On May 1, 2005, Gary S. May became the new Steve W. Chaddick School Chair of the School of Electrical and Computer Engineering (ECE), stepping into the role previously held by Roger P. Webb, who officially retired in December 2004. Dr. May was selected by an 18-member search committee, which conducted a nationwide search over seven months to fill this crucial position. Georgia Tech College of Engineering Dean Don P. Giddens said the breadth of Dr. May’s leadership experience made him the ideal choice for this post. In his professional life, Gary May has demonstrated insight and commitment. Not only has he amassed an impressive research and teaching record, but he has also dedicated himself to mentor and encourage students to earn advanced degrees and to pursue careers in academia. Moreover, he has tirelessly represented the School, College, and Institute with good humor and class. With thanks to the search committee for its effort, we are privileged to have Gary serve as the new chair of ECE.

The search committee was comprised of ECE faculty, staff, students, alumni, representatives from several colleges at Tech, and the Georgia Tech Research Institute. Ronald W. Rousseau, chair of the School of Chemical and Biomolecular Engineering and chair of this search committee, said, Gary May is an outstanding individual and he rose to the top of a list of superb candidates. ECE Advisory Board Chair C. Meade Sutterfield, who also served on the committee said, I could not be more pleased that Gary will be the new ECE chair. He is ambitious for our school, popular with the faculty, staff, and administration, and has an understanding of how to manage such a large enterprise as ECE.

Steve W. Chaddick, who endowed this position, said, I am very gratified by the confidence that Gary will do a terrific job of leading the School of ECE. I am also humbled by the prospect of following in the footsteps of Roger Webb, who I very much admire and respect.

Following in the path of Roger Webb may be a daunting proposition, but Dr. May approaches this challenge with an enthusiastic agenda for the School. My immediate priorities are threefold, he said. I plan to be very involved with our development team to raise funds for the School’s operations, as well as for the improvement of our facilities. I want to explore possible venues for communicating ECE’s story of research innovation and educational leadership, which I feel is very compelling. Finally, I will work hard to enhance the diversity of ECE students and faculty.

Dr. May also has his sights set on a longer-term agenda. In the educational arena, he would like to see more hands-on engineering experiences for students earlier in the undergraduate program by offering seminars and by incorporating engineering and design courses into the introductory and midway points of the ECE curriculum. Additionally, Dr. May hopes to make research commercialization and entrepreneurial activities become a more integral part of the School’s academic culture.

Female student enrollment is an area of concern for Dr. May. Our most recent enrollment figures show that only a handful of freshman-level women have declared ECE majors 11 percent for EE, and just over 6 percent for CmpE, he said. We need to work on increasing these numbers for both our undergraduate and graduate programs.

Encouraged by the initiatives taken this year by the Women of ECE (WEC), growing up in St. Louis, Mo., he was targeted by McDonnell-Douglas Corporation as a high aptitude student and was selected to participate in a special program to encourage and develop engineering talent. After this experience, Dr. May chose to major in electrical engineering at Georgia Tech. As an undergraduate student, he became deeply involved in student life, serving as president of the National Society of Black Engineers and was a member of Eta Kappa Nu, IEEE, and numerous other student organizations.
It is my pleasure to present my inaugural Chair’s Corner for this issue of ECE Connection. Being named Steve W. Chaddick School Chair is the highlight of my professional career thus far and is in many ways a dream come true for me. I am gratified by the confidence and support of the ECE community, and I very much look forward to the opportunities and challenges inherent in this new role.

I have selected as the theme for this column, Educating ECE Students for the World of 2020, a topic that I find very relevant today. Because of our many strengths, we at Georgia Tech are uniquely positioned to shape the future of the ECE profession through the outcomes of our research and by graduating the next generation of technological leaders in electrical and computer engineering.

Predicting the future is an inexact science at best. A glimpse of our future may be caught by looking back 20 years, to about the time I graduated with a bachelor’s degree from Georgia Tech. Much of the technology that we use daily and take for granted did not exist at that time. Computers had no hard drives. The only way to save your work was on a 5.25-inch floppy disk. There were no cell phones, let alone phones with text messaging capabilities or built-in digital cameras. In fact, there were no digital cameras. There was no dot-com economy. In fact, there were no digital cameras. There was no dot-com economy. There were no cell phones, let alone phones with text messaging capabilities or built-in digital cameras. There were no hard drives. The only way to save your work was on a 5.25-inch floppy disk. Computers had no hard drives. The only way to save your work was on a 5.25-inch floppy disk.

Proliferation of telecommunications technology and the Internet opened up new avenues of inexpensive, real-time communication. Emerging nations like India and China began developing economies that competed more directly with ours, including making investments in higher education. The 1990s and early years of this century saw the dot-com economy come in like a lion and go out like a lamb. The past 20 years have been transformative. Bearing this thought in mind, let’s now think ahead to the year 2020. Over the past few years, Georgia Tech President Wayne Clough and I have been working on an initiative of the National Academy of Engineering called the Engineer of 2020, which he chairs. Working with futurists and a large group of thoughtful people, we have been trying to imagine what the world will be like in 2020. Their conclusions are relevant to the issues that I would like to address.

Although it is impossible to predict the future exactly, we can expect some things with a reasonable level of confidence. First, a lot more people will be living on Earth upwards of 2 billion more. Also, more of the world’s population will be in cities rather than rural areas, producing greater challenges to fill the needs for urban infrastructures. By 2020, if the world’s population were to be seen as consisting of 100 people, it is estimated that 56 of these will live in Asia, 16 in Africa, and only 4 in the U.S. Population growth will be thus concentrated in less developed countries where a youth bulge will occur, while in advanced countries, the populations will age. Issues related to improving quality of life through advanced technologies in some countries will be contrasted with more basic problems like access to water and housing in others. Within countries, the demographics will change, including in the U.S., where the numbers of minorities will grow rapidly, while those of the traditional majority will decline in a relative sense. This trend has major implications for the future of engineering, where professions and women remain underrepresented.

These emerging demographics bring into focus many other potential issues. Surge in the economies of India, China, and other nations will place considerable pressure on resources that we have taken for granted, such as carbon-based fuels. These nations, as well as Russia and the European Union, are all competing with the U.S. for the technological economic sector. Some of this is accentuated by disparities in wages between the U.S. and China and India, but it is also driven by the growing size of the skilled technological workforce in these nations. It is estimated by the National Science Foundation that China, India, and the European Union each already graduate more engineers than does the U.S. Thus, Georgia must be prepared to compete for technology industry not merely with adjacent states, but with Shanghai, Bangalore, and Moscow.

Viewed in a more positive light, though, this future scenario presents opportunities that will arise for those who are prepared and plan for the realities of the future. Depending breakthroughs in biotechnology, nanotechnology, telecommunications, and energy will open new fields of endeavor and change the way we live. However, discovering new technology in and of itself will not be enough. To win in the competitive marketplace of the 21st century, our competitive edge will be in applying technology in creative ways to solve the problems and serve the needs of society and in shaping public policies that enable this process.

