Madsen Wins Oscar For Film Technology

An AU faculty member has something in common with Clint Eastwood, Jamie Foxx and Hillary Swank. Each won an Oscar in February’s Academy Awards ceremonies.

Nels Madsen, an associate professor of mechanical engineering in AU’s Samuel Ginn College of Engineering, shared this year’s Oscar for technical achievement with three software designers in the entertainment industry for a breakthrough that produces realistic motion in animated scenes and special effects.

The results of their work can be seen in such major motion pictures as “The Lord of the Rings” trilogy and “The Polar Express” in which the motion of computer-drawn characters mimic the movements of actual humans. Madsen and computer scientists from Motion Reality Inc. (MRI) developed the technology that made the characters motion more fluid and lifelike than animated characters of movies in the past.

Motion capture is the recording of movement – from simple change in body position to complex contortions of the face and muscle masses – for real-time or delayed analysis. Markers placed on a subject enable multiple video cameras to monitor movement. The video images are digitized, the markers are recognized and a three-dimensional computer model of the subject is derived.

Madsen shared the award with co-inventors Vaughn Cato, Matthew Madden and Bill Lorton. The three for-

Alum Named Press Secretary To Laura Bush

Susan Dryden Whitson, a 1991 Auburn graduate, has been tapped by Laura Bush as press secretary in the Office of the First Lady.

Whitson most recently served as the deputy communications director for the 2004 Bush-Cheney campaign, where she was the spokesperson for the First Lady’s twin daughters, Barbara and Jenna.

Prior to joining the campaign, Whitson was the chief of the FBI’s National Press Office and was the key spokesperson for the FBI director. From 2001-2002, Whitson was the deputy director of the Office of Public Affairs.

Senate Confirms Ginn To BOT

The Alabama Senate confirmed the appointment of Samuel Ginn to the AU Board of Trustees on Feb. 17.

Ginn, who became an AU trustee immediately upon confirmation, will take his seat on April 22 at the next meeting of the board.

The State Senate voted unanimously for Ginn’s appointment on a recommendation by the Senate’s Confirmations Committee, which also unanimously approved the appointment.

Auburn’s five-member trustee selection committee, headed by Gov. Bob Riley, selected Ginn in January to fill the at-large position on the AU Board previously held by Golda McDaniel, whose term expired Dec. 31, 2004.

Ginn, the namesake for AU’s College
Message from the President

Dear Auburn Friends and Supporters,

Over the course of the next several months, Auburn University will begin to implement a comprehensive strategic plan designed to establish diversity among its core values at all levels of the institution.

Put more simply, Auburn will soon begin to pursue increased diversity among faculty, staff and students in a more organized fashion and with the benefit of certain established goals by which it may measure its success.

However, it is important for all to know that the journey is not just beginning. For some time now, this university has known where it wanted – needed – to go and we have been moving generally in the right direction.

Our path to a more diverse Auburn — and to a culture that is more respectful of that diversity and its necessity in an increasingly global society — will not always be easy. Auburn will likely take baby steps before it can begin to take leaps. The competition for qualified minority students, faculty and administrators is fierce. Colleges and universities throughout the country are beginning to realize the benefits of diversity to their missions and to seek out the best qualified, most motivated minority students and faculty. But, as more and more African American students populate our campus, as more and more women are given positions of authority, the pace of increasing diversity should gain momentum.

Auburn is well positioned with regard to implementing its diversity plan. AU has hubs for diversity-related activities in place in both the Provost’s Office and its Center for Diversity and Race Relations. Also, the university now has staff among its recruiters who work specifically to recruit qualified minority students.

Already, the university has in place programs in the College of Engineering, College of Education and College of Sciences and Mathematics that are designed to increase the chances of success for minority students. The BellSouth Minority Engineering Program in the Sam Ginn College of Engineering has proven particularly effective. In 2004, thanks largely to this program and the helping hand it offers minority students in the early phases of the engineering curriculum, Auburn ranked 17th nationally in graduation of African Americans with bachelor's degrees in engineering – ahead of such schools as Ohio State, Virginia Tech, Purdue and Stanford.

There are also efforts to attract and retain qualified minority faculty already in place at Auburn. AU’s College of Business participates annually in the Ph.D. Project, a program that is designed to increase the diversity of its faculty by attracting African Americans, Hispanic Americans and Native Americans to business doctoral programs and that provides support while they are enrolled.

All of these programs are exemplars for AU schools and colleges that have not yet taken equal steps.

