Southern Research Institute to build physical models of the blades to better understand the material’s mechanical and thermal responses and enhance their load-carrying capacity and resistance to the operating environment.
Each fall, the Auburn Alumni Engineering Council gathers to recognize achievements in the field of engineering. This year, three alumni joined the ranks of Distinguished Auburn Engineers; one received the Engineering Achievement Award while the other earned the Outstanding Young Auburn Engineer Award. In addition, the council also recognized a long-time friend of Auburn Engineering for his special contributions to the field of asphalt technology.

**Superior Service Award**

**Ron Kenyon (1918 - 2008)**

Ron Kenyon was not an Auburn graduate. However, he was a true friend of Auburn, deeply connected to the College of Engineering through the National Center for Asphalt Technology (NCAT). Kenyon was a long-time asphalt contractor and owner of Urbandale, Iowa-based Ronald Kenyon Construction Company. A charter member of the National Asphalt Paving Association (NAPA), formed in 1955, he was an active member of the group, serving on a number of committees and many task forces that were created to address the challenges that confronted the industry. In 1991, he was selected as NAPA Man of the Year for his efforts in founding NCAT. The Ronald D. Kenyon Education and Research Award of the NAPA Education Foundation was established in his name to recognize exceptional research in the industry. The $1 million Ronald D. and Margaret L. Kenyon Endowment for Fellowships in Asphalt Technology was established to provide graduate scholarships for research conducted at NCAT. Kenyon’s award was given posthumously and accepted by Tim Docter, who served with Kenyon on the NCAT and NAPA boards.

**Distinguished Auburn Engineer Award**

**Mike DeMaioribus ’76 and ’77**

Mike DeMaioribus, senior vice president at Huntsville-based Dynetics, Inc., heads the advanced technology division, a unit comprised of almost 200 technical positions, including physicists, mathematicians, scientists and engineers involved in systems analysis, modeling and simulation. DeMaioribus’ résumé crosses a wide variety of areas spanning the field of electrical engineering, from the analysis of transmitters, antennas and signal processors to control systems, passive sensors and guidance computers. He has developed and implemented hardware and software systems; overseen advanced testing platforms; built complex weapon systems models; and is considered an expert at evaluating complex foreign air defense systems, assessing their vulnerability to U.S. tactics and countermeasures. A long-time friend of the college, he serves on the Auburn Alumni Engineering Council and the Electrical and Computer Engineering Industrial Advisory Board and served as a member of the Engineering Campaign Leadership Team. Dynetics’ gift to the college provided support for the student gallery in the east wing of the Shelby Center, an area where students can catch up on homework, study for tests or relax.

**Raymond Loyd ’61**

Raymond Loyd is an inventor and entrepreneur who has found ways to excel in a variety of production-based and service-oriented enterprises. Loyd made his mark early at General Electric, developing three patents that led to improvements in GE’s line of air conditioners, culminating in the launch of Carry Cool, the first air conditioner available for less than $100. In 1976, Loyd founded Derby Industries, later spinning off Derby Fabricating. He is also the partner in several other firms, including Flair Molded Plastics, Global Link Logistics and Purcell Staffing. Throughout his career, Loyd has shown the ability to adapt to new times and markets with new products, competing successfully across three decades as an engineer and businessman in dozens of industries. His ability to run and manage global supply chains,
inventories, assemblies, contract manufacturing, retail packaging and distribution demonstrate a flexibility and focus rarely seen in today’s markets. Last year, he was inducted into the State of Alabama Engineering Hall of Fame for this many contributions to the engineering profession. A member of the Auburn Engineering Eagles Society, he and his wife, Eleanor, have helped numerous engineering students through the establishment of a generous scholarship fund.

Gregg Carr ’87

Gregg Carr, civil engineering graduate, Auburn football player, professional athlete and surgeon at the Alabama Orthopaedic Center, is testament to the fact that engineering can open doors to many professions. While at Auburn, Carr excelled in the classroom and on the field, being named Academic All-American four years running. A member of the Auburn Football Team of the Century and All SEC and All-American football teams in 1983 and 1984, he received the 1985 Cliff Hare Award for the most outstanding Auburn athlete. After graduation, Carr went on to play inside linebacker for the Pittsburgh Steelers for four seasons. He was recently named a member of the Alabama Sports Hall of Fame Class of 2008. The winning attitude he developed on the field and classroom served him well in medical school and now as a surgeon who provides state-of-the-art care for patients suffering from a variety of common sports-related injuries. Carr combines his training in sports medicine, engineering and general orthopedic surgery to provide a total approach to treatment.