The institutional vision at Georgia Tech is in fact to define the technological research university of the 21st century, which means that Tech must prepare its students for the world of 2020 and beyond. ECE must play a key role in that process, and we have already taken steps to do so. For example, through Georgia Tech Lorraine (GTL), we have been a pioneering participant in Georgia Tech’s international efforts. Last year, over 120 students from GTL walked across the stage to receive a Georgia Tech degree. ECE has continued along this path through burgeoning research and graduate initiatives in China and India.

Moreover, among our most prominent and enduring traditions is a culture of entrepreneurship and a knack for creative problem-solving. For example, CardioMEMS, a start-up company co-founded by ECE Professor Mark Allen, is pioneering a new breed of testing devices to monitor heart patients. Combining wireless communication technology with microelectromechanical systems (MEMS) fabrication, CardioMEMS can provide doctors with more information while making testing less
invasive for patients. In ECE, we understand that research discoveries and technology inventions do not become innovations until they are put to work in the commercial marketplace to improve our lives. We must continue to instill such values in our students as we prepare them for the world of 2020.

To be sure, ECE faces both challenges and opportunities as we proceed into this new world. Both of our degree programs, now ranked 6th by U.S. News & World Report, are challenged by scarce resources and by the need to maintain excellence in the face of competition from many other excellent programs that also strive to be the best. However, I am optimistic that we can meet these challenges. We have the tremendous advantage embodied in outstanding students, faculty, staff, and alumni with a heritage of a can-do spirit. As we assist, Georgia Tech in its mission to define the technological university of the 21st century, we will help the nation to compete and to shape a prosperous future.

I feel fortunate that I have been in positions where I have been able to work as a change agent, opening doors to underrepresented populations, said Dr. May. To be able to use my position to serve society in unique ways has been and will continue to be something of tremendous personal importance to me. During his first 10 years on the ECE faculty, Dr. May received international recognition for his contributions to research in computer-integrated manufacturing of integrated circuits (IC-CIM). His innovations in this field include inventing techniques that utilize artificial intelligence and MEMS sensors for semiconductor process monitoring, modeling, and control. He is a pioneer in the use of neural networks in IC-CIM and his research has led to innovations that have been adopted by leading semiconductor manufacturing companies. Dr. May has been a National Science Foundation National Young Investigator, and through individual and collaborative efforts, has acquired over $61 million in research funding from governmental agencies and corporations. He is also a prolific writer, having published over 200 technical publications and one textbook. In 2000, he was selected by the National Academy of Engineering as one of the nation’s top 100 engineers between the ages of 30-45.

In 2001, Dr. May was appointed by Dr. Webb as associate chair for ECE Faculty Development and as the Motorola Foundation Professor. Gary May is extraordinarily well-prepared to assume the chairmanship of ECE, Dr. Webb said. We can all look forward to continuing enhancement of the School under his leadership.

In 2002, Dr. May was selected to serve as the executive assistant to Georgia Tech President G. Wayne Clough, a post that he held until May 1. Upon Dr. May’s departure from the President’s Office, Dr. Clough said, Gary has proven himself to be an outstanding mentor, a first-rate researcher, and an excellent member of my staff. While we will miss his presence in Carnegie, his leadership of ECE will be exceedingly important for the future of the College of Engineering and Georgia Tech.
Gaylord Awarded Georgia Tech’s Highest Honor and the OSA Medal

Thomas K. Gaylord, Regents Professor and Julius Brown Chair, was named the 2005 recipient of the Georgia Tech Class of 1934 Distinguished Professor Award and the Esther Hoffman Beller Medal from the Optical Society of America.

The Georgia Tech Class of 1934 Distinguished Professor Award recognizes outstanding achievement in teaching, research, and service. It is the highest award given to a faculty member at Georgia Tech. He received the award at the April 13, 2005 Georgia Tech Faculty/Staff Honors Luncheon. Along with his current PhD students were four of his PhD graduates, who came from Connecticut, Texas, and California to honor him. The four, now successful professors in their own right, stood as testimony of how Dr. Gaylord has nurtured and inspired his students, and how his role as their mentor has grown into a lifelong connection that is both personal and professional.

Theresa Maldonado (PhD ’90), now on the faculty of Texas A&M, said, Dr. Gaylord respected my capabilities completely. He demanded excellence. He also demonstrated a powerful human side of compassion when I had my first child while completing my dissertation. He is a key person in my life and a model for me to follow. His impact on me still resonates to this day.

The Optical Society of America Esther Hoffman Beller Medal is given in recognition of outstanding contributions to optical science and engineering education. The citation reads: To Thomas K. Gaylord for innovative teaching that has brought the latest research results alive for students for 30 years, and for his significant contributions to establishing Georgia Tech’s optics and photonics programs.

Steve W. Chaddick School Chair Gary S. May said, Tom has long been acknowledged as one of the most distinguished members of the ECE faculty. It gives me great pleasure to see that the recognition of Tom’s contributions has expanded to the entire Institute and beyond. These achievements are well deserved.

Dr. Gaylord earned his bachelor’s degree in physics, his master’s degree in electrical engineering from the University of Missouri in Rolla, and his doctorate in electrical engineering from Rice University. After working as a postdoctoral fellow at Rice, he joined the ECE faculty in 1972 and has been a key contributor to the founding and development of the optics and photonics program at Georgia Tech. Dr. Gaylord is co-developer, with M. G. Moharam, of the Rigorous Coupled-Wave Analysis (RCWA) for the exact analysis of grating diffraction.

He has also developed exact analogies between electromagnetic optics in dielectrics and electron wave optics in semiconductors and contributed to the development of holographic data storage, fiber gratings, semiconductor quantum optoelectronic devices, birefringence measurements, photonic crystals, and chip-level optical interconnects.

Dr. Gaylord is the author of some 350 technical publications and 25 patents in the areas of diffractive optics, optical interconnects, optoelectronics, and semiconductor devices. He has received the Curtis W. McGraw Research Award from the ASEE and the IEEE Graduate Teaching Award. He is a Fellow of the Optical Society of America, the Institute of Electrical and Electronic Engineers, and the American Association for the Advancement of Science.

Going the Extra Mile.

Thomas K. Gaylord is known for going the extra mile for the students. He started an end of semester event — Extended Program of Attitude Realignment (EPAR) in 1974, an informal gathering of students, faculty, and staff that has taken place every semester for 30 years. He is a familiar presence at countless activities. The most recent of which began as a challenge from his students.

Georgia Tech’s Pi Mile Road Race is an annual event sponsored by the Georgia Tech Alumni Association. Dr. Gaylord, with encouragement from his wife Jan, undertook this daunting task. After all, his last competitive race was over 50 years ago. However, in his usual manner of early preparation, Dr. Gaylord started walking the Tyler Brown Pi Mile Running Trail that is located on campus. Walking became running and the challenge was met and conquered on April 16, 2005 at the 33rd running of the Pi Mile Road Race that had a record number of 518 participants.

