On October 6, 2000 the Woodruff School became the first educational institution to be designated a Mechanical Engineering Heritage Site by the American Society of Mechanical Engineers (ASME). This ceremony ended a two-year effort, from the time the idea was proposed to Dr. Ward Winer by Mr. Ron Bannister (BME 1956) in November 1998, to the defense of the nomination at the ASME Nashville meeting in November 1999, and finally, the preparation of the heritage site brochure in summer 2000.

Speakers at the designation ceremony included Dr. Winer; Dr. Gerald Jones, Chair of the Atlanta Section of the ASME; Dr. William DeFotis, Associate Dean of Engineering at the University of Illinois at Chicago and member of the ASME History and Heritage Committee; Dr. S. Peter Kezios, past president of the ASME and former chair of the Woodruff School; Dr. Wayne Clough, President of Georgia Tech; and Dr. Jean-Lou Chameau, Provost of Georgia Tech. A reception followed the speakers and the presentation of the plaque.

Since the ASME's History and Heritage Program began in 1971, 213 landmarks have been designated as historic mechanical engineering landmarks, collections, or sites. Site designations, such as the Woodruff School, note an event or development of clear historical importance to mechanical engineers.

To learn why the Woodruff School is the only educational institution to have been accorded this honor, view the Heritage Site brochure on our web page or request a copy from the Editor.

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Mr. D. Euan Baird, President, CEO, and Chairman of Schlumberger, Limited delivered the twelfth Woodruff Distinguished Lecture to a standing-room only audience in the Van Leer auditorium on April 10, 2001. His lecture was about the role that diversity plays in a company. "Diversity," he said, "must be supported by a sound business rationale that can sustain a company as it goes through the painful changes needed to achieve diversity and quality." Mr. Baird believes that the business values of people and their motivation, technology, and profit each have an important impact on diversity.

Before the lecture, Mr. Baird joined Woodruff School faculty, staff, and students for lunch and a discussion that began on the topic of International Careers in Engineering and then veered in many
A tour of our facilities, including the underwater acoustics lab, the design studio, and the robotics laboratory was next on the agenda for Mr. Baird; this was followed by the prelecture reception.

Go to our home page and click on the George Woodruff icon to listen to the webcast of Mr. Baird's lecture. The transcript of the lecture is in preparation and will be available soon.

GEGENHEIMER LECTURE ON INNOVATION

Dr. Woodie Flowers, Pappalardo Professor of Mechanical Engineering at MIT, gave the annual Gegenheimer Lecture on Innovation on October 10, 2000 to a packed house in the MaRC auditorium. This lecture, which is delivered each fall, is designed to expose students to processes that stimulate creativity and lead to inventions and patents. The lecture was established in 1995 through an endowment from Mr. Harold W. Gegenheimer (class of 1933).

Dr. Flowers posed and answered the following questions on innovation: Most people agree that we are living in times so “interesting” that continuous learning, and maybe even continuous innovation, are essential. As aspiring and/or learned professionals, how innovative ought we be? What parts of engineering will not likely become commodified? Is innovation the key? What part of our profession will be commodified by new-media pedagogy and telepresence? Is innovation the key? To be effective, we must practice informed creative thinking. To feel good about our lives, we must also practice gracious professionalism. Ideal innovators practice both. Are we?

If you missed the lecture and want to learn the answers to the posed questions, listen to the webcast.

Dr. Leo Beranek, Retired President and CEO of Bolt, Beranek & Newman, will deliver the 2001 Gegenheimer Lecturer on November 1st. Invitations will be mailed in the fall.

A Message from the Chair

Ward O. Winer

As the old saying goes, time flies when you're having fun. With the semester calendar, the end of the academic year comes quickly. The spring semester ends in early May and summer session is underway by the middle of the month. Upon reflection though, things have gone very well for the Woodruff School since my last report to you.

Our move into the Love Building is nearly complete, except for three major laboratories (the Underwater Acoustics Tank, the Fluid Mechanics Laboratory, and the MEMS clean room), and a state-of-the-art distance learning classroom. These should be finished by the end of the summer or early fall.

We had another excellent class of graduates, and they all seem to be finding good jobs. The number of bachelor degrees (236) was down somewhat compared with the past few years. In part, we believe this is a transient effect due to semester conversion. However, we graduated a record number of graduates with master's (137) and Ph.D.'s (42). These numbers are almost in line with what our strategic plan called for relative to our number of faculty.

We had another highly successful Woodruff Distinguished Lecture (Euan Baird of Schlumberger) and Gegenheimer Lecture on Innovation (Woodie Flowers of MIT). We have a commitment from Leo Beranek, past President and CEO of Bolt, Beranek & Newman, to be this fall's Gegenheimer lecturer. I encourage everyone in the Atlanta area to attend.

The most significant news since my last report was the completion of the Capital Campaign. This was a great success for Georgia Tech and the Woodruff School. The final tally for the Woodruff School was $34,605,978, which exceeded our goal of $30,000,000.

Some examples of the gifts we received during the Campaign are the Carter N. Paden Distinguished Chair...
Another highlight was an endowment from the family of J. Erskine Love to support manufacturing education and research in mechanical engineering. This includes the J. Erskine Love Jr. Manufacturing Building (see the articles in the fall 2000/winter 2001 issue of mega tech).

A number of scholarships and graduate topping grants were also received. Pete Petit contributed a major gift to the Campaign for the Institute for Bioengineering and Bioscience.

Finally, a generous commitment from Nancy Gwaltney to honor Gene Gwaltney converted the Gwaltney Chair in Manufacturing to the Eugene C. Gwaltney, Jr. Chair in the Woodruff School of Mechanical Engineering. This provides the Woodruff School chair with support for research, selected educational programs, and special initiatives within the School.

