George W. Woodruff School of Mechanical Engineering

mega tech

Georgia Institute of Technology
SUMMER 1997

Issue No. 17 -

VEST DELIVERS DISTINGUISHED LECTURE

Dr. Charles M. Vest delivered the Annual Distinguished Lecture on Thursday, April 24, 1997, amid a full day of activities (see the accompanying photo and caption). He spoke about "What We Don't Know: Challenges for the Next Generation" to an overflow crowd in the EE auditorium, and pointed out some areas where we are still ignorant despite scientific investigation. "By thinking about what we don;t know, we can identify avenues of scientific and technological inquiry that have potentially high impact." The areas of ignorance include: information technology, energy and the environment, medicine and biology, the brain and neurosciences, and the physical universe. "Our challenge as a society," said Dr. Vest, "will be to construct a fertile and supportive climate for research of all kinds, so that we can continue to delve into these areas and encounter and frame questions for future generations, all in the attempt to create a better world."

Transcripts of Dr. Vest's speech will be printed and mailed soon. It will also be available on our web page at http://www.me.gatech.edu; click on **Woodruff School Publications**.

NOTE:
The 1998 distinguished lecturer will be Robert Lutz, President of the Chrysler Corporation, and will take place on Thursday, April 23, 1998.

A SPECIAL DAY: Dr. Ward Winer (left) presented a tee-shirt (and a medallion) to Dr. Charles Vest (right) on the occasion of the Woodruff Distinguished Lecture. In addition to the lecture, Dr. Vest participated in a roundtable discussion with undergraduate and graduate students of the Woodruff School; a luncheon with School faculty, students, and guests; a tour of the School's facilities; a pre-lecture reception attended by Georgia Tech President, G. Wayne Clough, invited members of the Tech community, and some alumni of the School; a reception after the lecture for more than 300 people; and a dinner at Dr. Winer's house to honor the lecturer.

See The Web

We made a number of revisions to the School's web page and are in the process of doing more; go to our home page at: http://www.me.gatech.edu and look for this newsletter and other publications by clicking on Woodruff School Publications; view the list of lectures and seminars under Seminars; open the Calendar of Events to find out what's happening in the School; and click on Photo Gallery for a pictorial display of recent School events. Other areas will be updated soon. **ME Program at GT Lorraine (France)** will be opened with the publication of our brochure and other information on this study-abroad program. This section will be linked to the GTL web page (http://www.georgiatech-metz.fr/) in Metz, France.

GWALTNEY NAMED DISTINGUISHED ALUMNUS

Mr. Eugene (Gene) C. Gwaltney (B.M.E., 1940) was presented the 1997 distinguished alumnus award by Dr. Ward O. Winer, Chair of the Woodruff School, at the Annual ME Spring Banquet in May 1997. Mr. Gwaltney joined the Russell Corporation in 1952; since that time, he held various leadership positions in the corporation, and in 1982, he became chairman and chief executive officer. His business expertise helped turn a regional textile producer into a Fortune 400 Company, with an exclusive agreement with Major League Baseball to supply team uniforms and to market game jerseys. Mr. Gwaltney retired from the Russell Corporation in 1993.

In addition to Mr. Gwaltney's foresight in the business world, he believes that young people need to be educated to compete in an increasingly complex world. Toward that end, he has long been committed to

pursuing excellence in education, and his philanthropic vision has benefited Georgia Tech in many ways. He served on the Georgia Tech Advisory Board from 1978 to 1984, and he was elected trustee emeritus of the Georgia Tech Foundation in 1989. In 1994, he was inducted into the College of Engineering's Hall of Fame, and he is the person for whom the Eugene C. Gwaltney Jr. Chair in Manufacturing Systems is named.

A Message from the Chair

WARD O. WINER

As the old saying goes, the only thing that's constant is change itself. Last year, we looked forward to the Olympics, and expected it to be an exciting and busy time. It was exciting, but not nearly as busy as things have been at the Woodruff School during this past academic year.