Dr. Gaylord stated, I thought that the race was rather like doing a PhD thesis—slow, discouraging and painful at the start, tedious in the middle, with some modest glory at the end.
ECE Researchers Validate Energy Savings of PBITs

For millions of users of computer devices requiring frequent recharging such as cell phones, PDAs, and MP3 players, new technology developed at Georgia Tech could mean they are no longer tethered to their chargers. Krishna V. Palem, a professor in the computer engineering technical interest group, has produced a device based on a cutting-edge new approach to making computer chips significantly more energy efficient. The Defense Advanced Research Projects Agency (DARPA), the central research arm of the U.S. Department of Defense, funded this research effort through DARPA’s Power Aware Computing and Communications (PACC) program.

The validation of probabilistic bits, or PBITs, is most significant in the area of reduced power consumption and increased processing speeds, resulting in making computer devices run faster and more energy efficient. A PBIT is like a conventional bit in that it takes on a 0 or a 1 value, except that one is certain of its value only with a probability of p. Current hardware, using conventional bits, expends large amounts of energy calculating with absolute certainty.

Our PBITs model is now backed by measurements of an actual probabilistic CMOS device which we call PCMOS, said Dr. Palem. Our device takes advantage of noise at the 0.25 micron level and uses probability to extract great energy savings. Noise and energy savings are becoming increasingly important as semiconductors approach the nanoscale.

Georgia Tech Successfully Flies Smarter Rotary Wing UAV

Georgia Tech researchers and partner institutions successfully built, tested, and flew the first rotary wing unmanned aerial vehicle (UAV) at Fort Benning, Ga. The UAV, a helicopter called GTMax, possesses flight control fault identification and reconfiguration, adaptive control, and agile maneuvering all operating on a single vehicle and under a single software architecture.

Principal investigators on the project are George J. Vachtsevanos, a professor in ECE’s systems and controls group, and Daniel Schrage and Eric Johnson, professors in the School of Aerospace Engineering. The Tech team was selected by DARPA to be the systems integrator for the entire rotary wing UAV project, integrating engineering advances from a distinguished group of other corporate and university researchers that included Draper Laboratories, Vanderbilt University, Scientific Systems Company Inc., Oregon Graduate Institute, Honeywell Laboratories, and Boeing.

The flight represents the completion of a DARPA/U.S. Air Force project to develop an innovative new software-enabled control (SEC) system with applications to UAVs. Based on this success, Tech has now been awarded funding for two follow-on programs for multiple UAVs in an urban warfare environment and for transitioning the technologies developed under the DARPA/AF program to military vehicles.

Data from Space: Adaptive Array Network Could Improve Access to NASA’s Earth Observing Satellites

Sophisticated signal processing techniques and simple proof-of-principle antenna arrays built from PVC pipe, aluminum foil, and copper wire could revolutionize the way NASA obtains data from its Earth observing satellites.

If the adaptive array system being studied by NASA, in partnership with Mary Ann Ingram, ECE associate professor in telecommunications, and her research group, ultimately proves feasible, it could dramatically decrease the cost of building and maintaining ground stations, thus enabling the cost-effective construction of many more ground stations. Ultimately, that could make information from the space agency’s Earth observing satellites more widely and rapidly available. The off-the-shelf technology has already demonstrated that it can successfully receive one satellite telemetry frequency.

The dream would be to provide total global coverage with these antenna systems and to network the systems together to make these NASA information services available to anybody sitting at a computer, almost like video-on-demand, explained Dr. Ingram. Timely information from Earth observing satellites could be useful in many ways, such as directing operations to fight a forest fire, for instance.

ECE Research in the News

More detailed versions of these stories, among many others, may be found on the ECE web site at www.ece.gatech.edu/news. Photos and stories were provided by Institute Communications and Public Affairs and the Georgia Tech Research News and Publications Office.
Georgia Tech Community Pays Tribute to Roger Webb

Over 300 faculty, staff, administrators, students, alumni, and friends paid tribute to Roger P. Webb at a reception honoring his 41 years of service to the School of Electrical and Computer Engineering (ECE) and Georgia Tech on January 21, 2005 at the Georgia Tech Global Learning Center.

When Dr. Webb joined the School in 1963, he was the 20th faculty member in electrical engineering, and Van Leer was a brand new program in honor of Roger P. Webb, who recently retired as the chair of the ECE Advisory Board, and his vast contributions to ECE and Georgia Tech spanning more than 40 years.

Starting in 2006, the event will be known as the Roger P. Webb Awards Program in the School of Electrical and Computer Engineering. Mr. Sutterfield, who has hosted the event for the last two years, and his fellow advisory board members consulted with Dr. Webb and all agreed that this annual awards program—which honors ECE's outstanding students, faculty, and staff—should continue in future years.

When Roger announced that he was going to retire, all of the members of the advisory board felt strongly that he should be honored in a prominent and lasting way, so we asked him what he would like us to do to honor his accomplishments, Mr. Sutterfield said. After some reflection, Roger asked that we endow the ECE Awards, a program he had started several years ago to recognize outstanding students, staff, and faculty in the School. This is an example of the focus of his leadership style. He is a first-class leader, educator, scholar, and human being who worked tirelessly for many years to help ECE achieve its phenomenal success. This honor is well deserved.

ECE Advisory Board Endows Annual Awards Program in Dr. Webb's Honor

At the fourth annual School of Electrical and Computer Engineering Awards Program held on April 28, 2005, C. Meade Sutterfield, chair of the ECE Advisory Board, announced that the Board is endowing the ECE Awards Program in honor of Roger P. Webb, who recently retired as the chair of the ECE Advisory Board, and his vast contributions to ECE and Georgia Tech spanning more than 40 years.

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On April 28, 2005, ECE celebrated the end of the academic year by holding its fourth annual awards program at the Georgia Tech Student Center Ballroom. C. Deton Alford (BEE ’76) and C. Masada-Sunderlik (BEE ’72), both members of the ECE Advisory Board, hosted the event, which honored the students, staff, and faculty who have shown exceptional dedication to their professions and studies, ECE, Georgia Tech, and the community as a whole.

This program was supported in part by the Honorable Daniel A. Webster, Florida State Senator representing the 9th District, Warren M. Batts (BEE ‘61), Framatome ANP, an AREVA and Siemens Company; and Milliken.

### STUDENT AWARDS

#### Outstanding ECE Sophomore Award

Recipient: R. Reeve Ingle

Recipient received the sophomore electrical or computer engineering student with the highest scholastic average presenting a plaque and a check for $250 from Milliken.

#### ECE Junior Scholar Award

Recipient: G. Wallace Tennille

Recipient was presented to the student who has a junior standing and has the highest GPA in ECE. The recipient was awarded a $250 check from Milliken and a plaque.

#### ECE Undergraduate Research Award

Recipient: George Cadena

Recipient recognized an undergraduate student who has demonstrated an unusually strong aptitude for research. The recipient was awarded a $250 check from Milliken and a plaque.

