David Scobey was inducted into the State of Alabama Engineering Hall of Fame during ceremonies in Huntsville in February. The Nashville native received his bachelor's degree in electrical engineering from Auburn in 1978. He began his 25-year career with BellSouth Communications in 1977 as an intern, becoming a network engineer after graduation.

In 1998 he rose to president of BellSouth Long Distance. Taking off into this billion-dollar market, with a vision backed by the planning he required, Scobey secured a launch of significant proportions as BellSouth claimed 40 percent of the market within two years.

He was named vice president of product commercialization in 2000 and became president of BellSouth Small Business Services in 2001. He turned a six percent decline in revenue into an industry-leading six percent revenue growth, gaining DSL customers at an annual average growth rate of more than 30 percent and dramatically improving annual line loss. His attention to customer needs — delivered in person as well as in policy — led his Small Business Services team, which served 900,000 customers, to three J.D. Power and Associates awards.

In 2005, Scobey was named president of Retail Markets, giving him the opportunity to focus on residential and small-business customers.

A graduate of the Advanced Management Program at Harvard University, he has also participated in the development of resources for small business owners. In 2003, working with the U.S. Small Business Association, he authored the guidebook "Surviving and Thriving in Today's Economy" to help small business leaders succeed in today’s marketplace. In 2005, he partnered with national bookseller The Approved Group and other corporate executives and managers to publish "The Customer-Approved Small Business" to provide small business leaders with valuable real-world advice.

When Hurricane Katrina hit the Gulf Coast last August, Scobey went to Baton Rouge to help employees as they faced tremendous personal losses. He helped create "BellSouth Tent City," which housed more than 200 employees and family members. He also led his Small Business Services team to establish business service centers in the hardest hit areas to help customers develop back-up plans and remain informed until service could be fully restored.
Robertson named director of Army’s tech center

Alumnus Rodney Robertson has been named director of the Technical Center of the U.S. Army Space & Missile Defense Command/U.S. Army Forces Strategic Command (SMDC/ARSTRAT).

The Technical Center, located at Redstone Arsenal in Huntsville, employs approximately 350 scientists and engineers performing research, development, test and evaluation for space and missile defense applications to support the Army, Missile Defense Agency and other government agencies.

Scobey serves his community as a member of the Board of Elders of the North Atlanta Church of Christ and a volunteer with Angel Flight, in which, as an instrument rated pilot, he offers his time to make medical flights for the group that absorbs transportation costs for charitable medical needs. He gives freely of his time and resources as an active member of the Auburn University Department of Electrical and Computer Engineering Industrial Advisory Board and the Harding University President’s Council.

Scobey and his wife Debbie live in Alpharetta, Ga., and are the parents of two children, Lauren and Graham.

Davidsons establish scholarship endowment

Julian and Dorothy Davidson have established the Davidson Family Endowment for Scholarships in Electrical and Computer Engineering through a gift of $250,000. Recipients will be known as Julian and Dorothy Davidson Scholars.

“This incredible act of generosity by the Davidsons will attract outstanding students to the Auburn ECE department,” says Dave Irwin, department head, “while lessening the financial burden for the students and their families.”

Julian Davidson, a 1950 alumnus, says he has accomplished much more than he ever thought possible from his days at Auburn.

“The education that I received and the values placed on ethics in the workforce have had a lasting influence on me throughout my career,” he adds. "I want other students at Auburn to have that same opportunity."

In his long and distinguished career, Davidson gained recognition as an expert in missile defense research. He was the first director of the Advanced Ballistic Missile Defense Agency responsible for all U.S. BMD advanced technology development. His career with the government culminated with his position as deputy program manager of BMD, where he managed thousands of personnel and controlled programs with funding levels in the billions.

Additional executive positions include vice president for strategic planning at Science Applications International Corporation; vice president and general manager of eastern operations for Systems Development Corporation; senior vice president with Booz Allen Hamilton, a management consulting firm; and his current position as president of Davidson Technologies, a company he founded in 1996.
As we close out the 2005-06 academic year, I want to take this opportunity to highlight some of our recent news events. I am sure that you are aware of the “It Begins at Auburn” campaign and the potential it has for significant improvements in the Samuel Ginn College of Engineering, and specifically our department. Many, if not all of us, in the department are also contributing to this campaign.

However, our financial contributions are almost insignificant in comparison to people like Julian and Dorothy Davidson, as reported in this issue of the newsletter. What’s more, the Davidson scholarship is only a portion of the support they have provided and continue to provide. I am so very appreciative of their generosity and that of many of our other alumni who have given of their time and resources to help us provide the best education for our students. I will continue to keep you abreast of the prominent contributions that are made to the department as we build a financial base that will support our development.