I also acknowledge the considerable generosity of the more than 370 alumni, friends, companies, faculty, and staff who contributed to the Campaign with their time and money and, therefore, to the excellence of our School. We also had terrific help in the Campaign from many members of the development staff at Georgia Tech, especially Caroline Wood (our Director of Development), her predecessor Connie Parish, and her co-worker Kelsey Evans. What makes a school excellent is the hard work and great ideas of the faculty, staff, and students. The donors to this campaign have made it possible for us to pursue many more of those opportunities.

WOODRUFF SCHOOL INTRODUCES THE FIVE-YEAR BS/MS DEGREE

Outstanding freshmen and sophomore students in the Woodruff School were invited to attend an information session about the new Five-Year BS/MS Degree Program. We are the first school at Georgia Tech to offer this opportunity, which will begin in Fall 2001. Students can earn two degrees in a five-year period, which will give them a tremendous advantage when entering the job market directly upon graduation. It might also be an impetus for students to continue for the doctorate. The program is individualized with numerous opportunities for faculty and students to interact, including mentoring and undergraduate research. Graduate course work will begin in the senior year.

To learn more about this opportunity, view the brochure on our Undergraduate or Graduate page (see Undergraduate Programs or Graduate Programs) or contact Dr. Tom Kurfess, Program Director, at (404) 894-0301 or thomas.kurfess@me.gatech.edu or Dr. William Wepfer, Associate Chair for Graduate Studies, at (404) 894-3204 or bill.wepfer@me.gatech.edu.

MARIE CURIE EXHIBIT COMES TO GEORGIA TECH

From January 22nd to March 2, 2001, Georgia Tech hosted an exhibit titled, “The Legacy of Marie Curie: One Hundred Years of Science Innovation.” The exhibit covered Marie Curie’s legacy, that is, other women scientists and their discoveries, including an historical perspective on the difficulties of women getting an advanced education in the sciences. The exhibit also displayed the many benefits of radioactivity in our daily lives. Interactive displays included the Geiger counter, the nuclear quiz, the X-ray light box, and the science ‘Jeopardy’ quiz and science station.

The color coded exhibit panels was divided into five sections. The first section was about Marie Skłodowska Curie, who received the Nobel Prize in Physics in 1903 and the Nobel Prize in Chemistry in 1911. She was the first person to receive the Nobel Prize twice and is the only woman so honored. One of the most important parts of the exhibit was the opportunity to see some of Marie Curie’s laboratory equipment. This was the first time these items have been in the United States. In addition, a series of photographs depicting Marie Curie as a young woman, a middle-aged woman, and in her old age, was added to the exhibit by Georgia Tech.

The next section was the 19th century, including Harriet Brooks, Irene Joliot-Curie (the daughter of Marie Curie), the discovery of radioactivity, basic chemistry, the periodic table, and radiation.
Section 3 spanned 1900 to 1945 and included Florence Rena Sabin, Edith Hinkley Quimby, Lise Meitner, radiocarbon dating, eradication of pests, the cathode ray tube, food irradiation, irradiated gemstones, and nuclear power.

Section 4 covered 1945 to 1965, including Marie Coeppert Mayer, Chien-Shlung Wu, Dorothy Crowfood Hodgkin, Mildred Dresselhaus, radioactive tracers, new drugs, protection, and oil and gas exploration.

Section 5 went from 1965 to the present and included Helen Thom Edwards, Rosalind Franklin, Rosalyn Sussman Yalow, the 21st century, nuclear vision in medicine, and exploring the universe. For a complete guide to the exhibit, see the Marie Curie web site at http://www.me.gatech.edu/me/curie.

In addition to the exhibit, we held an opening reception, a symposium (see the accompanying article), and seminars on Marie Curie, nuclear engineering, and radiation. Graduate students in nuclear engineering, physics, and chemistry hosted approximately 1500 middle and high school aged students at the exhibit and to selected campus facilities. An appreciation reception was held for everyone who helped make the exhibit a success at Georgia Tech after the exhibit had been packed and shipped to the next site.

More than 2000 people attended the exhibit while it was at Georgia Tech. The exhibit was curated at Texas A&M University.

We would like to acknowledge the support of our sponsors: The Woodruff School, Georgia Tech Library, CEISMC, College of Science, Neely Reactor Research Center, School of Chemistry and Biochemistry, School of Physics, and the Women in Engineering Program in the College of Engineering. Our corporate and organizational sponsors were the Atlanta Section of the American Nuclear Society, Georgia Power Company, Georgia Space Grant, NAC International, Southern Nuclear Company, and Theragenics.

WHAT'S NEW IN NRE?

Georgia Tech belongs to the Academic Common Market, which provides an opportunity for undergraduate students from southeastern states whose state universities do not offer a bachelor's degree in nuclear engineering to go to Georgia Tech and pay in-state tuition. It may be less expensive to attend Georgia Tech as a BSNRE/ACM student, then to go to a state university in the home state. Residents from Delaware, Kentucky, Louisiana, South Carolina, Virginia, West Virginia, Alabama, Arkansas, Mississippi, and Oklahoma may qualify for the program.

Also new this past academic year was a series of scholarships for undergraduate students in the NRE program. Sponsors of these scholarships, aimed mostly at freshmen, are the Woodruff School, Southern Nuclear Operating Company, NAC International, the DOE/Industry Matching Grants Program, the American Nuclear Society, the Atlanta Section of the American Nuclear Society, and the Institute of Nuclear Power Operations.

WOMEN IN DISCOVERY SYMPOSIUM

Ms. Susan Quinn, author of Marie Curie: A Life; Dr. Ruth Lewin Sime, Biographer and Professor at Sacramento City College; and Dr. Caroline Herzenberg, a physicist at Argonne National Laboratory each spoke at the symposium and then had an opportunity to sign their books at a reception.