#### Most Outstanding ECE Senior Co-op Award

Recipient: Benjamin Alexander Johnson

Recipient was presented to the ECE co-op student who is considered to be the highest caliber of the co-op employer. The recipient was awarded a $250 check and a plaque.

### Staff Awards

#### Outstanding Service to Georgias Award

Recipient: Michael Rivera

Recipient Investing time in community activities can have significant rewards for Georgia Tech in the future, and recognizing students who participate in and organize such activities helps to motivate other students to do the same. The recipient was awarded a $250 check and a plaque.

#### ECE Faculty Award

Recipient: Anita Chow

Recipient was given to the electrical or computer engineering student who has demonstrated an unusually strong aptitude for research. The recipient was awarded a $250 check and a plaque.

#### Outstanding Electrical Engineering Senior Award

Recipient: Irene Chow

Recipient was presented to the senior faculty member who has made a significant contribution to research efforts in ECE. The recipient was awarded a $1,000 check and a plaque.

#### Outstanding Computer Engineering Senior Award

Recipient: W. Alan Doolittle

Recipient was presented to the senior faculty member who has made a significant contribution to research efforts in ECE. The recipient was awarded a $1,000 check and a plaque.

#### ECE Senior Scholar Award

Recipient: Justin Kloos

Recipient was awarded to the senior faculty member who has made a significant contribution to research efforts in ECE. The recipient was awarded a $1,000 check and a plaque.

### Graduate Awards:

#### Outstanding ECE Sophomore Graduate Award

Recipient: Jinyu Li

Recipient recognized the most outstanding assistant professor or general faculty member who has made a significant contribution to research efforts in ECE. The recipient was awarded a $1,000 check and a plaque.

#### Outstanding Junior Faculty Member Award

Recipient: W. Alan Doolittle

Recipient was presented to the researcher, classified employee, or general faculty member who has made a significant contribution to the ECE teaching or academic program. The recipient was awarded a $1,000 check and a plaque.

### Faculty Awards

#### ECE Graduate Research Assistant Excellence Award

Recipient: Omid Montahbani

Recipient is the cornerstone to ECE success.科研 assistants and graduate research assistants (GRAs) are the most important factors in ensuring that ECE remains a leader in the research community. The recipients were each awarded a $500 check and a plaque.

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### STAFF AWARDS

#### Hats Off Performance Award

Recipient: James Steinberg, Christine Sun

Recipient These awards, each consisting of a $1,000 check and a plaque, were presented to the outstanding graduate student(s) in ECE, as determined by scores made on the doctora preliminaries examinations during 2004-05. Each recipient received a cash award and a plaque.

#### ECE Graduate Teaching Assistant Excellence Award

Recipient: Joseph Lee

Recipient Teaching assistant was presented to the researcher, classified employee, or general faculty member who has made a significant contribution to research efforts in ECE. The recipient was awarded a $1,000 check and a plaque.

#### Outstanding Junior Faculty Member Award

Recipient: W. Alan Doolittle

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### Distinguished Faculty Achievement Award

Recipient: Jan F. Alkilid

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### 2005 ECE Award Winners

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Eight Alumni Receive Top Honors from CoE

The College of Engineering (CoE) held its annual alumni awards induction ceremony on November 5, 2004 at the Grand-Hyatt Atlanta. Eight ECE alumni were inducted into the following groups of honorees. Robert Gemmell, past YEA recipient, is also pictured.

College of Engineering Hall of Fame
E. Calvin Johnson (3) BEE 47
M. David Prince BEE 46, MSEE 49
Senior Staff Specialist (Retired) Lockheed Aeronautical Systems Company
Roger P. Webb (4) PhD 64
Steve W. Chaddick School Chair
School of Electrical and Computer Engineering
Georgia Tech

College of Engineering Council of Outstanding Young Engineering Alumni
Alan F. Krauss MSEE 91, PhD 95
Principal Engineer
Schneider Electric

College of Engineering Academy of Distinguished Engineering Alumni
Richard J. Coddington (5) BEE 66
Partner
Howrey, Simon, Arnold, and White LLP
Ronald S. Slaymaker (2) BEE 82
Vice President, Investor Relations
Texas Instruments

2005 Institute Award Winners

ECE faculty and staff members were recognized for their outstanding achievements at the Georgia Tech Faculty/Staff Honors Luncheon on April 21, 2005.

Class of 1934 Outstanding Innovative Use of Education Technology Award ............................................. Randal T. Ahler
Outstanding Faculty Leadership for the Development of Graduate Research Assistants ................................................................. Mark G. Allen
Class of 1940 W. Howard Ector Outstanding Teacher Award ................................................................. Jeffrey A. Davis
Class of 1934 Distinguished Professor Award ............................................. Thomas K. Gaylord

Twenty-Five Year Service Award
John F. Dorsey
Debra B. Kelley
Henry L. Owen, III
Eric J. Veriest

Ten-Year Service Award
Claudia Ford
Pamela Halverson
David Keeser
Joy Laskar
Dean A. Sutter
Denise Taylor
G. Yong Zhou

ETATOP KAPPA NU ANNUAL SPRING PICNIC

Nearly 400 students, faculty, and staff attended the annual ETA Kappa Nu Spring Picnic, which was held on April 22. Million was the industrial sponsor for this event.

Outstanding ECE Graduate Teaching Assistant Awards: Shilin Ayawon, David Allen Bauer, William Preston Galle, Bhan Shah Hossain, Tushar Kumar, Dwi Shilo Ayalon, David Allen Bauer, William Preston Galle, Bhan Shah Hossain, Tushar Kumar, Dwi

These awards were presented to the most outstanding classroom instructors—one junior faculty member and one senior faculty member—as determined by the ECE senior class. These faculty members were also recognized with this honor at the April 28 ECE Awards Program.
Shen Joins ECE Faculty; ME’s Degertekin Accepts Joint Appointment

Shyh-Chiang Shen, Assistant Professor
BSEE 93, National Taiwan University
MSEE 95, National Taiwan University
PhD ECE 01, University of Illinois at Urbana-Champaign
Area: Microsystems

Before joining Georgia Tech in January 2005, Dr. Shen spent four months as a postdoctoral research associate at the University of Illinois, where he worked on GaN HBT and LET projects. Prior to his postdoctoral position, he was a senior processing engineer at Xindium Technologies in Champaign, Ill., where he developed a proprietary InP SHBT (Single Heterojunction Bipolar Transistor) technology for 40Gb/s monolithically integrated optical receivers and was most recently responsible for InP-based power DHBT (Double Heterojunction Bipolar Transistor) fabrication process development for wireless communications. His research interests are in high-speed and high-power microelectronics, with emphasis on development of advanced semiconductor device technologies. Thus far, his research has resulted in five U.S. patents in the RF MEMS and HBT areas.

