LETTER FROM THE CHAIR

This will be the last Annual Report under my watch as chair of the Woodruff School of Mechanical Engineering. As most of you know, I announced last November my intention to retire at the end of May 2007. In the spring, I was feted with several very nice going away parties. Some of my former Ph.D. students came from across the country and overseas to participate in the celebrations. I was humbled by the honors presented to me. The honors included being named Emeritus Chair of the School, having a Seminar Room named for me, having an oil portrait commissioned, and having the Faculty Development Fund named for me. In spite of all that recognition, I am still chair of the School through the end of November. As many of you know, the replacement process for administrators at universities is often a slow process, and the Dean, Don Giddens, asked me to stay on until a replacement was named. I agreed to stay until the end of November 2007. I fully expect a replacement to be named by that time. I have enjoyed my time as chair of the Woodruff School and am honored to have been in this position during a time of tremendous growth in terms of enrollment, faculty, physical facilities, endowment and recognition. I will miss all of this, but I look forward to more control over my time in retirement.

During the past year, there have been several significant events in the School. Probably the most important was the successful Academic Program Review which was conducted by an outside committee of experts in the fields of mechanical and nuclear engineering. This review is a requirement of both the Institute and the Board of Regents that occurs every five years for each academic unit. We had a very illustrious committee for an on-site visit in February, and we were pleased with the glowing report that they submitted. In a way, it was not a surprise since we believe we do a good job and we strive to improve. But it is always good to get external confirmation.

A second significant event was the tremendous effort given to recruiting faculty. A recent review of the last fourteen months shows that we have hired 19 new faculty members - three for the Georgia Tech Savannah Mechanical Engineering program, one for the Georgia Tech Lorraine Mechanical Engineering program, four for the Nuclear Engineering program, and the remainder for the Atlanta Campus Mechanical Engineering program. We have been able to attract very talented and enthusiastic new faculty members, most of them at the assistant professor level. We lost some faculty to retirement, others to resignations, and others were recruited to other institutions. Marc Levenston went to Stanford. Chris Lynch went to the University of California at Los Angeles. Bill King went to the University of Illinois. Tom Kurfess went to Clemson. Dan Baldwin went to industry. So the new faculty not only replaced those who left, but allowed us to grow to help match our faculty size to our enrollment, which has continued to grow. Based on enrollment, we still need additional faculty and hope to add them in the coming year. We also graduated a record number of bachelor’s, master’s, and doctoral students. As you will see in the statistics presented in this report, not only is enrollment up, but student quality continues to improve. We have a very talented group of undergraduate and graduate students.

Another significant change was the loss of our long term development officer, Caroline Wood, who left to join the Corporate Development Office at Georgia Tech. I told her not to forget her roots and to be sure to do corporate development for mechanical engineering. We welcomed aboard Tom Lawley as our new Director of Development. Tom graduated in 1995 from St. Andrews Presbyterian College in Laurinburg, NC and has held previous development positions at the Atlanta Union Mission, Emory University, and Children’s Memorial Foundation in Chicago. Tom is an experienced development officer and has gotten off to a good start. We look forward to his helping the school build the endowment and obtain funds to help us continue with our excellent programs.

Also during the year, we had two excellent special lectures. The Woodruff Distinguished Lecture about the world energy situation was given by Steven Koonin, Chief Scientist at BP in April. The Gegenheimer Lecture on Innovation about the development of the Boeing Dreamliner 787 was given by Mark Jenks, Wing Design Team Leader at the Boeing Company in December.

Finally, let me thank all of our alums and friends of the Woodruff School particularly those who have supported the School in one way or another over the past twenty years. You have helped make my job easier and helped advance the cause of Mechanical and Nuclear Engineering and Georgia Tech in general. I encourage you to welcome and support my replacement.

Ward O. Winer
Eugene C. Gwaltney, Jr. School Chair
Atlanta, September 2007
THE WOODRUFF DISTINGUISHED LECTURE
The Woodruff Distinguished Lecture was given by Dr. Steven E. Koonin, Chief Scientist of BP, on April 24, 2007 to an audience eager to hear about Energy Trends and Technologies for the Coming Decades. He said that the world’s demand for energy will grow by some sixty percent in the next twenty-five years. Satisfying that demand in an economical and environmentally acceptable manner is one of the most significant challenges facing society. New technologies will play a central role in meeting this challenge, conditioned by the economic, social, and political contexts in which they are developed and deployed.

Dr. Koonin was born in Brooklyn, New York and educated at Caltech (B.S. in physics) and at MIT (Ph.D. in theoretical physics). He joined the Caltech faculty in 1975, becoming a full professor in 1981 and serving as the Institute’s Provost from 1995-2004. He left Caltech in 2004 to become BP’s Chief Scientist, where he is responsible for BP’s long-range technology plans and activities, particularly those “beyond petroleum.”

GEGENHEIMER LECTURE ON INNOVATION
The Gegenheimer Lecture on Innovation was given by Mark D. Jenks, 787 Wing, Empennage and Landing Gear Team Leader for The Boeing Company to a packed house in Georgia Tech’s Ferst Center for the Arts in December 2006. He talked about the development of Boeing’s 787 Dreamliner, which represents a breakthrough in aerospace structures technology with the first-ever composite fuselage and wing, a major advance in large-scale global collaboration, and the creation of a new business model for global cooperation.

Mark Jenks has worked for Boeing since 1983. In his current position, he leads the international team responsible for design, manufacture, certification and delivery of the wing, empennage, and landing gear for the 787. Prior, he was director of Technology Integration for the Sonic Cruiser program, Chief Engineer and Deputy Program Manager for the International Space Station, and Manager of the Helicopters Division Development Center. He holds B.S. and M.S. degrees in Aeronautical Engineering from Rensselaer Polytechnic Institute, and M.S. degrees in Management and Materials Engineering form MIT.

THE ANNUAL SPRING BANQUET
We had another extremely successful spring banquet to honor graduating seniors and undergraduate and graduate students who had won awards during the academic year, and to hear from our Distinguished Alumnus and Outstanding Educator. The annual event is planned and organized by the Woodruff School Student Advisory Committee and is sponsored by the Woodruff Endowment. More than 235 people attended the banquet in the Student Center Ballroom. After the buffet dinner, School Chair Dr. Ward Winer introduced Jean Albert Mori (BME 1958, the Outstanding Alumnus and Dr. Jon Colton, the Zeigler Outstanding Educator. [There are accompanying articles about both these recognitions.]

Once again the students voted on awards to faculty and staff in the School. This year’s recipients were: The Campanile Award to the person who embodies the true spirit of Georgia Tech: Dr. Ye-Hwa Chen. The Borat Award to the person who is the most culturally aware: Dr. John Papastavridis. The Good Will Hunting Award to the person who knows everything about everything: Dr. Al Ferri. The Bruce Almighty Award to the person who has subtle ways of letting you know that he/she is the boss: Dr. Jon Colton. The Back to the Future Award to the person who jumps back and forth between topics: Dr. Marc Smith. The Thomas Crowne Affair Award to the person who has the most interesting artistic abilities: Dr. Wayne White. The Zoolander Award to the person who is dressed and ready for the runway: Dr. Jens Karlsson. The Patch Adams Award to the person who is concerned for your well-being: Ms. Norma Frank.
ANNUAL GRADUATE COOKOUT

The Annual Cookout for Woodruff School graduate (new and returning) students, faculty, and staff was held at the end of the third week of classes for the fall 2006 semester. More than 500 people attended the lunchtime cookout. Our new tee-shirt was distributed. The theme was *Engineering the Future Since 1885*. This event is a great opportunity for new graduate students to meet returning students and to talk with faculty and staff in an informal setting.

SENIORS HONORED AT DINNER

In 2006, ninety-six Woodruff School undergraduate students qualified to attend the annual dinner to honor outstanding seniors and to encourage them to attend graduate school. An invitation to the dinner is based on academic record, a grade point average of 3.5 or above. After the buffet dinner, faculty members told short stories or anecdotes about graduate school. The event was also an opportunity for the undergraduate students to interact with some current graduate students and to learn about the different options for study and research at Georgia Tech. Information was provided on admissions, fellowships, financial aid, and the Georgia Tech Lorraine program for study in France.

THE WOODRUFF SCHOOL DISTINGUISHED ALUMNUS

The Woodruff School Distinguished Alumnus Award was inaugurated in 1989 to recognize an outstanding alumnus of the School. Mr. Jean Albert Mori (BME 1958) was selected for this honor in 2007. He was recognized at the Annual Spring Banquet, where he talked about how his Georgia Tech education helped him succeed. He said, “ME has given me a basis for life; it gave me rigor. ME is one of the best engineering degrees to have. Beware of the man or woman who will not be bothered with the details. Mechanical engineering teaches you to bother with the details. This is an important foundation that Georgia Tech gives you.”

Mr. Mori is CEO of Mori Luggage & Gifts, a retail specialty store chain based in Atlanta with 28 stores in Georgia, Florida, Tennessee, South Carolina, and Alabama. He and his wife, Betty, founded the business in 1971.

After receiving his BME in 1958, he served as an officer in the US Air Force for three years. He earned his MBA from Emory University in 1963, graduating first in his class. After two years with Exxon he joined several Tech graduates in building one of the first computer systems consulting and software companies, Management Science America. He was Executive Vice President and served on its board until 1971.

Mori was honored as the Small Businessman of the Year in 1987 by the Atlanta Chamber of Commerce. In 1995 he received the Emory University Goizueta Business School Distinguished Achievement Award and in 1996, he received the Georgia Tech College of Engineering Distinguished Alumnus Award.

THE ZEIGLER OUTSTANDING EDUCATOR

The Jack M. Zeigler (BME 1948) Outstanding Educator Award was created in 1999 to honor members of the School’s academic faculty who epitomize outstanding educators. Professor Jonathan Colton is the 2007 recipient in recognition of exceptional contributions to the curriculum and climate for education in manufacturing and materials processing within the Woodruff School. In accepting his award, Colton said that “Professors take great pride in their students. Being a professor is a lot of fun. Continue to learn,” he told the students; “learn one new thing each day. To be a good educator, one needs good students.”

Dr. Colton earned his doctorate in ME in 1986 from MIT, and joined the Woodruff School directly thereafter. His technical interests range from polymer composite design and manufacturing to micro/nanotechnology and green manufacturing.

Dr. Colton has developed and taught eight undergraduate level and six graduate level courses, contributed to educational program enhancement and outreach both within the School and campus-wide, and advised nine Ph.D. and 39 master’s students. He is a Fellow of the ASME and the Society of Plastics Engineers.

FAMILY WEEKEND

Each year, Georgia Tech’s Family Weekend attracts large crowds to campus. In conjunction with the activities planned by the Alumni Association, the Woodruff School holds an open house for the families of our undergraduate students. Dr. Dave Sanborn, Associate Chair for Undergraduate Studies, led two information sessions about what the students were being taught in the Woodruff School. A question-and-answer session followed. There were opportunities to talk with the undergraduate academic advisors. The student-conducted lab tours were popular. The student competition groups displayed their vehicles and robots, and the student chapters of professional societies, the general service groups, and the honor society had information tables.
LONG-TIME SCHOOL CHAIR RETIRES

Ward O. Winer, also known as WOW, the Eugene C. Gwaltney, Jr. School Chair and Regents’ Professor, announced his retirement from Georgia Tech on November 1, 2006. He said, “I have enjoyed my time as School Chair and still enjoy 95 percent of what I do. This is a great place and a great group to work with. I have decided that I want to have more control over my time for the time I have left, and the typical work week of a School Chair doesn’t give me enough time to do many of the other things I would like to do. Thanks to all of you for your support of the School and of me as School Chair.”

A program celebrating WOW’s almost four decades (1969-2007) of service to Georgia Tech and the Woodruff School was held at the end of April. Georgia Tech President Wayne Clough and Dean of Engineering Don Giddens spoke; a special WOW retirement edition of mega tech was distributed; an oil portrait of WOW was unveiled; the School Chair received a rocking chair; it was announced that MRDC, Room 4211 would be renamed The Winer Seminar Room; and the Faculty Development Fund was renamed in his honor.

Since Georgia Tech opened its doors in 1888 there have been seven chairs or directors of ME. Ward’s 19-year tenure (1988-2007) as School Chair is the third longest, exceeded only by J. S. Coon (1888-1923, 35 years) and Roy S. King (1925-1946, 21 years). The first three chairs of ME served a total of 72 years out of the 119-year history of Mechanical Engineering at Georgia Tech.

THE WARD O. WINER PROFESSIONAL DEVELOPMENT FUND

Sometime after School Chair and Honorary Alumnus Ward Winer announced his retirement from Georgia Tech, a group of Woodruff School faculty and staff members decided that renaming the Faculty Development Fund after Ward would best honor his commitment to the development of the faculty and to the betterment of engineering education. As part of the retirement ceremonies on April 30, 2007, the fund for faculty development was renamed the Ward O. Winer Professional Development Fund.

The purpose of this professional development endowment is to combat the fierce competition for superior faculty. Thus, an endowment to encourage life-long learning and rejuvenation of professional skills is necessary. A professional development endowment program will allow faculty to be temporarily released from their teaching and research responsibilities to explore new areas. Faculty will return with a new set of skills that will translate into a better educational experience for our students. This endowment will also be used to expand the breadth of our programs by inviting faculty from other universities to spend time at the Woodruff School.

PROGRAMS

ACCREDITATION

Georgia Tech has institutional accreditation from the Southern Association of Colleges and Schools. The Bachelor of Science in Mechanical Engineering (BSME) and the Bachelor of Science in Nuclear and Radiological Engineering (BSNRE) degree programs are accredited by the Engineering Accreditation Commission of ABET. The Woodruff School will undergo an ABET review of our undergraduate programs (BSME, BSNRE and GT Savannah) in fall 2008. Preparations are well underway for this evaluation. The Georgia Tech Cooperative Program is accredited by the Accreditation Council for Cooperative Education.

UNDERGRADUATE PROGRAM REVIEW

[This review was prepared by Dr. Dave Sanborn, Associate Chair for Undergraduate Studies.]

Once again, undergraduate enrollments increased. The total school enrollment for 2007-2008 is 1765 (up 3%). This breaks down to 1550 in ME in Atlanta (up just slightly), 172 in NRE (up 16%), 2 jointly in ME and NRE, and 41 in ME in Savannah (up 128%). We continue to get a large share of both the transfer and undecided students.

Mechanical engineering students continue to take advantage of opportunities to participate in cooperative programs, professional internships, and study abroad programs. These activities have become increasingly important to employers seeking candidates. Approximately 50-60 percent of our undergraduates participate in the cooperative or internship programs and approximately 40 percent have study or work experience abroad.

The curriculum requirements are unchanged this year. Because the students must have six hours of ME electives, rather than simply technical electives, a number of new electives have been added: Internal Combustion Engines, Motion Control, Fuel Cells, Environmentally Conscious Design and Manufacturing, Renewable Energy Systems, and Biologically Inspired Design.

All programs in the College of Engineering are scheduled for an ABET accreditation visit next fall. We started preparing a year ago and will continue to collect data through the Spring 2008 semester. Our task is to show that the School is meeting its stated objectives (capabilities of our graduates approximately five years after graduation) and our outcomes (capabilities of our students upon graduation). [To view our outcomes and objectives, go to www.me.gatech.edu and click on Accreditation.] Our degree of success is determined by direct measures of classroom performance, by performance on the standardized Fundamentals of Engineering (EIT) Exam, by feedback from our External Advisory Board, by evaluations of design projects by practicing engineers, and by survey results of students, alumni and employers.
PROFESSIONAL PRACTICE

The Division of Professional Practice offers four unique programs. More than 3,000 Georgia Tech students currently participate in the programs and are employed by more than 1,000 businesses and organizations worldwide.

According to Tom Akins, Executive Director of the Division of Professional Practice, "With the impending retirement of many in the baby-boom generation, employers are desperately seeking top quality talent, specifically in engineering and technology. The ME student is one of the most sought-after candidates in the labor market today.

Demand for co-ops and interns in this field is far above the supply of students. It is definitely a student's market once again. And these jobs are not just in the US, but around the globe."

The Undergraduate Cooperative Program

Since 1912, Georgia Tech has offered a five-year undergraduate cooperative program to those students who wish to combine career-related experience with classroom studies. Students alternate between industrial assignments and classroom studies until they complete four or five semesters of work. The program is designed to be started during a student's freshman or sophomore year.

Students who participate in the program have the opportunity to develop career interests, become more confident in their career choices, and develop human relation skills through their work experience. Graduates of the program receive a bachelor's degree with a Cooperative Plan designation. In 2006, 2997 Georgia Tech undergraduates were enrolled in the program and 303 degrees were awarded.

Woodruff School students have traditionally been the largest group in the program. In summer 2006, there were 369 co-ops (358 ME, 11 NRE), in fall 2006, there were 533 co-ops (503 ME, 30 NRE), and in spring 2007, there were 548 (518 ME, 30 NRE) co-ops from the Woodruff School. A total of 70 students graduated in the past academic year with the Cooperative Plan designation on their B.S. degree; of these, 69 were ME's and one was an NRE.

The largest employers of ME students are General Electric (29), McKenney's, Inc. (26), Southern Company (15), Newcomb & Boyd (12), General Motors (9), HESM&A (7), Shumate Mechanical (7), John Deere (6), Gulfstream Aerospace (6), and Prime Engineering (6).

The Graduate Cooperative Program

The Georgia Tech Graduate Cooperative Program was established in December 1983 and is the largest such program in the United States for science and engineering. Twenty mechanical engineering graduate students participated in the program in the past academic year, working for such employers as IBM, Norfolk Southern and Intel Corporation. Graduate co-ops can work and attend classes at the same time; they do not get a designation on their degree.

The Undergraduate Professional Internship Program

This program is geared toward students who do not participate in the Cooperative Program, but want some career-related experience before graduation; typically, they are juniors and seniors. In the past academic year, 43 (39 ME, 4 NRE) students participated in the program (27 in summer 2006, 7 in fall 2006, and 9 in spring 2007). Students generally work for one semester with an option for more work. Some of the places to employ ME students were: American Medical Corporation, Atlanta Gas Light Resources, Caterpillar, Club Car, Duke Energy, Ford Motor, Company, GE Infrastructure, Honda Manufacturing, Rockwell Automation, and Toyota Motor Manufacturing. NRE students worked at City of Hampton Department of Public Works, Idaho National Laboratory, Oak Ridge National Laboratory, and the Southern Company.

The Work Abroad Program

The Work Abroad Program is an immersive academic program designed to complement a student's formal education with paid practical international work experience directly related to the student's major. Juniors, seniors, and graduate students are all eligible for this program, which includes co-op, internship, graduate and undergraduate work experiences. The international work assignments are designed to include practical training, cross-cultural exposure and learning, and acquisition of the skills that will set apart the participating students from their peers. The Work Abroad Program may also be used to satisfy requirements for the International Plan.