It is certainly a pleasure for me to acknowledge the awards and advancements of some of our alumni, which you can read about in this newsletter. We are pleased to announce the induction of David Scobey, president of Retail Markets, BellSouth Corporation, to the State of Alabama Engineering Hall of Fame. Jim Hoskins, president and CEO of Scitor Corporation, received the Outstanding ECE Alumni Award for this year. Many of our alumni have maintained a steady pace as their careers continue to advance. For example, Rodney Robertson is the new director of the Technical Center for the U.S. Army Space & Missile Defense Command, and Vince Poor has just been named dean of the School of Engineering and Applied Science at Princeton University. Our faculty joins me in congratulating these outstanding professionals whose achievements we celebrate.

This newsletter also contains items that provide a current snapshot of our progress as well as happenings within the department. I hope you find these interesting and informative.
Finally, I want to thank the groups that form the total makeup of our department, such as the alumni that continue to contribute either directly or indirectly in so many different ways, the students who come here to start their engineering careers and the faculty and staff who dedicate their professional careers to making the department the best it can be.

Our department has a long history and a proud tradition of quality and excellence. As we complete this year, we look forward to the next with excitement and anticipation. Our annual open house this fall will be on Saturday, October 21 prior to the homecoming football game with Tulane. I hope you will be able to join us for this event. In addition, we enjoy hearing from you! Write us and keep us up to date on the significant events of your life.

War Eagle!

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**Hoskins named ECE outstanding alumnus**

Jim Hoskins ’81 has been named the 2006 Outstanding Alumnus for Electrical and Computer Engineering, presented at the Samuel Ginn College of Engineering Awards luncheon March 17.

Hoskins completed a distinguished career in the Air Force before joining Scitor Corporation in 1994. His government and military experience include key assignments at the Air Force Cryptologic Depot, the National Security Agency, the National Reconnaissance Office (NRO) and the Central Intelligence Agency.

During his government tenure, he was nationally known for directing several trail-blazing studies of large-scale national space programs, guiding the strategic thrusts and future development of some of the nation’s most important national space system architectures.

Hoskins participated in several national-level commissions, including being a principal drafter of the “1992 Woolsey Blue Ribbon Panel” report lauded by the U.S. Congress. In recognition of his many significant contributions to the intelligence community at-large, he received the Distinguished Intelligence Service Medal from the Director of Central Intelligence (DCI), the Bronze Medallion from the director of the National Security Agency, and two Defense Superior Service Medals from the Secretary of Defense.

Hoskins was handpicked to join the Community Management staff in 1992, an elite staff team formed by DCI Bob Gates to spearhead several special collection system studies and analyses for the intelligence community. As such, Hoskins helped the DCI formulate plans for key collection system architectures, and while also serving as secretary for the National Foreign Intelligence Board, he led a DCI National Performance Review initiative to restructure a key intelligence community collection segment in response to specific direction from then Vice President Gore.

Hoskins served as chief of the systems engineering and operations group for a major program office within the NRO. He also worked as the program...
element monitor reporting to the director of the NRO responsible for the requirements, programming, and budgeting for two major classified space programs. Additionally, he was selected to help establish a new operating office of the NRO in 1990 and became the initial architect and a principal drafter of the director’s strategic plan.

Hoskins joined Scitor in 1994 as director of special projects, and is now president, CEO and chairman of the board. His leadership and vision have contributed directly and substantially to the success of Scitor’s government and defense businesses, with gross revenues growing from $16 million when he arrived to $350 million during his tenure. Additionally, he was the architect, strategist and leader of a major company restructuring that resulted in moving headquarters and company operations from California to Virginia, leading the way to making Scitor an Employee Stock Ownership Plan company with 100 percent ownership by its employees.

Hoskins and his wife of 31 years, Bertha (Thornbury) Hoskins, a 1980 graduate of AU’s College of Business, have a son Alexander James and reside in Reston, Va.

Alumnus Poor honored with new post, society awards

Effective June 1, H. Vincent Poor assumed the position of dean of the School of Engineering and Applied Science at Princeton University.

"I am thrilled to be taking on this role," says Poor, "and am honored that my colleagues and the university administration have entrusted it to me."

Poor is Michael Henry Strater University Professor of Electrical Engineering at Princeton and founding director of the Princeton Center for Innovation in Engineering Education. He graduated from Auburn with bachelor’s and master’s degrees in 1972 and 1974, respectively, and earned a second master’s degree and a doctorate from Princeton in 1976 and 1977, all in electrical engineering. A member of the University of Illinois at Urbana-Champaign faculty for 13 years, Poor returned to Princeton in 1992.

He has excelled at teaching engineering subject matter to students in the liberal arts. Specifically, he used the dramatically expanding field of wireless communications to teach students from engineering and the liberal arts about the technical, social, economic and political aspects of this technology.

Poor’s popular undergraduate survey course, “The Wireless Revolution,” dealt with the social, economic and political implications of wireless technology. Other schools eventually developed similar courses, catering to students from diverse academic fields. His graduate-level textbook, “An Introduction to Signal Detection and Estimation,” is considered the definitive reference in this field.