F. Levent Degertekin, Associate Professor
BSEE 89, Middle East Technical University, Turkey
MSEE 91, Bilkent University, Turkey
PhD ECE 97, Stanford University
Area: Microsystems

In January 2005, Dr. Degertekin accepted a joint appointment with ECE. His primary assignment is with Tech’s George W. Woodruff School of Mechanical Engineering, where he has been on the faculty since 2000. Prior to his career at Tech, Dr. Degertekin was an engineering research associate at the E.L. Ginzton Laboratory at Stanford University. His main areas of interest are in microelectromechanical systems (MEMS), acoustic and opto-acoustic devices, medical ultrasound imaging, and atomic force microscopy. The author of 13 U.S. patents and over 90 publications, Dr. Degertekin is a 2004 recipient of the National Science Foundation CAREER Award and the 2005 Young Faculty Award from the Tech chapter of Sigma Xi. He presently serves as associate editor of the IEEE Sensors Journal.
ECE Faculty Members Retire after Long, Distinguished Careers

Four ECE faculty members who have been key in establishing the School’s internationally recognized research and educational programs — Phillip E. Allen; W. Russell Callen, Jr.; Robert K. Feeney; and Jay H. Schlag — have retired in the last academic year.

The entire ECE community has benefited tremendously from the contributions of these fine faculty members over the years, said Gary S. May, Steve W. Chaddick School Chair of ECE. They will certainly be missed, but we wish them well in their next phase of life.

Phillip E. Allen
Retired June 1, 2005

Dr. Allen joined ECE in 1984 as the Schlumberger Chair Professor in Microelectronics, a position that he held until his retirement in June 2005. Prior to his arrival at Georgia Tech, Dr. Allen held faculty posts at the University of Nevada at Reno, the University of California at Santa Barbara, and Texas A&M University.

A Fellow of the IEEE and winner of the IEEE Circuits and Systems Society Golden Jubilee Medal, Dr. Allen has been a mainstay of ECE’s undergraduate and graduate instructional program in analog integrated circuit design and is a popular professional short course instructor in the same area. In 1989, he co-founded the Georgia Tech Analog Consortium (GTAC) and served as its leader until 2002. GTAC provides a venue for ECE faculty and students to initiate relationships with companies that are interested in research and education in analog microelectronic circuits.

W. Russell Callen, Jr.
Retired June 1, 2005

An ECE faculty member since 1970 and a co-author of An Introduction to Lasers and Their Applications, a highly respected undergraduate-level textbook, Dr. Callen has been one of the School’s most versatile instructors. While he has taught courses mostly in lasers and electro-optics, Dr. Callen has been involved with instruction in almost every technical area in ECE. For the last 15 years, he has been the course administrator and principal instructor for Fundamentals of Engineering and Electrical Engineering: Preparation for the PE Exam, courses designed to help practicing engineers prepare for the professional engineering examinations. The courses are offered through Georgia Tech’s Distance Learning and Professional Education Office.

During his career, Dr. Callen has been active in campus affairs as an elected member of Tech’s Academic Senate, Executive Board, and various standing committees. He has been an active participant in student-faculty organizations, including the Executive Round Table, ANAE, and OOK. Dr. Callen has received Georgia Tech’s Outstanding Service Award (1992), Outstanding Continuing Education Award (1996), ECE’s Richard M. Basu/Eta Kappa Nu Outstanding Teacher Award (1999), and the Class of 1940 W. Roane Beard Outstanding Teacher Award (2001).

Robert K. Feeney
Retired December 1, 2004

Dr. Feeney’s affiliation with ECE actually began in 1956, as an undergraduate student and where he continued with his graduate studies. In 1970, Dr. Feeney started his career as an ECE faculty member, with long-standing research and educational interests in RF (radio frequency) design, especially the application of computer-aided design techniques to non-linear circuits and oscillators. He established the first modern RF course at Georgia Tech in 1978, and together with David R. Herlting, professor and ECE associate chair emeritus, laid the foundation for one of the very first RF electronics educational programs, which has evolved into one of the most elite programs in the world.

For more than a decade, Drs. Feeney and Herlting taught RF and wireless engineering courses to practicing engineers at industrial sites and through Tech’s Professional Education Office. Dr. Feeney was involved in the initial development of the Microelectronics Research Center, and for many years, he supervised the Physical Electronics Laboratory, which conducted some of the School’s earliest research activities. He is a senior member of the IEEE and a member of the American Physical Society and Sigma Xi.

Jay H. Schlag
Retired November 1, 2004

Dr. Schlag’s association with ECE extends 42 years, when he came to Georgia Tech to pursue an M.S.E.E. and then a Ph.D. In 1967, he joined the School’s faculty, where he has made contributions in many different technical areas, including controls, microelectronics, computer engineering, and electronic circuits. In recent years, his research and educational interests have been primarily in computer applications and computer-aided design.

In 2001, Dr. Schlag was appointed ECE associate chair for Operations, where he has been involved in business operations and facilities issues. He has been the primary contact for the facilities design of the Technology Square Research Building, the Klaus Building, the renovation of the Burgner-Henry Building, and the forthcoming Nanotechnology Research Center Building. Though officially retired, Dr. Schlag continues to work half-time for ECE.
Robert J. Butera, Jr., is chairing the Education Committee for the IEEE Engineering in Medicine and Biology Society (EMBS) for 2005. This committee addresses matters of graduate, undergraduate, and continuing education in biomedical engineering, including standards and practices. Dr. Butera recently concluded two years as chair of the IEEE-EMBS Distinguished Lecturers Committee. He is an associate professor in the bioengineering and computer engineering technical interest groups.

W. Alan Doolittle, an assistant professor in the Microsystems and optics and photonics technical interest groups, was named as a recipient of a Lockheed Martin Aeronautics Company Dean’s Award for Teaching Excellence. Dr. Doolittle was chosen by the College of Engineering Dean’s Office for this award for his extraordinary efforts in teaching, inspiration transmitted to students, direct impact and involvement with students, intellectual integrity and scholarship, and impact on postgraduate success of students.

Gregory D. Durgin, an assistant professor in the electromagnetics group, received a Women in Engineering (WIE) Excellence Teaching Faculty Award at the WIE Excellence Awards Banquet on March 31 for his guidance of current and prospective students in and outside the classroom. Dr. Durgin is a professor in the systems and controls and electric power areas. Dr. Durgin is an associate professor in the systems and controls area, and Dr. Williams is an associate chair for ECE Faculty Development.

Ronald G. Harley is the recipient of the IEEE Power Engineering Society (PES) Cyril Vienott Award for his contributions to the analysis and design of electric machines and drive systems. Dr. Harley, who is the Duke Power Company Distinguished Professor and a member of the electric power technical interest group, will receive this award at the IEEE/PES general meeting, to be held in San Francisco, Calif. in June 2005.

Bonnie S. Heck, Jennifer E. Michaels, and Douglas B. Williams received the WIE Excellence Faculty Mentoring Award at the WIE Excellence Awards Banquet on March 31 for their guidance of current and prospective students in and outside the classroom. Dr. Heck is a professor in the systems and controls and electric power areas. Dr. Williams is an associate professor in the systems and controls area, and Dr. Williams is an associate chair for ECE Faculty Development.

