Barnes to address Tech's spring graduates

Victor Rogers
Institute Communications and Public Affairs

Gov. Roy Barnes will deliver Georgia Tech’s commencement address this Saturday at 9 a.m. in Alexander Memorial Coliseum. Approximately 1,600 students are expected to graduate.

A native of Macon, Barnes was elected governor last fall. In January he unveiled the Yamacraw Mission, a major initiative designed to position the state as a world leader in high-technology industries. Over the next five-to-seven years, the Yamacraw Mission is expected to create several thousand new jobs in software engineering and electronic design and will have a major impact on Georgia Tech and other universities in the University System of Georgia.

Named for the Yamacraw bluff on the Savannah River, where Georgia founder James Oglethorpe established a settlement in 1733, the Yamacraw Mission is a combined effort by the University System of Georgia, the Georgia Department of Industry, Trade and Tourism, and the Georgia Research Alliance. Yamacraw will foster development of a cluster of businesses involved in high-bandwidth communications—a high volume of information sent at fast speeds.

Part of the Yamacraw strategy is the Education Cluster—organized by the University System of Georgia and spearheaded by Georgia Tech—which will build the base of talent in the state and attract existing state of Georgia graduates back to the state.

Barnes attended the public schools of Cobb County, then majored in history at the University of Georgia (UGA) where he competed on the University debate team. He continued his education at UGA’s Law School and served as president of the student bar association.

After graduating from law school, Barnes became a prosecutor in the Cobb District Attorney’s office. Just two years later, he was elected to the first of eight terms in the state Senate at age 26. Four years into his Senate tenure, Barnes was named chairman of the Senate Judiciary Committee, and in 1983, he was chosen by Gov. Joe Frank Harris to be the administration floor leader, a position he held until 1989.

While in the Senate, Barnes served on the Governor’s Growth Strategies Commission and was Senate chairman of the Constitutional Revision Committee. He was a member of appointed and interim committees studying worker’s compensation, services for the aged, child abuse and domestic violence, transportation, community services for the mentally disabled and problems of the homeless.

After completing his 16 years of service in the Senate, Barnes continued his political career in 1993 with election to the State House of Representatives. He served as vice chairman of the House Judiciary Committee and was a member of the Rules Committee and the Banks and Banking Committee. Barnes has maintained a private law practice in Cobb County since 1975 and has been a successful businessman, banker and active member of the First United Methodist Church of Marietta as well as civic organizations throughout Cobb County.

Barnes is married to Marie Dobbs Barnes, also a Cobb County native, whom he met while both were attending the University of Georgia. They have three children: Harlan, Allison and Alyssa.

Tech researchers find Atlanta’s aging autos are increasing air pollution

Jane Sanders
Research News and Publications

With six years of emissions data on more than 2 million metro-Atlanta vehicles, researchers have determined the city’s fleet is growing old and polluting the air.

The average vehicle in Atlanta has about 90,000 accumulated miles on it, and there are a significant number of vehicles with more than 200,000 miles on them, according to Georgia Tech’s Air Quality Laboratory.

Researchers analyzed emissions inspection and vehicle registration records to make these estimates.

“Our concern is that we expect this trend to continue, and as vehicles get older, there is degradation. Their emissions control systems become less efficient, and the vehicles release more pollution into the air.”

Rodgers and his research team are entering their seventh year of a long-term vehicle emissions monitoring program of Atlanta and short-term studies in other eastern U.S. cities.

The researchers use remote sensing, vehicle registration data, roadway observation studies and laboratory testing to compile emissions data that provides insight into ozone pollution problems.

See Emissions, page 2

How vehicles are tested

Researchers in the Air Quality Laboratory regularly conduct remote sensing and roadway studies along Atlanta-area interstate highways. In remote sensing studies, researchers gather vehicle information at entrance and/or exit ramps. In just seven-tenths of a second, remote sensing equipment measures a vehicle’s emissions as it breaks an infrared beam in its path. Other equipment photographs the vehicle’s tag; researchers later use this photo to correlate emissions data with registration data.