His contributions to the Center for Innovation in Engineering Education have been recognized with the IEEE Education Medal, the Princeton SEAS Distinguished Teacher Award and numerous other awards. He also received the National Science Foundation’s Director’s Award for distinguished teaching scholars and was selected to be a Guggenheim Fellow. The 26 doctoral students he has supervised compose a “Who’s Who” of authorities in corporate and academic communications research.

Poor is a member of the prestigious National Academy of Engineering and is a recognized authority on wireless communications and signal processing.

In October, the engineering honor society Tau Beta Pi presented him with its 2005 Distinguished Alumnus Award, which was established to recognize alumni who have demonstrated adherence to the ideals of Tau Beta Pi — integrity,
ADTRAN donates equipment to department

ADTRAN, a Huntsville company that supplies advanced transmission products for today’s expansive telecommunications networks, recently made a generous donation of equipment to be used for courses taught in Auburn electrical and computer engineering.

Students in Information Networks and Technology, Information Security, and Advanced Networking and Technology classes will experience the benefit of the donation, which includes six NetVanta 3200 routers (chassis and T1/FT1 Network Interface Module), one NetVanta 1224 switch and one NetVanta 4305 router (chassis and Octal T1/E1 Wide Module). Long-term support for the equipment will also be provided.

Training for the use of the equipment, which is valued at $10,965, was provided by Robert Conger, an application engineer with ADTRAN, who also helped the department develop teaching lab material.
Faculty hosts inaugural honors banquet

With the sponsorship of Dynetics, the ECE faculty hosted a banquet honoring the department’s 25 most outstanding seniors at the Auburn University Hotel and Dixon Conference Center in November. Each student was presented with a commemorative pen in recognition of outstanding academic achievement.

ECE alumnus Mike DeMaioribus ’77, Dynetics senior vice president, addressed the group. A presentation by ECE faculty member Victor Nelson followed dinner, with award presentations by Dave Irwin, department head, closing the event.

Those honored were: William Anderson, Albertville, Ala.; Jeremy Arnold, Shorterville, Ala.; Russell Biser, Huntsville; Roxanne Bloodworth, Newport News, Va.; Quincy Chiu, Peitou, Taipei; Reed Collins, Nashville; James Cunningham, Jackson, Miss.; Brooks Garrison, Huntsville; Brian Ginn, Eden Prairie, Minn.; Tye Green, Roanoke, Ala.; Erin Griffith, Birmingham; Nicholas Hall, Boaz, Ala.; Russell Hamilton, Auburn; Christopher Hodges, Birmingham; David Hodo, Alexander City, Ala.; David Last, Moulton, Ala.; Justin Martin, Oxford, Ala.; Phillip Messner, Opelika; Daniel Milton, Auburn; Jeremy Nelms, Cullman, Ala.; Anhuy Nguyen, Mobile; Kristopher Peebles, Slocomb, Ala.; Jarad Sims, Midfield, Ala.; Matthew Wagner, Mechanicsburg, Pa., and Kenneth Westrom, Madison, Ala.
IEEE chapter forms robotics committee

In response to student requests for opportunities in competitions, projects and student research, the Auburn ECE student chapter of the IEEE has formed the Auburn IEEE Robotics Committee (AIRC). The organizational meeting was held in January with about 40 students in attendance. Students and advising faculty discussed several possible courses of action, and students were divided into three groups for the spring semester.

The groups are addressing participation in the 2007 SoutheastCon Robot Competition (coordinators: Mustafa Ali and Jordan Britt); the [long-term] development of a robot for guided tours of the department (coordinator: Westwood Presnall); and contact with alumni and industry for technical advising and for fundraising to support the purchase of parts/materials and travel to competitions (coordinator: Elizabeth Hammonds).

Short-term goals of the AIRC for the spring semester were to develop preliminary plans and budgets for the selected projects, recruit additional multidisciplinary team members at the undergraduate and graduate levels, and begin early development of project ideas, as resources allow.

ECE advisors A.S. Hodel and T.A. Roppel are excited and pleased with the energy and initiative being shown by the students. They are joined by Gerry Dozier of computer science and software engineering, who will contribute his expertise in artificial intelligence and machine learning.

Agrawal receives lifetime achievement award

In January, Vishwani Agrawal of the ECE faculty received a Lifetime Achievement Award from the VLSI Society of India "in recognition of contributions to the area of VLSI Test and for founding and steering the International Conference on VLSI Design in India."

The award, which is given to individuals who have made exceptional contributions to the area of VLSI, was presented by Bobby Mitra, VLSI president, at the awards ceremony of the 19th International Conference on VLSI Design in Hyderabad, India.