Andrew F. Peterson is serving as vice president/president-elect of the IEEE Antennas and Propagation Society (AP-S) for 2005 and will serve as the Society’s president in 2006. Dr. Peterson is a professor in the electromagnetics technical interest group and associate chair for ECE Faculty Development.

Ronald W. Schafer has joined Hewlett-Packard Labs as the newest HP Fellow. An ECE Regents Professor Emeritus, Dr. Schafer works in the HP Mobile and Media Systems Lab on problems of acoustic signal processing for audio communication and entertainment. The title of HP Fellow is reserved for the company’s most talented technical leaders who demonstrate major impact across multiple technical and business areas.

Roger P. Webb received two awards in late March 2005. On March 31, he received the ECE Distinguished Alumnus Award at the University of Utah, located in Salt Lake City, where Dr. Webb earned his undergraduate degree in electrical engineering. Dr. Webb was also honored at the annual meeting of the Electrical and Computer Engineering Department Heads Association (ECEDHA) in New Orleans, La., where he received the ECEDHA Outstanding Leadership and Service Award.

Teijin Kasei Donation Honors Memory of Kevin Brennan

Lea A. McLees, widow of the late ECE faculty member, Kevin F. Brennan, was instrumental in facilitating a recent equipment donation to the School of ECE from Teijin Kasei America, based in Norcross, Ga.

Ms. McLees knew Al Patillo, who works at Teijin, through a common membership in the West Highland Terrier Club. At one of their meetings, Mr. Patillo mentioned that Teijin had a Nikon Polarizing Microscope that the company wished to donate, and Ms. McLees suggested that they consider giving it to ECE. After talking with the ECE Development Office, Teijin agreed to donate the microscope, valued at over $32,000, to the School in Dr. Brennan’s memory.

Mr. Patillo personally delivered the microscope last January, and Russell D. Dupuis, Steve W. Chaddick endowed Chair in Electro-Optics and Georgia Research Alliance Eminent Scholar, joined Nancy Sandlin, associate director of ECE Development, to receive the generous contribution. The microscope will eventually be located in a new laboratory that Styh-Chiung Shen, an assistant professor in the microsystems area, is developing. Currently, many students are putting the microscope to good use in a device processing lab for the Center for Compound Semiconductors. Both the lab and the microscope will eventually move into a compound semiconductor nanofab facility once the planned Nanotechnology Research Center is completed.
Hyllick Wins Prestigious Gates Cambridge Scholarship

Anthony Hyllick, a senior computer engineering major, will study at the University of Cambridge in England next fall as a winner of the highly esteemed Gates Cambridge Scholarship.

Mr. Hyllick, who plans to graduate in August 2005, will use this award to study for a doctorate in computer science, specializing in reconfigurable computer architecture, techniques, and designs. It is still overwhelming that I actually won the scholarship, when you look at the university's history and the milestones that have been accomplished by the faculty, he said. To be amongst this group of people is really amazing and very humbling.

A participant in the co-op program, Mr. Hyllick applied his knowledge of computer system hardware in troubleshooting problems, and he participated in Tech's Summer Undergraduate Research in Engineering (SURE) Program, which teams pre-selected, underrepresented minority students with faculty on research and encourages pursuit of graduate degrees. During this time, Mr. Hyllick worked with Ian Ferguson, an ECE professor in the microsystems area, on building a feedback control system for solid-state, indoor lighting systems. Outside of academics, he has been active in many campus organizations, including serving as fraternity president of Kappa Alpha Psi.

In the future, Mr. Hyllick plans to work in industry and eventually teach at a university. After a full career, he intends to teach high school and organize a mentoring program that encourages minority students to pursue science and engineering careers. A native of Warner Robins, Ga., Mr. Hyllick is the son of Greg and Mildred Hyllick, and his brother, Tyrone, is a Tech BSEE 02 graduate now employed with Georgia Power.

Parish Selected for Goldwater Scholarship

John Michael Parish, a junior electrical engineering major, received a 2005-06 Goldwater Scholarship. Named in honor of the late Arizona senator, the Barry M. Goldwater Scholarship Program fosters and encourages outstanding college sophomores and juniors to pursue careers in mathematics, natural sciences, and engineering.

Mr. Parish works at the U.S. Department of Defense through Georgia Tech's cooperative education program and is conducting research this summer at Georgia Tech Loraine (GTL) with Steven W. McLaughlin, Byers Professor and GTL's director of Research. Mr. Parish is working with Dr. McLaughlin on developing a method for encrypting communications that will be able to withstand the growing power of computers to crack them.

John is the caliber of undergraduate student who comes along only once or twice in an advisor's career, said Dr. McLaughlin. He is certainly the best undergraduate student I have worked with in my 12 years of teaching and research.

Last fall, Mr. Parish began a new student organization, the Marine Robotics Group. The group is building a robotic submarine, which they plan to enter into a competition this summer. After graduation, Mr. Parish would like to earn a doctorate and pursue a research career, most likely in electrical engineering.

ECE Students Learn about the School's Technical Interest Groups

The ECE Student-Faculty Committee organized an ECE Fair on April 11, 2005, to give ECE students an opportunity to learn about the School's 10 technical interest groups and about student organizations and activities. Approximately 350 undergraduate students visited tables where ECE faculty answered questions and offered demonstrations of related research. Student groups represented at this event included IEEE, Eta Kappa Nu, and Women of ECE.

This highly interactive event was designed to give ECE's students an opportunity to learn about the many sub-specialties within the School and to encourage them to pursue graduate studies in the field. James Holland, student chair of the Student-Faculty Committee, said, It made me feel great to hear all of the positive comments about this event. I think it is a great thing to offer our students, and we definitely intend to repeat this event next year.

ECE Students Receive Sigma Xi Honors

Two ECE graduate students—Raviv Raich and Siavash Pourkamali—received awards for Best Ph.D. Thesis and Best M.S. Thesis from the Georgia Tech chapter of Sigma Xi. They received these honors at the annual Sigma Xi banquet on April 6, 2005.

Dr. Raich received a Best Ph.D. Thesis Award for his thesis entitled Nonlinear System Identification and Analysis with Applications to Power Amplifier Modeling and Power Amplifier Predistortion. He graduated with his Ph.D. in spring 2004, and his Ph.D. advisor was G. Tong Zhou, a professor in the digital signal processing and bioengineering groups. Dr. Raich is currently a postdoctoral fellow in the Department of Electrical Engineering and Computer Science at the University of Michigan at Ann Arbor.

Mr. Pourkamali received a Best M.S. Thesis Award for his thesis entitled Electrically-Coupled MEMS Bandpass Filters. He graduated with his M.S. in spring 2004, and his M.S. advisor was Farrokh Ayaei, an associate professor in the microsystems and electronic design and applications groups. Mr. Pourkamali has continued his studies on the Ph.D. level in Dr. Ayaei's group.