Our faculty and staff are busy with a variety of projects; the most important are related to the curriculum. After nearly nine months of intense activity on the part of virtually all our faculty, we approved the structure of the semester calendar for our undergraduate programs. The details must now be added to get faculty approval by the Institute and from the Board of Regents. While there were many changes in the Mechanical Engineering Program, it is basically the same, dealing with the underlying principles in the design and manufacturing of mechanical and thermal energy systems. We more fully integrated the Communications Program of the Little Red Schoolhouse into the design and laboratory courses, introduced a course in professional ethics, and increased the emphasis on computers and their use in engineering.

An additional project that is new to the Woodruff School is the graduate program at the Georgia Tech Lorraine facility in Metz, France. Beginning in September, we expect to offer three or four courses on-site during the next academic year, and begin our collaboration with the premier French Mechanical Engineering School, Ecole Nationale Supérieure d'Arts et Métiers (ENSAM). This is an exciting venture for us, and affords our students an excellent opportunity to obtain international engineering experience. The Electrical Engineering School has had a program in Metz for the last four or five years, and we expect to take advantage of the pioneering they have done in this regard.

We still have a number of ongoing activities associated with our facilities. The planning for the next building, Manufacturing Related Disciplines, Phase II, is well underway. The final design drawings are being prepared, bids are expected to be obtained during the summer, and construction will begin in the fall. The four-story, el-shaped building will be about 135,000 square feet at a budget of $27,000,000. Roughly two-thirds of MRDC II will be used for Mechanical Engineering, and one-third for Materials Science and Engineering. The building will be on a site between the Manufacturing Research Center and the Grosclose Building, and will be ready for occupancy in the summer of 1999.

The new building will give us the opportunity to consolidate virtually all of the School's activities into a three-building complex, consisting of MARC and MRDC I and II. The current plan is to move the research groups that are still across campus in the Coon, SST, and ESM buildings into the new facility. MRDC II will also contain three classrooms, an atrium, laboratory space, a high-bay area, and faculty office space. A groundbreaking ceremony has been scheduled for October 30, 1997.

Also, we obtained a generous gift from alum, Jack Zeigler, to furnish the lobbies in MRDC I; this will provide better study space for our students and allow us to use the lobbies for receptions. This renovation should be completed by the beginning of the fall quarter.

These are only a few of the many exciting activities that are going on in the Woodruff School, but they will give you an idea of how busy we all are. We have an excellent program, and are optimistic about our future.

SCHOOL HONORS ITS OWN AT SPRING BANQUET

The Eleventh Annual ME Spring Banquet was held on May 15, 1997 in the Wardlaw Center. The event, which is organized and planned by the Woodruff School Student Advisory Committee (WSSAC) and sponsored by the Woodruff School, has a twofold purpose. First, to honor and present the Distinguished Alumnus Award, and second, to recognize students of the School for their achievements during the past academic year.

Mr. Eugene Gwaltney (class of 1940), the 1997 Distinguished Alumnus, was the guest of honor at this fete, attended by faculty, staff, students, and guests, and was given a plaque in recognition of his distinguished career and philanthropy toward Georgia Tech (see the related story in this newsletter). It is tradition that the distinguished alumnus attend the banquet to interact with and serve as an inspiration for students. This is a special opportunity for the students to hear some stories that the distinguished alumnus might relate, and for the alumnus to hear about the students' plans and achievements. Mr. Gwaltney talked to the students about how necessary mechanical engineers are to run companies and for the need to be kind to their fellow human beings.

Following the talk, the students presented a lively slide show titled, "When They Were Young." Faculty and staff were asked to contribute baby and childhood pictures; the students accompanied the presentation with an amusing, anecdotal description of the pictures, and the audience tried to guess who was pictured in each slide, which was often a difficult task.

Finally, the students presented their annual awards to faculty. The 1997 categories were: Golden Pillow Award (professor most likely to put you to sleep); Frequent Flyer Award (professor always on a business trip); Slave Driver Award (professor who gives the most work); AAA Award (professor who gives the most help); "It's Getting Deep" Award (professor who BS's the most); Most Wanted Award (professor whose class fills up the

quickest); GQ Award (best dressed professor); Treehugger's Nightmare Award (professor with the most handouts); Pink Parachute Award (professor with the most withdrawals); Purple Shaft Award (worst shaft of the year); Distinguished Professor (best all-around professor); Whistle Award (professor who ignores the end-of-class whistle); and the Liaison Award (best teaching assistant).