Agrawal is known to the VLSI (very large-scale integration) community of India as the founder of the VLSI Design Conference and as a "guru" in the area of VLSI Test. When receiving the award, he thanked the committee and the VLSI Society and paid tribute to his own teachers.

He is James J. Danaher Professor of Electrical and Computer Engineering at Auburn and has more than 30 years of industry and university experience, including work with Bell Labs, Rutgers University and TRW. His areas of research interest include VLSI testing, low-power design and microwave antennas.

Agrawal earned his doctoral degree in electrical engineering from the University of Illinois at Urbana-Champaign in 1971, his M.E. degree from the Indian Institute of Science, Bangalore, India in 1966, and his B.E. degree from the University of Roorkee, Roorkee, India in 1964.


His professional service includes co-founder of the International Conference on VLSI Design and of the International Symposium on VLSI Design and Test, held annually in India; service on numerous conference committees and...
Agrawal’s numerous awards and recognitions include seven best paper awards; the Harry H. Goode Memorial Award of the IEEE Computer Society for “innovative contributions to the field of electronic testing”; Distinguished Alumnus Award of the University of Illinois at Urbana-Champaign “in recognition of his outstanding contributions in design and test of VLSI systems”; Fellow of IETE-India; Fellow of the IEEE (elected in 1986); and Fellow of the ACM (elected in 2003). He has served on the advisory boards of the ECE departments of the University of Illinois, New Jersey Institute of Technology, and the City College of New York.

Jaeger awarded, elected society president

The Electrical and Computer Engineering Department of the University of Florida presented its first Distinguished Career Achievement Award to Richard Jaeger, Auburn’s Distinguished University Professor, at the Eta Kappa Nu spring 2005 banquet.

After receiving his bachelor’s, master’s and doctoral degrees in electrical engineering from UF, Jaeger was employed with IBM in Boca Raton, Fla. working on technology for precision data acquisition systems and small computer architecture. In 1974, he became a research staff member at the IBM Thomas J. Watson Research Center in Yorktown Heights, N.Y. His interests included analog integrated circuits, I2L, low temperature MOS device behavior and microprocessor design.

In 1976 he returned to Boca Raton, where he continued work for IBM on understanding the behavior of MOS devices at low temperatures and studying architectural alternatives for small computer systems. Jaeger holds three patents and received two Invention Achievement Awards from IBM.

He joined Auburn in 1979 and in the late 1980s, directed the creation of an outstanding teaching environment in which AU undergraduate students could design and fabricate their own silicon chips by participating in every step of the fabrication process, a unique opportunity often accorded only to graduate students. With this program, Jaeger attracted students to microelectronics professions and prepared them for effective careers in high-tech industries.

From 1980 to 1982, he was founding editor in chief of IEEE MICRO and received an Outstanding Contribution Award from the IEEE Computer Society for development of that magazine. He later became a member of the governing board of the IEEE Computer Society and was selected as a member of the IEEE Computer Society Golden Core in 1996.

From 1984 to 2001, Jaeger served as founding director of the Alabama Microelectronics Science and Technology Center at Auburn. Closely aligned with this effort was his publication of the popular textbook “Introduction to Microelectronic Fabrication,” which is widely accepted as the main source for teaching students fundamentals of chip fabrication and forms the basis for courses at a number of universities.

Jaeger was elected IEEE Fellow in 1986 and appointed distinguished university professor by AU in 1990. He received the Birdsong Merit Teaching Award from the College of Engineering in 1991, and in 1993 was chosen Outstanding EE Faculty Member by undergraduate students. In 1995 he was selected as Distinguished Graduate Faculty Lecturer.

In his spare time, Jaeger is an avid amateur radio operator (K4IQJ), enjoying dx and contest operation. In addition to his textbooks, Jaeger also coauthored “Computenized Circuit Design Using SPICE Programs” and has published
more than 200 technical papers. He is a member of Sigma Xi, Phi Kappa Phi, Tau Beta Pi, Sigma Tau, is a licensed professional engineer, and was first listed in Who’s Who in America in 1990. He participated in the creation of Auburn University's undergraduate wireless engineering program, the first in the nation, which started in 2002.

Jaeger was elected president of the IEEE Solid-State Circuits Society in 2005. The Solid-State Circuits Society Web site describes the society as "interested in all aspects of solid-state circuits: the design, testing and application of circuits and subsystems, as well as closely related topics in device technology and circuit theory. They also focus on scientific, technical and industrial applications, in addition to other activities that contribute to the field, or utilize the techniques or products of the field, as the art develops."

AU hosts EU-US meeting

In January, Auburn University hosted the 2006 European Union/United States Cooperation Program partners meeting at the Auburn University Hotel and Dixon Conference Center. The focus of the program is to promote a student-centered, transatlantic experience to higher education in a variety of disciplines. The program is a joint effort by the U.S. Department of Education Fund for the Improvement of Postsecondary Education (FIPSE) and the European Commission Directorate General for Education and Culture.