From fall 2006 through summer 2007, 46 students worked abroad in 19 countries. The top three countries are France (10), Germany (10), and India (6). Of these students, 36 were undergraduates and ten were graduate students. Twenty-five participants were engineering students and six of those were ME’s. Three ME students worked abroad in summer 2006; two in Japan and one in China. One ME student worked in Germany in fall 2006. No NRE students participated in the work abroad program this past year, nor were there any Woodruff School students in the program in spring 2007. There were four MEs and one NRE who worked abroad this past summer. One student was the first intern at Georgia Tech Ireland. There were also four International Plan students, 29 international interns, and 17 international co-ops (10 graduate, 7 undergraduate).

STUDY-ABROAD PROGRAMS

Georgia Tech strongly believes in the importance of an international experience for students. During the past academic year, 108 (102 ME, 6 NRE) Woodruff School students participated in various study-abroad programs, compared with 99 and 107 in the two previous academic years. In summer 2007, 57 Woodruff School students (54 ME, 3 NRE) participated in various summer programs. Once again, the College of Engineering had the largest number of students participate in the various study-abroad programs offered by the Institute.

The most popular study-abroad programs for Woodruff School students continue to be the: Georgia Tech Lorraine Undergraduate Summer Program (40 students), Shanghai Summer Program (18 students), and the Oxford Summer Program (13 students). Other students participated in the: Pacific-Spring Study Abroad Program (8 students), Academic Year Georgia Tech Lorraine Program (4 students), Non-Georgia Tech Exchange Programs (1 student), Work Abroad Program (5 students), Spanish Language for Business and Technology LABT (3 students), Japanese LBAT (3 students), German LABT (3 students), International Academic Project (4 students), Sydney Summer Program (3 students), Hong Kong University of Science and Technology Semester Program (2), and one each in the Argentina-Brazil Summer Program, Leeds Semester Program, Monterrey Tec International Program, Nanyang International Program in Singapore, NUS Semester Program in Singapore, and the LCC Summer Program in Italian Film.
THE INTERNATIONAL DEGREE PLAN

The Undergraduate International Plan is a degree designation similar to the Cooperative Plan; 13 schools/departments at GT participate in the plan. Mechanical engineering students spend time abroad, gaining valuable international experience. This is especially important in today's global economy, where more companies are looking for graduates with international experience in their major area. Students can work at approved locations, including Georgia Tech Lorraine in Metz, France or the Technical University in Munich, Germany.

In order to receive the BSME-International Plan degree, students must meet several requirements. The first is to show proficiency in a language. This is generally equivalent to at least two years at Georgia Tech, but proficiency is determined by an outside testing agency. Second is specific coursework: international relations, global economy, and a region/country elective. The third requirement is to spend two or more semesters (26 weeks) abroad. This can be done either in residence at a university or one semester in residence plus one as an engineering intern, or both semesters as an intern. Finally, the student's capstone design experience must meet the specifications of the country in which they are studying. This is usually a project proposed by a company in the country where the student was going to school or interning.

The Woodruff School is the first in the College of Engineering to have students complete the program. Germany is the most popular region and language focus for ME students and that is where the first two program graduates spent their time. A student who has chosen Japan for his location is scheduled to graduate this spring. Currently, twenty Woodruff School students participate in the program. For more information, view www.oie.gatech.edu.

UNDERGRADUATE RESEARCH

Georgia Tech encourages undergraduate students to participate in quality and substantive research. There are several options in the Woodruff School for a Special Problems Course or an Undergraduate Research Course.

ME/NRE 4903 is a non-research special problem. It is usually a design course and may be combined with the capstone design class for a two-semester design problem. ME/NRE 4699 is the undergraduate research course for juniors and seniors and qualifies as an elective for ME or NRE majors. ME/NRE 4698 is for research internships, where students are paid for working on a project either part-time or full-time. Each course requires a written final report and that the student work with a faculty member.

In the past academic year, 92 students did undergraduate research/special problems: 78 students took ME/NRE 4699 for credit (68 ME, 5 RME, 4 NRE, 1 special student), and 9 students took ME/NRE 4698 for pay (8 ME, 1 NRE). Five students took ME/NRE 4903 (4 ME, 1 NRE). In fall 2007, 38 students (37 ME, 1 NRE) are enrolled in undergraduate research and special problems courses: 3 in ME 4901, 7 in ME 4698, and 28 in ME 4699.

Thirteen Woodruff School students (10 ME, 3 NRE) received President's Undergraduate Research Awards (PURA). PURA funds requests by a student/faculty team to support undergraduate student involvement in faculty research. The awards are for student salaries and travel expenses for the student to attend professional meetings to give presentations. Students who received PURA funds in the past academic year are: Geoffrey Benjuig, Amanda Bryson (NRE), Eric Deutsch, Arun Ganti, Donoroo Kim, Geoffrey Meek, Gautam Puri, Sara Rahnema (NRE), Richard Roberts, Jeffrey Schlosser, Jin Song, Ruoya Wang, and James Weathers (NRE).

THE FIVE-YEAR BS/MS PROGRAM

Outstanding sophomores and early juniors in the Woodruff School are invited to apply to the Five-Year BS/MS Degree Program. Students can earn two degrees in a five-year period, which provides a tremendous advantage when entering the job market. Students can earn undergraduate degrees in mechanical engineering or nuclear and radiological engineering and the master’s degree in ME, NRE, medical physics, bioengineering, or paper science engineering. The program is individualized with numerous opportunities for faculty and students to interact, including mentoring and undergraduate research. Graduate course work begins in the senior year. Most of the master’s students do a course work only program (nonthesis option). Dr. Christine Valle advises all BS/MS students once they have matriculated into the graduate program.

In the past academic year, twenty-three students were accepted into the BS/MS program in a future term (currently through fall 2010). Currently, there are 69 (61 ME, 4 NRE, 3 BioE, 1 MP) students in the program; five of these matriculated into the graduate program in fall 2007: Eric Deutsch, Thomas Harman, Jin Son, Lambros Samouris, and Shawn Wick. Of the 27 graduates from the program since 2002, seven received their master’s degree in the past academic year: Obert Chen (ME/MP), Daniel Hyer (ME/MP), Perry Johnson (NRE/MP), Brian Lockwood (ME/NRE), Alexey Podust (ME/ME), Rohit Vardhan (ME/ME), and James Weathers (NRE/ME).

FRANK K. WEBB PROGRAM IN PROFESSIONAL COMMUNICATION

The Frank K. Webb Program in Professional Communication was established in 1990 to teach students verbal and written communication skills. The Woodruff School has made the teaching of these skills an integral part of the undergraduate engineering curriculum. Program Coordinator Dr. Jeffrey Donnell provides formal instruction to students in four required laboratory and design courses: Creative Decisions and Design (ME 2110), Experimental Methodology Lab (ME 3057), Mechanical Systems Lab (ME 4053), and Capstone Design (ME 4182). Donnell instructs the students on how to prepare reports and presentations, reviews project reports, and provides written feedback to the students on their projects, reports, and presentations. In addition, he provides guides to writing skills, sample reports, and lectures on communications skills specific to engineers.

Graduate students receive help with graduate school and fellowship applications. In addition, they receive instruction in communications early in their graduate careers when they are preparing their first manuscript, be it a proposal, a journal article, or a conference presentation.
Graduate Program Review

[Provided by Dr. David Rosen, Associate Chair for Graduate Studies]

The past year has been marked with a number of significant milestones. The School graduated 52 Ph.D. students, which is an all-time record. With the combined M.S. and Ph.D. enrollment for Fall 2007 of 723 our graduate program continues to be the largest in the country. At the same time, the quality of our program is consistently very strong, as evident from the 7th place ranking by U.S. News & World Report.

Our graduate programs continue to be in high demand: We had a record 885 applicants, of which 206 matriculated in Fall 2007. Of these incoming students, 80 received a GRA offer, indicating that they have an outstanding academic record. The average GPA of our incoming graduate student class is 3.63, the highest in recent years. Average GRE scores for these students keep increasing, as well.

Upon graduation, our students enjoy excellent employment prospects. The energy, defense, electronics, and manufacturing sectors have had strong hiring needs, and our students have been highly sought after by companies. Our graduates are increasingly being employed by high technology global organizations. Additionally, we continue to place a significant number of graduates in academia.

Our graduate program has had tremendous growth since 2000 reflecting, we believe, the high value placed on graduate degrees in Mechanical Engineering, in general, and from our program, in particular.

Women and Minorities in the Woodruff School

The Woodruff School continues to be a leading producer of graduate degrees to women and minorities. The first Ph.D. granted to a woman in mechanical engineering was in 1987. At the end of spring semester 2007, 97 (76 ME, 21 NRE) women have earned a Ph.D. from the Woodruff School. In the 2006-2007 academic year, ten (9 ME, 1 BioE) women earned their doctoral degrees and 22 (13 MSME, 5 MSMP, 3 MSNE, 1 BioE) received a master’s degree.

Women were admitted to Georgia Tech in 1952 and the first degree granted to a woman in mechanical engineering was in 1956. In the past academic year, 52 women received the bachelor’s degree (45 ME, 7 NRE), and in the 2005-2006 academic year, 31 women received B.S. degrees.

The Woodruff School granted its first doctoral degree to a minority student in 1978. At the end of spring semester 2007, 80 minorities (70 ME, 10 NE) had earned a doctoral degree from the Woodruff School. In the past academic year, five minority (U.S. citizens or permanent residents) students earned a Ph.D. (5 ME) and 21 received master’s degrees (13 MSME, 5 MSMP, 3 MSNE).
NUCLEAR & RADIOLOGICAL ENGINEERING AND MEDICAL PHYSICS PROGRAMS REVIEW

[This overview was written by Dr. Farzad Rahnama, Chair of the Nuclear and Radiological Engineering & Medical Physics Programs.]

Because of the resurgence of nuclear energy, student interest in nuclear and radiological engineering continues to grow. We now have 174 undergraduate students and 68 graduate students in the programs. This is an eight percent increase over the fall 2006 enrollment. Because of the enrollment growth and the continued success of the medical physics program, we hired four new faculty members in 2007.

The NRE program received contributions from AREVA, Duke Power, McCallum-Turner, MWH Americas, Inc., and Southern Nuclear Co. for scholarships and topping fellowships, and to upgrade the detection laboratory. The Department of Energy matched the industry donations. These funds enabled the program to award 41 undergraduate scholarships and one undergraduate research assistantship. Additionally, two undergraduate students received a scholarship from the American Nuclear Society, three from the Institute for Nuclear Power Operations, and one from the Georgia W. Woodruff School. AREVA continues its five-year funding to upgrade the detection laboratory.

In the spring semester, the NRE program received a generous donation from Southern Nuclear Operating Company to support the radiation physics laboratory. The majority of the funding will be used to purchase a pulsed neutron source and additional detection equipment to develop new experiments for the senior level radiation physics laboratory. The new experiments will be introduced to the graduating classes beginning spring 2008.

The 2006-2007 school year marked the beginning of a nuclear engineering collaboration between the Department of Physics at Clark Atlanta University (CAU) and the NRE program. Several Clark Atlanta students attended the weekly NRE seminar, and we worked on creating a joint 5-year BS/MS program. The first year of the partnership concluded with the NRE program hosting three CAU students during the summer of 2007. The partnership also resulted in attracting a graduate student from CAU into the NRE Ph.D. program.

The program granted 34 MSMP degrees (28 on-campus and 6 distance learning) and one Ph.D. degree from summer 2005 through summer 2007. According to an agreement signed in August 2006, Emory faculty teach 1.25 MP courses at Georgia Tech in addition to providing 400 hours of clinical experience to 10 MP students each summer at the Emory’s facilities. The Medical College of Georgia Radiology Department cooperates with the medical physics program by teaching the Nuclear Medicine courses (MP 6101) via satellite transmission each fall semester. Memorial Health University Medical Center in Savannah, Georgia provides 400 hours of clinical experience to three medical physics students at the Curtis and Elizabeth Anderson Cancer Institute each summer.

LEARNING FROM A DISTANCE

The Woodruff School offers two graduate degrees as part of its distance-learning program: the master’s degree in mechanical engineering and the master’s degree in medical physics. The admission requirements, courses, and the degree received are the same as for on campus students. In fall 2006, 482 students were enrolled in the distance learning program at Georgia Tech; this increased to 501 students in fall 2007.

The Woodruff School’s distance program in mechanical engineering is the largest in the country. In fall 2007, 189 students (172 ME, 16 MP, 1 NRE) are enrolled. ME and ECE make up 75 percent of the distance total at Georgia Tech.

We offer 19 entry level graduate mechanical engineering and seven medical physics courses each fall and spring semesters. Only a few courses are taught in the summer term; the clinical rotation courses in medical physics are a popular summer choice. There are a few courses where the enrollment is almost equally divided between on-campus and distance.

Fifty-one master’s degrees (45 ME, 5 MP, 1 HP) were awarded to distance learning students in the past academic year: Two were thesis students, the remainder were nonthesis students. General Electric and Lockheed-Martin are top employers of these graduates.

WE REMEMBER

Professor Emeritus Melvin Carter passed away in August 2007. Mel joined the Georgia Tech nuclear engineering/health physics program in 1972 and retired in June 1998. He received his Ph.D. from the University of Florida in 1960 and was an internationally recognized consultant in radiation protection. He was elected to the National Academy of Engineering in 1999 for “For leadership and teaching in radiation protection, health physics, and public health standards and practices.”

RANKINGS

Georgia Tech and its programs continue to be highly regarded. For the 9th consecutive year, U.S. News & World Report ranked Georgia Tech as one of the top ten public universities in the nation:

- Georgia Tech’s undergraduate programs are ranked 8th among public universities;
- Georgia Tech is ranked 38th among public and private universities;
- The Woodruff School’s undergraduate mechanical engineering program is ranked 6th in the nation;
- The Woodruff School’s graduate program in mechanical engineering is ranked 7th in the nation;
- The College of Engineering, the nation’s largest, is ranked among the top 4 graduate schools in the nation;
- The undergraduate program in nuclear and radiological engineering is ranked 11th in the nation;
- Georgia Tech’s Internships and Cooperative Education Program, the Undergraduate Research Program, and the Study Abroad Programs were selected as Academic Programs To Look For.

Programs To Look For are leaders in contributing to student success;
**WOODRUFF SCHOOL SAVANNAH**

[This report was prepared by Dr. Farrokh Mistree, Associate Chair for the Woodruff School Savannah.]

The Woodruff School Savannah made progress in 2006-2007. We quadrupled our undergraduate students from 5 to 23, increased our graduate students from 2 to 10, introduced a new undergraduate course, worked on preparing for ABET accreditation in 2008, improved the laboratory experience for our undergraduates, and hosted visitors from The Technical University of Eindhoven and the Indian Institute of Technology.

In his recent book, The World is Flat, Thomas L. Friedman showcases Georgia Tech’s approach to education in the 21st century. “What the Georgia Tech model recognizes is that the world is increasingly going to be operating off the flat-world platform, with its tools for all kinds of horizontal collaboration,” writes Friedman.

To produce the right kind of engineers for the flat world, our focus in Savannah is on developing Strategic Engineers. These are engineers who know how to realize complex engineered systems for changing markets in collaborative, globally distributed environments thereby safeguarding the economic viability of the companies they represent and hence fostering the prosperity of our country. Such strategic engineers can collaborate on global engineering networks; leverage technology so that one person can do the job of many; take “A” and “B” to make “C,” create a business and develop “sticky” technology - technology that spawns economic development in the place where it has been invented and yet is used in products that are developed and marketed globally.

Accordingly, in partnership with the Technical University of Eindhoven and the Indian Institute of Technology, Kharagpur, India we are in the early stages of development of the strategic engineering program that includes: Transformation Paradigm: “Design” is that which transforms intellectual capital into economic capital (wealth). Global Education Network: Features include design at the core of the engineering curriculum, course content anchored in research findings, competency-based evaluation, and learning through doing. Product Creation Network: To facilitate this mode of education the partners have taken steps to organize a Product Creation Network - a joint enterprise between academia and industry to educate strategic engineers. Initial Focus: The realization of products that embody ambient intelligence and the materials that are needed to make these products a reality.

Dr. Ward Winer is chair of the steering committee for furthering the Strategic Engineering Program. In addition, we have launched a search to recruit four new faculty to further develop this program at the Woodruff School in Savannah.

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**GEORGIA TECH LORRAINE**

[This material was prepared by Dr. Yves Berthelot, President of Georgia Tech Lorraine.]

The Woodruff School has a strong presence at Georgia Tech Lorraine in Metz, France. The mission of Georgia Tech Lorraine is to enable innovative collaborations with academic, industrial, and funding agencies in France, the European Union, and the United States. The year 2007 was marked by some profound changes: The newly established GT-CNRS UMI laboratory—a joint laboratory between GT and the largest research organization in Europe, the French Centre National de la Recherche Scientifique—was inaugurated on June 14, 2007. Construction of new research laboratories in the GT Lorraine building, now equipped with state-of-the-art equipment, enables researchers, faculty, and students to develop partnerships and complementary research with the Atlanta campus, in the strategic areas of secure networks and smart materials.

In the Fall of 2007, CNRS will open the Atlanta UMI laboratory in the nanotechnology building and assign CNRS personnel. Since January 2007, GT/L faculty members (Drs. Cherkaoui, Declercq, Berthelot in ME, and 4 ECE professors) have published over 65 refereed papers and conference proceedings, and secured over $7 million in research funding, equipment grants, and infrastructure. Contracts have been obtained from various French agencies. Three major European contracts are pending.

Georgia Tech Lorraine is a lead institution working in close collaboration with the French Embassy in Washington D.C. to create a Franco-American Doctoral College on the basis of a partnership with ten U.S. and ten French universities. Recently, Provost Gary Schuster named Dr. Berthelot as Vice Provost for GTL. In March 2007, Georgia Tech hosted the visit of Mme. Christine Lagarde, French Minister of Foreign trade; currently Minister of the Economy and Finances.

In Summer 2007, Georgia Tech Lorraine offered courses to 130 undergraduate students, including 23 MEs. In Fall 2007, 52 students (7 BS, 38 MS, 7 Ph.D.s) are enrolled in Metz, and an additional 24 students are finishing their master’s degrees in Atlanta. They represent 15 countries. Our students are immersed in a foreign culture, often interacting and taking classes at partner institutions, sharing dorm space and exchanging cultural viewpoints, and often doing industrial internships. Our students are the first to say that they are greatly enriched by this experience, both professionally and personally.
ENROLLMENT

PROFILES OF INCOMING STUDENTS
The Woodruff School continues to get excellent students, as shown by the class profiles of the new undergraduate and graduate students for fall 2007. Our total enrollment as of October 1, 2007 is 2,488 students. We are now the largest School on campus with regard to undergraduate enrollment, which totals 1765. Of these, 1591 are in mechanical engineering and 174 in the nuclear and radiological engineering. Forty-one of the mechanical engineering students are at GT Savannah. Approximately 11 percent of the students are female. By ethnicity, approximately 12 percent are Asian, five percent are African-American, five percent are Hispanic, 0.4 percent is Native American or Multiracial, 71 percent are White, and 5.3 percent are international students.