FACULTY AWARDS AND HONORS

Dr. **Jonathan Colton** was promoted to the rank of full professor.

Dr. **Kenneth Cunefare** was promoted to the rank of associate professor and granted tenure.

Associate Professor **Mostafa Ghiaasiaan** was granted tenure.

Professor **Alan V. Larson** received the Georgia Tech Outstanding Service Award.

Associate Professor **Steven Liang** is a Woodruff Faculty Fellow for the period July 1, 1997 through June 30, 2002.

Assistant Professor **Christopher S. Lynch** is the recipient of a 1997 NSF Career Award.

Professor **G. Paul Neitzel** was named a member of the NASA Microgravity Research Advisory Subcommittee (MRAS).

Associate Professor **Jianmin Qu** is a Woodruff Faculty Fellow for the period July 1, 1997 through June 30, 2002.

Assistant Professor **David Rosen** was selected the Metro Atlanta Engineer of the Year in Education for 1997.

Professor **Richard Salant** was elected a Fellow of the STLE.

Associate Professor **Charles Ume** was awarded a patent for "Method and Apparatus for Measuring Thermal Warpage."

Professor **Raymond Vito** was elected a Fellow of the ASME.

Dr. **Chris Wang** was promoted to the rank of associate professor and granted tenure.

Regent's Professor and Chair of the Woodruff School, **Ward O. Winer**, has been named the 1996 winner of the Society of Tribologists and Lubrication Engineer's (STLE) International Award.

Professor **Ajit Yoganathan** won the 1997 ASME H. R. Lissner Award.

David S. Lewis Jr. Chair and Regent's Professor **Ben Zinn** received the Georgia Tech Outstanding Achievement in Research Program Development Award.

Associate Professor **Cheng Zhu** is a Woodruff Faculty Fellow for the period July 1, 1997 through June 30, 2002.

CAE LAB DEDICATED

The Computer-Aided Engineering (CAE) Lab in the Woodruff School was dedicated on April 23, 1997 when three representatives of one sponsor, Texaco, attended and students demonstrated some of the lab's capability. The lab, which is located in Room 2104 of MRDC, is designed to meet the growing demand for CAE education among mechanical engineering students. This high-end instructional lab is designated for undergraduate and graduate class use only, and is not open to the general ME student body.

The newly created CAE Lab gives the School the capability to offer classes to more than 160 students each year. The Lab is capable of carrying a throughput of approximately 40 students per quarter. This growth is important because employers increasingly screen applicants on their CAE/CAD skills.

Undergraduate students will use the CAE Lab when they take ME 4041 (Interactive Computer Graphics and Computer-Aided Design), and graduate students will use the lab when they take ME 8103 (Special Topics in Design). This was the first course taught in the new lab in winter quarter 1997.

The Lab is equipped with 20 high-end 200 MHz Pentium Pro Gateway 2000 workstations. Each workstation has 128 MB RAM, 3.8 GB of disk space, a 21" monitor, 8 MB video RAM, multimedia, a 12X CD-ROM drive, a 10/100 PCI ethernet card, and internal SCSI zip drives. Two of the workstations will serve as file servers, while 18 stations will be used for lab instruction and training. Each server machine is equipped with an additional 4 GB of disk space. The Lab also has a Lexmark Optra N black and white, an 11 by 17 inch capable printer, and a Lexmark Optra C color printer.

The Lab incorporates a staircase-type floorplan, which permits unobstructed viewing for students seated in the back rows. A "teaching" or demonstration workstation, situated as a cart at the front of the lab, is connected to a permanently-mounted overhead Proxima 5600 projector.

The CAE Lab was constructed with grants totaling approximately $150,000 from Texaco, General Motors, and Mr. Nelson Abell, the 1995 Distinguished Alumnus

(class of 1944). Fundraising for this project was completed by October 1996, and the CAE Lab was functional in January 1997. Plans to expand the lab are being developed.