According to Hulya Kirkici, Auburn ECE faculty member; the EU-US program is at an important juncture. New funding and new directions were the topics of discussion at the meeting, which attracted educators and professionals from across the U.S. Speakers at the meeting included Leonard Haynes, director of FIPSE; Beth Burris, program coordinator for the American Council on Education; William DeLauder, executive director of the Abraham Lincoln Commission; and Frank Frankfort, program manager for FIPSE.

In 2005, Kirkici was named primary investigator for a $203,000 EU-US grant to send 15 students from three U.S. universities — Auburn, San Diego State and the University of Arkansas at Little Rock — to Europe for at least one semester. Each will receive a $3,000 scholarship plus $1,500 in language training while abroad. Partner institutions in Europe include Sunderland University in the United Kingdom, Fern University in Germany and the University of Algarve in Portugal.

Shashi Becker, a 2005 Auburn ECE graduate, participated in the program last summer; two others are in or headed to Europe for the ’06 spring and fall semesters, and Auburn ECE will host two students from Portugal in the near future.

"This is a wonderful program designed to enable students to broaden their educational experience," says Kirkici. "It is an honor to receive one of the grants, to host the meeting, and to participate in the discussions. Students must be prepared to work in today's global marketplace. Employers are looking for students who are able to adjust to a variety of cultures. Travel abroad is increasingly becoming a part of the overall educational package."

To learn more about the program please visit http://gets.dvt.fernuni-hagen.de.
Nelson awarded as educator, contributor

Victor Nelson, faculty member and assistant department head in the Department of Electrical and Computer Engineering, received two awards in 2005.

He was co-recipient of the 2005 Global Wireless Education Consortium’s Wireless Educator of the Year Award. Presented at September’s Cellular Telecommunications and Internet Association’s convention in San Francisco, the award is shared by Richard Chapman of Auburn’s computer science and software engineering faculty. The two were recognized for their leadership in wireless education; documented collaboration within the wireless industry; support of students in wireless projects and educational initiatives; and preparing students for employment in the wireless-related industries.

Nelson also received an Outstanding Contribution Award from the IEEE Computer Society "for the establishment of computing curricula 2005 for computer engineering." This was a three-year project defining model computer engineering curricula for the next 10 years, with the report distributed worldwide. This award recognizes achievement of major value and significance to the computer society.

Nelson chairs the undergraduate curriculum committee and serves as graduate program officer for the ECE department. He is responsible for the core courses in the digital computing stem, and his primary research interests include microprocessor applications, embedded systems and computer-aided design, and testing of digital systems.

Tzeng elected officer of IEEE council

Yonhua “Tommy” Tzeng has been elected vice president of the IEEE Nanotechnology Council, a multi-disciplinary group whose purpose is to advance and coordinate work in the field of nanotechnology carried out throughout the IEEE in scientific, literary and educational areas.

The council supports the theory, design and development of nanotechnology and its scientific, engineering, and industrial applications.

An internationally recognized authority on nanotechnology, Tzeng is currently on sabbatical in Taiwan serving as founding director of the Center for Micro/Nano Technology Research at National Cheng Kung University.

ECE faculty earn tenure, promotions

Effective with the 2006-07 academic year, Tom Denney and John Hung have been promoted to professor and Fa “Foster” Dai has been awarded tenure.

Denney earned his B.E.E. from Auburn in 1985 and his M.S. in 1990. In 1994, he received his doctoral degree from Johns Hopkins University.

He joined the electrical and computer engineering department in 1994 as an assistant professor, and is a member of the Institute of
Electrical and Electronics Engineers and the International Society for Magnetic Resonance Medicine.

Denney serves the department, the university and the engineering profession in a number of committee appointments and leadership roles. Most recently he was named associate editor of the *IEEE Transactions on Image Processing* by the IEEE Signal Processing Society.

His awards include a Signal Processing Society Young Author Best Paper Award, Outstanding ECE Faculty Member, Outstanding College of Engineering Faculty Member, the Fred H. Pumphrey Outstanding Teaching Award and the Walker Merit Teaching Award.

Denney's research interests include deformable motion estimation, image analysis, image processing, medical imaging, computer/robot vision, modeling/estimation of multi-dimensional stochastic processes, and inverse problems.

Hung earned the B.S.E.E. from the University of Tennessee in 1979, the M.S.E. from Princeton in 1981 and the Ph.D. from the University of Illinois at Urbana-Champaign in 1989, when he joined the Auburn faculty.

A senior member of the IEEE, Hung has served that organization as associate editor of the *IEEE Transactions on Industrial Electronics* and as treasurer of the IEEE Industrial Electronics Society. He has served the electrical and computer engineering department as an ECE Curriculum Committee member, chair of the ECE Teaching Effectiveness Committee, chair of the ECE Laboratory Committee and chair of the ECE Control Systems Committee. In 2001-03, he was technical coordinator for the Alabama BEST Robotics Competition.