Engineering Achievement Award

Raymond Monroe ’76

Raymond Monroe, executive vice president of the Steel Founder’s Society of America, has a reputation for engineering excellence in the metal casting fraternity, and is credited with distinctive engineering achievements that have received national and international recognition. Monroe began his career at the Southern Research Institute in Birmingham as a research engineer conducting groundbreaking work in modeling heat transfer in early desktop computers, as well as testing and modeling ignition and combustion of metals in high oxygen environments. In 1982, his ability as a natural leader able to find reliable solutions to difficult problems earned him a position as research and technical director of the Steel Founder’s Society. Five years later, he joined Saturn Corporation, where he pioneered innovations in the lost foam casting process, which is now used throughout the automobile industry on a global scale. An author of a book on expendable pattern casting, he is recognized as a senior representative of the industry who has been called upon to speak before Congress, advancing research funding for projects vital to the industry. In his current position, his voice is considered one of the most important in the industry.

Outstanding Young Auburn Engineer Award

Mark Spencer ’00

Mark Spencer is chairman and chief technology officer of Huntsville-based Digium and developer of Asterisk, an open source software platform for telephony applications. With more than one million users worldwide, the software was picked by eWeek Labs in 2006 as the most outstanding product available in its segment. Spencer began writing computer code at a young age and while attending Auburn was establishing the nodes that would eventually grow into Asterisk and Digium. Last year, his firm dedicated a 60,000 square foot corporate headquarters to house its 80 employees. Spencer’s parents, who are both Auburn University faculty members, also used the occasion of the award ceremony to announce the establishment of a new fellowship program aimed at recognizing faculty mentors. Thad Roppel, a faculty member in electrical engineering who took Spencer under his wing while he was at Auburn, was named the inaugural winner.
Auburn Engineering alumni and friends, as well faculty, staff and students, gathered on the Kingsley Portico and Courtyard Nov. 8 to celebrate Auburn’s 2008 homecoming football game versus Tennessee-Martin. The alumni barbecue, hosted by the Cupola Engineering Society, entertained guests with balloons, cotton candy, food, face painting and displays from War Eagle Motor Sports teams.
This summer, a towering piece of the Auburn University landscape bid a final farewell when a demolition crew brought down the 150-foot smokestack of the Old Physical Plant. For more than 60 years, the stack stood as part of a steam plant that at one time provided hot water to the entire campus. The facility changed as technology did, starting primarily on coal, moving to coal and gas, and later incorporating an electric precipitator to address the environmental issue of airborne coal dust. The stack was demolished in July to make room for the second phase of the Shelby Center for Engineering Technology.

**BRICK BY BRICK**

**THE STACK COMES DOWN**

Stack Facts

- In 1946, preliminary design for the smoke stack and the attached L-shaped building was prepared by the AU Department of Buildings and Grounds for H.L. Holman, the architect-of-record.

- The facility was constructed by Daniel Construction Company of Birmingham and completed in 1947.

- During its lifetime, the building was used by the Facilities Division, AU Recycling Program and Mail Services.

- The facility housed the last remaining coal-fired boilers on campus. Low-sulfur coal was burned in the fire box, which could take up to 15 people to operate.

- A remote-controlled robot called BROKK, a 9,500-pound demolition device equipped with a 24-inch jaw-like device, was brought in to deliver some of the building’s final blows. Suspended more than 100 feet above ground by a crane, the machine experienced some technical difficulties and contractors were forced to bring down the top two-thirds of the structure by hand.

- After the 150-foot brick smokestack was trimmed to nearly 60 feet or so in height, an excavator and heavy equipment were used to finish the job.

- After demolition, the coal bunkers of the Physical Plant were found to still house several tons of coal. It was recycled, along with bricks and other materials from the site.
Its final days

Photos by Sarah Harriage
Always a driving force, Auburn Engineering finds first gear
By Sally Credille

Alabama’s automotive industry now accounts for 50,000 jobs, more than 90 automotive suppliers and 13 percent of the state’s manufacturing gross domestic product. With the additions of Hyundai, Mercedes and Honda manufacturers, as well as the new $12 billion Kia plant in nearby West Point, Ga., the automotive manufacturing business is becoming a key element in Alabama’s economy. During the past 10 years, the industry has invested more than $7 billion and created more than 35,000 new jobs in the state. Auburn Engineering has set the pace for continued growth by providing quality engineers needed to drive this valuable industry and the state’s economic development.