Texaco representatives on-hand for CAE Lab Dedication (left to right; Ms. Jane Roberts, Dr. Kay Colapret (PhD. Chem. 1987), and Dr. W.J. (Kip) Powers, III (PhD. Chem. 1968)

STUDENTS DEVELOP SENIOR PROJECT AT ROOSEVELT INSTITUTE

Mechanical engineering students, Gail Jefferson, Erin Brown, Jesse Woosley, and Josh Moore (left to right) completed a senior class project that will solve a problem at Camp Dream located on the campus at Roosevelt Warm Springs Institute for Rehabilitation. Students were given the challenge to find an easier way for people with disabilities to get in and out of boats at the lake. The students researched several ideas and decided to install a mechanical lift on the dock. After they add a seat and make some modifications to secure it to the dock, the new device will enable people with disabilities to enjoy boating and fishing at the camp.

NE PROGRAM CHANGES TO NRE

Industry and medicine increasingly use radiation, so the need for college graduates with the type of training provided by a traditional nuclear engineering program has expanded beyond the technology needs of the nuclear power industry. Georgia Tech is meeting this need with a revised undergraduate nuclear engineering program. The new curriculum evolved from a highly-focused emphasis on nuclear power to include radiological engineering fundamentals. By doing this, we provide our graduates with more career choices.

Knowledgeable professionals in the industry reviewed the program; they were enthusiastic about the revised curriculum, the possibilities it creates to meet industry requirements, and the greater job flexibility it will give graduates of the program. The undergraduate program was renamed the BNRE degree to reflect its new focus. The revised program begins in fall 1997 and is administered by the Woodruff School.

Nuclear engineering concerns the safe release, control, utilization, and environmental impact of energy from nuclear fission and fusion sources. Today, the diversity of nuclear energy allows a variety of applications, from powering space exploration to the large-scale generation of electricity.

Radiological engineering is an emerging discipline that combines a broad-based knowledge of atomic, nuclear, and radiation physics; nuclear and radioactive materials; radiation detection; radiation dosimetry and shielding; nuclear energy production and fundamentals, and has applications to industry, medicine and health, agriculture, environmental protection, scientific research and exploration, public safety, and electricity production.

The core curriculum covers the basic principles of nuclear engineering, nuclear reactor physics, nuclear reactor core design, reactor systems engineering, radiation sources and detection instruments, radiation transport and protection, criticality safety, regulatory requirements, radioactive materials management, and health physics.

Typical courses for the BNRE degree are: *Introduction to Nuclear and Radiological Engineering, Radiation Physics, Radiation Protection Engineering, Reactor Engineering, Radiation Sources, Radiation Applications, Radioactive and Nuclear Materials Management, Nuclear Radiation Detection, Nuclear Reactor Physics, Reactor Physics Laboratory, and Nuclear Engineering Design Applications*. For more information about the revised BNRE, contact Professor Nolan Hertel at 894-3717 or by e-mail at nolan.hertel@me.gatech.edu. Also see the web site at http://www.me.gatech.edu; click on Academic Programs.

Graduate Students Transfer Innovation

The Seventh Annual Graduate Student Symposium, with a theme of transferring innovation, was held at Georgia Tech on March 5 and 6, 1997. Graduate students close to completing their degree had the opportunity to give a five-minute presentation to representatives of industry. This session was followed by a 45-minute poster session in which presenters could meet with industry representatives on a one-to-one basis to discuss their research. The symposium provides an excellent opportunity for the industry representatives to recruit employees.

The Graduate Student Symposium was started in 1991 as a way for engineering graduate students to share the results of their research with science and engineering professionals in industry. This year, 92 graduate students from ten schools at Georgia Tech presented their work to two dozen industry representatives. In addition to the presentations and the extended poster session, each industry representative is given a booklet that contains a résumé and an abstract of the work of each presenter.

The Woodruff School is the lead sponsor of this event, and Professor Bill Wepfer is the sponsoring faculty member. Plans are underway for the next Graduate Student Symposium. In the interim, direct any questions about the symposium to Dr. Wepfer at (404) 894-3204.