Recently, AU’s Athletics Department completed a thorough reorganization designed to more clearly define lines of communication and chains of command. The changes made in athletics were based on sound management principles. Unfortunately, three jobs were eliminated, including two held by African Americans. At the same time, however, an African American, Virgil Starks, was named a senior associate athletics director, a position immediately below that of athletics director, making Starks the highest ranking African American ever in the department.

In fact, when the reorganization was complete, women and minorities held a full 44 percent of non-clerical positions within the Athletics Department. Of Auburn’s eight upper-level athletics administrators, two are African American and two are women.

It is my sincere hope and belief that, where this “controversy” is concerned, cooler and more deliberative heads will prevail. Auburn can and will reach its diversity goals. Now, with a strategic plan that contains both action items and clear goals nearing endorsement, we can continue our journey.

We know where we need to go. We know why we need to go there.

Now, we have a map.

War Eagle,

Ed Richardson
AU Joins UAB In $18 Million Heart Disease Study

Auburn researchers will collaborate with University of Alabama at Birmingham medical scientists as part of an $18 million National Institutes of Health grant for research into congestive heart failure.

Researchers in AU’s College of Veterinary Medicine and Samuel Ginn College of Engineering will work with UAB researchers in a Specialized Center of Clinically Oriented Research program at UAB for five years to focus on NIH-funded studies of heart disease.

Veterinary medicine researchers said the research has direct clinical implications for their college because mitral valve disease is more common than all other canine heart diseases combined.

“We have developed new therapeutic strategies to immediately improve the quality of life of dogs with heart disease,” said Ray Dillon, Jack Rash Professor in the College of Veterinary Medicine, where he is that college’s principal investigator on the project. “When we started some of these projects 10 years ago, we had to send the MRI data to an engineering group in New Zealand for computer analysis.”

Now, Auburn has developed the technology and expertise to produce the images and analyze the data on campus.

The image data go to Thomas S. Denney, professor of electrical and computer engineering in the Ginn College of Engineering, for analysis. Denney has developed techniques for quantitatively measuring how much the heart muscle contracts and other indicators of cardiac health from cardiac MRI data. Researchers say this analysis, combined with serial MRI scans, is expected to greatly enhance their understanding of the heart’s response to disease.

The UAB-AU research targets three types of heart failure: medication-resistant hypertension, diabetes and valvular heart disease. Preliminary research has shown that these three types of heart disease are resistant to standard medical treatment and account for more than 50 percent of patients with heart failure.

“Understanding these mechanisms could lead to new treatments for those living with chronic heart disease,” said Louis J. Dell’Italia, lead researcher on the project at UAB.

Heart failure, with more than 500,000 new cases each year in the United States, affects more than 4.7 million people nationwide. Since heart transplants are the only known cure for heart muscle disease, the NIH is seeking more knowledge that could lead to a less traumatic and more accessible cure for more people.

In Parts Of The South
Study May Lead To Brighter Spring Colors

Ken Tilt, a professor of horticulture in Auburn’s College of Agriculture, is leading a study that may soon add a rainbow of colors to Alabama’s springtime landscape.

It’s the AU Peony Project — a quest for peony cultivars that can take the heat and humidity of the South.

While peonies, with their large, fragrant flowers and lustrous dark-green foliage, long have taken center stage in many a northern garden, Alabama’s mild winters and extreme summers have for the most part stymied generations of gardeners’ attempts to grow them here. But through the peony project, a number of Asian cultivars are showing tremendous potential for this region.

Seeds for the peony project were sown four years ago, when Tilt and fellow AU horticulture professor and Alabama Agricultural Experiment Station scientist Jeff Sibley, on a plant expedition to China in search of heat-tolerant ornamental plants for Southern landscapes, spotted large plantings of peonies in the botanical gardens of Wuhan, China.

“We were surprised to see them there, because Wuhan’s climate is comparable to that of Alabama, where, except for a few fringe varieties, it’s a given that the cultivars traditionally available in the U.S. won’t perform,” Tilt said.

In 2003, on a return trip to Wuhan, Tilt and Sibley collected several of the Chinese cultivars to bring home and test in the Southeast’s notoriously hot, humid climate.

Today, they are evaluating close to 50 different garden peonies at locations from Brewton in southwest Alabama up to Charleston, S.C., looking for Chinese cultivars that are heat-tolerant and that require minimal chill hours, or hours with temperatures between 32 and 45 degrees Fahrenheit, each winter for flower buds to develop properly.