The total number of graduate students is at an all-time high of 723 (618 ME, 68 NRE/MP, 24 BioE, 13 PSE). By degree, there are 468 master’s degree students (416 ME, 13 NRE, 30 MP, 5 BioE, 4 PSE) and 255 doctoral students (202 ME, 25 NRE, 19 BioE, 9 PSE). By gender, approximately 15 percent of the graduate students are female. By ethnicity, approximately eight percent are Asian, four percent are Black, 2.5 percent are Hispanic, 0.8 percent is Multiracial, and 29 percent are international students. By location, more than 96% are on the Atlanta campus, 0.4% at Georgia Tech Lorraine, and 0.4% are on foreign exchange.

The average grade point average (GPA) of all mechanical engineering undergraduates is 2.96 and 3.02 for nuclear and radiological engineering students, with an average of 2.97 for all Woodruff School students in Atlanta. The average for all undergraduate students at GT Savannah is 2.65. There are no freshmen and sophomore students; juniors have a 2.62 average and seniors have a 2.66 average GPA at Savannah.

Fall 2007 Freshman Class Profile

Average SAT Score (out of 1600)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Average SAT Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>1349</td>
</tr>
<tr>
<td>Nuclear Engineering</td>
<td>1364</td>
</tr>
<tr>
<td>Georgia Tech</td>
<td>1333</td>
</tr>
</tbody>
</table>

High School Grade Point Average

<table>
<thead>
<tr>
<th>Subject</th>
<th>Average GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>3.74</td>
</tr>
<tr>
<td>Nuclear Engineering</td>
<td>3.76</td>
</tr>
<tr>
<td>Georgia Tech</td>
<td>3.75</td>
</tr>
</tbody>
</table>

Number of Incoming Freshman (fall & summer)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical</td>
<td>224</td>
</tr>
<tr>
<td>Nuclear Engineering</td>
<td>45</td>
</tr>
<tr>
<td>Georgia Tech</td>
<td>240</td>
</tr>
<tr>
<td>Transfers</td>
<td>373</td>
</tr>
<tr>
<td>Freshmen</td>
<td>1562</td>
</tr>
<tr>
<td>Transfers</td>
<td>269</td>
</tr>
</tbody>
</table>

Woodruff School Demographics

<table>
<thead>
<tr>
<th>Status</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>30</td>
</tr>
<tr>
<td>Males</td>
<td>239</td>
</tr>
<tr>
<td>Georgia Residents</td>
<td>129</td>
</tr>
<tr>
<td>Out-of-State Residents</td>
<td>140</td>
</tr>
<tr>
<td>Total Freshman</td>
<td>269</td>
</tr>
</tbody>
</table>

New Graduate Class Profile (2007)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants</td>
<td>883</td>
</tr>
<tr>
<td>Admitted (38% of applicants)</td>
<td>333</td>
</tr>
<tr>
<td>Matriculated (56% of those accepted)</td>
<td>187</td>
</tr>
<tr>
<td>Average Grade Point Average (GPA)</td>
<td>3.63</td>
</tr>
<tr>
<td>Average Score on the Graduate Record Exam</td>
<td></td>
</tr>
<tr>
<td>Verbal (out of 800)</td>
<td>531</td>
</tr>
<tr>
<td>Quantitative (out of 800)</td>
<td>752</td>
</tr>
<tr>
<td>Writing (out of 6.0)</td>
<td>4.44</td>
</tr>
</tbody>
</table>

Demographics

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>160</td>
</tr>
<tr>
<td>Females</td>
<td>27</td>
</tr>
<tr>
<td>Minorities (U.S. Citizens)</td>
<td>22</td>
</tr>
<tr>
<td>Internationals</td>
<td>47</td>
</tr>
</tbody>
</table>

Geographical Breakdown by Undergraduate School

<table>
<thead>
<tr>
<th>Region</th>
<th>Number (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East/Northeast</td>
<td>44 (24%)</td>
</tr>
<tr>
<td>South/Southeast</td>
<td>67 (36%)</td>
</tr>
<tr>
<td>Midwest</td>
<td>21 (11%)</td>
</tr>
<tr>
<td>West/Southwest</td>
<td>8 (4%)</td>
</tr>
<tr>
<td>Internationals</td>
<td>47 (25%)</td>
</tr>
</tbody>
</table>

Enrollment in Georgia Tech’s Colleges (2006 & 2007)

<table>
<thead>
<tr>
<th>College</th>
<th>Undergraduates</th>
<th>Graduates</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>780 759</td>
<td>370 449</td>
<td>1150</td>
</tr>
<tr>
<td>Computing</td>
<td>875 816</td>
<td>565 745</td>
<td>1143</td>
</tr>
<tr>
<td>Engineering</td>
<td>7203 7339</td>
<td>3360 3555</td>
<td>10,563</td>
</tr>
<tr>
<td>Ivan Allen</td>
<td>834 918</td>
<td>251 273</td>
<td>1085</td>
</tr>
<tr>
<td>Management</td>
<td>1251 1301</td>
<td>259 363</td>
<td>1510</td>
</tr>
<tr>
<td>Sciences</td>
<td>1156 1180</td>
<td>770 779</td>
<td>1926</td>
</tr>
<tr>
<td>Registrar</td>
<td>258 249</td>
<td>--- ---</td>
<td>258</td>
</tr>
<tr>
<td>TOTALS</td>
<td>12,357 12,562</td>
<td>5,576 5,164</td>
<td>17,935</td>
</tr>
</tbody>
</table>
### Enrollment in Georgia Tech’s Colleges By Degree Level, Ethnicity, and Citizenship (2006 & 2007)

<table>
<thead>
<tr>
<th>Undergraduates</th>
<th>Graduates</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>1917</td>
<td>2036</td>
</tr>
<tr>
<td>Black</td>
<td>884</td>
<td>846</td>
</tr>
<tr>
<td>Hispanic</td>
<td>507</td>
<td>586</td>
</tr>
<tr>
<td>Native American</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Multiracial</td>
<td>82</td>
<td>72</td>
</tr>
<tr>
<td>White</td>
<td>8391</td>
<td>8363</td>
</tr>
<tr>
<td>Unknown</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>International</td>
<td>547</td>
<td>595</td>
</tr>
<tr>
<td>Total</td>
<td>12,360</td>
<td>12,565</td>
</tr>
</tbody>
</table>

### Enrollment in the College of Engineering (2006 & 2007)

<table>
<thead>
<tr>
<th>School</th>
<th>Undergraduates</th>
<th>Graduates</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>732</td>
<td>695</td>
<td>437</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>787</td>
<td>871</td>
<td>216</td>
</tr>
<tr>
<td>Chemical &amp; Biomedical Engineering</td>
<td>505</td>
<td>536</td>
<td>172</td>
</tr>
<tr>
<td>Civil &amp; Environmental Engineering</td>
<td>688</td>
<td>716</td>
<td>285</td>
</tr>
<tr>
<td>Electrical &amp; Computer Engineering</td>
<td>1349</td>
<td>1240</td>
<td>1003</td>
</tr>
<tr>
<td>Industrial &amp; Systems Engineering</td>
<td>939</td>
<td>1004</td>
<td>362</td>
</tr>
<tr>
<td>Materials Science &amp; Engineering</td>
<td>137</td>
<td>135</td>
<td>113</td>
</tr>
<tr>
<td>Mechanical Engineering (NRE/MP)</td>
<td>1571</td>
<td>1765</td>
<td>714</td>
</tr>
<tr>
<td>Polymer, Textile &amp; Fiber Engineering</td>
<td>123</td>
<td>137</td>
<td>60</td>
</tr>
<tr>
<td>Undeclared</td>
<td>370</td>
<td>352</td>
<td>0</td>
</tr>
<tr>
<td>COE Totals</td>
<td>7,201</td>
<td>7,451</td>
<td>3,360</td>
</tr>
</tbody>
</table>

### Enrollment in the Schools of the College of Engineering By Degree Level and Ethnicity (2006 & 2007)

<table>
<thead>
<tr>
<th>Undergraduates</th>
<th>Graduates</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>1547</td>
<td>1663</td>
</tr>
<tr>
<td>Black</td>
<td>550</td>
<td>498</td>
</tr>
<tr>
<td>Hispanic</td>
<td>365</td>
<td>417</td>
</tr>
<tr>
<td>Native Am.</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Multiracial</td>
<td>41</td>
<td>32</td>
</tr>
<tr>
<td>Unknown</td>
<td>0</td>
<td>25</td>
</tr>
<tr>
<td>White</td>
<td>4682</td>
<td>4689</td>
</tr>
<tr>
<td>Total</td>
<td>7,203</td>
<td>7,343</td>
</tr>
</tbody>
</table>

### Enrollment in the Woodruff School by Degree Level, Ethnicity, and Citizenship (2006 & 2007)

<table>
<thead>
<tr>
<th>Undergraduates</th>
<th>Graduates</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>182</td>
<td>209</td>
</tr>
<tr>
<td>Black</td>
<td>108</td>
<td>88</td>
</tr>
<tr>
<td>Hispanic</td>
<td>74</td>
<td>87</td>
</tr>
<tr>
<td>Native Am./Multi</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>White</td>
<td>1245</td>
<td>1280</td>
</tr>
<tr>
<td>International</td>
<td>75</td>
<td>85</td>
</tr>
<tr>
<td>Total</td>
<td>1700</td>
<td>1765</td>
</tr>
</tbody>
</table>

By percentage, international students are 4.4 and 4.8 percent of the undergraduates in 2006 and 2007, respectively. Graduate students are 30.1 and 28.6 percent in 2006 and 2007, respectively.
SCHOLARSHIPS

Many awards recognize academic achievement and outstanding service to the Woodruff School, the College of Engineering, and the Institute. Many undergraduate students in the Woodruff School receive some type of scholarship.

HOPE SCHOLARSHIPS

Almost all of our incoming, in-state students, receive HOPE scholarships, the tuition program financed through the Georgia State Lottery. After the first year at Georgia Tech, approximately fifty percent of the freshman class retains their scholarship. Students need to maintain a 3.0 grade point average each term to keep the HOPE scholarship.

PRESIDENT’S SCHOLARS

The President’s Scholars Program identifies students who have excelled in academia and leadership in high school. Financial awards are for four academic years, and students are expected to maintain honors-level academic performance and be involved in campus or community activities. Overall, Scholars have a 3.0 GPA; ME scholars maintain a 3.73 GPA. The program is funded entirely by endowments and annual contributions from Georgia Tech’s alumni, industry supporters, and other friends through the Institute’s Roll Call annual giving program. Since the program started in 1981, 1,229 scholars have graduated.

Currently, there are 242 President’s Scholars enrolled at Georgia Tech; 29 (25 ME, 4 NRE) are Woodruff School students. In fall 2007, there are 58 new scholars; there are eight ME’s and two NRE’s. ME scholars are: Black Bernard, Annie Davis, Ryan DeMars, Jeff Gee, Krista Guzelian, Bradley Hermann, Drew Hess, Matt Hoffman, Tadhia Hoossainy, Katie Hornbostel*, Tyler Jackson, Brandon Karsear, Joey Kenny, Kyra Key*, Matthew LeBrun*, Daniel Murphy*, Rob Parrish*, Alexander Rudat*, Kyle Schwing, Liz Tans*, Lina Tucker, Michael Valente*, James Waring, Joel Weber, and Emily Woods. The scholars in NRE are: Colin Bowers*, Alex Johnson, Caroline Stratton, and Amy Varallo.* [An asterisk indicates a new scholar.]

WOMEN IN ENGINEERING SCHOLARSHIPS

The concept behind the Women in Engineering Program in the College of Engineering is excellence and leadership. In 2007, sixty female undergraduate students in the Woodruff School qualified for the Excellence Awards banquet by earning an overall GPA of 3.4 or higher. Twenty students received corporate scholarships worth $22,000: Elisabeth Byrd (Alcoa); Phares Carroll, Alice Cheung, Lin Geng, and Emily Woods (Boeing); Elizabeth Cadogan and Krista Guzelian (Ford); Tadhia Hoossainy and Robin Lavrentz (General Motors); Nicole Miller, Victoria Muratowski, and Chiheem Wey (John Deere); Callie Reis and Laney Sowell (Northrop Grumman); Elizabeth Walston (Rockwell Automation); Shannon Spoon and Lisa Tucker (Schlumberger); Alisha Hester, Christi Nesmith, and Alison Skala (Shell). In addition, Crispin Odom received a Student Mentoring Award for outstanding leadership and contributions to the Women in Engineering Mentor/Mentee program, which currently serves over 325 students on campus. Christine Primmer received a “Pay It Forward” Scholarship, new this year, and sponsored by the keynote speaker, Lara O’Connor Hodgson and the Philobos-Armanios family. This scholarship is given to a graduating senior who accepts it with the promise of returning within five years to give a scholarship in her name at a future banquet. To learn more about this program, view www.coe.gatech.edu/wie.

NUCLEAR ENGINEERING SCHOLARSHIPS

Unique scholarship opportunities exist for Georgia Tech undergraduate students in nuclear and radiological engineering. Most scholarships begin in the freshman year and are based on academic achievement. As of fall 2007, 46 NRE undergraduates hold scholarships.


ARCS SCHOLARSHIPS

The ARCS (Achievement Rewards for College Scientists) Foundation helps meet our country’s need for scientists and engineers by providing scholarships to academically outstanding students to help them complete their higher education. The Atlanta Chapter gives scholarships to students from Emory University, Georgia Tech, Morehouse College, and the University of Georgia. At Georgia Tech, recipients come from the Woodruff School, the College of Computing, and the Stewart School of ISyE. Woodruff School recipients are senior Ph.D. students who have high GPAs, are making good progress toward their degree, have good recommendations from their faculty advisors, and are U.S. citizens.

Last year’s (2006-2007) recipients were: Donavon Gerty (Ari Glezer, advisor); Shelby Highsmith (Steve Johnson, advisor), Anne-Marie Lerner (Ken Cunefare, advisor), Tim Koehler (Said Abdel-Khalik & Minami Yoda, advisors), Matthew Kontz (Wayne Book, advisor), and Charlotte Kotas (Peter Rogers & Minami Yoda, advisors). In 2007-2008, new scholars Janine Johnson (Jianmin Qu advisor) and Khalid Sorensen (Bill Singhose) join returning scholars Donavon Gerty, Shelby Highsmith, and Charlotte Kotas. To date, twenty ARCS recipients in the Woodruff School have received their Ph.D.’s.
PI TAU SIGMA HONOR SOCIETY

The Georgia Tech Nu Chapter of Pi Tau Sigma, the national mechanical engineering honor society, initiated 47 (43 Atlanta, 4 Savannah) undergraduates on November 16, 2006. This is the largest initiation class in a number of years. Membership in the chapter is based on scholastic standing and faculty rating. In November 2007, the chapter celebrates its 75th anniversary.

The new members of Pi Tau Sigma are: Josh Allen, Ashley Anchors (GTS), Jonath Bankston (GTS), Patrick Chang, Ryan Demars, Peter Doblar, William Doolan, Arthur Graziano, Krista Guezelian, Henry Heintz, Todd Hoffman, Steven Hom, Meredith Hoppes, Nazim Hudda, Curtis Johnson, Matthew Johnston, Matthew Kolaski, Abhishek Kumar, Bruce Latvala, Benjamin Lee, Michael Lindsey, David Long, Joshua Mackanic, David MacNair, Jeremy Mason, Benjamin Massengill, John McConville, Paul McWilliams, Andrew Mettler, Caitlin Murphy, Brent Norquist, Alfred Nuget, Amanda O’Rourke, Lee Peacock, Marquis Reed, Alexander Ruderman (GTS), Andrew Scripture (GTS), Christopher Sewell, Michael Sewell, David Smith, Jonathan Spoerke, Sarah Stallings, Ryan Stewart, Christian Terrassa, Vince Thiele, Adnaan Velji, Karen Warren, and Sean Wick.

STUDENT HONORS DAY AWARDS

Each year awards are announced at the annual Student Honors Day luncheon held in April. The winners are selected by the Associate Chair for Undergraduate Studies and the Undergraduate Academic Advisor with the approval of the School Chair. The recipients this year were:

Patrick Chang received the Pi Tau Sigma Outstanding Junior Award, presented to the junior student in ME with outstanding scholarship and service to the School and to student activities.

Eric Deutsch received the Woodruff School of Mechanical Engineering Outstanding Scholar Award. This award recognizes a graduating senior who has achieved an exceptional scholastic record in mechanical engineering.

Alfred Frith won the School Chair’s Award, which is granted on the basis of outstanding scholarship and contributions to the School, especially to its programs and external representation. The award honors the graduating senior in mechanical engineering who best fulfills these standards.

Sead Dzebo, Sanjeev Heda, and Carla Uribe each received a Samuel P. Eschenbach Memorial Award in Mechanical Engineering. This award is given by the family of Samuel Eschenbach (BME 1933) and is based on academic performance, leadership capabilities as demonstrated through involvement in the campus community and promise as a mechanical engineer.

Joshua Inouye, Joshua Mackanic, Ryan Kane, Jeffrey Schlosser, and Damien Valenti each won a Richard K. Whitehead Memorial Award. The Georgia Scientific and Technical Research Foundation established this award in memory of its first president, Richard K. Whitehead, Jr. (BME 1957). The award goes to outstanding mechanical engineering seniors who exemplify high standards of scholarship and service.

Justin Janacek and Mark Kaidos each won a James G. and Mary G. Wohlford Scholarship. These scholarships recognize outstanding senior co-op students who have excelled both academically and on their co-op jobs, and who have made significant contributions to the community. The award is named in honor of the late director emeritus of the Professional Practice Division and is sponsored by the Co-op Club.

Janine Johnson received one of the Auxiliary Services IMPACT Scholarships. These awards go to students who make an incredible impact on the Tech community by playing a positive role through informal and formal roles as leaders or in support capacities.

Orion King won an Alvin M. Ferst Leadership and Entrepreneur Scholarship Award, given to students with vision; a driving force to create a business or organization; the ability to inspire others to reach their potential; the leadership skills to anticipate future needs; an optimistic outlook about finding solutions; and character.

Adam Lord received the Pi Tau Sigma Outstanding Sophomore Award, given to the sophomore student in mechanical engineering demonstrating outstanding scholarship and service to the School and student activities.

Brad Moulton received the 2007 CETL/Frank Bogle Nontraditional Student Award. This award, endowed by Dr. Frank Bogle—a former ME faculty member, honors a nontraditional student with at least junior standing and who has demonstrated outstanding academic performance.