MEET
REID BAILEY
GRADUATE STUDENT ATHLETE

Reid Bailey, a graduate student in the Woodruff School, along with his brother, Russell, qualified as the top double canoe (C2) on the U.S. Wildwater Team. Wildwater is a sport that involves racing through whitewater rapids as quickly as possible (see the photo). The team won both the classic, long race (about 3.5 miles) and the sprint race (about 3/4 mile). The trials were held on the Kern River, about two hours north of Los Angeles.

Russell and Reid train on the Chattahoochee River two to four evenings a week, with an occasional weekend trip to find more serious whitewater. Russell trains after work, while Reid attends classes at Tech during the day, goes to the river to train, and then returns to the lab. They have been canoeing recreationally for more than ten years and racing for about one year.

The Baileys would like to compete in Europe next summer (1998), however, their expenses for the coming year will be about $11,500. If anyone is interested in sponsoring their attempt at the World Cup, please contact Reid by e-mail at gt4986e@prism.me.gatech.edu, write to Box 324986, Georgia Tech Station, Atlanta, GA 30332-1035, or phone (404) 894-8170.

Reid earned his master's degree at the end of spring quarter 1997, and will continue at Tech to obtain the Ph.D. He has a 4.0 GPA at Tech, is involved with the GT Wind Symphony, and was recently awarded an Integrated Manufacturing Predoctoral Fellowship from the U.S. Department of Energy (there were only twelve such fellowships awarded this year). In 1995, Reid graduated magna cum laude from Duke University, where he was a member of the marching and pep bands.

STAFF NEWS

Butch Cabe was promoted to the position of Manager of Facilities.

Gene Clopton, Director of Support Services, retired in December 1996, and was rehired, part-time, as Director of Special Projects.

Betty Crumbley received the Outstanding Achievement Award for Classified Employees for winter quarter 1997.

Ken Dollar joined the staff as the Director of Technical Services.

Mary George resigned her position as Accountant II in the Finance Office.

Cosetta Gibson was promoted to Academic Assistant II upon the retirement of **Claudette Noel** from the Graduate Office.

Rona Ginsberg joined the Woodruff School as Director of Publications & Public Relations.

John Graham has been promoted to the position of Manager of the Machine Shop.

Chelcea Harper, Academic Assistant I, and her husband, Chris, became parents June 14, 1997 with the birth of

their daughter, Krichel Rose.

Michelle Hughson was hired as Administrative Assistant II and serves as Executive Secretary to Dr. Winer.

Angela Hicks, who works in the Finance Office, was promoted to Administrative Assistant II.

Jane Lee resigned her position as Senior Administrative Secretary.

John McCullough was promoted to Manager of Computing, Networking, and Electronics.

Nancy Moody was awarded the Outstanding Achievement Award for Classified Employees for fall quarter 1996.

Donna Rogers was promoted to Administrative Coordinator and received the School's Outstanding Achievement Award for Classified Employees for 1996.

David Stone joined the Finance Office as an Accountant II, where his primary responsibility will be purchasing.

June Weddington was hired as an Administrative Assistant II to work in property control.

Melinda Wilson was promoted to the position of Manager of Administrative Services.

John Witzel was hired as Electrical Engineer II.

STUDENT AWARDS

Quixote Atkins received a GEM Minority Student Fellowship.

Grant Baynham received the Robert Cup, which honors a senior student athlete.

Reid Bailey won a Predoctoral Fellowship in Integrated Manufacturing from the U.S. Department of Energy.

Lawrence Butkus received the ASEE Award and the Luther S. Long III Memorial Award in Engineering Mechanics.

Brent Capell won an NSF Graduate Fellowship and the Outstanding Scholastic Achievement Award from the Nuclear Engineering Program.

Jorge G. Cham was given the School Chair's Award, which goes to a graduating senior with outstanding scholarship and contributions to the Woodruff School.

Audra Cockerham, **Ted Michel**, **James Reeves**, **Alex Vandergrift**, and **Garig Vanderveldt** were members of the senior design team which won the Georgia Engineering Senior Design Award.

Scott Coleman won a CETL/Amoco Foundation Graduate Teaching Assistant Teaching Excellence Award.

Scott Cowan received a NASA GSRP Fellowship.