He has been honored with awards such as the Fred H. Pumphrey Teaching Award, the SGA Outstanding Faculty Member for the College of Engineering, and twice named ECE Outstanding Faculty Member.

Hung's research interests are in the area of nonlinear systems and controls.

Dai joined the Auburn faculty in 2002. He holds the B.S. in physics and the M.S.E.E. from the University of Electronic Science and Technology in Chengdu, China. He earned his doctoral degree in electrical and computer engineering from Auburn in 1997 and earned a second doctoral degree from The Pennsylvania State University in 1998.

He is a senior member of the IEEE and an honorary professor in the Chinese Academy of Science.

Dai's research interests include VLSI circuits for digital, analog and mixed-signal application; high-speed RFIC designs for wireless and broadband communications; frequency synthesizer for IC designs; automatic built-in self-test for analog and mixed signal systems; and wireless and fiber communication theory.

Wentworth honored as outstanding

Auburn ECE students have selected Stuart Wentworth as Outstanding ECE Faculty Member for 2006. On the faculty since 1990, this is Wentworth's fifth time receiving the award. His other teaching awards include Birdsong Merit Teaching Award, Fred H. Pumphrey Outstanding Teaching Award, and Outstanding Faculty Member for the College of Engineering.

Wentworth is author of an electromagnetics textbook now in use. “Fundamentals of Electromagnetics with Engineering Applications,” published by John Wiley & Sons, Inc., was developed to fit the Auburn ECE department’s emphasis on wireless communications.
Irwin receives IEEE award

Dave Irwin, Earle C. Williams Eminent Scholar and ECE department head, was presented with an IEEE Education Society Meritorious Service Award “for meritorious service to the Education Society, for leadership as president, and for mentoring many members of the society” at the 35th annual Frontiers in Education Conference in Indianapolis in October.

Irwin has served the IEEE in a number of education-related positions, including chair of both the Southeastern Association of Electrical Engineering Department Heads and the Electrical Engineering Department Heads Association (the forerunner to the National Electrical Engineering Department Heads Association and the Electrical and Computer Engineering Department Heads Association).

He has served as president of the IEEE Education Society, an IEEE AdHoc visitor for ABET accreditation teams, a member of the IEEE Educational Activities Board, Accreditation Coordinator for IEEE, a member of the board of directors of the IEEE Press, and a member of the IEEE Education Society’s McGraw-Hill Jacob Millman Award Committee. He is vice president and a member of the Board of Governors of theEta Kappa Nu ECE Honor Society, and chair of the IEEE Undergraduate and Graduate Teaching Award Committee.

Irwin is author or coauthor of a number of publications that serve the education community, including 16 textbooks that span a variety of engineering subjects.

His awards include IEEE Region III Outstanding Engineering Educator; IEEE Educational Activities Board Meritorious Service Citation; IEEE Education Society’s Achievement Award and McGraw-Hill Jacob Millman Award; IEEE Undergraduate Teaching Award; and American Society for Engineering Education (ASEE) ECE Distinguished Educator Award. Irwin is a Fellow of ASEE and a life Fellow of IEEE.

Alumni author textbooks

Two Auburn electrical and computer engineering alumni have authored textbooks on technical topics.

Richard Bishop ’81 is founder and owner of Bishop Consulting and publisher and chief writer for the cyber magazine IVsource.net, the only periodical dedicated to covering the IV (intelligent vehicle) industry. He is a member of the TRB Committee on Vehicle-Highway Automation; the ITS America Automotive, Telematics and Consumer Electronics Forum; the IEE Automotive and Road Transport Systems Professional Network; and the IEEE.

Bishop’s textbook, “Intelligent Vehicle Technology and Trends,” is published by Artech House, which describes the textbook as a “groundbreaking resource” that “offers professionals a comprehensive overview of IV systems aimed at providing enhanced safety, greater productivity, and less stress for drivers.”

In the book, he covers current systems, future trends and motivations behind automakers’ activities in this rapidly evolving technological area. Bishop, who also earned a master’s degree in technology management from Johns Hopkins University, spoke to Auburn students at an IEEE meeting in September.

Sajjan Shiva ’71 is author of “Advanced Computer Architectures,” published by CRC Press. This is Shiva’s fourth textbook in the computer architecture series. His earlier books have seen several editions and have been selected by more than 92 universities in the U.S., Canada, Egypt, China, Korea, India, Pakistan and Australia.
Professor and chairman of the computer science department at the University of Memphis, Shiva earned both his M.E.E. and doctorate from Auburn. A Fellow of the IEEE, he is a veteran researcher with more than 30 years in teaching and research. His research interests are computer architecture, distributed and parallel processing, software engineering, process improvement, artificial intelligence, expert systems, neural nets, object oriented design and programming, data modeling, and modeling and simulation.