Anthony Pergola won the Pi Tau Sigma Outstanding Senior Award. This award is given by the School of Mechanical Engineering and the Pi Tau Sigma Honor Society to a graduating senior who has demonstrated outstanding scholastic achievement, service to the School, the Institute, and to students activities.

Kyle Reno received a Henry Ford II Scholar Award from the College of Engineering. This award comes from the income from a restricted endowment fund provided by the Ford Motor Company Fund and is given annually to the engineering students with the best academic record at the end of the third year of undergraduate study.

Alison Skala received one of the two George Wingfield Semmes Memorial Scholarships. These are given to undergraduate engineering students who demonstrate academic achievement, outstanding leadership qualities, a strong character, and a true love for Georgia Tech.
STUDENT GROUPS

There are a number of groups for Woodruff School students to join. These organizations offer a unique opportunity to learn about the many facets of mechanical or nuclear engineering, provide an opportunity to meet practicing professionals, and provide valuable service to the School. More information may be found at www.me.gatech.edu/me/studentorganizations.

GENERAL GROUPS
- Mechanical Engineering Graduate Students Association (MEGA)
- Nuclear & Radiological Engineering Student Advisory Committee (NRESAC)
  Dr. Farzad Rahnema, advisor
- Woodruff School Student Advisory Committee (WSSAC)
  Ms. Kristi Mehaffey, advisor
- Woodruff School Graduate Women (WSGW)

HONOR SOCIETY
- Pi Tau Sigma (ME honor society)
  Dr. Janet Allen, advisor

PROFESSIONAL SOCIETIES
- Acoustical Society of America (ASA)
  Drs. Erica Ryherd & Karim Sabra, advisors
- American Nuclear Society (ANS)
  Dr. W. van Rooijen, advisor
- American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE)
  Dr. Sheldon Jeter, advisor
- American Society of Mechanical Engineers (ASME)
  Dr. Jon Colton, advisor
- Society of Automotive Engineers (SAE)
  Dr. Ken Cunefare, advisor
- Society of Manufacturing Engineers (SME)
  Dr. William Singhose, advisor

STUDENT COMPETITION GROUPS
- gt motorsports
  Dr. Ken Cunefare, advisor
- GT Off-Road
  Dr. Ken Cunefare, advisor
- GT Robojackets
  Dr. Chris Paredis, advisor
  Dr. Wayne Book, FIRST advisor
- Wreck Racing
  Mr. Sterling Skinner, advisor

CAREERS

Pacing the overall market for engineers, the job market for graduates of the Woodruff School continued to be quite strong during the 2006-2007 academic year. The number of employers visiting Georgia Tech to recruit Woodruff School students was exceptionally high this year with Mechanical Engineers generating more interviews than any other single major at Georgia Tech. At the recent Georgia Tech Career Fair, 212 employers were recruiting ME and NRE students, up from 194 at the 2006 fair. This is a significant increase.

Reflecting this strength, employment rates and reported salaries for all levels of students was quite healthy and equaled or bettered previous years. At graduation in spring 2007, 76.5 percent of BSME graduates reported having found employment, substantially exceeding the Institute’s average of 69.5 percent. The median salary for BSME graduates was $55,000, with a high of $68,500. Signing bonuses averaged $4,000.

Graduates with a master’s degree reported a median salary of $64,800 and a signing bonus of $3,500. Ph.D. recipients reported a median salary and signing bonus of $80,000 and more than $8,000, respectively.

Many Woodruff School bachelor degree graduates continue on to graduate schools in fields ranging from engineering to management to medicine, and law. Nearly 22 percent of BSME graduates reported acceptance to graduate or professional school, up from 20 percent in the past few years.

A variety of employers hired Woodruff School students, including ExxonMobil, GE, Lockheed Martin, Michelin, Proctor & Gamble, Schlumberger, Siemens, and Toyota. In addition, students were hired by many other companies, reflecting broad interest across multiple industries. According to Ralph Mobley, Director of Career Services, “the demand for Woodruff School students is growing and based on the list of employers and the industries they represent, demand is broad based. It’s a great time to be graduating.”
FELLOWSHIPS

What follows is a list of the major fellowships held by Woodruff School graduate students from July 1, 2006 to June 30, 2007.

ACHEIVEMENT REWARDS FOR COLLEGE SCIENTISTS (ARCS)
Donavan Gerty
Shelby Highsmith
Timothy Koehler
Matthew Kontz
Charlotte Kotas
Anne-Marie Lerner

AMERICAN ASSOCIATION OF UNIVERSITY WOMEN
Shannon Stott

ASME TEACHING FELLOWSHIP
Anne-Marie Lerner
Joshua Vaughan

COLLEGE OF ENGINEERING FELLOWSHIP
Jacqueline O’Connor
Laura Raibeck

COLLEGE OF MANAGEMENT FELLOWSHIP
Christopher Nygren

DEPARTMENT OF DEFENSE FELLOWSHIP
Ryan Austin
David Damm
Graham Nelson
Jessica Remmert
Bobby Watkins

DEPARTMENT OF ENERGY
Steven Hamilton
Justin Pouders
Christopher Sommer

FACES FELLOWSHIP
Jeremy Dawkins
Egbe Eni

FULBRIGHT FELLOWSHIP
Muhammad Salman

GEORGIA TECH FELLOWSHIP
JoSette Broiles
Christopher Green
Craig Green
Roderick Jackson
Bryan Johns
Jevin Scrivens
Bobby Watkins
Brian Wayman
Freddie Wilson

INSTITUTE FELLOWSHIP
Joseph Charast
Kenneth Dupont
Andrew Gardner
Eamonn Harter
Ryan Krauss
Graham Nelson
Christopher Rinehart
Annica Wayman

GEORGIA TECH PRESIDENT’S FELLOWSHIP
Douglas Bakum
Thomas Beechem
David Blackburn
William Blackburn
Joel Boerckel
Jonathan Clausen
John Connolly
Ted Conrad
David Dumbauld
Scott Duncan
Kenneth Dupont
Aaron Enes
Thomas Forbes
Thomas Gray
Karen Hallow
Steven Hamilton
Sarah Herbison
John Huey
Roderick Jackson
Byron Johns
Mela Johnson
Jesse Kilion
Timothy Koehler
Robert Matthews
Logan McLeod
Graham Nelson
Andrew Perkins
Craig Pryzbyla
Jessica Remmert
Felipe Roman-Morales
Harry Rowland
Andrew Schnell
Thomas Smith
Jiann-Cherng Su
Adam Vela
John VanDer Welde
Christopher Wilson
Freddie Wilson
Jaime Zahorian

GRADUATE DEGREES FOR MINORITIES IN ENGINEERING FELLOWSHIP
Egbe Eni
Christopher Green
Craig Green
Dimitri Hughes
Roderick Jackson
Trayvon Leslie
Jeffrey Williams
Freddie Wilson

GOIZUETA FELLOWSHIP
Felipe Roman-Morales

INPO FELLOWSHIP
Charles Becht

INTA FELLOWSHIP
Shelby Highsmith
Kevin Klein

MEDTRONIC FELLOWSHIP
Abigail Wojtowicz

MANUFACTURING EDUCATION PROGRAM
Sivaramakris Venkatachalam
John VanDer Welde

NASA FELLOWSHIP
Jonathan Reichel

NASA HARRIET FELLOWSHIP
Byron Johns
Mela Johnson
Russell Marzette

NATIONAL INSTITUTES OF HEALTH
Kenneth Dupont
Brian Wayman
Abigail Wojtowicz

NATIONAL SCIENCE FOUNDATION GRADUATE RESEARCH
Joseph Charast
John Connelly
Kenneth Dupont
Dimitri Hughes
Hannah Muchnik
David Murphy
Bryan Nishimoto
Jennifer Phillips
Felipe Roman-Morales
Megan Satterfield
Stephanie Thompson
Mark Tschopp
Jaime Zahorian

OFFICE OF NAVAL RESEARCH
Roderick Jackson
Lin Wan
Christopher Wilson

PACKARD FELLOWSHIP
James Ford
Christopher Green
Craig Green
Christopher Wilson
Freddie Wilson

SANDIA FELLOWSHIP
Jeffrey Callicoat
Danny Carpenter
Jeanne Dion
Edward Mader
Harry Rowland

STEP FELLOWSHIP
Matthew Rooge

UNITED NEGRO COLLEGE FUND
James Ford
Craig Green
Byron Johns
Christopher Wilson

UNC/F/ASA FELLOWSHIP
Bryan Johns

U.S. NAVY FELLOWSHIP
Jonathan Reichel

WHITAKER FELLOWSHIP
Rhima Coleman
Catherine Reyes

WOODRUFF FELLOWSHIP
Douglas Bakum
Thomas Beechem
David Blackburn
Joel Boerckel
Eric Busillo
Maria-Isabel Carnasciali
Kenney Chen
Jonathan Clausen
Ted Conrad
Zachary Douglas
Steven Douglass
David Dumbould
Aaron Enes
Thomas Forbes
Benoit Forget
Donovan Gerty
Christopher Goodman
Thomas Gray
Karen Hallow
Steven Hamilton
Eamonn Harter
John Huey
Roderick Jackson
Mela Johnson
Jesse Kilion
Timothy Koehler
Kenneth Marek
Robert Matthews
Lucas McCastlin
Gavin McDonald
Logan McLeod
Graham Nelson
Gregory Ostrowicki
Andrew Perkins
Jessica Remmert
Konrad Rykaczewski
Megan Satterfield
Thomas Smith
Christopher Sommer
Jiann-Cherng Su
Sathyan Subbiah
Adam Vela
John VanDer Welde
Lin Wan
Freddie Wilson
Gena Woodruff
Jie Yang
Jian Tao Zheng

WOODRUFF SCHOOL
Brian Kern
Angela Laam Te
Gena Woodruff

WOODRUFF SCHOOL GRA FELLOWSHIP
Laurent Capolungo
Heather Hubble
Brian Kern
Stacey Schutte
Stephanie Thompson

WOODRUFF SCHOOL GTL FELLOWSHIP
Arlene Bhuiyan-Khan
Vanessa Casado
Amy Flower
Stephen Gredler
Lane Keyses
Sandra Kolvick
Ion Leath-Aluas
Gavin McDonald
Michael McNary
Bret Nicholson
Shaya Nematifar
Katherine Rudell
Walter Walczak
John VanDer Welde

WOODRUFF SCHOOL INTERNATIONAL FELLOWSHIP
Omkar Karhade
DEGREES

In 1888 when Georgia Tech opened, mechanical engineering was the only degree-granting program. From 1890, when the first degree was awarded, through spring 2007, Georgia Tech has awarded 142,040 degrees: 100,902 bachelor’s degrees, 34,789 master’s degrees, and 6,349 doctoral degrees. Today, the Woodruff School offers two undergraduate degrees (BSME, BSNRE) and seven graduate degrees (MS, MSME, MSNE, MSMP, MSBioE, MSBioE, Ph.D.). In addition, the master’s degree can be completed off-campus through the distance-learning program. This report details various aspects of the degrees awarded from summer 2006 through spring 2007.

Degrees Awarded By College (Summer 2006 through Spring 2007)

<table>
<thead>
<tr>
<th>College</th>
<th>BS</th>
<th>MS</th>
<th>Ph.D.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>156</td>
<td>108</td>
<td>7</td>
<td>271</td>
</tr>
<tr>
<td>Computing</td>
<td>206</td>
<td>142</td>
<td>30</td>
<td>378</td>
</tr>
<tr>
<td>Engineering</td>
<td>1475</td>
<td>747</td>
<td>336</td>
<td>2558</td>
</tr>
<tr>
<td>Management</td>
<td>330</td>
<td>116</td>
<td>8</td>
<td>454</td>
</tr>
<tr>
<td>Science</td>
<td>208</td>
<td>123</td>
<td>72</td>
<td>403</td>
</tr>
<tr>
<td>Ivan Allen</td>
<td>167</td>
<td>64</td>
<td>6</td>
<td>237</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,542</td>
<td>1,300</td>
<td>459</td>
<td>4,301</td>
</tr>
</tbody>
</table>

Degrees Awarded By College By Gender (Summer 2006 through Spring 2007)

<table>
<thead>
<tr>
<th>College</th>
<th>B.S.</th>
<th>M.S.</th>
<th>Ph.D.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architecture</td>
<td>156 (87/69)</td>
<td>108 (73/35)</td>
<td>7 (4/3)</td>
<td>271</td>
</tr>
<tr>
<td>Computing</td>
<td>306 (193/113)</td>
<td>142 (112/30)</td>
<td>30 (27/3)</td>
<td>378</td>
</tr>
<tr>
<td>Engineering</td>
<td>1475 (1183/292)</td>
<td>747 (611/136)</td>
<td>336 (270/66)</td>
<td>2558</td>
</tr>
<tr>
<td>Management</td>
<td>208 (108/100)</td>
<td>123 (83/40)</td>
<td>72 (50/22)</td>
<td>403</td>
</tr>
<tr>
<td>Ivan Allen</td>
<td>167 (94/73)</td>
<td>64 (34/30)</td>
<td>6 (3/3)</td>
<td>237</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>2,542 (1,859/683)</td>
<td>1,300 (1,000/300)</td>
<td>459 (360/99)</td>
<td>4,301</td>
</tr>
</tbody>
</table>

The first number in parentheses is the number of males and the second number is for females.

Degrees Awarded At Georgia Tech By Ethnicity and Citizenship (Summer 2006 through Spring 2007)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>B.S.</th>
<th>M.S.</th>
<th>Ph.D.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Indian/Alaskan Native</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Asian or Pacific Islander</td>
<td>495</td>
<td>358</td>
<td>237</td>
<td>1090</td>
</tr>
<tr>
<td>Black</td>
<td>154</td>
<td>77</td>
<td>18</td>
<td>249</td>
</tr>
<tr>
<td>Hispanic</td>
<td>86</td>
<td>69</td>
<td>11</td>
<td>166</td>
</tr>
<tr>
<td>Multiracial</td>
<td>24</td>
<td>20</td>
<td>2</td>
<td>46</td>
</tr>
<tr>
<td>White</td>
<td>1778</td>
<td>775</td>
<td>191</td>
<td>2744</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,542</td>
<td>1,300</td>
<td>459</td>
<td>4,301</td>
</tr>
</tbody>
</table>

Degrees Awarded in the College of Engineering (Summer 2006 Through Spring 2007)

<table>
<thead>
<tr>
<th>Engineering</th>
<th>Bachelor’s Degrees</th>
<th>Master’s Degrees</th>
<th>Doctoral Degrees</th>
<th>School Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineering</td>
<td>135</td>
<td>73</td>
<td>40</td>
<td>248</td>
</tr>
<tr>
<td>Biomedical Engineering</td>
<td>91</td>
<td>10</td>
<td>20</td>
<td>121</td>
</tr>
<tr>
<td>Chemical and Biomolecular Engineering</td>
<td>108</td>
<td>16</td>
<td>28</td>
<td>148</td>
</tr>
<tr>
<td>Civil and Environmental Engineering</td>
<td>171</td>
<td>89</td>
<td>24</td>
<td>284</td>
</tr>
<tr>
<td>Electrical and Computer Engineering</td>
<td>346</td>
<td>247</td>
<td>119</td>
<td>712</td>
</tr>
<tr>
<td>Industrial and Systems Engineering</td>
<td>235</td>
<td>131</td>
<td>29</td>
<td>395</td>
</tr>
<tr>
<td>Materials Science Engineering</td>
<td>23</td>
<td>4</td>
<td>20</td>
<td>47</td>
</tr>
<tr>
<td>Mechanical Engineering (and NRE/MP)</td>
<td>348</td>
<td>175</td>
<td>52</td>
<td>575</td>
</tr>
<tr>
<td>Polymer, Textile and Fiber Engineering</td>
<td>18</td>
<td>2</td>
<td>8</td>
<td>28</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>1,475</td>
<td>743</td>
<td>336</td>
<td>2,558</td>
</tr>
</tbody>
</table>
DEGREES BY RESIDENCY

Of the 4,301 degrees awarded at all levels by the Institute, 3,380 went to residents of the United States. Of these, 2150 degrees went to Georgia residents. Other states with large representations are Alabama, California, Florida, Illinois, Louisiana, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, and Texas. Also during the past academic year, 921 degrees were awarded to international students from 82 countries. The most popular countries of residence are Canada, China, Colombia, France, Germany, India, Japan, Korea, Mexico, Nigeria, Pakistan, Singapore, Thailand, and Turkey. Woodruff School graduate students come from a number of different countries, including France (31), India (20), Canada (4), China (5), South Korea (4), and Italy (3).

Woodruff School Degrees Awarded
(Summer 2006 Through Spring 2007)

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSME</td>
<td>334</td>
</tr>
<tr>
<td>BSNRE</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>348</td>
</tr>
<tr>
<td>M.S.</td>
<td>1</td>
</tr>
<tr>
<td>MSHP</td>
<td>2</td>
</tr>
<tr>
<td>MSME</td>
<td>146</td>
</tr>
<tr>
<td>MSNE</td>
<td>9</td>
</tr>
<tr>
<td>MSMP</td>
<td>16</td>
</tr>
<tr>
<td>MSBioE</td>
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</tr>
<tr>
<td>Total</td>
<td>175</td>
</tr>
<tr>
<td>Ph.D. ME</td>
<td>44</td>
</tr>
<tr>
<td>Ph.D. NE</td>
<td>5</td>
</tr>
<tr>
<td>Ph.D. BioE</td>
<td>2</td>
</tr>
<tr>
<td>Ph.D. PSE</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>52</td>
</tr>
<tr>
<td>Total Undergraduate Degrees</td>
<td>348</td>
</tr>
<tr>
<td>Total Graduate Degrees</td>
<td>227</td>
</tr>
<tr>
<td>School Total</td>
<td>575</td>
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</tbody>
</table>

Woodruff School Degrees By Gender and Ethnicity
(Summer 2006 Through Spring 2007)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian</td>
<td>104</td>
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<tr>
<td>Black</td>
<td>28</td>
</tr>
<tr>
<td>Hispanic</td>
<td>10</td>
</tr>
<tr>
<td>Multiracial</td>
<td>4</td>
</tr>
<tr>
<td>White</td>
<td>430</td>
</tr>
<tr>
<td>Male</td>
<td>491</td>
</tr>
<tr>
<td>Female</td>
<td>84</td>
</tr>
<tr>
<td>Total</td>
<td>575</td>
</tr>
</tbody>
</table>

UNDERGRADUATE DEGREES AWARDED

A total of 348 bachelor’s degrees (334 ME, 14 NRE) were awarded from the Woodruff School in the past academic year (summer 2006 through spring 2007). This is the largest number of B.S. degrees we have ever awarded and puts the Woodruff School in first or second place in the country for undergraduate degrees awarded. The breakdowns are as follows: In summer 2006, 68 bachelor’s degrees were awarded (67 ME, 1 NRE); in fall 2006, 115 degrees were awarded (109 ME, 6 NRE); and in spring 2007, 165 degrees were awarded (158 ME, 7 NRE). By gender, 296 were males (289 ME, 7 NRE) and 52 were females (45 ME, 7 NRE).
Seventy students (all ME) received the Cooperative Degree designation; of these, two also had an International Plan designation. There were eight students who completed their B.S. degree in the Regional Engineering program in Savannah. By ethnicity/citizenship, there were 31 Asians, 17 Blacks, seven Hispanics, and one Multiracial (all ME), 267 Whites (253 ME, 14 NRE) and 25 Internationals (all ME).