Ms. Quinn spoke about Marie Curie and the Nobel Prize committee. She told how the committee would have awarded the first prize only to Marie's husband, Pierre, if he had not intervened on her behalf. In addition, some members of the Nobel Committee asked her not to accept the second prize because of a scandal they feared would embarrass the king of Sweden.

Dr. Sime spoke about Politics, Race, and Gender: Lise Meitner, and the Discovery of Nuclear Fission. Chemists did the crucial experiments, while physicists (like Meitner) provided the theoretical explanation for nuclear fission. When the Nobel
prize was awarded it went to Otto Hahn, the chemist. Meitner was not even acknowledged by the committee.

Dr. Caroline Herzenberg talked about the women of the Manhattan Project. Although few historical accounts mention them, she noted there were more than 300 women scientists and technicians who contributed substantially to the technical research programs of the project.

ROBOJACKETS HAS A VERY SUCCESSFUL YEAR

Robojackets just completed its second year at Georgia Tech. The purpose of the group is to go to robotics competitions, promote robotics at Georgia Tech, give students an added outlet for obtaining skills vital to their education, and add value to the surrounding community through community projects involving robotics. The club has five active groups that work on different robotics-related projects. For example, the Vacubots is a local competition organized by the Atlanta Hobby Robotics Club and hosted by Sci-Trek. The goal this year was to build an autonomous robot that cleans a typical household room without moving any furniture. The Georgia Tech team competed for the first time and finished in third place!

Another Robojackets group is FIRST (For Inspiration and Recognition of Science and Technology), a competition where high school students build remote-controlled robots for a specific task and are mentored by engineers or college students. The Georgia Tech team mentored a group of students from Carver High School in Atlanta.

In March, the FIRST team competed in the regional competition in Richmond, Virginia. They won a Judges' Award because the judges liked the fact that all the Georgia Tech students were FIRST team members when they were in high school.

The team (13 Carver High School students and 7 Georgia Tech undergraduates) attended the national competition in Orlando, Florida in April. There were 335 teams, randomly divided into four divisions. The Prowling Panthers, as the Georgia Tech team was known, ranked 35th in their division and 174th overall.

Other activities of the Robojackets include the design of a small walking robot, the design and construction of robots for the DragonCon competition, and the BattleBot competition. For more information about the Georgia Tech Robojackets, see their web site at http://robot.me.gatech.edu/~club/.

Vacubots FIRST Competition

FACULTY NEWS

Said Abdel-Khalik delivered the 2001 Jack M. Zeigler (BME 1948) Outstanding Educator Lecture on March 29, 2001; his talk was titled, "The Wal-Marting of American Higher Education - What's a University Anyway?"

Scott Bair, Principal Research Engineer, received the 2001 Captain Alfred E. Hunt Memorial Award from the Society of Tribologists and Lubrication Engineers for the best paper published the previous year. His paper was titled, "Pressure-Viscosity Behavior of Lubricants at 1.4 GPA and Its Relation to Elastohydrodynamic Lubrication Traction."

Dan Baldwin was promoted to Associate Professor.

Yves Berthelot was appointed Associate Editor of the Journal of the Acoustical Society for ultrasonics and physical acoustics. Wayne Book was named to the HUSCO/Ramirez Distinguished Chair in Fluid Power and Motion Control. He is the new faculty advisor to the Georgia Tech FIRST team.

Robert Cargill left the Woodruff School at the end of spring semester 2001 to begin a career with Exponent Failure Analysis Associates in Philadelphia. He will be a full-time consultant in the area of injury biomechanics and will stay involved in both basic and applied research. You may contact him via e-mail at bobcargill@yahoo.com.

Kenneth Cunefare was recognized with a Georgia Tech ten-year service award.
Narl Davidson was promoted to Professor and was named Interim Dean for the College of Engineering.

Imme Ebert-Uphoff’s photo in the Robotics Teaching Lab appeared on page 63 in the September 2000 issue of the IEEE Spectrum. She is the faculty advisor to the Georgia Tech Robojackets.

Tom Kurfess (and former student Woncheol Choi) received the Blackall Machine Tool and Gage Award from the ASME. This is given for the best paper that is concerned with or related to the design and application of machine tools, gages, or dimensional instruments.

Andrés Garcia won a 2001 National Science Foundation Career Award for his project, Hybrid Surfaces to Control Cell Adhesion and Function.

Mostafa Ghiaasiaan was promoted to Professor and received a Georgia Tech ten-year service award.

Itzhak Green was elected a Fellow of the Society of Tribologists and Lubrication Engineers (STLE). In addition, he received the Walter D. Hodson Award from the STLE for his paper titled, “Clearance Control of a Mechanical Face Seal.”

Robert Guldberg was featured in a story on "Neo-Organs: Scientists Use Plastics to Help the Body Make New Bone." The story was posted on the web at ccn.com/health on January 15, 2001.

Jack Lackey was selected as one of two recipients of the Women in Engineering Faculty Excellence Award at Georgia Tech. This award is given to faculty members who through their excellence in teaching, caring, and motivation have made a difference in students' lives. Other nominees from the School were Tom Kurfess, Sam Shelton, and Minami Yoda. This year, the Woodruff School had the largest number of nominees for these awards.

Jacek Jarzynski retired in May 2001 and will soon return to the Washington, D.C. area. He spent 15 years at Georgia Tech.

Prasanna Kadaba retired in December 2000 after spending 31 years at Georgia Tech.

Jack Martin was elected a Fellow of the Society of Tribologists and Lubrication Engineers (STLE). In addition, he received the Walter D. Hodson Award from the STLE for his paper titled, “Clearance Control of a Mechanical Face Seal.”

Marc Levenston won a CETL/BP Junior Faculty Teaching Excellence Award.

Jim Martin was promoted to Senior Research Engineer and received a Georgia Tech ten-year service award.

David McDowell won the Georgia Tech Outstanding Interdisciplinary Activity Award.

Shreyes Melkote was promoted to Associate Professor.