To better prepare engineers for sought-after jobs in the region’s growing automotive manufacturing industry, the Samuel Ginn College of Engineering now offers a minor in automotive engineering and manufacturing, the first of its kind in the Southeast. The program will provide Alabama’s automotive factories with much-needed employees for mid- and upper-management roles, allowing the plants to become more efficient.

“The minor is designed to specifically prepare students for careers in the automotive manufacturing industry and fill positions that support production processes and improve assembly,” said John Evans, industrial and systems engineering faculty member.

The 15 credit-hour curriculum focuses on vehicle quality, logistics, design and planning by offering undergraduate courses through the departments of Industrial and Systems Engineering and Mechanical Engineering. Coursework is taken during students’ junior and senior years and includes the study of manufacturing systems, vehicle trends and technologies, vehicle dynamics and data decision making using Six Sigma. The Six Sigma strategy identifies and removes the causes of defects and errors in manufacturing and business processes.

“Being able to apply the knowledge I’ve gained from courses and projects I’ve completed will be extremely beneficial to my future,” said Joshua Sadler, senior in mechanical engineering. “In my courses, I’ve been required to design a hybrid race car from start to finish, as well as dissect, study, model, simulate and rebuild an engine. Both of these projects allowed my classmates and me to work collaboratively to confront design and manufacturing challenges and efficiently solve them with the tools available to us.”

Participating students can earn course credit for involvement in student vehicle teams, such as Formula SAE and Baja SAE, which are part of Auburn’s War Eagle Motorsports program. In addition to...
the design process, the teams conduct planning and manufacturing tasks utilized when introducing a new product to the consumer industrial market.

“The teams apply this kind of classroom training to real life by challenging students to design, build and test the performance of their vehicle in a competitive environment,” said Peter Jones, mechanical engineering faculty member and academic adviser for Auburn’s Baja and Formula SAE teams.

Additionally, a master’s degree program in automotive engineering and manufacturing, offered through the Department of Industrial and Systems Engineering, will soon consist of a structured course of study and further research opportunities related to automotive engineering fields.

“From the basics of mechanics governing vehicle performance to the history of automotive manufacturing, students will be better able to coordinate manufacturing practices as we continue to see advances in automotive design and technology here in Alabama and across the globe,” said Evans.

During the 2009-2010 academic year, the college will send a student group to Korea to interact with automotive industry professionals working with Kia on an international stage. It is one of many hands-on experiences the college intends to offer students in the automotive engineering and manufacturing program.

What made you decide to focus on an automotive minor?
I have loved all aspects of automobiles ever since I was a kid. I've always done all the work, like maintenance and customizing, on my own vehicles, as well as for my friends and family. I did a complete rebuild project of a Harley Davidson motorcycle from the frame up when I was 18. As far back as I can remember I have wanted to take the next step and have a professional career in the automotive industry.

How do you see the coursework for the automotive minor being helpful to you in your professional life?
Learning the fundamentals of vehicle design, dynamics and production will give me a great foundation for a career in the automotive industry. The training, knowledge and specific courses of study will provide me a competitive edge over other mechanical engineering graduates. I've also learned a lot about issues that can be associated with automotive manufacturers and suppliers, as well as supply chain management, globalization, product and process improvement, quality control and costs.

What do you hope to gain from the minor courses?
I hope to gain as much experience as possible in the automotive and manufacturing industry. While taking the vehicle design and engines classes, I've worked on projects that have required us to dissect, study, model and simulate certain components of an automobile, as well as execute decision making for processes frequently used in the manufacturing side of the industry. Because I've learned so much in the minor classes, I'm really looking forward to putting all of it into practice on a day-to-day basis after graduation.

What are your plans after graduation?
I would like to jump right in and work full time for a major manufacturer or supplier to the automotive industry. I am also considering graduate school at Auburn to hone my skills and further explore what I've learned about automotive engineering while earning my master's degree.
For generations, Auburn Engineering faculty members have translated the unknown into the known. They have engaged students in critical thinking and presented young minds with knowledge that would one day become innovative technology. From early academicians disseminating handwritten calculations on a black board, to professors with classes full of former GI’s, to modern day teachers who instruct using a world of pioneering technology, our faculty are the instruments through which we equip tomorrow’s leaders. And the demand for those who do it best remains quite high.
The Samuel Ginn College of Engineering continues to find itself in stiff competition with other top engineering institutions to attract and keep the world’s foremost engineering teachers and researchers. As the college continues its quest to become one of the nation’s elite engineering programs, a major priority will be building a faculty of top scholars who have set themselves apart as experts in their field.