Summer 2006*

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSME</td>
<td>334</td>
</tr>
<tr>
<td>BSNRE</td>
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<tr>
<td>Total</td>
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<td>M.S.</td>
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<tr>
<td>MSHP</td>
<td>2</td>
</tr>
<tr>
<td>MSME</td>
<td>146</td>
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<tr>
<td>MSNE</td>
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</tr>
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<td>MSMP</td>
<td>16</td>
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<tr>
<td>MSBioE</td>
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<tr>
<td>Total</td>
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Winter 2006

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
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<tbody>
<tr>
<td>BSME</td>
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<tr>
<td>Total</td>
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<tr>
<td>M.S.</td>
<td>1</td>
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<tr>
<td>MSHP</td>
<td>2</td>
</tr>
<tr>
<td>MSME</td>
<td>146</td>
</tr>
<tr>
<td>MSNE</td>
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</tr>
<tr>
<td>MSMP</td>
<td>16</td>
</tr>
<tr>
<td>MSBioE</td>
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<tr>
<td>Total</td>
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</tbody>
</table>

Spring 2007

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
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<tbody>
<tr>
<td>BSME</td>
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<td>BSNRE</td>
<td>14</td>
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<tr>
<td>Total</td>
<td>348</td>
</tr>
<tr>
<td>M.S.</td>
<td>1</td>
</tr>
<tr>
<td>MSHP</td>
<td>2</td>
</tr>
<tr>
<td>MSME</td>
<td>146</td>
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<td>MSNE</td>
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<td>MSMP</td>
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<tr>
<td>MSBioE</td>
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</tr>
<tr>
<td>Total</td>
<td>175</td>
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</tbody>
</table>

Fall 2006

<table>
<thead>
<tr>
<th>Degree</th>
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<tbody>
<tr>
<td>BSME</td>
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<tr>
<td>BSNRE</td>
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<tr>
<td>Total</td>
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<tr>
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<tr>
<td>MSHP</td>
<td>2</td>
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<td>MSME</td>
<td>146</td>
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<td>MSNE</td>
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</tr>
<tr>
<td>MSMP</td>
<td>16</td>
</tr>
<tr>
<td>MSBioE</td>
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</tr>
<tr>
<td>Total</td>
<td>175</td>
</tr>
</tbody>
</table>

Winter 2006

<table>
<thead>
<tr>
<th>Degree</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSME</td>
<td>334</td>
</tr>
<tr>
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Hilary Coor
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Christopher Culver
Matthew DeMers
Barry DeMott
Nicholas Eddy
John Edenfield
Matthew Esler
Nicholas Filo
Parag Gajarawala
John Gerber
Niloofar Ghaemi
John Gortney
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Brett Hannah
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Amanda Harris
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Craig Holes
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Erin Kerr
Dooro Kim
Youngwoo Kim
Rahul Kirtikar
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Jared Macky
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Matthew Madsen
Jonathan Marsh
Taylor Martin
Michael Mathews
Kevin McAuliffe
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Shamus Mulivhill
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Anthony Sannazzaro
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Michael Schmidt
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Stephanie Sigers
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Yevgeniy Karshenboym
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Jason Kim
Edward Kim
Carolyn Kleppin
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Jonathan Kolaski
Kristine Kurtzbron
Robert Lalofd (RME)
Boon Lee
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Adeyanju Oliyide
Jamerson Parrot
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Brett Perryman
Wittia Phiong
Charles Popham
Aditya Prabhak
Christine Primmer
Michael Ragins
Bradford Range
Brandon Reed
Jonathan Reeves
Christian Reteter
Lauren Rhoades
Chad Robbins
Jevawn Roberts
Alexander Ruderman (RME)
Ryan Russell
Brandon Saadiq
Lambros Samouris
Dan Sancker
Kevin Scarborough
Jeffrey Schlosser
Dustin Scholz
Aaron Scott
Charles Simons
Robert Smith

*Note: Three names were omitted from the list because the students had a confidentiality flag on their record.*
GRADUATE DEGREES

In the past academic year, from summer 2006 through spring 2007, 227 graduate degrees: 175 master’s degrees (126 nonthesis, 49 with thesis) and 52 doctoral degrees were awarded. In summer 2006 there were 45 master’s and 21 Ph.D.’s; in fall 2006, there were 60 master’s degrees and 14 Ph.D.’s; and in spring 2007, there were 70 master’s degrees and 17 Ph.D.’s.

Of the 175 master’s degrees, one was an undesignated M.S.; one was in BioE; and 147 were MSME’s. There were two master’s in health physics (the last ones to be awarded by the Institute); 15 in medical physics, and nine in nuclear and radiological engineering. By gender there were 153 males (133 ME, 11 MP, 6 NE, 2 HP, 1 M.S.) and 22 females (13 ME, 5 MP, 3 NE, 1 BioE). By ethnicity, there were 27 Asians (19 ME, 5 MP, 2 NE, 1 HP), six Blacks (all ME), two Hispanics and two Multiracials (all ME), and 138 Whites (118 ME, 11 MP, 7 NE, 1 HP, 1 BioE).

Fifty-one master’s degrees (45 ME, 5 MP, 1 HP) were awarded to distance learning students in the past academic year: Two were thesis students, the remainder were nonthesis students. Twenty students from Georgia Tech Lorraine in Metz, France received their master’s degrees in mechanical engineering.

Of the 52 Ph.D.’s awarded, 44 were in mechanical engineering, five were in nuclear an radiological engineering, two were in bioengineering, and one was in paper science. By gender, there were ten (8 ME, 2 BioE) doctoral degrees to women and 42 (36 ME, 5 NRE, 1 PSE) to men. By ethnicity and citizenship, there were three Asians (2 ME, 1 BioE), three Blacks (all ME), nine Whites (5 ME, 1 BioE, 1 PSE), and 27 Internationals (23 ME, 1 NE, 1 NRE). Of all the nonthesis master’s degrees, all were in mechanical engineering except for 14 in medical physics, two in health physics, two in nuclear & radiological engineering, and one in bioengineering.

MASTER’S DEGREES (NONTHESIS)

Unless other indicated, all the degrees are in mechanical engineering (MSME). An asterisk indicates a degree in medical physics (MSMP), a + indicates a degree in nuclear engineering (MSNE), a * indicates a degree in health physics, and a # indicates a degree in bioengineering (M.S.BioE).

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<td>Zi Yen Ng</td>
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SPRING 2007

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<td>Paul Avezzie</td>
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<td>Danny Carpenter</td>
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<td>Jeanne Dion*</td>
<td>University of Texas</td>
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Note: A number of names were omitted because the student had a confidentiality flag on their record.
### MASTER'S DEGREES WITH THESIS

#### SUMMER 2006

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<td>David Blackburn</td>
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<td>Command Shaping for Vibration Reduction in Nonlinear Cabled Systems</td>
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<td>Donald Bradley</td>
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<td>Bert Bras</td>
<td>A Method to Relate Product Tolerancing Decisions to Environmental Impacts and Costs in Manufacturing</td>
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<td>The Effects of Wing Manipulation on Automated Cutting of Biological Materials</td>
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<td>Etienne Dufour</td>
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<td>Optimization of a Medium with a Large Parameter of Nonlinearity and Its Application to the Enhancement of a Compact, Omnidirectional, Parametric Source</td>
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<td>Optimization of a Plug-In Hybrid Electric Vehicle</td>
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<td>Said Abdel-Khalik &amp; Mostafa Ghaasiaan</td>
<td>Experimental Investigation of the Hydrodynamics of a Plunging Two-Phase Plane Jet</td>
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<td>James Kitchen</td>
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<td>Design of Wheelchair Seating Systems for Users with High-Tone Extensor Thrust</td>
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<td>Managing Information Collection in Simulation-Based Design</td>
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<td>Feasibility Study of Thin-Shell Deformable Mirror with Adaptive Truss Support for Spaced-Based Telescopes</td>
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<td>Corrosion Detection by Backscattering Ultrasonics</td>
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<td>Carbon Nanotube Synthesis for Microsystems Applications</td>
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<td>Design and Testing of a Thermoacoustic Power Converter</td>
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<td>Sergey Tereshko</td>
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<td>Steven Danyuk</td>
<td>Vibrating CPD Chemical Degradation Oil Sensor</td>
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<td>R. Vijaywargiya</td>
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<td>Itzhak Green</td>
<td>A Finite Element Study of the Deformation, Forces, Stress Formation, and Energy Loss in Sliding Contacts</td>
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<td>Ashby Bridges</td>
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<td>Estimating the Radiation Dose to Emergency Room Personnel in an Event of a Radiological Dispersal Device Explosion</td>
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<td>Andrew Cannon</td>
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<td>Comparison of Reprocessing Methods for Light Water Reactor Fuel</td>
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<td>Adam Christensen</td>
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<td>Thermal Transport in III-V Semiconductors and Devices</td>
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<td>Lauren Margolin</td>
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<td>Numerical Model of a Reciprocating Rod Seal, Including Surface Roughness and Mixed Lubrication</td>
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<td>Wicking in Multiply Paper Structures of Dissimilar Plies</td>
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<td>Megan Satterfield</td>
<td>MSMP</td>
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<td>Application of a Heterogeneous Coarse-Mesh Transport Method (COMET) to Radiation Therapy Problems</td>
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<td>Shubham Saxena</td>
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<td>Nanolithography on Thin Films Using Heated Atomic Force Microscope Cantilever</td>
<td>ITT, Kanpur</td>
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<td>Paul Treasurer</td>
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<td>Steven Johnson</td>
<td>Characterization and Analysis of Damage Progression in Non-Traditional Composite Laminates With Circular Holes</td>
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<td>Theodore Anderson</td>
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<td>Simulation and Fabrication of a Formable Surface for the Digital Clay Haptic Device</td>
<td>Mercer University</td>
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<td>David Bark</td>
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<td>Mechanistic Numerical Study of Thrombus Growth</td>
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<td>An Experimental Investigation on the Effects of Buffering Regulation on Time-Critical Delivery of Objects on a Multi-Conveyor System</td>
<td>University of Tennessee</td>
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<td>Investigation of Factors Contributing to the Deposition of Contaminants on Dryer Cylinders</td>
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<td>Marcus Eliason</td>
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<td>Combined Micro and Nanopatterning for Cell Substrates</td>
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<td>A Time-Dependent Slice Balance Method for Radiation Transport Computations</td>
<td>Johns Hopkins University</td>
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<td>Gautam Jadhav</td>
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<td>The Development of a miniature Flexible Flapping Wing Mechanism for Use in a Robotic Air Vehicle</td>
<td>University of Alabama</td>
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<td>Byron Johns</td>
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<td>Nader Sadegh &amp; Ayanna Howard</td>
<td>Design and Control of a New Reconfigurable Robotic Mobility Platform</td>
<td>Hampton University</td>
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<td>Azeem Meruani</td>
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<td>William Singhose &amp; Stephen Sprigle</td>
<td>Tweel™ Technology Tires for Wheelchairs and Instrumentation for Measuring Everyday Wheeled Mobility</td>
<td>Northwestern University</td>
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<td>Hannah Muchnick</td>
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<td>Robust Design of Multilevel Systems Using Design Templates</td>
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<td>Scott Sample</td>
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<td>Cassiano Oliveira</td>
<td>IMRT Beam Angle Optimization Using MCNP</td>
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<td>Keith Suda-Cederquist</td>
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<td>Minami Yoda</td>
<td>Near-Wall Thermometry via Total Internal Reflection Fluorescent Micro-Thermometry (TIR-FMT)</td>
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<td>Byron Van Gorp</td>
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<td>Levent Degertekin</td>
<td>Fisit with Improved Dynamics and Detection Range</td>
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### DOCTORAL DEGREES

### SUMMER 2006

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<td>Andrew DeMaio</td>
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<td>PSE</td>
<td>The Role of Paper Structure on the Tensile Creep Compliance of Paper</td>
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<td>Benoit Forget</td>
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<td>NRE</td>
<td>A Three-Dimensional Heterogeneous Coarse Mesh Transport Method for Reactor Calculations</td>
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<td>Nathanael Hudson</td>
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<td>The Correction of Pebble Bed Reactor Nodal Cross Sections For the Effects of Leakage and Depletion History</td>
<td>University of Alabama</td>
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<td>John Huey</td>
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<td>ME</td>
<td>The Intelligent Combination of Input Shaping and PID Feedback Control</td>
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<td>Desiree Jangha</td>
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<td>Quantitative Conjugate Imaging of Iodine-123 and Technetium-99m Labeled Brain Agents in the Basal</td>
<td>Ganglia Hampton University</td>
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<td>Ryan Krauss</td>
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<td>Control Design for Flexible Robots using the Transfer Matrix Method</td>
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<td>Jason Lawrence</td>
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<td>Enhance Crane Oscillation Control and Education</td>
<td>MIT</td>
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<td>Hyunjin Lee</td>
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<td>ME</td>
<td>Radiative Properties of Silicon Wafers with Microroughness and Thin-Film Coatings</td>
<td>Seoul National University</td>
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<td>Kuan-Ming Li</td>
<td>Ph.D.</td>
<td>ME</td>
<td>Predictive Modeling of Near Dry Machining</td>
<td>National Taiwan University</td>
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<td>Nathan Masters</td>
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<td>ME</td>
<td>Efficient Numerical Techniques for Multiscule Modeling of Thermally Driven Gas Flows with Application to Thermal Sensing Atomic Force Microscopy</td>
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<td>John Meacham</td>
<td>Ph.D.</td>
<td>ME</td>
<td>A Micromachined Ultrasonic Droplet Generator: Design, Fabrication, Visualization, and Modeling</td>
<td>Iowa State</td>
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<td>Catherine Reyes</td>
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<td>Collagen and Fibroectin-Mimetic Integrin-Specific Surfaces that Promote Osseointegration</td>
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<td>Mahesh Shenoy</td>
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<td>Constitutive Modeling and Life Prediction in Ni-base superalloys</td>
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<td>Shannon Stott</td>
<td>Ph.D.</td>
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<td>Kinetic Study of Intracellular Ice Formation in Micropatterned Endothelial Cell Cultures using High Speed Video Cryptomicroscopy</td>
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<td>Laam Tse</td>
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<td>Membrane Electrode Assembly (MEA) Design for Power Density Enhancement of Direct Methanol Fuel Cells (DMFCs)</td>
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<td>Eric Vanderploeg</td>
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<td>Mechanotransduction in Engineered Cartilaginous Tissues: in vitro Oscillatory Tensile Loading</td>
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<td>Development and Validation of a Nanodosimetry-Based Cell Survival Model for Mixed High- and Low-LET Radiatation</td>
<td>Institute of Radiation Medicine</td>
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## FALL 2006

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<td>Ho Ching</td>
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<td>Internet-Based Bilateral Teleoperating Using Wave Variables With Adaptive</td>
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<td>Analysis and Synthesis of Fixturing Dynamic Stability in Machining</td>
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<td>Brian English</td>
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<td>Laminated Gas Generator Arrays for Flight Control of Spinning Body Projectile</td>
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<td>Some Investigations of Scaling Effects in Micro-Cutting</td>
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<td>Microstructural Stresses and Strains Associated with Trabecular Bone Microdamage</td>
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<td>Information Modeling for Intent-based Retrieval of Parametric Finite Element</td>
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Note: The names of those master's and doctoral degree recipients who have a confidentiality flag on their record are not listed in this report.

## SPRING 2007

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<td>Ph.D. ME</td>
<td>Peter Hesketh</td>
<td>An Electromagnetically Actuated Rotary Gate Microvalve with Bistability</td>
<td>ITT, Kharagpur</td>
</tr>
<tr>
<td>Brent Nelson</td>
<td>Ph.D. ME</td>
<td>William King</td>
<td>Nanoscale Thermal Processing Using a Heated Atomic Force Microscope Tip</td>
<td>UC Berkeley</td>
</tr>
<tr>
<td>Ashley Palmer</td>
<td>Ph.D. BioE</td>
<td>Marc Levenston</td>
<td>Investigations of the Composition-Function Relationships in Normal, Degraded, and Engineered Articular Cartilage Using EPIC-Microcomputed Tomography</td>
<td></td>
</tr>
<tr>
<td>Keunhan Park</td>
<td>Ph.D. ME</td>
<td>Zhuomin Zhang &amp;</td>
<td>Thermal Characterization of Heated Microcantilevers and a Study on Near-Field Radiation</td>
<td>Seoul National University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>William King</td>
<td></td>
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</tr>
<tr>
<td>Min Pei</td>
<td>Ph.D. ME</td>
<td>Jianmin Qu</td>
<td>Effects of RE Doping on the Microstructure and Mechanical Behavior of a SnAg Alloy</td>
<td>Tsinghua University</td>
</tr>
<tr>
<td>Andrew Perkins</td>
<td>Ph.D. ME</td>
<td>Suresh Sitraraman</td>
<td>Investigation and Prediction of Solder Joint Reliability for Ceramic Array</td>
<td>Covenant College</td>
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<td></td>
<td></td>
<td></td>
<td>Packages under Thermal Cycling, Power Cycling, and Vibration Environments</td>
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<tr>
<td>Harry Rowland</td>
<td>Ph.D. ME</td>
<td>William King</td>
<td>Thermomechanical Manufacturing of Polymer Microstructures and Nanostructures</td>
<td>UC Santa Barbara</td>
</tr>
<tr>
<td>Marat Seydaliiev</td>
<td>Ph.D. NRE</td>
<td>C.K.Chris Wang</td>
<td>Development and Test of a GEM-Based TEPC for Neutron Protection Dosimetry</td>
<td>Novosibirsk State</td>
</tr>
<tr>
<td>Thomas Smith</td>
<td>Ph.D. ME</td>
<td>William Wepler &amp;</td>
<td>Hardware Simulation of Fuel Cell / Gas Turbine Hybrid</td>
<td>Iowa State University</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Comas Haynes</td>
<td></td>
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</tr>
<tr>
<td>Brian Wayman</td>
<td>Ph.D. ME</td>
<td>Raymond Vito</td>
<td>Arterial Response to Local Mechanical Variables in Organ Culture: The Effects of Circumferential and Shear Stress</td>
<td>University of Maryland</td>
</tr>
<tr>
<td>Jie Yang</td>
<td>Ph.D. ME</td>
<td>Ji-Xun Zhou &amp;</td>
<td>Spatial Coherence in a Shallow Water Waveguide</td>
<td>Ocean University of Qingdao</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peter Rogers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sungshik Yim</td>
<td>Ph.D. ME</td>
<td>David Rosen</td>
<td>A Retrieval Method (DFM framework) for Automated Retrieval of Design for Additive Manufacturing Problems</td>
<td>University of Tennessee</td>
</tr>
</tbody>
</table>

Note: The names of those master's and doctoral degree recipients who have a confidentiality flag on their record are not listed in this report.
FACULTY

Of the 92 academic faculty members in the Woodruff School there are sixteen endowed or distinguished faculty, 38 full professors, sixteen associate professors, and 22 assistant professors. Of these, there are ten joint appointments and six female faculty members.