Farrokh Mistree is the Jack M. Zeigler (BME 1948) Woodruff School Outstanding Educator for 2001. Paul Neitzel was elected to the General Faculty Assembly and the Academic Senate for 2001-2004.

Rick Neu was promoted to Associate Professor.

Peter Rogers and Gary Caille (GTRI) received the Georgia Tech Award for Outstanding Achievement in Research Development.

Richard Salant was named the Georgia Power Distinguished Professor in Mechanical Engineering. This chair was previously held by Bill Black, who retired in late 2000.

Bill Singhose is the new faculty advisor for the Student Chapter of the Society of Manufacturing Engineers (SME).

Suresh Sitaraman received the 2001 Best Paper Award from the Editors of IEEE Transactions on Components and Packaging Technologies for a paper he co-authored with two of his graduate students (Rajiv Raghunathan and Carlton Hanna).

Marc Smith was recognized with a Georgia Tech ten-year service award. Mike Stewart is the new Academic Professional teaching Engineering Graphics and Visualization (ME 1770).

Charles Ume was appointed co-editor of the Mechatronics Journal beginning in January 2001.

John Valentine was granted tenure.

C.-K. Chris Wang received a Georgia Tech ten-year service award.

William Wepfer was named the Engineer of the Year in Education by the Atlanta Chapter of ASHRAE and received the 2001 Graduate Student Government Administrator of the Year Award.
Wenjing Ye and Anping Wang became parents in January 2001 to daughter, Irene Wang.

Minami Yoda was promoted to Associate Professor.

Cheng Zhu was promoted to Professor.

Professor Sam Shelton has signed an agreement with Salt Lake City to create a new relay torch icon for the 2002 Winter Olympic Games. Once again, Georgia Tech will do the engineering design and production oversight for the torch.

Professor Wayne Book was named to the HUSCO/Ramirez Distinguished Chair in Fluid Power and Motion Control. Dr. Book joined the Woodruff School in fall 1974 as an assistant professor. He holds degrees from the University of Texas at Austin (B.S.M.E.) and the Massachusetts Institute of Technology (M.S., Ph.D.).

Dr. Book is a Fellow of the American Society of Mechanical Engineers and the Institute of Electrical and Electronics Engineers. He is a registered Professional Engineer in Georgia, holds four U. S. patents, and served as the Technical Editor of the Journal of Dynamic Systems, Measurement, and Control.

Dr. Book's research in robotics and motion control improves the dynamics of intelligent machines, expanding the design space to lighter, faster, more precise motion systems. He uses advanced control, dynamic modeling, sensing, and actuation by hydraulic, electric, and nonconventional means to gain improvements in autonomous and human-operated machines. For additional information about Dr. Book, see our home page (click on Faculty).

About the Chair
Agustin A. Ramirez is a graduate of Georgia Tech's School of Aerospace Engineering (B.S.A.E. 1968, M.S.A.E. 1969) and he has an MBA from Harvard University (1974). He is the Chairman and CEO of HUSCO International, a major manufacturer of hydraulic and electrohydraulic controls for mobile equipment in the construction, materials handling, agriculture, and automotive markets.

Mr. Ramirez is the past chairman of the National Fluid Power Association, a past Wisconsin Entrepreneur of the Year recipient, and he serves on numerous nonprofit and public company boards.

Mr. Ramirez's gift to Georgia Tech consists of the endowment for the chair in the Woodruff School of Mechanical Engineering and half of the funding for a state-of-the-art fluid power laboratory.

Professor William Black, Georgia Power Distinguished Professor in
Dr. Richard F. Salant was named the Georgia Power Distinguished Professor in Mechanical Engineering. Dr. Salant received all of his degrees from the Massachusetts Institute of Technology (B.S. 1963, M.S. 1963, Sc.D. 1967). Before joining Georgia Tech, he was Assistant Professor at the University of California, Berkeley and Assistant and Associate Professor at MIT. Later, he was Manager of the Fluid Mechanics and Heat Transfer Department at the Borg-Warner Research Center in Chicago. From the time he came to Georgia Tech in 1987, Dr. Salant continued his work on mechanical seals and expanded his research to include lip seals.

Dr. Salant is a Fellow of the American Society of Mechanical Engineers and the Society of Tribologists and Lubrication Engineers. He is a registered Professional Engineer in Georgia, and holds five U.S. patents. In 1996, he received the Henry R. Worthington Medal from the ASME, and in 2000 he won the Edmund E. Bisson Award from the STLE.

About the Chair
Georgia Power (a Southern Company) and Georgia Tech have long enjoyed a positive and beneficial relationship to address electric power generation, power delivery, environmental and economic development issues and needs for the state of Georgia and its citizens. To that end, in 1972, Georgia Power established the Distinguished Professorships Program at Georgia Tech. Currently, there are two such professorships in the School of Electrical and Computer Engineering (Dr. Hans B. Puttgen and Dr. Ajeet Rohatgi), and one each in the School of Civil and Environmental Engineering (Dr. Armistead G. Russell), and the Woodruff School of Mechanical Engineering. Appointments are held for a three-year, renewable term.

The Georgia Power professors provide intellectual leadership in education and research; lend vision to the creation of academic programs that help produce engineers of exceptional quality; provide a mechanism for Georgia Power to participate in and benefit from the educational activities at Georgia Tech; serve as mentors to junior faculty and counsel students regarding career opportunities in the electric utility industry; boost the success of each school's recruiting efforts; and serve as a contact with Georgia Power.

Professor Farrokh Mistree was named as the 2001 Woodruff School Outstanding Educator at the Annual Spring Banquet (see the article in this issue). He joined the Woodruff School in 1992. His design experience spans ships, and mechanical, aeronautical, structural, and industrial engineering. His research focuses on learning how to manage design freedom associated with the design, deployment, operation, and support of open and sustainable engineering systems.