The trial plantings in the AU Peony Project include the cultivars Tilt and Sibley brought back from Wuhan and a few supplied by nurseries across the country. The lion’s share of the cultivars, however, came from the purchase of a Georgia importer’s substantial private collection of Chinese and Japanese garden peonies.

Birmingham gardening enthusiasts Bill and Faye Ireland provided a major part of funding for the AU Peony Project.

Besides the mass peony acquisition, the Ireland donation supports research into both the genetics of more heat-tolerant cultivars and tissue-culture propagation, in which hundreds of disease-free clones can be produced from a small piece of a desirable cultivar. The graduate student conducting most of that research, a native of Shanghai, is the liaison between Wuhan and Auburn in efforts to identify additional peony cultivars with the potential to grow in nurseries and landscapes across the South.

Other AU researchers in the peony project are working to identify the ideal growing conditions, including soil type and orientation in the landscape, for successfully establishing peonies in Southern gardens.

www.auburn.edu/commons  Auburn COMMONS
AU Testing Success Of Anti-Stuttering Device

Auburn student Neely Phillips began to cry, her mother began to cry, even the clinician who inserted the anti-stuttering device into the young woman's ear began to cry. There wasn't a dry eye in the room as words flowed effortlessly from her mouth, without a trace of the stuttering problem she has struggled with all her life. Neely and her mother hugged each other as tears trailed down their cheeks.

All this took place recently at AU’s Speech and Hearing Clinic, where department chair and researcher Lawrence Molt is studying the long-term effectiveness of a device with the trade-marked name “SpeechEasy.”

Molt is seeking up to 22 more people with stuttering or stammering problems to test the device, which was developed at East Carolina University and is marketed by the Janus Development Group Inc. He also needs a control group of 10 people with normal speech. Study participants must be at least 16 years old.

Since not everyone benefits from the device, Molt performs an initial test with each volunteer to determine whether to proceed. “The device has to give some type of benefit with their speech,” he said.

“So far the first three have asked to keep the demo device,” he added.

Molt said his study will help answer a major question regarding the device: Over the course of a year, does it continue working? After receiving the device, participants return for checkups after one month, three months, six months and one year.

“As long as they continue in the study, clients can keep the device free of charge, providing they come back once a year,” said Molt. Each device costs a little more than $5,000. Janus is providing 35 high-end “SpeechEasy” devices.

Although the current application is new, it is based on technology that has been around for more than 50 years, Molt said, but earlier devices were large and cumbersome.

The device Molt is testing is so small that it fits almost entirely in the ear canal, with only a small portion visible. “It delays speech by a fraction of a second with Delayed Altered Feedback, and the Frequency-Altered Feedback changes the perceived pitch of the voice,” he said.

Speaking fluently is something that most people don’t even think about, but it is actually quite complicated, Molt said.

“For each sound that comprises speech a person uses 100 pairs of muscles. In one second of speech the mouth has to assume 12 different positions, each influenced by the sound preceding and following each sentence,” he said.

“Speech production is probably the most complex coordinated motor activity you are ever called upon to perform,” Molt said.

New and future developments in the field may help end the sense of isolation that many stutterers have, he said, adding, “I am encouraged because of what I have seen.”

Persons interested in joining the study may call AU’s Department of Communication Disorders at (334) 844-9600 or e-mail moltlaw@auburn.edu.
Leischucks Endow Awards For Top Teachers

Auburn has launched a new presidential awards program to recognize and reward the university’s best teachers through a major endowment from two emeritus senior administrators.

Later this year, interim President Ed Richardson will present the inaugural Gerald and Emily Leischuck Endowed Presidential Awards for Excellence in Teaching, which include a $10,000 stipend with each award.

The annual awards will go to two full-time, tenured faculty members who have demonstrated effective and innovative teaching methods and a continuing commitment to student success through advising and mentoring inside and outside the classroom. At least one award will recognize undergraduate teaching.

Network Gets Grant For Studies

The U.S. Department of Education awarded a $550,000 grant to an Auburn-affiliated network to aid in educating history teachers for elementary and secondary schools.

The grant goes to the Persistent Issues in History Network directed by John Saye of the AU College of Education and Tom Bush of Indiana University.

Teams led by Saye and Bush will use the funds to develop case studies to show teachers leading students through lessons involving historical inquiries.

“The long-term mission of the PIH Network is to change the way history is taught,” Saye explained. “We want to make it much more hands-on so students will understand history is a tool that helps them make more informed decisions today.”