**An Unprecedented Initiative**

Auburn University, in keeping with its strategic plan, has recently developed a new endowed professorship program that calls for the creation of 81 new professorships across campus. At least 13 of these professorships are allocated for engineering, with the potential for more if the college can raise the necessary funding.

The university has agreed to match the annual earnings, up to $7,500 each year, generated by faculty endowments established from Oct. 1, 2008 through Sept. 30, 2009. This means that the equivalent of a $300,000 endowment can be created with a gift of only $150,000 — essentially, half price.
Here is how it works:

- Your individual or corporate gift establishes a named professorship endowment with a contribution of $150,000 payable over a three-year period—half the amount normally required.

- The university matches the earnings produced by the endowment, up to $7,500 annually, in perpetuity.

- Once Auburn Engineering has secured 13 professorships through this initiative, additional endowed professorships may be allocated by the president.

- These professorships will help the college attract and retain exemplary, tenured full or associate professors.

- Gifts to this professorship program must be committed by Sept. 30, 2009.

- Pledges must be fulfilled within three years or no later than Sept. 30, 2012.

An investment in faculty support is a significant opportunity for our alumni and friends to share the vision for superior engineering education. These gifts provide a reliable source of funding for faculty positions, including salary enhancements, research support, technology tools and professional development.

Auburn Engineering is determined to be at the forefront of this initiative. One of the college’s highest priorities is building a strong and dynamic faculty. This program will not only allow us to recruit outstanding faculty members, but will also provide a means for retaining current faculty who have demonstrated outstanding academic achievement.

“This unique professorship program comes at a critical time for Auburn Engineering. As we continue to rise in national rankings and enhance our reputation for quality engineering education and research, securing the world’s foremost engineering faculty is the college’s top priority,” says Larry Benefield, dean of engineering. “The university’s willingness to provide additional funding for these professorships testifies to their importance.”

Academic Excellence

Auburn University’s strategic plan also calls for increasing the number of faculty who are members of national academies, in particular, the National Academy of Engineering and the National Academy of Sciences. This effort, according to President Jay Gogue, is what distinguishes leading national universities, helping them attract the best students as well as other quality faculty.

This fall, the Samuel Ginn College of Engineering welcomed the university’s first NAE member, Oliver D. Kingsley Jr., a 1966 honors graduate in engineering physics. He enjoyed a distinguished career in the nuclear industry, culminating in positions as president as well as COO of Exelon Corporation and as CEO of Exelon Generation. As president of the World Association of Nuclear Operators, he is internationally recognized as a leader in transforming and revolutionizing the operation of nuclear power plants in the U.S.

“Mr. Kingsley brings to Auburn a double distinction,” said Gogue. “He combines a stellar career leading top organizations along with
In the Trenches

According to an April article in the Chronicle of Higher Education, “Public Colleges Fight Raids on Faculties,” decreasing state budgets and a shaky economy have resulted in public colleges and universities having to fight wealthier institutions for premier faculty members. This battle is being fought not just with salaries, but also with promises of increased lab space, improved equipment, operational funds and additional graduate students and support staff.

In an effort to keep top faculty, institutions are incorporating pre-emptive measures. These include creating supportive research and teaching environments, recognizing and rewarding key faculty members before recruiters come calling and systematically seeking private funding. When all else fails, universities are even making counteroffers to those professors who are courted by other institutions.

The faculty retention battle is not likely to end soon. Top senior faculty help significantly with the recruitment of junior faculty as well as students. Institutions determined to maintain the best faculty and, subsequently, a quality student body, will have to find ways to stay in the competition. It is simply the cost of doing business in the contemporary academic world.

Oliver D. Kingsley

In his new role, Kingsley will head the college’s efforts to identify and recruit members of the national academies to Auburn’s campus. “[Oliver’s experience and reputation are sure to bring a great deal to our program,” said Benefield. “His knowledge of the field of engineering, as well as his personal connection to the national academies, make him ideally suited to help bring new distinguished faculty members into the college.”

“I am proud to have the opportunity to enhance the College of Engineering’s reputation for providing a quality engineering education,” said Kingsley. “Our goal is not only to increase our number of NAE faculty members, but also to strengthen industry partnerships and research initiatives.”