Larry Benefield, dean of engineering, presents ECE sophomores John Andress from Huntsville (photo at left) and Brandon Eidson from Birmingham with the Pumphrey Outstanding Pre-Engineering Student Award at the College of Engineering’s annual spring awards ceremony in March. The Pumphrey Award recognizes students who maintain a 4.0 grade point average throughout Auburn’s pre-engineering curriculum.

The electrical and computer engineering faculty selected Erin Griffith, a senior from Birmingham, for the 2006 Outstanding ECE Student Award. Not pictured is Reed Collins of Nashville, who received the Outstanding Wireless Engineering Student Award.
David Last, a senior from Moulton, Ala., has been named Most Outstanding Engineering Co-Op Student of the Year for 2006. A computer engineering major, Last co-oped with ADTRAN, a Huntsville company that supplies advanced transmission products for telecommunications networks.

As a co-op student, Last was exposed to a variety of engineering challenges through assignments such as software engineer, hardware engineer, DVT engineer and technical support engineer.

As an undergraduate researcher, he participated in research on the range of 802.11g wireless communications for the Army Shadow Unmanned Aerial Vehicle program. His research culminated in a publishable paper.

An eagle scout, Last has maintained a perfect 4.0 grade point average and was named to the National Dean’s List in 2004.

The Xi Chapter of Eta Kappa Nu (HKN) Electrical and Computer Engineering Honor Society has enjoyed a successful year filled with service and activities.

A highlight of the fall semester was a pre-Thanksgiving fundraiser. Students had the opportunity to vote for the faculty member they would most like to see wearing a turkey suit. The winner, who was required to wear the suit for an entire day, was faculty member Charles Gross, who very “gamely” donned the suit to the delight of his classes in circuits and power.

In the spirit of the event, Gross and a young lady from each class danced a short dance before class was dismissed. The fundraiser was a success, raising approximately $300 which HKN will use to purchase equipment for a teaching lab in the department.
Other fall activities included participation in the annual homecoming open house and the fall initiation.

Initiation involved some changes in the induction process due to a revised induction ritual and a decision to present initiation certificates at initiation rather than the following semester. This was accomplished by implementing an interview process to ensure initiates met the necessary qualifications for character and attitude. The result was an outstanding (possibly record-setting) induction with seven inducted professors, two graduates and 33 undergraduates.

Throughout the year, HKN members have been providing free tutoring for undergraduate students in electrical engineering classes. In February, they also helped the department participate in E-Day, the college’s annual open house.

Leading the chapter in its activities this year were officers Anthony Nguyen, president; C. Scott King, vice president; Erin Griffith, recording secretary and Bridge correspondent; Adam Krauss, E-Council representative; Chris Rose, business manager; Lee Lerner, office manager; Jeremy Arnold, spring 2005 office manager; and Jon Hanlon, webmaster.
Auburn attends VLSI conference

The 19th International Conference on VLSI Design and 5th International Conference on Embedded Systems took place in Hyderabad, India in January, with approximately 1,000 participants. The event offered a series of regular paper sessions, special sessions, tutorials, panel discussions and an exhibition of design tools and semiconductor solutions.

Of the 328 technical papers from 19 different countries, the conference committee selected 136 papers for presentation at the five-day program.

Session topics included: analog design, VLSI (very large-scale integration) technology, interconnects, testing and verification, communications, architecture and embedded systems, synthesis and low-power design.

The International Conference on VLSI Design was initiated in 1985 by Vishwani Agrawal, James J. Danaher Professor of Electrical and Computer Engineering at Auburn, and H.N. Mahabala of the Indian Institute of Technology Madras as a small workshop at IIT Madras in Chennai.

“The fundamental reason for the conference is to provide VLSI engineers in India an opportunity to interact with faculty and industry and gain exposure to new ideas and advances in technology,” said Agrawal, who attended the conference along with his wife Prathima Agrawal, Auburn’s Samuel Ginn Distinguished Professor of Electrical and Computer Engineering and director of its Wireless Engineering Research and Education Center. “Faculty are able to develop a perspective of what students know and what industry needs. Industry provides useful inputs to students on how to update their skills and plan for their career advancement in technology.”

Adds Prathima, “What the Indian VLSI industry needs badly is the emergence of homegrown Indian technology companies of the massive scale of a Wipro or an Infosys.” She believes that, given the emergence of a “killer application,” such a scenario could become eminently possible.

“There is a distinct possibility of mobile phone penetration growing dramatically. Now, that would be a strong driver of demand for VLSI design services in India,” she says. “The hardware sector would then take off like the software sector did in the 1990s. And, unlike the software sector, the Indian hardware industry would be in a strong position to address the high end of this demand, as the curriculum in electrical engineering and electronics in India’s technical institutions focuses intensely on the fundamentals of VLSI design.”