Although the Leischucks had professional careers in administration at Auburn, both are former teachers who came to AU in pursuit of graduate degrees in education. Emily Leischuck taught in Prattville and Auburn City Schools, and Gerald Leischuck taught in Colorado and California public schools.

Gerald Leischuck said the endowment is an outgrowth of an early and ongoing interest in the quality of teaching in general and especially for AU students.

The presidential awards are the second set of awards for quality of teaching at AU named for the Auburn couple. The top two teaching awards in the College of Education are partially funded by the Leischucks; those awards go annually to one faculty member each for undergraduate teaching and for graduate instruction.

The presidential awards are the second set of awards for undergraduate teaching and for graduate instruction.

USA Today Names AU Students To All-USA College Academic Team

Two Auburn students were named to USA Today’s All-USA College Academic Team.

Caesar Garcia, a senior in the Samuel Ginn College of Engineering, was named a member of the Academic All-Stars First Team. He is the only student from a college or university in Alabama to be selected for the first team.

Joshua Jarrell, a senior in the College of Sciences and Mathematics, was selected for the Academic Second Team.

Started in 1996, the USA Today program honors 60 undergraduates as representatives of all outstanding students at the nation’s colleges and universities, with 20 members each on the first, second and third teams. Another 24 students receive honorable mention.

A mechanical engineering major with a 3.91 grade-point average, Garcia is also a championship diver and member of AU’s varsity swimming and diving team. Last summer, he represented the U.S. at the 2004 Olympics. He also won back-to-back NCAA titles on the platform and won the SEC title in the same event in back-to-back seasons and was named the 2004 NCAA Diver of the Year.

Garcia was named AU’s Outstanding Mechanical Engineering Student of the Year in 2003. The Louisiana native is a member and executive chair of the Cupola Engineering Society and is active in the Catholic Student Organization.

Jarrell is a senior majoring in applied mathematics from Richmond, Va. With a 3.93 overall grade-point average, Jarrell has maintained a perfect 4.0 in all his mathematics classes.

A member of the Army Reserve, Jarrell was on active duty in Iraq from May 2003 to May 2004. He is the youngest staff sergeant in his unit.

Named the 2003 Auburn Mathematics Department Outstanding Junior, Jarrell was also named to the 2002-03 National Deans List, which represents approximately 1 percent of U.S. undergraduates.

Visit AU Alumni’s Online Community And Join The AAA

The Auburn Online Community (AOC) is a service to AU alumni and friends that allows members to log in securely and access online services such as updating address information, finding friends from Auburn University, enabling a permanent e-mail address and more. Check www.aualum.org for more information.

Members have been vital to the Auburn Alumni Association throughout its 108-year past. To learn about all the benefits of being a member, visit www.alumni.auburn.edu/
Mer MRI software designers are now at Giant Studios, an MRI affiliate that licenses technology to Hollywood studios. The design team received the award in a ceremony in California two weeks before Oscar Night on Feb. 27.

"What I believe the Academy is recognizing us for, what we do so differently than other groups in this area, and why the recognition is for software, is the utilization of marker location," said Madsen, adding that the traditional use of markers is to construct a stick image of the subject by placing markers on each joint.

Madsen said the traditional approach was unsatisfactory for many animators and filmmakers. "You can’t capture subtle movement because you get a lot of incompatibilities," he explained. "The body is not connected together very well."

Atlanta-based MRI takes a systems approach that enables a more comprehensive capture of motion. More markers in more places on the body are viewed simultaneously, and the software uses fundamental knowledge of body movement to deduce the most likely associated human configuration. Madsen said this approach to the body as a single integrated system as opposed to a collection of unrelated elements enhances accuracy and real-time performance. The software also enables captured human motion to be applied to an animated character, making the character more visually appealing.

"You can use human motion to drive a model of something else," Madsen said, "opening the door to all kinds of things you don’t get with the marker-by-marker, point-by-point approach."

Madsen said these software features helped prompt director Peter Jackson to hire Giant Studios for work on "The Lord of the Rings" trilogy, which won an unprecedented three consecutive Academy Awards for visual effects. The third installment, "The Lord of the Rings: The Return of the King," also earned the Academy Award for Best Picture in 2003.

Nels Madsen was a key player on a software design team that won an Oscar for advancing the technology of film. The black-clad batter in the background sports strategically placed lights in a process that provided the breakthrough in film technology.

Auburn Magazine has a new editor. Betsy Robertson, formerly of Georgia State University, assumed the reins of Auburn’s alumni magazine on March 1. She succeeds Mike Jernigan, who retired in 2004 after 10 years at the magazine.