Kingsley has received every major United States and international award available to professionals in the civilian field of nuclear energy. He holds the prestigious Walter Zinn Award of the American Nuclear Society, the World Association of Nuclear Operators’ Nuclear Excellence Award for his work in transforming troubled nuclear programs into sustainable organizations and the William S. Lee Award from the Nuclear Energy Institute for outstanding lifetime contributions to the U.S. nuclear industry. He is also a member of the State of Alabama Engineering Hall of Fame.
Auburn Engineering Climbs in Rankings

By Cheryl Cobb

*2008 28th
2007 34th
2006 35th
2005 40th

"2009 U.S. News and World Report “America’s Best Colleges” (data published in August 2008). Engineering programs at public institutions whose highest degree awarded is at the doctoral level.
And the rankings are in . . .

Each year, colleges and universities across the country wait expectantly for the big dog in the rankings game — *U.S. News & World Report* — to announce the latest undergraduate and graduate rankings. While academics may argue over the methodology behind the rankings, they also know that, on average, half a million prospective students will check the rankings before choosing where they will head to college.

“The pros and cons of these and other rankings have been argued for years,” says Dean Larry Benefield. “We recognize that rankings are not an absolute measure of the quality of a program or institution. However, when used with other measures, they are a useful tool because they reflect performance, as well as perception.”

And if the last few years of rankings are any indication, Auburn Engineering undergraduate and graduate programs are doing well on both counts.

In 2008, Auburn’s undergraduate program was ranked 51st nationally and 28th among public universities that offer doctoral programs in engineering, moving up from 57th and 34th the previous year. In fact, the trend for the past few years has been a positive one.

The rankings for the college’s graduate program also increased — moving up three spots for public institutions and one spot among all engineering schools, compared to the magazine’s previous survey.

The magazine also ranked graduate programs in seven of the college’s departments. Those departments and their rankings against other public institutions were: aerospace, 23; chemical, 32; civil, 33; computer science and software, 33; electrical and computer, 30; industrial and systems, 15; and mechanical, 40.

2007 research expenditures

$54,754,000

A concerted effort to increase awareness of its achievements, as well as the accomplishments of its faculty and students. At the same time, implementing a strategic plan to move the college to the next level.

“I believe this year’s rankings are evidence that all of these efforts are paying off,” he says.

That’s because reputation matters when it comes to recruiting students and faculty, as well as attracting extramural funding. “The latest figures from our admissions office and the American Society of Engineering Educators reinforce this. For instance, the average ACT/SAT scores for our engineering students are the highest ever, as is the college’s extramural funding,” says Benefield.

“We’ve almost completed a major upgrade of our facilities and are now working to enhance our professorship and graduate fellowship offerings,” he adds. “In addition, program enhancements, such as the launch of the nation’s only wireless engineering degree and a new automotive minor are helping to ensure that our college and its graduates remain competitive in today’s fast-changing global environment.”
SC: Thank you for joining me today gentlemen. You've both been here for . . . well, awhile. How long have you both been at Auburn?

Irwin: I was an undergraduate here and got my bachelor's degree in '61. Then I did my graduate work at UTK [University of Tennessee at Knoxville] and graduated in '67. I went on to the Bell Telephone Laboratories in Holmdel, New Jersey after that and loved it. I was surrounded by brilliant folks there. In fact, I was probably the dumbest one there. But, I knew I wanted to go into teaching so I came back to Auburn in '69.

Dyer: And I got my undergraduate degree from UT and then did my graduate work at Georgia Tech. I came to Auburn when the university offered me a job in '65.

SC: Were things really that different back then?

Irwin: I think they were. Three years after I joined the Auburn faculty I became the department head [Electrical and Computer Engineering]. As far as the mode of operations goes for departments, we had complete freedom back then. It's a totally different ball game now. There are so many projects going on at any given time today that we have many more restrictions and guidelines to follow.

Dyer: I would agree, in that the department units were much more independent in those days. They operated without much regulation. Today, the expectations of faculty are much higher. I can remember some of the old ME guys who would play golf at least once a week. There isn't much time for that these days. The teaching loads were much higher back then. I can remember teaching three classes every quarter plus doing research.

SC: How has the engineering curriculum changed over the years?

Irwin: ECE was 240 quarter hours. I'll let you think about what that translates to in semester hours...

SC: (I'm certain I have a blank look on my face that tells him I'm not sure.)

Irwin: Alright, I'll just tell you that it's a lot less today. A lot of alumni will tell me, "we took so many more hours in our day." But I remind them that, today, it's like trying to take a sip of water from a fire hose, with the technology, Web and fast-paced information exchange available to students.

Dyer: As we move into the present, there's a lot that's new for students and faculty to master. There's less time to do more.