ACOUSTICS AND DYNAMICS

Yves H. Berthelot, Professor and President of Georgia Tech Lorraine
Ph.D., University of Texas at Austin, 1985
Fellow of ASA

Gary W. Caille, Principal Research Engineer and Head, GTRI Systems Program Office (Joint Appointment)
Ph.D., Georgia Institute of Technology, 1988

Kenneth A. Cune fare, Professor
Ph.D., Pennsylvania State University, 1990
Fellow of ASA

Nico F. Declercq, Assistant Professor
Ph.D., Ghent University, Belgium, 2005

Aldo A. Ferri, Associate Professor
Ph.D., Princeton University, 1985

Jerry H. Ginsberg, George W. Woodruff Chair in Mechanical Systems and Professor
E.Sc.D., Columbia University, 1970
Fellow of ASA and ASME

Michael J. Leamy, Assistant Professor
Ph.D., University of Michigan, 1998

Peter H. Rogers, Rae and Frank H. Neely Chair in Mechanical Engineering and Professor
Ph.D., Brown University, 1970
Fellow of ASA

Erica E. Ryherd, Assistant Professor
Ph.D., University of Nebraska, 2006

Robert M. Nerem, Parker H. Petit Distinguished Chair for Engineering in Medicine and Institute Professor
Ph.D., Ohio State University, 1964
Fellow of ASME and ASME

Raymond P. Vito, Associate Dean for Academic Affairs and Professor
Ph.D., Cornell University, 1971
Fellow of AIMBE and ASME

Ajit P. Yoganathan, The Wallace H. Coulter Distinguished Faculty Chair in Engineering and Regents' Professor (Joint Appointment)
Ph.D., California Institute of Technology, 1978
Fellow of AIMBE

Evan Zamir, Assistant Professor
(arrives 1/08)
D.Sc., Washington University, 2003

Cheng Zhu, Professor of Biomedical Engineering (Joint Appointment)
Ph.D., Columbia University, 1988
Fellow of ASME

COMPUTER-AIDED ENGINEERING AND DESIGN

Janet Allen, Associate Professor
Ph.D., University of California, Berkeley, 1973
Fellow of ASME

Bert Bras, Professor
Ph.D., University of Houston, 1992

Seung-Kyum Choi, Assistant Professor
Ph.D., Wright State University, 2006

Mervyn Fathianathan, Assistant Professor
Ph.D., National University of Singapore, 2004

Farrokh Mistree, Professor and Associate Chair for Georgia Tech Savannah
Ph.D., University of California, Berkeley, 1974
Fellow of ASME and Associate Fellow of AIAA

Chris Paredis, Assistant Professor
Ph.D., Carnegie Mellon University, 1996

David W. Rosen, Associate Chair for Graduate Studies and Professor
Ph.D., University of Massachusetts, 1992
Fellow of ASME

Dirk Schaefer, Assistant Professor
Ph.D., University of Stuttgart, Germany, 2003

Suresh Sitaraman, Professor
Ph.D., Ohio State University, 1989
Fellow of ASME
FLUID MECHANICS
Cyrus Aidun, Professor
Ph.D., Clarkson University, 1985
Alexander Alexeev, Assistant Professor
Ph.D., Technion-Israel Institute of Technology, 2003
Ari Glezer, George W. Woodruff Chair in Thermal Systems and Professor
Ph.D., California Institute of Technology, 1981
Associate Fellow of AIAA and Fellow of ASME
G. Paul Neitzel, Professor
Ph.D., Johns Hopkins University, 1979
Fellow of APS and ASME and Associate Fellow of AIAA
Marc K. Smith, Professor
Ph.D., Northwestern University, 1982
Minami Yoda, Professor
Ph.D., Stanford University, 1993

HEAT TRANSFER, COMBUSTION, AND ENERGY SYSTEMS
Andrei G. Fedorov, Associate Professor
Ph.D., Purdue University, 1997
Srinivas Garimella, Professor
Ph.D., Ohio State University, 1990
Fellow of ASME
S. Mostafa Ghiaasiaan, Professor
Ph.D., University of California, Los Angeles, 1983
Fellow of ASME
Sheldon M. Jeter, Associate Professor
Ph.D., Georgia Institute of Technology, 1979
Yogendra K. Joshi, John M. McKenney and Warren D. Shiver Distinguished Chair in Building Mechanical Systems and Professor
Ph.D., University of Pennsylvania, 1984
Fellow of AAAS and ASME
Timothy Lieuwen, Associate Professor of Aerospace Engineering (Joint Appointment)
Ph.D., Georgia Institute of Technology, 1999
David Orloff, Professor
Ph.D., Drexel University, 1974
Karl I. Jacob, Professor of Polymer, Textile and Fiber Engineering (Joint Appointment)
Ph.D., Ohio State University, 1985
Laurence J. Jacobs, Professor of Civil and Environmental Engineering (Joint Appointment)
Ph.D., Columbia University, 1987
W. Steve Johnson, Professor of Materials Science and Engineering (Joint Appointment)
Ph.D., Duke University, 1979
David L. McDowell, Carter N. Paden Distinguished Chair in Metals Processing and Regents’ Professor
Ph.D., University of Illinois, 1983
Fellow of ASME and SES
Richard W. Neu, Professor
Ph.D., University of Illinois, 1991
Olivier Pierron, Assistant Professor
Ph.D., Pennsylvania State University, 2005
Jianmin Qu, Associate Chair for Administration and Professor
Ph.D., Northwestern University, 1987
Fellow of ASME
Naresh N. Thadhani, Professor of Materials Science and Engineering (Joint Appointment)
Ph.D., New Mexico Institute of Mining and Technology, 1984
Min Zhou, Professor
Ph.D., Brown University, 1993
Ting Zhu, Assistant Professor
Ph.D., Massachusetts Institute of Technology, 2004

MANUFACTURING
Jonathan S. Colton, Professor
Ph.D., Massachusetts Institute of Technology, 1986
Fellow of ASME and SPE
Steven Danyuk, Morris M. Bryan, Jr. Chair in Mechanical Engineering for Advanced Manufacturing Systems and Professor
Ph.D., Cornell University, 1974
Fellow of ASME, ASMI, and STLE
Suman Das, Associate Professor
Ph.D., University of Texas, 1998
Tequila A. L. Harris, Assistant Professor
Ph.D., Rensselaer Polytechnic Institute, 2006
Kyrilaki Kalaitzidou, Assistant Professor
(arrives 11/07)
Ph.D., Michigan State University, 2005
Steven Y. Liang, Morris M. Bryan, Jr. Professorship in Mechanical Engineering
Ph.D., University of California, Berkeley, 1987
Fellow of ASME
J. Rhett Mayor, Assistant Professor
Ph.D., University of Natal, Durban, South Africa, 2001
Shreyes N. Melkote, Professor
Ph.D., Michigan Technological University, 1993
Timothy Patterson, Assistant Professor
Ph.D., Georgia Institute of Technology, 1999
I. Charles Ume, Professor
Ph.D., University of South Carolina, 1985
Fellow of ASME and IEEE

MECHANICS OF MATERIALS
Antonia Antoniou, Assistant Professor
(continues 7/08)
Ph.D., Iowa State University, 2006
Mohammed Cherkaoui, Professor
Ph.D., University of Metz (France), 1995
Ken Gall, Associate Professor of Materials Science and Engineering (Joint Appointment)
Ph.D., University of Illinois, 1998
J. Rhett Mayor, Associate Chair for Administration and Professor
Ph.D., Northwestern University, 1987
Fellow of ASME and SES
Richard W. Neu, Professor
Ph.D., University of Illinois, 1991
Olivier Pierron, Assistant Professor
Ph.D., Pennsylvania State University, 2005
Jianmin Qu, Associate Chair for Administration and Professor
Ph.D., Northwestern University, 1987
Fellow of ASME
Naresh N. Thadhani, Professor of Materials Science and Engineering (Joint Appointment)
Ph.D., New Mexico Institute of Mining and Technology, 1984
Min Zhou, Professor
Ph.D., Brown University, 1993
Ting Zhu, Assistant Professor
Ph.D., Massachusetts Institute of Technology, 2004
MICROELECTROMECHANICAL SYSTEMS

Nazarin Bassiri-Gharb, Assistant Professor
Ph.D., Pennsylvania State University, 2005

F. Levent Degertekin, Associate Professor
Ph.D., Stanford University, 1997

James Gole, Professor of Physics (Joint Appointment)
Ph.D., Rice University, 1971
Fellow of AAAS

Samuel Graham, Assistant Professor
Ph.D., Georgia Institute of Technology, 1999

Peter J. Hesketh, Professor
Ph.D., University of Pennsylvania, 1987
Fellow of AAAS

TRIBOLOGY

Itzhak Green, Professor
Sc.D., Technion-Israel Institute of Technology, 1984
Fellow of ASME and STLE

Richard F. Salant, Georgia Power Distinguished Professor in Mechanical Engineering
Sc.D., Massachusetts Institute of Technology, 1967
Fellow of ASME and STLE

Jeffrey L. Streator, Associate Professor
Ph.D., University of California, Berkeley, 1990

Ward O. Winer, Eugene C. Gwaltney, Jr. Chair of the Woodruff School and Regents’ Professor
Ph.D., Cambridge University, 1964
Ph.D., The University of Michigan, 1961
Fellow of AAAS, ASEE, ASME, and STLE
Member of NAE

NUCLEAR AND RADIOLOGICAL ENGINEERING/MEDICAL PHYSICS

Said I. Abdel-Khalik, Southern Nuclear Distinguished Professor
Ph.D., University of Wisconsin, 1973
Fellow of ANS and ASME

Sang H. Cho, Associate Professor
Ph.D., Texas A&M University, 1997

Chaitanya Suresh Deo, Assistant Professor
Ph.D., University of Michigan, 2003

Nolan E. Hertel, Professor
Ph.D., University of Illinois, 1979
Fellow of HPS

Bojan Petrovic, Professor
Ph.D., Pennsylvania State University, 1995

Farzad Rahnema, Chair of the Nuclear and Radiological Engineering & Medical Physics Programs and Professor
Ph.D., University of California, Los Angeles, 1981
Fellow of ANS

Weston M. Stacey, Jr., Fuller E. Callaway Professor in Nuclear Engineering and Regents’ Professor
Ph.D., Massachusetts Institute of Technology, 1966
Fellow of ANS and APS

W. F. G. van Rooijen, Assistant Professor
Ph.D., University of Delft, The Netherlands, 2006

C.-K. Chris Wang, Associate Professor
Ph.D., Ohio State University, 1989

ACADEMIC PROFESSIONALS

Jeffrey A. Donnell, Coordinator of the Frank K. Webb Program in Professional Communication and Academic Professional
Ph.D. English, Emory University, 1990

Kristi Lewis, Undergraduate Academic Advisor and Academic Professional
M.S., Clemson University, 2000

David Sanborn, Associate Chair for Undergraduate Studies and Senior Academic Professional
Ph.D., University of Michigan, 1969
Fellow of ASME

Michael D. Stewart, Academic Professional
M.S., Wayne State College, 1983

Christine Valle, BS/MS Program Advisor and Academic Professional
Ph.D., Georgia Institute of Technology, 1999

Wayne Whiteman, Director of the Office of Student Services and Senior Academic Professional
Ph.D., Georgia Institute of Technology, 1996

RESEARCH FACULTY

Scott S. Bair, Principal Research Engineer
Ph.D., Georgia Institute of Technology, 1990
Fellow of ASME

Van B. Biesel, Research Engineer II
M.S., Georgia Institute of Technology, 1993

John R. Bogle, Research Engineering II
M.S., Georgia Institute of Technology, 1987

Jayme Caspall, Research Engineer II

Tom Crittenden, Research Engineer II
Ph.D., Georgia Institute of Technology, 2003

John Culp, Research Engineer II
B.S.M.E., Georgia Institute of Technology, 2000

John Doane, Research Engineer II
M.S.M.E, Georgia Institute of Technology, 2001

Michael Gray, Senior Research Engineering and Co-Director, Acoustics and Vibrations Research Laboratory
M.S.M.E., Georgia Institute of Technology, 1992

Francois M. Guillot, Senior Research Engineer
Ph.D., Georgia Institute of Technology, 2000

Sam Heffington, Research Engineer II
Ph.D., Georgia Institute of Technology, 2001

James Huggins, Research Engineer II
M.S.M.E. Georgia Institute of Technology, 1988

James Larsen, Senior Research Scientist

Gregg D. Larson, Senior Research Engineer
Ph.D., Georgia Institute of Technology, 1996

Angela Lin, Research Engineer I
M.S., Georgia Institute of Technology, 2002

James S. Martin, Senior Research Engineer
M.S., Georgia Institute of Technology, 1994

Raghuram V. Push, Senior Research Engineer
Ph.D., Indian Institute of Science, 1995

Dennis L. Sadowki, Research Engineer II
M.S., University of Illinois at Chicago, 1986

Dave Trivett, Principal Research Scientist
M.S., University of Wisconsin (Madison) 1976

Bojan Vukasinovc, Research Engineer II
Ph.D., Georgia Institute of Technology, 2002

Jelena Vukasinovc, Research Engineer II
M.S., Georgia Institute of Technology, 2000

Ji-Xun Zhou, Principal Research Scientist
Chinese Academy of Sciences Graduate School (Ocean Acoustics), 1963-1967
Fellow of ASA
EMERITUS FACULTY
Samuel C. Barnett, started in 1946, retired in 1980
William Z. Black, started in 1967, retired in 2000
Joseph D. Clement, started in 1965, retired in 1991
Gene T. Colwell, started in 1966, retired in 1995
J. Nari Davidson, started in 1973, retired in 2006
Monte V. Davis, started in 1973, retired in 1987
Prateen V. Desai, started in 1966, retired in 2002
Stephen L. Dickerson, started in 1965, retired in 1996
Pandelli Durbetaaki, started in 1964, retired in 1995
Geoffrey G. Eichholz, started in 1963, retired in 1988
James G. Hartley, started in 1977, retired in 2004
Jacek Jarzynski, started in 1986, retired in 2001
Bernd Kahn, started in 1974, retired in 1996
Ratib Karam, started in 1972, retired in 1997
Jack Lackey, started in 1986, retired in 2005
Alfred Schneider, started in 1975, retired in 1990

NEW FACULTY MEMBERS
In an effort to improve the student/faculty radio, which is high because of surging undergraduate enrollment, a number of new faculty members have been hired. Unless otherwise indicated, these faculty came to Georgia Tech for the fall 2007 semester.

Alexander Alexeev will come to Georgia Tech in January 2008 as an Assistant Professor. Currently, he is a Research Fellow at the University of Pittsburgh.

Antonia Antoniou will start as an assistant professor in July 2008. Her research interest is mechanics of materials. Currently, she is a postdoctoral fellow at the University of Massachusetts.

Nazanin Bassiri-Gharb is an Assistant Professor. Her research is in MEMS and mechanics of materials. Prior she was a Senior Engineer at Qualcomm MEMS Technologies, Inc.

Sang Cho started in January 2007 as an Associate Professor of Medical Physics. Prior he was an Associate Professor at the University of Texas M.D. Anderson Cancer Center.

Suman Das is a Associate Professor. His research areas are manufacturing and mechanics of materials. Prior he was an associate professor at the University of Michigan.

Chaitanya Deo is an Assistant Professor of Nuclear and Radiological Engineering. He also works in mechanics of materials. Prior he was a Postdoctoral Research Associate at Los Alamos National Labs.

Kyriaki Kalaitzidou will join the faculty as an Assistant Professor in November 2007. Currently, she is a postdoctoral research associate at the University of Massachusetts.

Michael Leamy is as an Assistant Professor. His research area is Acoustics and Dynamics.

Tim Lieuwen, Associate Professor of Aerospace Engineering, received a joint appointment in the Woodruff School. His areas of interest are heat transfer and acoustics and dynamics.

Bojan Petrovic is a Professor of Nuclear and Radiological Engineering. Prior he was a Fellow Scientist at Westinghouse Science and Technology.

Olivier Pierron is an Assistant Professor. His research areas are mechanics of materials and MEMS. Prior he was a Senior Engineer at Qualcomm MEMS Technologies, Inc.

Erica Ryherd is an Assistant Professor. Her research area is acoustics and dynamics. Prior she was a Hunt Postdoctoral Research Fellow at Gothenburg University in Sweden.

Karim Sabra is an Assistant Professor. His research area is acoustics and dynamics. Prior he was a Project Scientist at the Scripps Institute of Oceanography.

Wilfred van Rooijen began in March 2007 as an Assistant Professor of Nuclear and Radiological Engineering. Prior he was a Ph.D. candidate at Delft University of Technology.

FELLOWS
During the past academic year a number of faculty members were elected to the grade of Fellow in a professional society. Fifty-six current Woodruff School faculty members hold the grade of Fellow in at least one professional society. The largest number of fellows is from the American Society of Mechanical Engineers (ASME).

Andres Garcia, associate professor, and Robert Gulberg, professor, were elected to the grade of Fellow in the American Institute for Medical and Biological Engineering.

Ari Glezer, Woodruff Chair in Thermal Systems, was elected to the grade of Fellow in the ASME.

Dave McDowell, Carter Paden Chair, was named a Fellow of the Society of Engineering Science.

Karim Sabra, assistant professor, became a Fellow of the Acoustical Society of America.

CHANGES
William King, assistant professor, left the Woodruff School for the University of Illinois in Champaign-Urbana.

Marc Levenston, assistant professor, left the Woodruff School for Standard University.

Jianmin Qu, professor, assumed the position of Associate Chair for Administration upon the departure of Chris Lynch, professor, for UCLA.

David Rosen, professor, became the Associate Chair for Graduate Studies when Yogendra Joshi left the position after five years.

Xue-Zhan Zhang, senior research engineer, retired.