Professor Mistree is committed to developing a design pedagogy that is rooted in decision-based design and adaptive action learning. In this context, he enjoys experimenting with the ways in which design can be learned and taught. He started to experiment with web-based education in 1992; he was one of the first among the Woodruff School faculty to do so.

Since his arrival at Georgia Tech, Professor Mistree has supervised the research of seven doctoral and fifteen master's degree students. Three of his doctoral students from Georgia Tech are pursuing careers in academia.

Professor Mistree is a Fellow of the American Society of Mechanical Engineers, an Associate Fellow of the AIAA and, since 1995, the National Secretary-Treasurer for Pi Tau Sigma, the Mechanical Engineering Honor Society.
Society. He was the recipient of the 1993 ASME Student’s Distinguished Professor Award, and he received the 1999 Design Automation Award from the ASME.

**STAFF NEWS**

**Carla Bennett,** Accountant II, left the Finance Office for a position in the College of Computing.

**Carla Crippins** was hired as an Administrative Assistant II in the Neely Building.

**Betty Crumbley,** Administrative Assistant II, retired at the end of March 2001. She was at Georgia Tech for 18 years.

**Pete Dawkins** received a Georgia Tech 25-year service pin at the Faculty/Staff Honors Luncheon.

**Judy Diamond** received the Outstanding Achievement Award for Classified Employees for spring semester 2001.

**Gail Payne** received the 2000 Woodruff School Outstanding Achievement Award for Classified Employees at the annual staff luncheon in March 2001.

**Verna Phillips** was promoted to Administrative Assistant II.

**Reuben Sloan**’s temporary job as a Clerk IV became a permanent position.

**Melinda Wilson** received a Georgia Tech 25-year service pin at the Faculty/Staff Honors Luncheon.

**John Witzel** received the Outstanding Achievement Award for Classified Employees for fall semester 2000.

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**TAKE OUR DAUGHTERS TO WORK DAY**

The Woodruff School participated in the annual Take Our Daughters To Work Day on April 26th. Sterling Skinner, Coordinator of the Undergraduate Laboratories, showed the girls a video from the recent ME 2110 design competition. They then visited the Robotics Lab, where Professor Imme Ebert-Uphoff had a number of robots for the girls to try. Afterwards, they toured the nuclear engineering laboratories. These sixth to eighth grade girls are all related to folks in the Woodruff School.

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**SCHLUMBERGER@GEORGIA TECH**

The day before the Woodruff Lecture, Mr. Tom Zimmerman, a Schlumberger Fellow and Technology Center Manager, spoke to a combined ASME and Pi Tau Sigma audience in the MARC auditorium on "A Mechanical
Engineering Career - What I Wish I Had Known When I Started." He told the students to "get as much education in the technical areas you're interested in as early as you can because it is difficult to go back to graduate school; work in such a way that people know you're capable of doing a particular job before you actually have the job; all big opportunities come from change so look at change as being an opportunity; and recognize that there is a match between an individual and a job."

On Monday and Tuesday before the Woodruff Lecture, Schlumberger held an open house in the 2nd floor lobby of MRDC at which they demonstrated their technology and one of the company's nonprofit ventures, Schlumberger Excellence in Education Development (SEED). Many students and faculty had an opportunity to discuss technology and business with the company's representatives.

ANNUAL OUTSTANDING SENIORS DINNER

Each fall the Graduate Office sponsors a dinner for outstanding Woodruff School seniors who are eligible to attend graduate school based on their academic record. This dinner is the annual kick-off to the graduate student recruiting season. About 75 people attended the event and listened to faculty members explain the reasons to attend graduate school. It was also an opportunity for the seniors to meet some current graduate students and learn about their experiences. A number of students who had attended the Georgia Tech Lorraine Program in Metz, France spoke about their stay in glowing terms.

FAMILY WEEKEND A BIG SUCCESS

In October 2000 we hosted the family members of Woodruff School students who returned to campus for Family Weekend. We held two information sessions at which Dr. Ray Vito, Associate Chair for Undergraduate Studies, gave a lively talk about the Woodruff School. Then, he and Kimberly Blue, Undergraduate Academic Advisor, fielded questions and concerns. Sterling Skinner, Coordinator of the Undergraduate Laboratories, led a tour of our facilities. The GT Motorsports and the GT Off-Road (Mini-Baja) cars were displayed in the atrium of MRDC and team members were there to answer questions. We hope to maintain contact with the family members who attended the festivities in the Woodruff School through mailings, such as this newsletter.

STUDENT NEWS

Ted Akiskalos received the Richard K. Whitehead Jr. Memorial Award, which is given to an outstanding mechanical engineering senior who exemplifies high standards of scholarship and service.

Mario Araya and Brent Barkley each received the 2001 Pi Tau Sigma Outstanding Senior Award.

Douglas Bakkum received a National Science Foundation (NSF) Graduate Fellowship Honorable Mention.

Melissa Bargmann won an National Science Foundation Graduate Research Fellowship.

Luis Burgos received a Henry Ford II Scholar Award. These awards are given to engineering students who have the best aca-demic record at the end of the third year of undergraduate study. Luis also received the Briaerean Scholarship Cup, which honors the graduating senior and co-op student with the highest grade point average, and an NSF Graduate Research Fellowship.

Jonathan Butcher received an NSF Graduate Fellowship Honorable Mention. Amy Clayman received a 2001 Georgia Tech Women's Forum Scholarship.

Adam Coutee received an NSF Graduate Research Fellowship.

Beth Douglas won an NSF Graduate Research Fellowship.

Craig Forest won the Woodruff School Chair's Award, which is given to a graduating senior for outstanding scholarship and contributions to the School.