Dr. Ayazi's group has continued his studies on the Ph.D. level in Dr. Ayaei's group.
Galactic Designers Take Top Prize at FIRST LEGO League Challenge

Forty-eight teams, representing elementary and middle school students aged 9-14, gathered at the Georgia Tech Campus Recreation Center in January 2005 to compete in the State of Georgia FIRST LEGO League Challenge. This year’s theme was No Limits, in which students used the LEGO Mindstorms Robotics Invention System to build robots that could perform tasks for someone with limited mobility or motor skills. In the end, Galactic Designers, an eight-member team from The Galloway School and Warren T. Jackson Elementary School of Atlanta and Sope Creek Elementary School and Dickerson Middle School in Marietta, Ga., claimed first prize for the second year in a row. Coached by David Turner, the Galactic Designers are (back row, l-r) Rand Elsbree, age 12; Danny Kreus, age 10; Drew Eikhoff, age 12; and Sean Eikhoff, age 10 and (front row, l-r) Hailey Brown, age 11; Jake Tumer, age 10; Sutton Birch, age 10; and Austin Mattheissen, age 12. The competition is supported by grants from the National Science Foundation, Kimberly Clark, and the Netherlands American Trust.

Jeffrey A. Davis, an ECE associate professor, is the coordinator of the State of Georgia FIRST LEGO League Challenge. In addition, many ECE students, faculty, and staff also help in running this activity, from judging presentations and refereeing events to handling team registration.

New Organization Formed for ECE Women

Last fall, a new organization was formed in ECE to begin addressing an issue of ongoing concern—the persistently low enrollment of women in the School. While the overall female enrollments at Georgia Tech have risen steadily, reaching over 30 percent last fall, the women in ECE represent just over 10 percent of the School’s student body.

The initial gathering consisted of a group of female students who have exhibited leadership within the School through participation in various activities and organizations. The consensus of this group was strong, immediate, and unanimous: the time had come for ECE to have an organization of and for women. They decided to call themselves Women of ECE and quickly adopted a banner statement derived from their acronym: Welcoming, Encouraging, Celebrating, and Empowering (WECE).

WECE has undertaken an energetic program of outreach to female students in ECE and to prospective female students throughout this last academic year. WECE sponsored a welcome reception a Halloween-Tech trivia party held at the Student Center Ballroom on October 25, 2004, for ECE’s undergraduate and graduate female students. WECE has also participated in Institute outreach programs sponsored by Women in Engineering and Georgia Tech’s Special Admissions Office. In addition, WECE has conducted its own targeted outreach to elementary, middle, and high schools throughout metropolitan Atlanta.

On April 11, 2005, WECE celebrated its first successful year with a dinner and bowling party at the Student Center, sponsored by Harris Corporation. Elizabeth Guthrie, of Harris Corporation and Georgia Tech alumna who attended the event, said, I am so excited to see the energy and synergy of WECE. It is definitely a much needed presence in ECE.

Alford Wins 3 Silver Medals at USA Weightlifting Junior National Tournament

Georgia Tech freshman Chandler Alford of Conyers, Ga. won three silver medals at the USA Weightlifting Junior National Olympic Weightlifting Tournament, held in St. Paul, Minn. in early April 2005. As a result of Mr. Alford’s performance, he made the Junior Pan American Team and is currently ranked number one on the eight-man team. He also qualified as an alternate for the Junior World Team. The Junior World Championship was held in Busan, Korea on May 15-22, 2005, and the Junior Pan American Championship will be held in Caguas, Puerto Rico on October 20-22, 2005.

An electrical engineering major and a Dean’s List student, Mr. Alford trains under Coach Eric Ciano, Tech’s head strength and conditioning coach, and Coach C.J. Stockel, sports performance director at Velocity Sports Performance in Peachtree City, Ga.
Rod Adkins Named New Chair of President’s Advisory Board

In April 2005, Rod Adkins (BSEE 81, MSEEE 83) was elected as the new chair of the Georgia Tech Advisory Board (GTAB), a 60-member body that advises Georgia Tech President G. Wayne Clough on advancing the Institute’s education, research, and outreach missions.

Rod’s participation with the GTAB over the past years has been invaluable, said President Clough. As its new chair, I am confident that his leadership will help advance the Institute’s missions and goals.

Since joining IBM in 1981 as a junior engineer, Mr. Adkins has ascended to become one of the company’s highest ranking executives. Mr. Adkins currently serves as vice president for Development in IBM’s Systems and Technology Group, which is a major force in driving the company’s corporate and technical direction. He also serves on an elite, worldwide management committee comprised of IBM’s top 50 executives, who work with Sam Palmisano, IBM’s CEO, to establish the direction and priorities for the entire company.

Mr. Adkins also serves as co-chairman of IBM’s Multicultural People in Technology program and is an active participant in the company’s National Black Family Technology Awareness Initiative. He credits much of his success to his experience at Tech.

I have no doubt that my experience at Tech has helped advance my career, Mr. Adkins said. The education I had from this world-class Institute gave me an unsurpassed technical base, and the personal challenge to meet the academic demands built a personal tenacity and strength that I have carried with me throughout my career.

Mr. Adkins record of accomplishments has brought him recognition beyond the corporate world of IBM. In 2001, he earned the Golden Torch Award for Lifetime Achievement in Industry from the National Society of Black Engineers/Fortune magazine named him one of the 50 most powerful black executives in America in 2002; Savoy magazine named him one of the 100 most influential blacks in America in 2002 and 2003. Computerworld magazine recognized him as one of its Premier 100 IT Leaders for Innovation in 2004; and he was recognized by Black Engineer of the Year as one of the Top 50 Blacks in Technology in 2004 and 2005. Topping this list of achievements, Mr. Adkins was elected to the National Academy of Engineering in 2005.

Rod is a good friend and has been a strong supporter of Georgia Tech for many years, said Gary S. May, Steve W. Chaddick School Chair of ECE. I am very pleased by his appointment as chair of GTAB, and I very much look forward to our further interactions in this new role.

In addition to his involvement with the GTAB, Mr. Adkins is a trustee for the Georgia Tech Research Institute.

ALUMNI NEWS

Douglas Humme (BEE 77) was granted a professional engineer (PE) license by the State of Mississippi in September 2004. Mr. Humme now has PE licenses from 10 states. He works for CHPA Consulting Engineers in Houston, Tex.

Colonel (Ret.) Herchell A. (Allen) Boyd (BAE 76, MSEEE 88) has been named executive director, National Ground Intelligence Center (NGIC), in Charlottesville, Va. In this capacity, Col. Boyd oversees the development of general military and scientific and technical intelligence for worldwide ground forces. He previously directed the Joint Tactical Radio System (JTRS) business area for Rockwell Collins Inc., located in Cedar Rapids, Iowa.1

Charles Hilo Smith (BEE 85) was promoted on September 25, 2004 to executive director in the Signal Exploitation and Geolocation Division at Southwest Research Institute in San Antonio, Tex. Mr. Smith was previously director of the Signal Acquisition and Radiolocation Department.2 He will be responsible for coordinating activities in the Tactical Systems, Strategic Systems, and Software Engineering Departments, as well as overseeing the division’s agents and consultants.