In a typical day, researchers gather information on 4,000 vehicles. In Atlanta, researchers gather data on 30,000 vehicles a month. Since 1993, they have collected data on more than 2 million vehicles in the 13-county metro-Atlanta area. Augusta, Ga., Macon, Ga., and Nashville, Tenn., are the control cities in which researchers collect data that is compared with findings in Atlanta.
Faculty/Staff Fund nears goal of 500 donors

Denise Noble
Institute Communications and Public Affairs

The Alumni Association’s 52nd Roll Call is nearing the June 30 end of this year’s faculty/staff fund-raising drive and closing in on its goal—to inspire 500 employees to contribute to the Faculty/Staff Fund.

To help increase participation this year, the Faculty/Staff Fund Committee worked to involve more retired faculty and staff. “We’ve had really great support from the folks serving on the Faculty/Staff Committee and the Alumni Association during the year, and that energy has made a difference,” said committee chair Rich Combes (BME ’70, MSME ’81, MISTASP ’92) senior research engineer, Georgia Tech Research Institute. “We’ve also worked hard to make our retired faculty and staff a part of the Fund this year.”

As of June 2, 442 donors had contributed about $256,000—far exceeding the goal of $205,000 and just shy of the goal for number of donors. Last year’s contributions to the Fund totaled more than $192,000 from 441 donors, benefiting more than 60 separate campus programs.

“We’re very fortunate to have increased the contributions from the faculty and staff by more than 45 percent over where we were last year at this time,” said Combes. “I believe the increase is due to a desire for folks on campus to join the thousands of alumni, friends, parents and students whose generous support is making The Campaign for Georgia Tech such a big success. Our faculty and staff can see the impact of their gifts on the campus and that helps us a lot,” he said.

This year, designation options include one to help establish a new campus dining club for faculty and staff. Employees also may choose to designate their gift to benefit their college or department or one of the allocations that improve student life. Following are some examples of the needs targeted with last year’s contributions:

- The College of Engineering and its schools received $80,761.
- The College received $12,520 to support acquisitions and operations.
- Two daughters and a son of faculty/staff received four-year scholarships to attend Tech.
- DramaTech received $1,439.
- The Robert Ferst Center for the Arts received $4,228.
- There is increasing awareness of the Faculty/Staff Fund and the opportunity to target contributions to the home department, Library, Faculty Club and other units,” said committee member Miriam Drake, dean and director of Libraries. “In the last five years, the Library has purchased more than 600 books with faculty/staff contributions. These books enrich our collections for the entire Georgia Tech community.”

All employees should have received a faculty/staff information packet including a solicitation letter and a list of priority campus funds. Undesignated gifts and pledges will be added to the Roll Call’s unrestricted pool which is used to support Institute initiatives such as student scholarships, faculty recruitment, curriculum development and facility improvements.

Giving options include payroll deduction, straight gift or pledge. Credit card payments are also accepted. With payroll deduction, contributors may choose to start and stop their deduction in any month they wish. For more information or to make a contribution, contact Jennifer Hanes at 894-5076 or jennifer.hanes@alumni.gatech.edu.

College of Computing honors its own

Mary Alice Isele
College of Computing

College of Computing faculty, staff and students, along with industry leaders and board members, gathered last week to honor the past year’s achievements at the College’s annual awards ceremony. Dean Peter Freeman, as master of ceremony, highlighted the sustained growth in enrollment and national rankings. He also pointed to incentives such as the Yamacraw project and the Intellectual Capital Partnership Program (ICAPP) as salutes to the quality of education being delivered and the demand for the College’s graduates.

Freeman went on to recognize students, faculty and staff for outstanding achievements. The Gus Baird Faculty Teaching Award was given to a faculty member who is recognized by his or her peers and students for excellence in teaching. This year’s recipient, Greg Turk, was recognized for being “a bright and active professor who truly engages his students.” The Edendfield Faculty Fellowship and the Raytheon Faculty Fellowship are awarded for “innovative research to further the progress of computing.” John Stanko and Sven Koenig each received $10,000 in support of their research.