Irwin: Do you know that there was a math professor here and he taught over in old Broun Hall auditorium when I had his class. Jude Robinson. He was unbelievable. Nobody could teach like him. I think I had him for calculus or some such class. But there were 115 of us in there, which was huge for back then. But he could hold our attention. He was good.

Dyer: I can remember teaching the same course three times... and you’d forget where you left off in the lecture.

Irwin: That happened all the time. I'll tell you a story about forgetting where I left off. I once taught a 7 a.m. class in Haley Center because I said, “I’m not going to make one of my faculty teach this early over there if I wouldn’t do it.” So I’m teaching class one day and it's real quiet and all of a sudden I feel this tug on the bottom of my coat. There it is again, the tug. I turn around and would you believe there was a goat in that classroom, tugging and chewing on my coat? I swear it.
SC: A real, live goat inside Haley Center? (Now Dyer just laughs and nods, as though he knows that probably isn’t the first time, or the last, that a farm animal has seen the inside of an Auburn classroom against its will.) What did you do?

Irwin: I told that goat to get the out of here. I’m sure one of my students dragged it in there.

SC: Well, I think I’ll skip my next question, “Do you have interesting classroom stories to share?” Dr. Dyer, no animals in your classroom?

Dyer: No, no. I’m afraid not.

SC: How have the engineering facilities and laboratories changed over the years?

Irwin: We certainly have fancier labs now, that’s for sure, with more sophisticated equipment.

Dyer: With ME, back when we started with the machine shop and students would make castings, it was very hands-on. Then there wasn’t as much from about the ’70s to the ’90s. There was more of a focus on manufacturing. Now, we’re focused on students learning the theory and practice together with lecture and labs. It’s hard with the reduced number of hours, which limits that.

Irwin: It’s dictated by technology now. And students of all engineering majors working together to solve problems. When I was with the Bell Labs, we’d all sit around a table and say, “communication is our most important problem.” We weren’t talking about telephones. Now we stress the importance of communication and collaboration to engineering students from the beginning.

Dyer: We’re emphasizing teamwork and communication for students. All the curriculums are centered on it now. Also, the cost to maintain labs and do the upkeep has skyrocketed.

Irwin: It takes a great deal of funding to support labs, their research and the equipment in them. Another thing I’ll never forget is spending 30 hours writing lab reports.

SC: It seems to me that it’s always good to see how far you’ve come when it’s time to move forward. Why do you feel it’s important that we celebrate the college’s centennial this year?

Irwin: We have a lot of outstanding alumni and graduates who have left behind big shoes to fill. All of our students have been well prepared to become just as successful and go out into the world to follow in their footsteps and share what they learned at Auburn.

Dyer: It’s important to remember that nobody is standing still. Everyone is out recruiting top students and faculty members. We have to keep working to build the reputation of the teaching and research and the quality of the degrees from Auburn. And we need to continue to grow the funding for endowed professorships and scholarships for the future.

SC: What’s in store for you both in the future?

Irwin: I’ve picked out my office on the fourth floor, about as far away from the main office as possible. I’ll be teaching and writing some books. I’ll also be working with the Engineering Development Office to help continue to raise funds to support the college.

Dyer: I was recently on the search committee to find the new ME department head, Jeff Suhling, because my term limits have expired. I plan to teach and work on a few undergraduate initiatives, like the 2+2 program that brings in engineering students from India to finish their last two years at Auburn. I’m also working with an outside non-profit group to bring more scholarships and fellowships to Auburn.
The Samuel Ginn College of Engineering at Auburn University will host the 2009 Baja SAE Alabama competition, April 16-19. This premier engineering student design competition, sanctioned by the Society of Automotive Engineers (SAE), will feature 100 collegiate teams from across the U.S., Canada, Mexico, India and Venezuela. This is the second time Auburn has hosted the competition.

Each university’s team must design and build, from scratch, a single-seat off-road race car. Teams will be judged for their vehicle design and manufacturing plan, and must then demonstrate their vehicle’s speed, traction, and maneuverability across demanding terrain. The last day of the competition will feature a four-hour, wheel-to-wheel endurance race.

Visitors are welcome, so add the date to your calendar and secure a volunteer spot by signing up online.
The 2008-2009 academic year marks the Samuel Ginn College of Engineering’s centennial as an official college at Auburn University. This year, we celebrate a long history of innovation and achievement, as well as a vision for the future. As Alabama’s largest and most prestigious engineering school, Auburn Engineering graduates continue to have a profound impact on the state and nation.