David H. Cowden IV received the George W. Woodruff School of Mechanical Engineering Outstanding Scholar Award.

Stacey Dixon received the ASME Graduate Teaching Fellowship.

Tom Evans was accorded the Sigma Xi Outstanding Ph.D. Dissertation Award.

Jacob Gelbaum won a Georgia Tech Faculty Women's Club Scholarship, which is given to the children of Georgia Tech employees.

Steven M. Gilbert was presented the Pi Tau Sigma Outstanding Senior Award.

Christie Gooch was awarded a GEM Minority Student Fellowship.

Ali Gordon won a GEM Minority Student Fellowship and is a Sloan Fellow.

Richard Gregory received a NASA GSRP Fellowship.

Jennifer Hsieh was presented a Georgia Tech Faculty Women's Club Scholarship.

Gail Jefferson won a GEM Minority Student Fellowship.

Caliph Johnson was awarded a GEM Minority Student Fellowship.

Cliff Johnson received an NSF Graduate Fellowship.

Wayne Johnson won an NSF Graduate Fellowship, a NASA GSRP Fellowship, and a Ford Foundation Fellowship.

Janeen Jones won a GEM Minority Student Fellowship.

David Loganbach received the ASME Marjorie Roy Rothermal Scholarship.

Scott Mosher won a Department of Energy Nuclear Engineering Fellowship.

P. J. Newcomb received the Distinguished Paper Award from the ASME Design Theory and Methodology Conference.

Mary Nopolitano won the Best Paper Award at the SEAAPM Annual Meeting.

Carrie Nottingham received an NSF Graduate Fellowship.

Christopher Pascual was awarded an ASHRAE Graduate Student Grant-in-Aid and an ASME Graduate Teaching Fellowship.

Yarom Polsky received an INTEL Fellowship.

Ali Razavi received the High Score on the Ph.D. Qualifying Exam Award.

Jeff Thiele won an NSF Graduate Fellowship.

Jason V. Tsai was presented the Richard K. Whitehead Memorial Award, for being an outstanding mechanical engineering senior.

Tara M. Varga won the Pi Tau Sigma Outstanding Sophomore Award.

Felipe Verela won a GEM Minority Student Fellowship.

Tina Wang won the Samuel P. Eschenbach Memorial Award in Mechanical Engineering.

Andrew M. Welch won the Atlanta Section, ASME Walter O. Carlson Memorial Award.

ALUMNI NEWS

C. A. Balaras (M.S. 1985, Ph.D. 1989) is a lecturer (research scientist) at the National Observatory of Athens (Greece) in the Energy Conservation Group. NOA is a research organization specializing in renewable energy sources and energy conservation in buildings.

Ronald L. Bannister (B.M.E. 1956) is the Manager of Emerging Technology Programs at Westinghouse Electric Corporation in Orlando, Florida. He won the 1996 Performance Test Codes Medal from ASME. Gerald Cabak (B.M.E. 1972, M.S. 1976) is Senior Mechanical Engineer at Raytek in Santa Cruz, California, the secretary of the local NSPE chapter, and a member at large of the local ASME executive board. He has been married more than 23 years to Georgia Tech graduate, Albyte R. Zunde (B.S., Applied Math, 1972).

S. David Cassel (Ph.D., 1991) became chair of the Department of Mechanical Engineering at Oklahoma Christian University (on May 1, 1997), where he has been an associate professor for the past two years. He and his wife, Darlinda, have a 21 month old daughter, Veronica.

Jeffrey Andrew Chase (B.M.E., 1992) is married to Christel Dawn Beaudry. He completed his M.D. in 1996 and is now an intern in the emergency medicine residency program at LSU in Baton Rouge, Louisiana. He and his wife are the parents of Jeffrey Andrew Chase, Jr., born February 20, 1997.

Todd Helms (B.M.E. 1990) accepted a position as Manager, Safety and Environmental for Anchor Hocking Glass Company in March 1996, and is enrolled in the Executive MBA Program at Ohio University. He resides in Lancaster, Ohio with his wife, Rebecca.