Wenjing Ye, Jens Karlsson and Cassiano de Oliveira left the Woodruff School.
STAFF

Of the 55 current staff members listed below, 37 are females and 18 are males.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segried Allen</td>
<td>Administrative Assistant II</td>
</tr>
<tr>
<td>Trudy Allen</td>
<td>Academic Advisor I</td>
</tr>
<tr>
<td>Shauna Bennett-Boyd</td>
<td>Administrative Coordinator</td>
</tr>
<tr>
<td>Vladimir Bortkevich</td>
<td>Electrical Engineer III</td>
</tr>
<tr>
<td>Barbara Bower</td>
<td>Administrative Assistant I</td>
</tr>
<tr>
<td>Kellie Burns</td>
<td>Research Technician III</td>
</tr>
<tr>
<td>Robert Cooper</td>
<td>Mechanical Technician III</td>
</tr>
<tr>
<td>Phillip R. Coulson</td>
<td>Financial Specialist</td>
</tr>
<tr>
<td>Andrew G. (Drew) Davis</td>
<td>Electronics Specialist</td>
</tr>
<tr>
<td>Judith E. Diamond</td>
<td>Administrative Coordinator</td>
</tr>
<tr>
<td>Dimetra Diggs-Butler</td>
<td>Program Coordinator II</td>
</tr>
<tr>
<td>Kenneth Dollar</td>
<td>Director of Support and Technical Services</td>
</tr>
<tr>
<td>Richard Duplessis</td>
<td>Computer Services Specialist IV</td>
</tr>
<tr>
<td>Melody Foster</td>
<td>Administrative Manager II</td>
</tr>
<tr>
<td>Norma L. Frank</td>
<td>Academic Advisor I</td>
</tr>
<tr>
<td>Kyle French</td>
<td>Electrical Engineer II</td>
</tr>
<tr>
<td>David Gifford</td>
<td>Electronics Specialist</td>
</tr>
<tr>
<td>Rona A. Ginsberg</td>
<td>Director of Communications</td>
</tr>
<tr>
<td>John W. Graham</td>
<td>Machine Shop Manager</td>
</tr>
<tr>
<td>Cheryl Griffin</td>
<td>Administrative Assistant I</td>
</tr>
<tr>
<td>Camellia Henry</td>
<td>Facilities Coordinator</td>
</tr>
<tr>
<td>Damaar Herring</td>
<td>Financial Manager I</td>
</tr>
<tr>
<td>Angela L. Hicks</td>
<td>Project Coordinator II</td>
</tr>
<tr>
<td>Phylis Hinton</td>
<td>Accountant III</td>
</tr>
<tr>
<td>Nancy Hutton</td>
<td>Administrative Assistant I</td>
</tr>
<tr>
<td>Samantha James</td>
<td>Administrative Coordinator</td>
</tr>
<tr>
<td>Wanda Joefield</td>
<td>Academic Advisor I</td>
</tr>
<tr>
<td>Deidra Johnson</td>
<td>Administrative Assistant II</td>
</tr>
<tr>
<td>Glenda Johnson</td>
<td>Administrative Advisor I</td>
</tr>
<tr>
<td>Vivian Johnson</td>
<td>Administrative Assistant II</td>
</tr>
<tr>
<td>Cecelia Jones</td>
<td>Director of Development</td>
</tr>
<tr>
<td>Theresa S. Keita</td>
<td>Administrative Manager I</td>
</tr>
<tr>
<td>Tom Lawley</td>
<td>Systems Analyst III</td>
</tr>
<tr>
<td>Sherron Lazarus</td>
<td>Administrative Assistant II</td>
</tr>
<tr>
<td>Phu Le</td>
<td>Program Coordinator II</td>
</tr>
<tr>
<td>Joyce Lowe</td>
<td>Administrative Assistant II</td>
</tr>
<tr>
<td>Dorothy McDuffie-Alexander</td>
<td>Technical Services Manager</td>
</tr>
<tr>
<td>Stephanie Merrick</td>
<td>Senior Facilities Manager</td>
</tr>
<tr>
<td>Jefforey Murphy</td>
<td>Administrative Assistant II</td>
</tr>
<tr>
<td>Michael L. Murphy</td>
<td>Administrative Manager I</td>
</tr>
<tr>
<td>Regina Neequaye</td>
<td>Administrative Clerk</td>
</tr>
<tr>
<td>Cary Ogeltree</td>
<td>Accountant III</td>
</tr>
<tr>
<td>Joi Outlaw</td>
<td>Administrative Assistant II</td>
</tr>
<tr>
<td>Rekha Patel</td>
<td>Computer Services Specialist II</td>
</tr>
<tr>
<td>Linda Perry</td>
<td>Administrative Assistant I</td>
</tr>
<tr>
<td>Michael Proctor</td>
<td>Accountant III</td>
</tr>
<tr>
<td>Melissa Raine</td>
<td>Electronics Specialist</td>
</tr>
<tr>
<td>Amina Sadiq</td>
<td>Project Coordinator I</td>
</tr>
<tr>
<td>Jack Simmons</td>
<td>Director of Instructional Labs</td>
</tr>
<tr>
<td>Glenda Skinner</td>
<td>Administrative Assistant I</td>
</tr>
<tr>
<td>Sterling Skinner, Jr.</td>
<td>Project Coordinator I</td>
</tr>
<tr>
<td>Valerie Spradling</td>
<td>Administrative Assistant I</td>
</tr>
<tr>
<td>David W. Stone</td>
<td>Director of Finance</td>
</tr>
<tr>
<td>Sheila Williams</td>
<td>Administrative Assistant I</td>
</tr>
<tr>
<td>Melinda A. Wilson</td>
<td>Administrative Coordinator</td>
</tr>
</tbody>
</table>

RESEARCH

Georgia Tech is a major center for advanced technology in Georgia and the southeast. The Institute conducts research of national significance, provides research services and facilities to faculty, students, industry, and government agencies, and supports the economic and technological growth of the state of Georgia. Research operations are carried out through schools, centers, and laboratories.

In 2006, Georgia Tech received 2,299 awards valued at $487 million. The College of Engineering received 954 awards, valued at more than $121 million. The Woodruff School faculty prepared 166 proposals for a value of more than $51 million and received 122 awards valued at $12 million. On an annual basis, Woodruff School faculty are responsible for more than $30 million a year in externally funded grants and contracts.

Woodruff School faculty are divided into self-selected research groups. In addition, the faculty participate in more than a dozen interdisciplinary and Institute-wide centers on campus, many of which are led by Woodruff School faculty.

The Woodruff School provides challenging research experiences for students in areas beyond the typical core of mechanical engineering programs. The research experience of the faculty is brought to the classroom, giving students a sense of the excitement of ME and the cutting edge nature of the discipline. At the undergraduate level, students can work with a faculty member on a research or special project. In addition, the School requires a senior experimental design course (capstone design) where students work in groups. The objective of this course is to design, build, and conduct an ME related project.

Technology licensing activities are a result of research. At Georgia Tech in 2006, this resulted in 365 inventions, software and copyright disclosures, 84 patent applications, and 38 patents issued. Current Woodruff School faculty hold 185 U.S. patents. First-page patent plaques of each invention are prominently displayed in the lobby of the MRDC Building. The display is supported by the Harold Gegenheimer (class of 1933) Endowment on Innovation and is meant to inspire students to invent and innovate.
FACILITIES

The Atlanta campus of the Georgia Institute of Technology contains 227 buildings, totaling more than 13 million square feet, of which 75 are for academic instruction and research, and 13 are for academic support. The remaining buildings by principal use are for athletics, campus support, parking, residential, Georgia Tech Research Institute, and student support. In addition to the facilities at Georgia Tech Lorraine and Georgia Tech Savannah, the Woodruff School has activities in the following buildings:

J. Erskine Love Manufacturing Building
• 153,664 sq. ft.
• Opened in 2000
• Building is shared with Materials Science and Engineering
• Underwater acoustics tank, wind tunnel, and MEMS clean room are special facilities
• Acoustics, Fluid Mechanics, and Heat Transfer, Combustion and Energy Systems are research groups in this building

Manufacturing Related Disciplines Complex
• 121,976 sq. ft.
• Opened in 1995
• Building is shared with Polymer and Textile Engineering
• Undergraduate laboratories are among the special facilities
• Tribology and Mechanics of Materials are research groups in this building

Fuller E. Callaway, Jr. Manufacturing Research Center
• 118,380 sq. ft.
• Opened in 1991 (interdisciplinary space)
• Integrated Acoustics Laboratory (anechoic-chamber) and high-bay area are special facilities
• Manufacturing, CAE/Design, and Automation/Mechatronics faculty research groups are housed here

Frank H. Neely Research Center
• 41,432 sq. ft.
• Opened in 1963
• Nuclear and Radiological Engineering/Medical Physics program is housed here
• Note: The NRE/MP faculty will move to the Boggs Building in late 2008

Parker H. Petit Biotechnology Building
• 156,749 sq. ft.
• Opened in 1999 (interdisciplinary space)
• Bioengineering research group is located here.

Institute of Paper Science and Technology
• Opened in 1992
• Houses two laboratories for faculty members in the Heat Transfer research group

IPST Centennial Engineering Building
• Opened in 1997
• Faculty members in Paper Science and Engineering are housed here.

Student Competition Center
• Opened in 1941
• Officially the Mechanical Engineering Research Building
• Houses various student competition groups, including gt motorsports, GT Off-Road (the mini-baja team), Robojackets and Wreck Racing
HONORS AND AWARDS

FACULTY

Said Abdel-Khalik, Southern Nuclear Distinguished Professor, was appointed by the U.S. Nuclear Regulatory Commission to the Advisory Committee on Reactor Safeguards.

Scott Bair, principal research engineer, received the Alan Berman Award--Basic Research Category from the Chemistry Division of the Naval Research Laboratory.

Bert Bras, professor, received the Class of 1934 Outstanding Interdisciplinary Activity Award.

Nico Declercq, assistant professor, received the International Dennis Gabor Award from the NOVOFER Foundation for Technical Creation in Hungary, and the Early Career Award from the International Commission for Acoustics.

Andrei Fedorov, associate professor, received the 2007 Bergles-Rohsenow Young Investigator Award from the Heat Transfer Division of ASME.

Jerry Ginsberg, Woodruff Chair in Mechanical Systems, received the 2007 Per Bruel Gold Medal for Noise Control and Acoustics from the ASME.

Robert Guldborg, Rich Neu, and Zhuomin Zhang were promoted to the rank of full professor.

Laurence Jacobs and Jianmin Qu, professors, received a Faculty Best Paper Award from the GT Chapter of Sigma Xi.

Yogendra Joshi, McKenney/Shiver Chair, received the Outstanding Contributions in Thermal Management Award from the Electronics and Photonics Division of the ASME.


Chris Lynch, Professor, received the Women in Engineering Excellence in Teaching Award.

Dave McDowell, Carter Paden Chair, is the recipient of the 2008 Khan International Medal.

Kristi Mehaffey, academic professional, received the Georgia Tech Outstanding Undergraduate Academic Advising Award-Faculty Advisor Award.

Chris Paredis received a Georgia Tech CETL/BP Junior Faculty Teaching Excellence Award, and an SAE Ralph R. Teeter Education Award.

Jeffrey Streator, Associate Professor, was awarded the Faculty Mentoring Award by the College of Engineering’s Women in Engineering Program.

Charles Ume, professor, received the Sustained Research Award from the Georgia Tech Chapter of Sigma Xi.

Melanie Kraus, research economist, was appointed to the Council of Outstanding Young Engineering Alumni.

Robert Young, professor, received the ASHRAE/ALCO Medal, Distinguished Public Service.

Cecelia Jones received Georgia Tech ten-year service awards at the annual faculty/staff luncheon.

Joyce Lowe, administrative assistant II, received the Woodruff School Outstanding Achievement Award for Classified Employees for spring semester 2007.

Gary Ogletree (Management Development), Dimetra Diggs-Butler and Dorothy McDuffie-Alexander (Supervisory Development) received certificates from the Office of Organizational Development.

Melinda Wilson, administrative coordinator, won the Woodruff School Outstanding Achievement Award for Classified Employees for 2006.

ALUMNI

Michael J. Bly (BME 1990), Engineering Director--Global Hybrid Vehicles for General Motors Corporation, was inducted as a member of the College of Engineering Young Engineering Alumni.

Harold O. Davidson, Jr. (BME 1947, MSIE 1948) was elected to the Engineering Hall of Fame. He is Founder and Retired President of DTM, Inc., a consulting firm.

Jeffrey T. Ellis (Ph.D. 1999) was elected to the Council of Outstanding Young Engineering Alumni. He is Research Advisor in the Cardiac Therapies Group at Abbott Vascular.

Dan C. Godbee (BME 1976, MSME1987, MSIE 1989) joined the Academy of Distinguished Engineering Alumni. He is Faculty and Attending Physician in the Emergency Medicine Residency Program at Louisiana State University Medical Center.

Stephanie M. Kladakis (MSME 1999, Ph.D. ME 2002) was elected to the Council of Outstanding Young Engineering Alumni. She is Senior Engineer, Research and Development for NMT Medical, Inc. in Massachusetts.

James C. Leathers (BME 1955) was elected to the College of Engineering Hall of Fame. He is retired Vice President of the Production Support Department of Duke Power Company.

Louis B. Long (BSPhys 1966, MSNE 1967) is a member of the Academy of Distinguished Engineering Alumni. He is Vice President of Technical Support for Southern Nuclear Operating Company.

Bryan T. LaBrecque (BME 1981) was elected to the Academy of Distinguished Engineering Alumni. He is President and Chief Operating Officer of Atlantic Southeast Airlines.

David McKenney (BSPhys 1960, BIE 1964) received the ASHRAE/ALCO Medal, Distinguished Public Service. This award recognizes members who have performed outstanding public service in their community, and in doing so, have helped to improve the public images of the engineer.

Parker (Pete) Petit (BSME 1962, MSESME 1964) was inducted into the Georgia State Robinson College Business Hall of Fame. The Hall of Fame provides the highest recognition given by the College to business leaders for their efforts in advancing the principles of the free market system while serving national and international business communities.
MEET THE NEW DIRECTOR OF DEVELOPMENT

“Development continues to provide the vital margins to allow the Woodruff School to do an even better job in educating students and advancing the knowledge base of Mechanical Engineering. I feel very fortunate to be able to work with some of the great minds in ME to make the Woodruff School even better,” said Tom Lawley, who came to the Woodruff School in July 2007 as the new Director of Development.

Tom relocated from Chicago, where he was a Major Gifts Officer with the Children’s Memorial Foundation. He had worked closely with the Children’s Memorial Research Center to raise extramural funding for the physicians and researchers engaged in researching treatments and cures for several debilitating pediatric diseases. He also played an active role in the $400 million capital campaign for the construction of a new hospital in downtown Chicago. Before that, Tom was a Major Gifts Officer with the Atlanta Union Mission, where he helped in the completion of a successful capital campaign. Tom graduated from St. Andrews Presbyterian College in 1995 with a B.A. in History.

Tom’s goals for the Woodruff School include raising funds in support of students and faculty, program enrichment facilities and equipment, and current operational capital as part of the anticipated Capital Campaign. Contact Tom by phone at (404) 385-8345 or by e-mail at tom.lawley@me.gatech.edu.

CONTRIBUTORS

This list includes donors who have designated gifts to the Woodruff School of Mechanical Engineering between July 1, 2006 and June 30, 2007.

Alumni, Friends, Parents, and Students

- K. Annamalai, ME 1975
- David A. Bauer, CMPE 2003
- Maxwell D. Berman, CE 1957
- James R. Borders, ME 1983
- Millard A. Borkar, EE 2002
- Arthur D. Brook, ME 1956
- Debra J. Brook, Friend
- Michael A. Campbell, ME 1976
- Beaufach C. Carr, Friend
- Gordon R. Catts, Jr., ME 1935
- John C. Cerny, PE, ME 1951
- William B. Crane, PE, ME 1950
- Stephen B. Cripps, Friend
- Harold O. Davidson, Jr., ME 1947
- N. Peter Davis, PhD, ME 1998
- Dr. Stephen L. Dickerson, Honorary Alumnus
- James R. Downing, IM 1966
- Edward A. Eppinger, ME 1960
- Frederick L. Eyerman, ME 1971
- Mohsen Fakhrazi, Friend
- Bonnie Heck Ferri, EE 1988
- Frank E. Genovese, Parent
- John F. Glenn, Jr., IM 1959
- Arnold I. Goldberg, ME 1950
- M. Fred Hale, ME, 1963
- Frank W. Havill, Jr., Friend
- J. Charles Headrick, ME 1973
- Robert J. Hubauer, Friend
- Thomas M. Hudson, Jr., ME, 1973
- Thomas V. Jackson, IE 1970
- Harry F. Jenkins, TEXT 1973
- Sheldon M. Jeter, Ph.D., ME 1979
- Michael F. Kemp, Friend
- Deborah Kilpatrick, PhD., ESM 1979
- John J. Kluber, ME 1984
- Robert E. Koski, Friend
- James C. Leathers, ME 1955
- Dean J. Lennard, ME 1953
- Louis B. Long, PHYS 1966
- Gay M. Love, Honorary Alumnus
- Anne C. Lynch, Parent
- J.R. Markley, ME 1956
- Bryan R. Mattern, IE 1999
- Helen K. Maddox, Friend
- Cameron Trent Mayo, Student
- Terry W. Moon, IE 1970
- Dorothy A. Moore, Friend
- Isaac E. Murray, Jr., ME 1949
- Marilyn R. Nerem, Friend
- James E. (Jack) Pruitt, Jr., ME 1956
- Richard D. Radford, Jr., Friend
- Mahnaz Rahnama, Friend
- Philip L. Saffar, Friend
- Lisa A. Schott, ME 1990
- Neal Sisson, Friend
- Weston M. Stacey, PHYS 1959
- Mark A. Stiles, Friend
- David L. Sullivan, ARCH 1976
- Philip J. Sullivan, ME 1955
- Richard L. Taylor, ARCH 1964
- William L. Thacker, Jr., ME 1967
- David I. J. Wang, ME 1953
- Frank K. Webb, ME 1938
- Lynne M. Wepfer, Friend
- Wayne E. Whiteman, PhD., ME 1997
- Wendell M. Williams, Jr., ME 1955
- Calvin L. Wilson, ME 1981
- Mary Jo Winer, Friend
- Wm. A. Winer, Ph.D.,
- Honorary Alumnus
- Ernest A. Withers, Jr., Friend
- Jack M. Zeigler, ME 1948