Robertson was instrumental in establishing Georgia State Magazine in its current format in 2001 and was the magazine’s executive editor in addition to other duties as assistant director of the Department of University Relations. She had held that position at the university in Atlanta since 2000.

A 1989 graduate in journalism from the University of Georgia, Robertson is pursuing a master’s degree in communication from Georgia State.

Robertson said she has no immediate plans for major changes in the quarterly publication, which is mailed to 43,000 dues-paying members of the Auburn Alumni Association.

A pioneer in the wireless communications industry, Ginn is among the most prominent advocates of that emerging global industry. The Alabama native began his career with AT&T in 1960, and by 1977 he was vice president of network operations for AT&T Long Lines. In 1978, he became vice president of Pacific Telephone.

Sensing the potential for wireless communications, he led the AirTouch communications company through a spin-off from the Pacific Telesis Group in the early 1990s and a merger with Vodafone later in the decade. He retired as chairman of Vodafone in 2000 and has remained active in the industry as an investor and adviser to start-up ventures.

Betsy Robertson New Editor At Auburn Magazine

Auburn Magazine
The Auburn Alumni Association presented awards to four Auburn professors for teaching and minority achievement at a reception March 4 at the Auburn Alumni Center.

Juan E. Gilbert, a professor of computer science and software engineering, is the 2004-05 winner of the Association’s Minority Achievement Award, which recognizes his efforts in recruiting, mentoring, retaining and graduating minorities and women at Auburn.

Gilbert, who joined the College of Engineering at Auburn in 2000, has attracted national attention for his development of software to aid admissions professionals in achieving a more diverse student population. Among other honors, Gilbert has been cited by Black Issues in Higher Education as one of the nation’s top African-American scholars.

Winners of the Undergraduate Teaching Excellence Award for 2004-05 are Jack B. Brown, a professor of mathematics and statistics in the College of Sciences and Mathematics, which he joined in 1967; William J. Moar, a professor of entomology and plant pathology in the College of Agriculture, where he has been on the faculty for 14 years; and Christine A. Sundermann, who is a professor in the College of Sciences and Mathematics’ Department of Biological Sciences and has been an AU faculty member since 1984.

The annual Undergraduate Teaching Excellence Awards recognize Auburn faculty members for their quality of teaching, knowledge of their subject, interest in and availability to students and influence within the university.

The Alumni Association will also award Alumni professorships to five other faculty members, bringing the total to 25.

Henton Gives Keynote Address On AU's Role In 'War On Hunger' At Conference In India

June Henton, dean of AU’s College of Human Sciences, discussed Auburn’s role in the global “War on Hunger” in the keynote address at a United Nations-affiliated conference in India.

Henton spoke at the inaugural session of the Global Compact Regional Conclave in the Indian city of Jamshedpur.

Launched by United Nations Secretary General Kofi Annan in 1999, the Global Compact brings together business leaders from around the world to discuss initiatives such as human rights, labor, environmental responsibility and anti-corruption. The Global Compact, with more than 1,800 participating companies, is the largest corporate-responsibility initiative in the world.

The theme of the conclave was “Key to Business Sustainability: Reducing Poverty, Fostering Entrepreneurial Development and Employment.”

Henton’s remarks on corporate social responsibility and business sustainability focused on the role of the college, university, state and nation in fostering social responsibility and sustainability through educational, research, and outreach programs. A key component of her presentation was the AU/UN World Food Programme partnership featuring Auburn’s student-led World Food Programme Initiative.

“We face a great challenge in higher education to help students better understand the issues of sustainability facing us today which have the potential to do irreparable harm to us as individuals and to the world community,” Henton said.

“By participating in this international forum focused on corporate social responsibility, I had a unique opportunity to showcase to the world what Auburn students have worked so hard to achieve in the ‘War on Hunger’ campaign and what they hope to accomplish in the future,” the Human Sciences dean added.

Four Receive Awards From Auburn Alumni Association

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As the new south wing of the W.W. Walker Building takes shape, construction crews work on the connection between the pharmacy building and the 44,000-square-foot wing. A wing on the north side of the building will add another 9,900 square feet.
The AU Marching Band braved light snow and cold temperatures in Washington, D.C., to march in the parade following the inauguration of President George W. Bush. AU’s 320-member marching band was the only one from Alabama invited by event organizers to participate in the parade. Auburn’s band also marched in the inaugural parade in 1989 for President George H.W. Bush.