Pranab Saha (Ph.D., 1979) received the Forest R. McFarland Award and a Certificate of Appreciation at the 1997 SAE International Congress and Exposition in Detroit in February 1997. He is a principal consultant and co-owner of Kolano and Saha Engineers in Waterford, Michigan. His specialty is acoustics.

Ryan Schneider (B.M.E., 1990) is employed by the intellectual property law firm of Deveau, Colton & Marquis in Atlanta, Georgia. He was married on March 8, 1997 to Jennifer Tourial.

READERS, PLEASE NOTE: We like to keep you informed about the programs in the Woodruff School of Mechanical Engineering at Georgia Tech. In turn, it would be helpful if you have news (activities, special interests) to share with us that you fill out the Alumni News Form; it will just take a few minutes to complete.

TEAM PLACES

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IN ROBOTICS CONTEST

A group of students from the Woodruff School went to the 1997 American Nuclear Society (ANS) Seventh Topical meeting on Robotics and Remote Systems in Augusta, Georgia and came home as the second place winners of the Society's first robotics design challenge. Teams from Florida, Georgia, Michigan, New York, South Carolina, and elsewhere, entered the competition, whose theme was remote material handling.

The Tech team of Jennet Johnson, Erwin Oei, Davin Swanson, and Alan Tang placed second and won $1,000. Professor Stephen L. Dickerson was

the sponsoring faculty advisor.

Each team had to build a robot no larger than 18 inches high, 14 inches wide, and 17 inches long that weighed less than 30 pounds. The robot, which had to be completely self-contained and fully automated, had to locate, retrieve, and deliver variously shaped objects. The competition was double elimination in which two entrants competed simultaneously on identical, adjacent playing fields. The goal of the competition was to display robotics capability and skill, not force. The Tech team met every day for three months prior to the competition to work on the project.

HOT

OFF THE PRESS

WOODRUFF SCHOOL PUBLICATIONS

The following publications are available from the Woodruff School. If you have not received one in the mail and would like to, please contact Rona Ginsberg at (404) 894-3214 or by e-mail at rona.ginsberg@me.gatech.edu.

Bonjour, Georgia Tech: The George W. Woodruff School of Mechanical Engineering Introduces a Graduate Program for Study in France;

The 1996 Annual Report Summary (An Overview of the School);

The 1996 Woodruff Distinguished Lecture Transcript (Norm Augustine); "Yes, But Will It Work in Theory?"

The George W. Woodruff School of Mechanical Engineering's Video- Based Master's Degree Programs (Graduate Programs for Working Professionals in Mechanical Engineering and Health Physics);

The Program for the 1997 Woodruff Distinguished Lecture (Charles Vest);

The Invitation and Lecture Synopsis for the 1997 Woodruff Distinguished Lecture (Charles Vest).

Also, check page 127 in the June issue (and successive issues) of *Mechanical Engineering* magazine, the monthly publication of the ASME, for our advertisement on the media-based master's degree programs in mechanical engineering. If you are interested in these degrees, send an e-mail request to video.programs@me. gatech.edu.

IF YOU LIKE TO TRAVEL, READ THIS

A team from Georgia Tech will enter an experimental aircraft in the World Air Games. The main event will be a 12-day, long-range air race over a distance of 6,500 miles. The race will begin in Reykjavik, Iceland on September 9, 1997, and end in Antalya, Turkey on September 20, 1997, with overnight stops in Strasbourg, France; Seville, Spain; Rome, Italy; Jerusalem, Israel; Amman, Jordan; Trabzon, Turkey; Adana, Turkey; and Antalya, Turkey. Each entry will be handicapped against its maximum cruising speed.

The Georgia Tech team, selected from a pool of applicants, will consist of 16 students (14 undergraduates and 2 graduate students) from the Woodruff School, AE, ISyE, and ECE. Larry Lee will pilot the airplane, a Malibu Mirage. Larry is an industrial design major from the College of Architecture (class of 1969). He owns Plastech Corporation, a manufacturer of molded plastics. Larry's wife, Kathy, will co-pilot the airplane.