Craig Forest and David Frakes received an award in the Georgia Tech Student Paper Competition sponsored by Science Applications International Corporation for their paper titled, "Input-Shaped Control of Gantry Cranes: Simulation and Curriculum Development." Dr. William Singhose was their faculty sponsor.
Ali Gordon won an award in the Georgia Tech Student Paper Competition sponsored by Science Applications International Corporation. His paper was titled, "Crack Plane Influence on Non-Linear and Time-Dependent Fracture of Biomaterials." He is a student of Dr. David McDowell.

Ryan Greene was named the Outstanding Georgia Tech Senior for 2001. Ryan also won the Tau Beta Pi Senior Engineering Cup, given to the engineering student who has demonstrated academic excellence, leadership, service to the field and the Institute, and who has shown potential for continuing growth.

Michael Haberman received an NSF Graduate Research Fellowship.

Turner Howard won an NSF Graduate Research Fellowship.

Richard Howe won an NSF Graduate Research Fellowship.

John Huey received an NSF Graduate Research Fellowship.

Murat Khamzin, whose Ph.D. dissertation research is in the medical imaging area, was awarded the 2001-02 Richard J. Jr. Fellowship for graduate studies in health physics from the Health Physics Society.

Susan Knueven received an NSF Graduate Research Fellowship.

Rahul Kulharni (and three other team members) won second place in the business plan competition sponsored by Duke Energy, Morgan Stanley, Yamacraw, Alliance Technology Ventures, EDS, and ATDC. The team had the best plan in the Internet category.

Thomas Meurer received a Sigma Xi (Georgia Tech Chapter) award for his M.S. thesis on "Wave Propagation in Hysteretic Media." Jianmin Qu and Laurence Jacobs (CEE) are his advisors.

Meredith Owensby is the first recipient of the Schlumberger Scholarship, which is awarded to an outstanding, female mechanical engineering undergraduate student.

Aparna Phatak won the Samuel P. Eschenbach Memorial Award in Mechanical Engineering, which is given for academic performance, leadership in the campus community, and promise as a mechanical engineer.

Andrew Perkins received an NSF Graduate Fellowship Honorable Mention.

Gena Poe and Michele Sutton-Ferenci received the Best Paper Award in the Public Relations Category for their paper titled, "A Summary of Georgia Tech's Hosting of the Exhibit Entitled, 'The Legacy of Marie Curie: One Hundred Years of Science Innovation'" at the 2001 American Nuclear Society/Health Physics Society Student Conference: A Nuclear Odyssey.

Adam Reich won the Pi Tau Sigma Outstanding Sophomore Award.

Carolyn Conner Seepersad was awarded a Hertz Fellowship. Approximately twenty-five fellowships in engineering and the applied sciences are awarded each year.

John Slanina received an NSF Graduate Fellowship Honorable Mention.

J. R. Spriggle won the George Wingfield Semmes Memorial Scholarship, given to an undergraduate engineering student who demonstrates academic achievement, outstanding leadership, a strong character, and a true love for George Tech.

Uramela Suljuzovic received the George W. Woodruff School of Mechanical Engineering Outstanding Scholar Award, given to a graduating senior who has achieved an exceptional scholastic record.

Michele Sutton-Ferenci (and Professor Nolan Hertel) was the session winner in the Health and Medical Physics technical session for her paper "Fluence-to-Effective Dose Conversion Coefficients for High-Energy Neutrons and Photons Calculated with MCNPX" at the recent American Nuclear Society/Health Physics Society Student Conference.

Mark Varady received an NSF Graduate Fellowship Honorable Mention.

Jennifer Venton received a 2001 Georgia Tech Women's Forum Scholarship.

Bojan Vukasinovic won an award in the Georgia Tech Student Paper Competition, sponsored by Science Applications International Corporation, for a paper titled, "Transitions of a Forced Sessile Drop." Drs. Marc Smith and Ari Glezer are the faculty advisors.

Zhiyong Wei won an award in the Georgia Tech Student Paper Competition, sponsored by Science Applications International Corporation, for his paper on "Effects of Radioactive Transfer Modeling on Transient Temperature Distribution in Melting Glass Rod." Dr. Kok-Meng Lee is his faculty advisor. Susan White won the Student Engineer of the Year Award from the Atlanta Chapter of ASHRAE.

Christopher Williams received an NSF Graduate Fellowship Honorable Mention.
Omar Wooten won the Best Paper Award in Health and Medical Physics for his paper “Post Decontamination and Decommissioning Dose Rates at the GTRR” at the 2001 American Nuclear Society/Health Physics Society Student Conference.

Spring semester’s ME 2110 (Creative Decisions and Design) project design competition took place on April 3, 2001. Judging of the projects took place in the MARC auditorium and conference room, while the competition was held in the atrium. The contest was a combination of three smaller competitions in bowling, fishing, and basketball. Working in groups, students had to design, build, and test their projects. The systems had to perform each of the three tasks individually as well as simultaneously in a 6-by-6 foot enclosed area.

The objective of the competition was to build a machine that could score as many points as possible. Energy was derived from two six-volt gel cell batteries that were supplied, five mouse traps, and gravity. A set of actuators was also supplied. Each group could spend a total of $50 on the device, excluding the supplied items, mousetraps, batteries, paint, and fasteners.

Judging was based on originality, presentation, workmanship, and appearance. For all the details about the design project and ME 2110, see http://precision.me.gatech.edu/class/me2110/. From this page you can view the students working in the design studio in real time through the webcam. If you can access this site, we think you will enjoy it.

Graduate students from ME 6405 (Introduction to Mechatronics) displayed their projects at the first Mechatronics Showcase in January 2001. Projects included The Crazy J, a guitar playing machine that takes requests, and the Ca$h-o-Matic 2000, a change machine that distributes the exact amount of dollar bills and change specified by the user. Other projects were Cycle Coach, HD11 (Hot Dog Cooker), Automatic Volume Control, Remotely Controllable HVAC System Via Telephone, and Brewer’s Assistant. More information on these projects may be found at http://www.me.gatech.edu/mechatronics_lab.
ASME SPRING PICNIC IS A GREAT SUCCESS

The Georgia Tech chapter of the American Society of Mechanical Engineers (ASME) had a terrific spring semester, which closed with the annual spring picnic. Although weather concerns halted the plans for inflatable games, it remained nice enough outside to barbecue and socialize. Representatives from Schlumberger were at the picnic; sponsorship was provided by Schlumberger, Kimberly-Clark, and ExxonMobil.