Lastly, Dean Freeman announced this year’s winners of the coveted Dean’s Award, which recognizes the person(s) whom, in the dean’s opinion, best epitomizes the spirit of the College. It recognizes outstanding dedication to the College and significant efforts for its continued improvement. This year’s recipients are assistant professors Amy Breuckman and Irfan Essa.

Faculty and staff honored at the College’s awards ceremony

- Outstanding Service Staff Award: Barbara Durham
- Outstanding Support Staff Award: Linda Williams
- Outstanding Junior Faculty Research Award: Gregory Abowd, Leonard Schulman
- Outstanding Senior Faculty Research Award: Vijay Vazirani
- William A. "Gus" Baird Faculty Teaching Award: Greg Turk
- Edendfield Faculty Fellowship: John Stanko
- Raytheon Faculty Fellowship: Sven Koenig
- Dean’s Award: Amy Breuckman, Irfan Essa

Emissions, continued from page 1

"Previously, there was not a systematic methodology for determining the effect of aging on a vehicle fleet over time with on-road measurements," Rodgers said. "The Atlanta study is now the oldest monitoring program of its type in the world." Short-term studies conducted in New York City, Boston, Baltimore, Nashville and Raleigh, N.C., complement the findings of the Atlanta monitoring program. Studies are planned for parts of Oregon, Utah and California this year. Altogether, they are giving researchers cause for concern, they say.

"Most vehicles gradually increase their emissions, but with aging vehicles, there are some catastrophic failures, such as holes in catalytic converters," Rodgers explained. "Some estimates show that vehicles with catastrophic emissions systems failures can be responsible for 50 to 70 percent of emissions." Fuel-injected vehicles manufactured since the mid-1980s tend to deteriorate more slowly than the previous generation of vehicles, Rodgers said. But people are driving their vehicles longer now, even in excess of 300,000 miles. So Atlanta can expect to see an increase in catastrophic failures in vehicle emissions control systems as its fleet ages, Rodgers explained.

Emissions inspections presumably detect vehicles with catastrophic failures. In reality, however, only 1 percent of vehicles manufactured in the past six years has failed an emissions test. "It's like looking for a needle in a haystack," Rodgers said. But the search is worth it because of their significant contribution to air pollution.
Need bed space for 1,000? Call Conference Services

Elizabeth Campbell
Institute Communications and Public Affairs

Georgia Tech will host about 15,000 visitors on campus this summer. It’s not the Olympics but attends to a variety of conferences held on campus each summer. Due to the semester conversion, the staff of Conference Services will handle the same amount of conference activity in four weeks less time this summer.

Tech houses a variety of groups ranging from adult professional groups to the United Way to youth attending sports oriented camps. Most conference guests stay between three-to-five nights. Most adult groups stay on the West Side of campus in apartments and have used the Student Success Center. Youth groups stay on either the West or East Side of campus and usually use SAC or other athletic facilities. The largest group of the summer is a national youth conference with 1,500 participants in August.

"Faculty, staff and students should be aware that we have a lot of visitors to campus in the summer months," said Michael Gallant, associate director of Housing, Conference Services. "They might see a lot of unfamiliar faces and get asked a lot of questions about the campus."

GTRI research attracts industry, government

Chris Thompson (right), senior research engineer, Georgia Tech Research Institute (GTRI), demonstrates Factory Automation Support Technology (FAST) at GTRI's Industry and Technology Day. FAST, a wearable computer system that provides hands-free, mobile access to electronic maintenance and repair manuals, is being tested in the poultry industry.

Approximately 80 representatives from industry and state and federal government attended Industry and Technology Day on May 20 in the Student Success Center. Visitors met with GTRI researchers and viewed more than 20 booths and displays highlighting GTRI's research capabilities.

"Industry Day is part of an overall strategic marketing effort to expose new customers to GTRI's research capabilities," said Tom Horton, manager of industry business development and state programs. "We want to show them how we can help solve high-tech problems." Horton attributes approximately $2.5 to $3 million in GTRI awards to contacts made and interest generated at the 1998 event.