The Georgia Tech team will work in four groups: Airframe Aerodynamics; Engine/Propeller; Aircraft Communications; and Race Strategy/ Logistics/ Operations. Professor Sam Shelton (e-mail to sam.shelton@me. gatech.edu) is the faculty adviser on the project and the instructor for a special project course during the summer quarter in Experimental Race Aircraft Design. Professor Amy Prichett (School of ISyE) is the co-faculty adviser on the project and will oversee ground support operations during the race.

OUR WINNING WAYS CONTINUE

As in the previous years of this decade, the Woodruff School has made a strong showing in the 1997 National Science Foundation (NSF) Graduate Fellowship competition, winning five fellowships, four to graduate students and one to an undergraduate student. The goal of these prestigious and competitive fellowships is to guarantee that the nation's most promising students will be able to pursue their graduate work without distraction. Roughly only ten percent of applicants receive funding from NSF. This year 45 awards were made in mechanical engineering, compared with 45 in 1996, 48 in 1995, and 54 in 1994. The 1997 winners from the Woodruff School are: Brent Capell (undergraduate nuclear engineering student); Cliff Johnson (a Ph.D. student); Wayne Johnson (a Ph.D. student); Carrie Nottingham (a Ph.D. student); and Jeff Thiele (an M.S.

student).

Despite some particular restrictions this year, the Woodruff School fared well in the competition. There was only one undergraduate winner and none of the School's undergraduates were cited as honorable mentions. Dr. William Wepfer, Associate Chair for Graduate Studies, strongly suspects that few, if any, of the School's undergraduates even applied for the fellowship because of the phenomenal job market for BMEs and due to the Olympic-induced late start of the 1996 fall quarter, which made it extremely difficult to meet the NSF application deadline. As a result, the strong showing in the School was due to the excellent participation by first-year graduate students. "If our top undergraduates had applied, we are confident that we would have had more winners," according to Dr. Wepfer.

Such winning ways have become typical for the Woodruff School, which has more NSF Graduate Fellowship winners among its graduate students than any other school at the Institute. This strong and consistent record of achievement reflects well upon the ability of the graduate students in the Woodruff School and may be attributed, in part, to the implementation of an endowed writing (communications) program in the School.

IMPORTANT NOTICE

The Woodruff School will be compiling another graduate student Résumé Booklet, which will be available in October 1997 to business and industry representatives. The booklet will contain a complete résumé of each M.S. and Ph.D. candidate who is seeking employment. We would appreciate it if you could offer to help these students in this regard. To receive a free copy, please contact Dr. William Wepfer, Associate Chair for Graduate Studies, at (404) 894-3204 or send an e-mail to bill.wepfer@me.gatech.edu.

GT MOTORSPORTS TEAM ENTERS COMPETITION

Georgia Tech has participated in Formula SAE competitions since 1986. FSAE is a student engineering competition that requires the design, construction, and racing of an open-wheel race car. Students must balance design issues, such as performance, cost, and ergonomics, and then prove their designs on the track. This year's competition was held on May 14-18, 1997 at the Silverdome in Pontiac, Michigan.

The team had a 6th place finish in the Design Finals and received the Teamwork Award (won because they changed engines twice). The low point of the competition was a 30th place overall finish, due to a blown engine in the endurance event.

GT Motorsports is a volunteer organization, so all work on the car is done outside the classroom. The Woodruff School houses the team by providing facilities and space, but membership is open to all Tech students. Work is already underway for next year's competition (May 1998).

The major sponsors for GT Motorsports are: Ford, GM, Hoechst Celanese, Allied Signal, Cummins, and Tug Manufacturing. However, it takes approximately $24,000 to design, analyze, build and test the car, and travel to the competition. If anyone reading this newsletter is interested in sponsoring the GT Motorsports team, please contact Professor Ken Cunefare, the faculty adviser, at ken.cunefare@me. gatech.edu.

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mega tech - Alumni News Form

Let us hear from you! If you've received an award, changed occupations, or have other professional news you'd like to share with your classmates, please complete this form.

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mega tech is published twice a year by the George W. Woodruff School of Mechanical Envineering at Georgia Tech.

Editor: Rona Ginsberg

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George W. Woodruff School of Mechanical Engineering
GWW/RG9707-10(MEG)