More than 700 students, faculty, and staff attended the event and consumed almost 850 hamburgers, 700 hot dogs, and 650 bags of chips! The picnic tee-shirts were a hot item. By filling out an application and paying dues to the ASME, students received a free shirt. As a result, chapter membership increased by more than seventy, making the organization one of the largest on campus.

Other events for the chapter during the academic year included intramural teams in flag football, software, and basketball; speakers from industry at all chapter meetings; student attendance at all the Atlanta Section ASME meetings; participation in the Old Guard Oral Competition; a plant trip; and participation in the Regional Southern Conference in Palm Beach, Florida.

(Thanks to Muhammad Fahmy for the details.)

GEORGIA TECH SPONSORS CAR SHOW

The student chapter of the Society of Automotive Engineers (SAE) sponsored the first Georgia Tech Car Show on March 24, 2001 in the parking lot near the MRDC building. Woodruff School undergraduates, Faris Jessa and Grady Cowardin, chaired the event to which students, staff, and faculty brought their modified imports, classics, 4x4's, and race cars.

Plans are underway for next year's show, which will be held sometime in late March 2002. The next show will include entries from Georgia Tech alumni. To learn more about the SAE chapter, go to our home page and click on Student Organizations.

WOODRUFF SCHOOL STUDENTS DO IT AGAIN!

Once again, Woodruff School students did extremely well in this year's National Science Foundation graduate fellowship competition. Eight of our current students won in Mechanical Engineering (out of 41 awards given in this category) and two students won in Bioengineering. Of our ten winners, two were undergraduates. In addition, seven of the twenty-eight honorable mentions in mechanical engineering were Woodruff School students. This is the second year in a row that Woodruff School students have won ten NSF fellowships.

Since 1990 our students have won 97 NSF fellowships and 117 honorable mentions. The Woodruff School has the largest number of these fellowships on the Georgia Tech campus. Dr. William Wepfer, Associate Chair for Graduate Studies, said, "This reflects most positively on our faculty and Jeff Donnell (Coordinator of the Frank K. Webb Professional Communications Program) for their constant and positive support of their current graduate students and our top undergraduate students. I thank all of you for your fantastic effort."
OUR ANNUAL SPRING BANQUET

Our Annual Spring Banquet, which is planned and organized by the Woodruff School Student Advisory Committee (WSSAC), was held on April 5th in the Student Center Ballroom. The entertainment consisted of music provided by the Discrete Notoriety Sax Quartet and a trivia contest that tested attendees' knowledge of geography and history. Dr. Winer introduced Mr. Pierce Merry, Jr. as our Distinguished Alumnus and Dr. Farrokh Mistree as the Jack M. Zeigler (BME 1948) Outstanding Educator (see the accompanying stories).

WSSAC executive committee members Ono Achukwu, Saniya Ahsan, Ted Akiskalos, Luis Burgos, Usman Chaudry, Muhammad Fahmy, Faris Jessa, Erich Schlender, Stuart Scully, Ajibola Oliyide, and Sabrina Singh presented the 2001 Academia Awards. Some of the winners were: Jeffrey Streator - Most Wanted Professor; James Hartley - Most Inspirational; William Singhose - the GQ Award; and Tom Kurfess - the Most Organized Award.

Pierce Merry, Jr. was named the 2001 Woodruff School Distinguished Alumnus at our recent Spring Banquet. As is our tradition, Mr. Merry spoke to the assembled students about his career and Georgia Tech.

He said he studied mechanical engineering because his family's company needed ceramic and mechanical engineers. He felt it was important to have a plan and to stick to it. So when his supervisor asked for his work plans, he said he planned to work forty years. Mr. Merry did just that, and retired exactly forty years later. The philosophy he has always adhered to is, "A person that never does more than he's paid for never gets paid for more than he does."

Pierce Merry, Jr. received a bachelor's degree in mechanical engineering from Georgia Tech in 1950. Two months later, he joined Merry Brothers Brick and Tile Co. as a mechanical engineer and assistant department supervisor. Mr. Merry served as executive vice president of production, and later as president and chairman of the board.

Mr. Merry was a staff sergeant in the U.S. Army from 1943 to 1946. In the fall of 1946 he entered Georgia Tech, where he was in the Glee Club, belonged to Chi Phi, worked as secretary to the Music Director and as a registration aide for the Georgia Tech Evening School, and belonged to the ASME.

Mr. Merry, the grandson of Merry Brothers co-founder, Arthur H. Merry, and one of a long line of Georgia Tech graduates, has been very good to his alma mater. He was a member of the Woodruff School Advisory Board, served as vice-chairman of the 1988 ME Campaign, was chairman of the Augusta Regional Centennial Campaign, and belongs to the Georgia Tech Club of Augusta. Merry Companies contributed the bricks for the Alumni/Faculty House courtyard and wall and for the Main Campus Entrance Wall at North Avenue.
The Woodruff School in Orlando

In November 2000 the ASME held its International Mechanical Engineering Congress and Exposition in Orlando, Florida, and for the fifth consecutive year the Woodruff School had a booth at the exposition. The booth provides us with a terrific opportunity to talk about mechanical engineering education and to showcase the Woodruff School’s history and achievements. In addition, we hosted a hospitality evening for our alumni and friends attending the meeting.