John H.L. Hansen (MSEE 83, PhD 88) was recently selected by the IEEE Signal Processing Society to serve as Distinguished Lecturer for 2005-06. He serves as department chair for Speech, Language, and Hearing Sciences (SLHS) and professor in SLHS and electrical engineering at the University of Colorado at Boulder. In the fall of 2005, he moves to the University of Texas at Dallas, where he will serve as department chair of ECE, hold an endowed Chair in Telecommunications, and serve as director for the Center for Robust Speech Systems.

Nora Tocups (BEE 89) practices patent law as a solo practitioner, specializing in patent application preparation and prosecution. She lives in Decatur, Ga.

Cesbron Frederique (MSEE 92, PhD 97) lives in Paris, France.

Hyeong-Kyo Kim (PhD 93) is a professor at Hansin University in Korea.

Farzad Ghannadian (PhD 97) lives in San Jose, Calif.

Chong Pak (BEE 97), an engineer with Alcatel, is currently finishing his MSEEE at the University of Texas at Dallas.

Ryan Thompson (BSCE 00, MSECE 01) is an engineer with Qualcomm in Cary, N.C.

Jared McGehee (MSEE 01) and Megan Shadduck were married October 9, 2004 in Fredericksburg, Tex. Mr. McGehee is a signal processing research engineer at Southwest Research Institute, and his wife is a pediatric occupational therapist at the Methodist Children’s Hospital, both of which are in San Antonio, Tex.

Lindsay Prater (BSEE 01) is an electrical engineer in the Office of Information Technology at Georgia Tech in Atlanta, Ga. He says, I guess I’ll have to return that I Got Out! T-shirt from graduation since technically I am still here. Mr. Prater is learning Mandarin Chinese (and loving it) now, thanks to all of the motivation his fellow ECE students gave him.

Jay Bhatnagar (02) is currently vice presi-
We Want to Know! Share your news with your ECE classmates and friends. Just complete this form, clip, and mail or visit our web page at www.ece.gatech.edu/alumni and tell us online.

Name __________________________ Degree/Year __________________________

Information for ECE News (recent awards, job changes, papers, patents, etc.) __________________________

Home Address __________________________

Work Address (including company name) __________________________

Daytime Phone __________________________ Email __________________________

Mail to Suzy Briggs at the School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA 30332-0250

**Feedback ECE Connection**

This publication is for you, our alumni. It is a venue for keeping you informed of the many developments, breakthroughs, and major events in ECE. It is intended to complement Georgia Tech and College of Engineering publications. Please take a minute to give us your feedback on ECE Connection, so that we can make it responsive to your needs. If you would prefer to complete our questionnaire online, visit www.ece.gatech.edu/survey.

1. Does ECE Connection provide you with enough information so that you feel up-to-date on School activities?
   - [ ] Yes
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2. Would you like to see more articles on...
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   - [ ] Faculty (human interest, not directly connected to ECE)
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3. Would you like to see articles that are...
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5. Do you visit our web site (www.ece.gatech.edu) on a regular basis?
   - [ ] Yes
   - [ ] No

6. Do you visit ECE Highlights on our website (www.ece.gatech.edu/highlights) on a regular basis?
   - [ ] Yes
   - [ ] No

Comments:

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Ji-Weon Jeong (PhD 02) is a senior research engineer with LG Chem in Korea. He states his feeling is that Georgia Tech’s rich DSP expertise helped him with insights into advances into communications and signal processing.

Salil Arora (BSEE 03, MSECE 04) is a manufacturing and automation engineer with Dell, Inc. in Nashville, Tenn.

Chris Wieczerok (BSEE 03, MSECE 05) will be attending the Catholic University of America Columbus School of Law with the intention to specialize in telecommunications law.

Matthew Bryant (BSEE 04) is an electronic engineer with Warner Robins Air Logistics Center, Warner Robins Air Force Base, Ga.

Sean MacCallum (BScmpE 04) is an engineer associate in Alexandria, Va.

Chris Roberts (BSEE 04) is an engineer with Scientific Research Corporation in Warner Robins, Ga. He was married on July 10, 2004 to Jessica Griffin.

Han-Woong Son (PhD 04) is a senior analog circuit designer with Techwell, Inc. in San Jose, Calif.

Nalishia Taylor (BSEE 04) is a desktop support technician for Greenberg Traurig in Davie, Fla. m
Samsung to Open Atlanta RFIC Design Center

On April 27, 2005, the Samsung Electro-Mechanics Company, Ltd. (SEM) announced its intention to establish a Georgia-based design center to develop next generation radio frequency integrated circuit (RFIC) technology. The Center, to be initially housed at the Georgia Electronic Design Center (GEDC) at Technology Square, is expected to become the company’s principal North American research location. Chang-Ho Lee, formerly with the GEDC, has been named director of the new design center.

Samsung is one of today’s top electronics companies, said Georgia Governor Sonny Perdue. We are pleased that Samsung has chosen Georgia for this new design center, and we look forward to having them as part of Georgia’s growing economy.

Officials of the South Korean company cited the opportunity to collaborate with Georgia Tech researchers and support from the GEDC as their primary reason for choosing an Atlanta location for the new design center. Samsung has had a successful research interaction with Tech for almost a decade.

Georgia Tech President Wayne Clough welcomed the announcement, noting that Tech is a world-class center for research and enjoys an excellent reputation in the area of RF integrated circuits and related technology.

The Georgia Electronic Design Center, in partnership with our School of Electrical and Computer Engineering, is a world leader in technology for mixed-signal electronics. Dr. Clough noted. As wireless devices and RFIC technology become increasingly important to our economy, these resources will continue to attract companies, top researchers, and the best students to Georgia Tech and Atlanta.

Harris CEO Gives 4th Annual James R. Carreker Distinguished Lecture

On April 7, 2005, Howard Lance, chairman, president, and CEO of Harris Corporation, was the speaker for the James R. Carreker Distinguished Lecture. Mr. Lance, who has served in this leadership role with Harris since 2003, spoke on Advanced Communications and Information Technology — Integrated Solutions for Prosperous and Perilous Times. His presentation included a discussion of technologies currently under development—from avionics on major weapons platforms to HD radio and mobile video—and some of the company’s more interesting applications, including programs for the FAA, Census Bureau and National Archives, tactical radios for U.S. and allied forces in Iraq and Afghanistan, broadcast and wireless communications in Romania and Nigeria, and the creation of a modern media infrastructure for the citizens of Iraq.

On April 7, 2005, Howard Lance (l) is greeted by Georgia Tech President G. Wayne Clough. (Top left) Howard Lance describes Harris Corporation’s technologies under development. (Left) Howard Lance; James R. Carreker; Gary S. May, Steve W. Chaddick School Chair for ECE; and Nick Heldreth, Harris Corporation’s vice president of Human Resources, at the pre-lecture reception.