Vishwani Agrawal is the steering committee chair for the 2007 VLSI conference, themed “Technology Challenges in the Nanoelectronics Era,” to be held in Bangalore, India in January.
IEEE student chapter site wins award


The IEEE webmaster responsible for the new design and its competitive success is Mustafa Ali, a junior in computer engineering from Islamabad, Pakistan. Ali is recording secretary of Eta Kappa Nu and a member of the Cupola Engineering Society, Sol of Auburn solar car team, and the Association for Computing Machinery. He has served as class representative, webmaster and mentor program coordinator for the Honors College, for which he is also ambassador and secretary.

Active as a volunteer in a variety of university and community areas, Ali is the recipient of numerous academic awards and honors and has participated in Auburn’s cooperative education program, employed with VT Miltope in Montgomery.

Visit the award-winning IEEE student branch Web site at www.eng.auburn.edu/ieee.

Cutshaw awarded for spirit of excellence

Calvin Cutshaw, engineering technician III in the Department of Electrical and Computer Engineering, received a Spirit of Excellence Award in January. The award recognizes employees for exceptional performance.

Cutshaw has been employed in the department since 1998. He was lab manager for the Diamond and Plasma Processing Laboratory at the AU Research Park from 1998 to 2003, and has been involved in a number of student projects such as the Solar Decathlon solar house and the Sol of Auburn solar car student competition teams. He is assistant technical coordinator for the BEST high school robotics contest held each year at AU and oversees maintenance of the solar house. He also supports a number of research programs in the power area.

Cutshaw was recognized for his accomplishments at a reception in the ECE department in March.
Faculty share in NASA research grant

Wayne Johnson of the ECE faculty has teamed with researchers at Georgia Tech for a NASA Exploration Systems Research and Technology Program grant.

Auburn’s share of the grant will be $2,375,000 over a four-year period. The research team, led by John Cressler, Byers Professor in Georgia Tech’s School of Electrical and Computer Engineering and former Auburn faculty member, is working on mixed-signal circuits that will improve the way electronic systems function in extremely cold temperatures. The circuits will be able to operate at cryogenic temperatures as cold as -230 degrees Celsius, or -382 degrees Fahrenheit, without heaters.

The team will develop, fabricate, test and qualify mixed-signal circuits made of silicon-germanium. These circuits are essential to the design of electronics that operate, control, monitor, and reconfigure many space systems.

Other researchers on the NASA project include Boeing’s Transformational Space Corporation, the Jet Propulsion Laboratory, the University of Tennessee, Vanderbilt University, the University of Maryland, BAE Systems, IBM, and Lynguent, Inc.

Alumni updates

Phil Motz ’69 has retired from Delphi Delco Electronics/General Motors as a Technical Fellow after more than 37 years. He serves as chairman of the advisory board for the Electrical and Computer Engineering Department at Kettering University in Flint, Mich. and is a member of the board of directors of the Mojave Desert Heritage & Cultural Association in Goffs, Calif. He and his wife, Connie ’69, who holds a B.A. in elementary education, reside in Kokomo, Ind.

Angela Kiskadden Barnes ’88 and Douglas Harris Barnes ’89 live in Madison with their children, Isabelle (7), Sam (6) and Adeline (1). One of the kids’ occasional playmates is their grandfather, Ben Barnes ’56, ’65, of Florence. Isabelle and Sam already understand Kirchoff’s laws, and Adeline knows the alma mater.

Les Lenning ’94 is an emergency physician in Nashville. He completed his emergency medicine residency at Vanderbilt Medical Center in 2002, and in 2005 was elected to the Cumberland Emergency Physicians board of directors.

Gizman Abbas ’97 is vice president of fixed income currency commodities at Goldman Sachs in New York where he focuses on investing in energy assets. He holds an M.B.A. from the Kellogg School of Management at Northwestern.

Josh Crosby ’00 and his wife Stephanie are proud parents of a daughter, Jaylin Isabella Crosby, born in March 2005.

Brian McGee ’01 and his wife Allison have a son, Rylan, born in October. Brian is employed by Euro-Pro in Auburn.

Anthony Smith ’01, a programmer analyst in International Technologies, was one of the 2005 recipients of the FedEx 5 Star Award. The award recognizes employee accomplishments that demonstrate innovation, collaboration, efficiency or profitability associated with results, and is FedEx’s most prestigious individual award. Smith joined the company in June 2001 and completed his Auburn M.B.A. in 2004 via the university’s distance learning program.

Bridget Beasley ’04 is employed with Southern Company Services in Inverness.

Ed Otralek ’04 and his wife Tina of Alexander City welcomed a son, Robert Sellers, to their family in August. Ed is employed as an engineer with Alabama Power in the metering services group.
The Department of Electrical and Computer Engineering would like to hear from you!

Name ____________________________________________

Address __________________________________________

Auburn Class ______ Advanced Degrees _______ Institutions _______

Current Position _______________________________________

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