Georgia Tech Selects New Provost

Georgia Tech has selected Dr. Jean-Lou Chameau, Dean of the College of Engineering, to become the new Provost. Dr. Chameau has a long and distinguished career in both academia and private industry. A Georgia Research Alliance Eminent Scholar, he previously served as vice provost for research and dean of graduate studies.

“This is a new and exciting opportunity to continue my work within an organization I love,” said Dr. Chameau. “While my career has carried me around the world, my dedication to Georgia Tech has been a constant.”

A native of France, Dr. Chameau received his undergraduate degree in mechanical engineering from L’Ecole Nationale Supérieure des Arts et M’etiers, and in economics from La Sorbonne in Paris. He received his graduate education in civil engineering from Stanford University, completing his master’s and Ph.D. degrees in 1977 and 1980, respectively. In 1980 he joined the civil engineering faculty at Purdue University, where he subsequently became full professor and head of the geotechnical engineering program. In 1991, he became the director of the School of Civil and Environmental Engineering at the Georgia Institute of Technology.

Capital Campaign Wrap-up and Celebration

To celebrate the end of the Capital Campaign on December 31, 2000, Georgia Tech held a series of events to thank all the donors to the very successful five-year effort. The Woodruff School hosted a Celebration Luncheon on April 20, 2001 on the Fersat Knoll, just outside the MRDC building.

In discussing the significance of the Campaign, Dr. Ward Winer, Chair of the Woodruff School, said: “It has been my privilege to lead the fundraising efforts for the Woodruff School during the Campaign for Georgia Tech. I was thrilled to meet new people, develop new relationships, and renew old friendships. When I called, I knew I could count on your support. Thank you all - alumni, corporations, friends, faculty, and staff - for participating in the Campaign. Because of your generous contributions, we raised $34,605,978, surpassing the School’s goal of $30 million. This is an extraordinary achievement.”

Dr. Winer continued, “Your participation in the Campaign is special to us and shows your commitment to Georgia Tech, the Woodruff School, and its students. All gifts, no matter the size, are vital to the School and will allow us to enhance our programs. Your generosity reinforces the education value of the Woodruff School. It strengthens the School, allows us to obtain excellent facilities, and gives us a solid economic foundation to assure our prosperous future.”
**ALUMNI NEWS**

**Bill Anderson** (Ph.D., ME 2001) accepted a position at Valvoline in Lexington, Kentucky.

**Thomas Barrow** (BME 1948) was named to the College of Engineering Hall of Fame.

**Andre Claudet** (Ph.D. ME 2001) accepted a position at Lawrence Livermore Laboratory in California.

**Steven Daneman** (BME 1988, MSME 1990) received an MBA from Pepperdine University in December 2000. He and his wife, Tammy, announce the birth of their first child, daughter Megan Roch’.

**Kristian E. Deaver** (BME 1991) was named to the Georgia Tech Council of Outstanding Young Engineering Alumni.

**Mike Dreixel** (Ph.D. ME 2001) accepted a position at General Electric in Schenectady, New York.

**Ernest P. Epps** (BME 1956) was named to the Academy of Distinguished Engineering Alumni.

**Alfred Estrada** (BME 1954) was named to the College of Engineering Hall of Fame.

**Harry Garner** (Ph.D. ME 2001) received U. S. Patent 6,188,484 with Dr. Kok-Meng Lee for an invention titled “Method and Apparatus for Measuring Angular Displacement of an Actuator Arm Relative to a Reference Position.”

**Ashley James** (Ph.D. ME 2000) is an Assistant Professor at the University of Minnesota.

**Donald E. Kinser** (BME 1982, 1983), President, Chairman, and CEO of EDI, Ltd. Consulting Engineers, was named the recipient of the Engineer of the Year Award by the Metro Atlanta Engineers Week Committee. He founded EDI in 1986 to provide consulting and engineering services to corporate and private institutional customers in need of building systems and communications technology.

**Tim Lieuwen** (Ph.D. ME 1999) won a 2001 National Science Foundation Career Award. He is an assistant professor in the School of Aerospace Engineering at Georgia Tech. Dr. Ben Zinn was his advisor.

**Joel D. Myers** (BME 1990) opened a patent law firm, Myers & Associates Intellectual Property Law, PC, in Marietta, Georgia. He and his wife, Nancy, had their first child, Mason Myers, in February 2000.

**Steve Perry** (MSME 1991) accepted the position of Director of Operations at Magline, Inc. in Pinconning, Michigan in late 2000. Magline is a leader in providing route distribution solutions to the soda, beer, and food service industries.

**Agustin A. Ramirez** (AE 1969) was named to the Academy of Distinguished Engineering Alumni.

**Randy Sheffield** (BME 1988, MSME 1990) was recognized as a Georgia Tech Council of Outstanding Young Engineering Alumnus.

**Steve Smith** (Ph.D. ME 2001) took a job at Comin in North Carolina.

**David E. Tate, Sr.** (BME 1962, MS 1964) was named to the Academy of Distinguished Engineering Alumni.

**John Voeller** (BME 1971) was confirmed by Governor Bill Graves to a four-year term on the board of the Kansas Technology Enterprise Corporation (KTEC). He will oversee opportunities brought to KTEC, advise the Kansas legislature on key technical topics, and ensure that existing support for ongoing projects is on track. Mr. Voeller is on the Board of Directors of the Civil Engineering Research Foundation, the Board of e-Builder, Inc., and the Board of Design-Build Partners.

**Note:** It was mistakenly reported in the last issue of mega tech that Dawn Foley had graduated and taken an academic position. She is still a doctoral student at Georgia Tech.

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**mega tech - Alumni News Form**

Let us hear from you! If you've received an award, changed jobs, or have
other professional news you’d like to share, please complete this online form and submit it, or send an email to rona.ginsberg@me.gatech.edu.

# UPCOMING EVENTS

For complete information on Woodruff School and related Institute events in 2001, please visit our Calendar of Events.

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