Corporations, Foundations and Organizations

- Air Products and Chemicals, Inc.
- Andrettii III, LLC
- ARCS Foundation, Inc.
- Areva NP, Inc.
- Arpeggio Acoustic Consulting LLC
- ASHRAE
- BP Foundation, Inc.
- Brasfield & Gorrie
- Caterpillar Foundation
- Caterpillar, Inc.
- Chevron
- CITO Petroleum Corporation
- Cryogenic Engineering Conference, Inc.
- Dana Corporation Foundation
- Deere & Company
- The Dow Chemical Company Foundation
- Duke Energy Foundation
- Eaton Charitable Fund
- ExxonMobil Corporation
- The Fluor Foundation
- Ford Motor Company
- Gay and Erskine Love Foundation, Inc.
- Gay M. Love Charitable Trust
- General Motors Corporation
- General Motors Foundation
- Georgia Power Company
- Greater Houston Community Foundation
- Heery International, Inc.
- Hewlett Packard Company
- Hubbard/Dowing, Inc.
- HUSCO International, Inc.
- Jacket Micro Devices, Inc.
- Jim Ellis Atlanta, Inc.
- John Brown Associates
- John Deere Foundation
- Johnson Controls Foundation
- Kimberly-Clark Corporation
- The Koski Family Foundation
- Lockheed Martin Corporation Foundation
- Lutron Electronics Company, Inc.
- Maxxis
- McCallum-Turner Inc.
- Michelin Americas R&D
- Michelin North America
- National Fluid Power Association
- New Scale Technologies Inc.
- Norfolk Southern Foundation
- Old World Automotive
- Philips Ultrasound
- Pi Tau Sigma
- Procter & Gamble Fund
- Rockwell Collins
- Rolls-Royce North American Technologies Inc.
- Samsung Techwin Company, Ltd.
- Schlumberger
- Schwab Fund for Charitable Giving
- Shell Oil Company
- Siemens Electronics Assembly Systems
- Siemens Energy & Automation, Inc.
- Sign Blast, LLC
- SKC Company Ltd.
- Southern Nuclear Operating Company
- Springer-Verlag Berlin-Heidelberg-N
- Surface Mount Technology Association
- Suwanee Family Dentistry
- Sverdrup Technology Inc.
- Toyota Motor Manufacturing North America, Inc.
- UGS Corporation
- United Technologies Corporation
- USA Poultry & Egg Export Council
- Vintage Motorcar Restorations, Inc.
- William L. Bonnell Company
- Zyvex Corporation

Faculty and Staff

- Janet. K. Allen
- Yves H. Berthelot
- William Z. Black
- William J. Book
- Jonathan S. Colton
- Gene T. Colwell
- Philip R. Coulsen
- Kenneth A. Cuneirof
- Steven Danylyuk
- Dr. Stephen L. Dickerson,
- Honorary Alumnus
- Kenneth Dollar
- Jeffrey A. Donnell
- Bonnie Heck Ferri, EE 1988
- Alda A. Ferri
- Srivinvas Garimella
- Rona A. Ginsberg
- Tequila A. Harris
- Peter J. Hesketh
- Jacek Jarzynski
- Sheldon M. Jeter, Ph.D., ME 1979
- Bernd Kahn
- Alan V. Larson
- Sherron Lazarus
- Kok-Meng Lee
- Christopher S. Lynch
- Lora L. Magnuson
- J. Rhett Mayor
- William J. Miller
- Farrokh Mistree
- Robert M. Nerem
- Richard W. Neu
- Jianmin Quo
- Farzad Rahnema
- David W. Rosen
- Richard F. Salant
- Suresh K. Sitaraman
- Suwanee Family Dentistry
- David W. Rosen
- William J. Ume
-yme
- William J. Wepfer
- Wayne E. Whiteman, PhD., ME 1997
- Wendell M. Williams, Jr., ME 1955
- Caroline G. Wood
- Margaret G. Wood
- Ward O. Winer, Ph.D.,
- Honorary Alumnus
- Sherron Lazarus
- Alan V. Larson
- Sherron Lazarus
- J. Rhett Mayor
- William J. Miller
- Farrokh Mistree
- Robert M. Nerem
- Richard W. Neu
- Jianmin Quo
- Farzad Rahnema
- David W. Rosen
- Richard F. Salant
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- Suwanee Family Dentistry
- David W. Rosen
- William J. Ume
-yme
- William J. Wepfer
- Wayne E. Whiteman, PhD., ME 1997
- Wendell M. Williams, Jr., ME 1955
- Caroline G. Wood
FINANCES

For fiscal year 2007 (July 1, 2006 to June 30, 2007), the Woodruff School’s finances were reflected in the number of grants and contracts received from external sources, the budget of the School (state support), and the revenue generated from the Woodruff Endowment. Detailed information on any of these categories is available from the Woodruff School’s Director of Finance, David Stone, at (404) 894-7400.

Number of Grants, Contracts, and Proposals

- Total number of active (external/internal) grants and contracts (includes endowment accounts): 413
- Number of proposals submitted to external agencies: 212
- Number of proposals awarded from external agencies: 116
- Number of externally funded grants, contracts, and endowments receiving new funds: 194
- Number of internally funded grants receiving new funds: 11

Endowments (as of July 1, 2006), k$

- Total Woodruff School endowments (market value principal): $96,736
- Endowment-generated revenue available for expenditure: $3,452

As of July 2007 the total market value principal of the Woodruff School endowments is $107,425,677 and the endowment-generated revenue available for expenditure is $3,768,777.

THE WOODRUFF ENDOWMENT

Funds from the George W. Woodruff Trust continue to provide for the enhancement of the School of Mechanical Engineering. George Woodruff (class of 1917) served as a trustee and trustee emeritus of the Georgia Tech Foundation from 1941 until his death at the age of 91 in 1987, and he received the Alumni Distinguished Service Award in 1963. In addition to providing a significant endowment for the School of Mechanical Engineering, his contributions to Georgia Tech provide National Merit Scholarships and scholarships for student athletes in nonrevenue producing sports and are an ongoing source of unrestricted support for the Institute.

The market value of the Mechanical Engineering Woodruff Endowment on July 1, 2006 was $67,635,999. The endowment generated $2,414,132 that was available to the Woodruff School to update and enrich our programs during fiscal year 2007. The expenditures fall into these categories: faculty, students, facilities, lectures and seminars, staff, publications, and general projects and supplies.

FACULTY

- Funds from the Woodruff Trust are used to endow the George W. Woodruff Chair in Mechanical Systems and the George W. Woodruff Chair in Thermal Systems. Dr. Jerry H. Ginsberg, Professor of Mechanical Engineering, has held the Mechanical Systems Chair since 1989. Dr. Ari Glezer, Professor of Mechanical Engineering, was appointed to the Thermal Systems Chair in 2002.
- Funds travel and equipment purchases for faculty.
- Funds the Woodruff Faculty Fellows Program, which encourages young professors to build their careers at Georgia Tech by providing seed money for research projects and other discretionary activities. The award is given for a five-year period. Drs. Andres Garcia, Srinivas Garimella, Robert Guldberg, Shreyes Melkote, Minami Yoda, and Min Zhou are faculty fellows.
- Partially supports the Frank K. Webb Program in Professional Communication and the hiring of academic professionals and part-time faculty to supplement the course offerings of the School.
- Funds faculty recruiting and a faculty retreat.
- Provides nuclear and radiological engineering students with graduate research assistantships to support teaching.
- Provides development funds for five Woodruff School Associate Chairs.
STUDENTS
- The largest single category of support is for students ($853,596) in the form of teaching assistantships, research assistantships, fellowships, and fees impacting 256 graduate students.
- Provides funds, including travel, to recruit new ME, NRE, and MP graduate students to the Woodruff School. This includes three recruiting weekends in which potential graduate students are brought to campus for a weekend of activities.
- Funds the Annual Spring Banquet, a yearly gathering of students, faculty, and staff to recognize the accomplishments of Woodruff School students and to honor the Woodruff School’s Annual Distinguished Alumnus and the Outstanding Educator.
- Partially funds student organizations such as the ASME Student Chapter, gt motorsports, GT Off-Road, GT Robojackets, Wreck Racing, and WSSAC.
- Provides partial financial support for student participants in the Georgia Tech Lorraine program.
- Provides funds for the Annual Outstanding Seniors Dinner. The purpose of this annual dinner is to encourage Woodruff School seniors with a grade point average of 3.5 and above to go to graduate school.
- Funds luncheon meetings between the Woodruff School administration and graduate students at which graduating are asked to assess our programs.
- Funds an Open House and other activities in the Woodruff School during Family Weekend.
- Supports the Woodruff School Annual Cookout, held at the beginning of the fall semester, where new graduate students can meet Woodruff School faculty, staff, and returning graduate students.
- Provided funds for the Woodruff School Ice Cream Social, a new event held at the beginning of the fall semester, to welcome ME and NRE undergraduates to the Woodruff School.
- Provides plaques and funds for students who receive an award at the annual Student Honor’s Day Luncheon.
- Provides partial support for the Pi Tau Sigma National Office, the honorary mechanical engineering society that the School hosts.
- Helps fund recruiting efforts for undergraduate students in nuclear and radiological engineering.

FACILITIES
- Helps fund the operation of the Student Competition Center.
- Provides funds to improve and furnish School facilities, including computer cluster and networking equipment.
- Provides funds to upgrade Woodruff School security equipment.

LECTURES AND SEMINARS
- Underwrites the annual Woodruff Distinguished Lecture.
- Provides support for the Woodruff Colloquium Series. These funds allow the Woodruff School to bring in well-known scholars to present a seminar and interact with the faculty in small groups.

PUBLICATIONS AND PUBLIC RELATIONS
- Funds the design, production, and distribution of all Woodruff School publications.

OTHER ENDOWMENTS
In addition to the Woodruff Endowment, the Woodruff School has a number of other endowments with a total value of more than $29 million. Most of these endowments are designated funds and can be categorized into mechanical engineering endowments, endowed scholarship programs for undergraduate students, and endowed fellowships for graduate students.

MECHANICAL ENGINEERING ENDOWMENTS
- Arnold Goldberg Endowment Fund
- Augustin A. Ramirez/HUSCO International Distinguished Chair Fund
- Carter N. Paden, Jr. Distinguished Chair Fund
- Centennial-Mechanical Engineering Fund
- Dean Lennard Endowment Fund
- Edward A. Eppinger Endowment
- Eugene C. Gwaltney, Jr. Chair in Manufacturing Fund
- Frank K. Webb, Jr. Endowment Fund
- Harold W. Gegenheimer Fund
- Ike Murray Endowment Fund
- J. Erskine Love, Jr. Family Endowment Fund
- Jack M. Zeigler Endowment Fund
- Jack M. Zeigler Outstanding Educator in the School of Mechanical Engineering Award Endowment Fund
- James Charles Leathers Endowment Fund
- John G. Johnson Mechanical Engineering Fund
- John M. McKenney & Warren D. Shiver Distinguished Chair in Building Mechanical Systems Fund
- Joseph H. Anderer Faculty Fellow Endowment Fund
- Mary B. and Henry L. Pruitt Endowment Fund
- ME-BioEngineering Research and Education Fund
- Morris M. Bryan, Jr. Chair in Advanced Manufacturing Systems Fund
- Neely Professorship Fund
- Parker H. Petit Chair Fund
- Phillip F. L’Engle and Williams B. Hardin Endowment Fund
- Ward O. Winer Professional Development Fund
- Warren K. Wells Endowment for Mechanical Engineering Fund
- William B. Crane, Sr. Endowment Fund

SCHOLARSHIPS
- Alan F. Sides Scholarship Endowment Fund
- Arthur Dean Brook Scholarship Fund
- Carl F. Phillips Endowment Fund
- Danyluk ME Scholarship Endowment Fund
- David V. Carswell Memorial Scholarship Fund
- Francis R. Hammack Scholarship Endowment Fund
- James C. Leathers Scholarship Endowment Fund
- John S. Webb and Julian C. Stanley, Sr. Scholarship Endowment Fund
- Joseph H. Anderer Faculty Fellow Endowment Fund
- Leslie U. Hammack and Ola Ryle Hammack Memorial Fund
- Louis B. Long Endowment Fund
- Paden-Chaves Scholarship Fund
- Procter & Gamble Technical Scholarship Fund
- Richard A. Trotter Memorial Scholarship Fund
- Richard K. Whitehead, Jr. Fund

FELLOWSHIPS
- The James E. Pruitt, Jr. Fellowship
- The John Harris Maddox Fellowship Endowment Fund
- The Paul R. Yopp Memorial Fellowship Fund
- The William H. Glenn Fellowship Fund
WOODRUFF SCHOOL ADVISORY BOARD

The role of the Advisory Board is to recommend strategic directions for the Woodruff School; suggest broad-based curriculum changes; and consult with the School Chair and the faculty on important issues. Dr. Deborah Kilpatrick chaired the November 5, 2006 annual meeting of the Woodruff School Advisory Board.

School Chair Dr. Ward O. Winer gave his annual State of the School report for the 2005-2006 academic year. Afterward, the board discussed the following topics: Rankings and potential impact of GPA/grade inflation at peer institutions; ME’s surging enrollment; the NRE/MP programs; the upcoming ABET Review; graduate student fellowships; distance learning program; untenured faculty; the International degree plan; GT Savannah; and globalization issues that impact the Woodruff School.

In an afternoon session, members of the NRE/MP advisory board met to review the status of the nuclear and radiological engineering and medical physics programs at Georgia Tech. Mr. T. A. Coleman led the discussion. Dr. Farzad Rahnama gave an overview of the status of the programs and reviewed the preparation for the fall 2008 ABET evaluation. The board then discussed the approach to the ABET review and the overall status of the program, including the need for additional facilities and faculty to support the large increase in enrollment. At the late afternoon combined ME/NRE/MP advisory boards, they discussed the Woodruff School’s focus on the GT Capital Campaign; the retirement of Dr. Ward Winer, and the process for hiring a new chair for the Woodruff School.

Ms. Lisa A. Beeson
(BME 1992)
President & Principal Acoustical Consultant
Quietly Making Noise, LLC
Oviedo, Florida

Mr. Jeffrey A. Benjamin
Vice President, Licensing & Regulation
Exelon Corporation
Warrenville, Illinois

Mr. Michael J. Bly
(BME 1990)
Director, Hybrid Vehicle Integration
General Motors Corporation
Milford, Michigan

Mr. Lou Cerone
General Electric Energy Systems
Greenville, South Carolina

Mr. David A. Christian
Senior Vice President & Chief Nuclear Officer
Dominion Energy
Glen Allen, Virginia

Mr. Thomas A. Coleman
(BSPhys 1971, MSNE 1973)
Vice President
Framatome-ANP
Lynchburg, Virginia

Mr. Joseph P. DeRoy
Vice President, Operations Support
Entergy
Jackson, Michigan

Dr. James J. Duderstadt
President Emeritus and
University Professor of Science and Engineering
The University of Michigan
Ann Arbor, Michigan

Mr. Ken S. Folk
Manager, Core Analysis
Southern Nuclear Operating Company
Birmingham, Alabama

Mr. Jeffrey Gasser
Executive Vice President/Chief Nuclear Officer
Southern Nuclear Operating Company
Birmingham, Alabama

Mr. Manuel Junco, Jr.
(BME 1975)
Senior VP, Downstream Operations
Fluor Corporation
Sugarland, Texas

Dr. Deborah L. Kilpatrick
(BME 1983, BSMS 1994, PhD ME 1997)
CardioDX
Los Altos, California

Mr. John Kluber
Vice President
Kluber Skahan & Assoc
Batavia, Illinois

Mr. Thomas Kopanski
Siemens
Norcross, Georgia

Dr. James A. Lake
(MSNE 1969, PhD NE 1972)
Associate Laboratory Director,
Nuclear Programs
Idaho National Laboratory
Idaho Falls, Idaho

Mr. Louis B. Long
(BSPhys 1966, MSNE 1967)
Director, Technical Support
Southern Nuclear Operating Company
Birmingham, Alabama

Dr. William R. McCollum Jr.
Chief Operating Office
Tennessee Valley Authority
Chattanooga, Tennessee

Mr. Mark D. Morelli
(ME 1987)
President
Carrier Commercial Refrigeration
Farmington, Connecticut

Dr. John E. Parker
(ME 1995, MSME 1992, PhD 1997)
Associate Professor
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Lexington, Kentucky

Mr. Jim E. Reeb
Director, Manufacturing & R&D
Ford Motor Company
Dearborn, Michigan

Dr. Joseph L. Smith Jr
(ME 1952, MSME 1953)
Senior Professor of Mechanical Engineering
Massachusetts Institute of Technology
Cambridge, Massachusetts

Mr. Michael Tinskey
(MSIE 1991)
Director, Business Dev.,
Ford Automotive
Ford Motor Company
Dearborn, Michigan

Dr. Kyle H. Turner
(BSEE 1969, MSNE 1969,
Ph.D. NE 1971)
Chief Executive Officer
McCallum-Turner, Inc.
Evergreen, Colorado

Mr. Henry B. Ward III
(BME 1963)
Partner
Moore & Van Allen
Charlottesville, Virginia

Dr. Lawrence J. Ybarondo
(Ph.D. ME 1964)
Jackson Hole, Wyoming

Acknowledgment: This report is written and edited by Rona Ginsberg, Director of Communications for the Woodruff School. Craig Moonshower designed the document. Thanks to Gary Meek, who took the majority of the photographs, we also recognize Rob Felt. Additional photos are from the Georgia Tech or the Woodruff School Archives. Noah McNeely designed the cookbook tea-shirt. Thanks to Tom Akers, Janet Allen, Trudy Allen, Shaua Bennett-Boy, Yves Berthelon, Dimetra Diggs-Butler, Melody Foster, Norma Frank, Debbie Gulick, Ingrid Hayes, Glenda Johnson, Tom Lawley, Sheron Lazarus, Melissa Lee, Kristi Mehalof, Randy McDow, Farrokh Mistree, Roger Mobley, Mimi Phlibos, Padrika Prather, Farzad Rahnama, David Sanborn, David Stone, Bill Weper, Wayne Whiteman, Melinda Wilson, Ward Winer, and Caroline Wood for providing information for this report. We gratefully acknowledge the financial support of the Woodruff Endowment to the George W. Woodruff School of Mechanical Engineering.
WOODRUFF SCHOOL ENROLLMENT
IN ACADEMIC YEARS 1980-1981
THROUGH 2007-2008

In 1984 the School of Nuclear Engineering became part of
the School of Mechanical Engineering.
Coop students are usually excluded from the number
of enrolled undergraduates; however at times the numbers
were reported with the coops included. There is no way to
differentiate and they are just reported as is.

Computer enrollment and degree records do not go back
too many years and so we had to rely on paper records. We
went as far back as possible; further enrollment records
would have to be obtained from the Registrar's Office.

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<th>Year</th>
<th>Undergraduate</th>
<th>Graduate</th>
<th>Totals</th>
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DEGREES AWARDED IN
THE WOODRUFF SCHOOL IN ACADEMIC

The Nuclear Engineering Programs did not become part of
the Woodruff School until 1984; those degrees are shown
beginning in the 1984-1985 academic year.

In the past academic year, we awarded a record
number of bachelor's (348) and doctoral degrees (52). In
the 2005-2006 academic year, there was a record number
of master's degrees granted (182).

Notice the spike in bachelor's degrees in mechanical
years. According to Dr. Ward Winer, these "were
memorable because we only had about 30 faculty at the
time, so we were granting about 11 bachelor's degree per
faculty member. This put a lot of stress on the faculty."

This report goes back to academic year 1978-1979,
the first year for which computer records were maintained.
It is not possible to get a complete record of all the degrees
in mechanical engineering and nuclear engineering without
doing a hand count in the Registrar's Office.

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