Tech students launch Probate Court Web site

Elizabeth Campbell
Institute Communications and Public Affairs

Forty-two Georgia Tech computer science students worked more than 9,000 hours over six academic quarters to develop a Probate Court Web site so that Georgians will have to make fewer trips to the Probate Court when filing forms. The Web site was launched for public use May 26 for activities related to estates and establishing the Court's presence on the Internet.

The Probate Court project began in January 1998 when students in a Senior Design class in the College of Computing needed to complete a project including the definition, design, implementation, testing and documentation of a significant software system. This capstone course integrates and applies the computing knowledge seniors have gained throughout their studies to a real-world project with real customers.

Most of the students devoted many hours beyond what is usually required for a Senior Design project, and many graduated with great jobs in hand, partly due to the hands-on experience of working on this project.

"The Probate Court project was intensive but a great way to put all my classes together in one project," said Chris Monahan, 1999 graduate currently working in Microstrategy.

Leo Mark, associate professor in the College of Computing, and Lisa Sills, senior research scientist in the Georgia Tech Research Institute (GTRI), collaborated to have the court project become the senior project for Mark’s class. Sills has been the program manager for the Georgia Courts program since its inception in May 1996. The Georgia Courts Automation Commission (GCAC) funds the Georgia Courts Program. Georgia Tech has worked with GCAC since 1996 to create a computer system for the Superior Court.

The Probate Court project integrates a Web-based interface with a database, is designed for scalability, and supports 55 standard forms used by the Probate Court in Georgia. Also, Sills and Mark say it is the only online probate court system in the nation. Most of the systems that they have seen consist of forms that can be downloaded, but not completed and submitted online. In addition, attorneys' offices routinely use CD-ROMs containing the forms, but new CD's must be purchased each time a form changes, which is frequent.

"The Probate system is quite a large system using the most advanced technology," said Mark. "I am pleased with how my students were able to deliver such a large, complex project. Traditionally, the students in this class complete small projects for internal campus clients. This undertaking raised the bar substantially."

Due to the need for confidentiality and security, the Probate forms completed online must be filled out in one session and submitted. A system that would allow visitors to complete part of a form at a time would require much higher security measures such as individual passwords, said Mark.

Judge Floyd Propst of the Fulton County Probate Court acted as the primary client contact from the Probate Court. He reviewed templates, suggested changes, and provided the student teams with the information and feedback they needed, Mark said.

"I am very pleased with the end-result of this project," said Propst. "The students were great to work with. This system will definitely help Fulton County's Probate Court increase its efficiency, and I’m glad other counties will be participating as well," he said.

GCAC provides the file server hosting the Probate Court Web site. The Court will have the ongoing expense of maintaining and backing up the new system. Sills next hopes to undertake a computer system for the Magistrate Court that she anticipates will have many characteristics similar to the Probate Court project.

To see the Georgia Probate Court Web site, go to www.gaprobate.org.
Courses/Workshops

June 18

Defensive Driving, 8:30 a.m. - 3:30 p.m., Coliseum Annex, Rm. 302. $10. For a registration form, e-mail wamsley.dennis@success.gatech.edu or see the Web, at www.driving.gatech.edu. Complete the registration form and fax it to Wamsley Dennis at 894-2666.

July 23, 24

Diversity Training Workshops, sponsored by the Office of Diversity Initiatives and Programs and the Office of Equal Opportunity/Disability Programs. Workshops are limited to 40 participants. 9 a.m. - 5 p.m., Student Center, Rm. 343. Contact: Stephanie Ray, 894-6167 or stephanie.ray@vps.gatech.edu.

Miscellaneous

June 12

1999 Spring Quarter Commencement. Speaker: Gov. Roy Barnes. 9 a.m., Alexander Memorial Coliseum. For more information, contact Aimee Anderson, 894-7613, or see www.gatech.edu/tech/home/commencement.

June 20

Hunger Banquet, hosted by the Campus Outreach Opportunity League and Oxford International and held in conjunction with the Forum on Service Learning. The banquet shows what and how the world really eats. Volunteers are needed to help plan and organize the event immediately. Volunteers are also needed on the day of the event, 5 - 9 p.m., Student Center Ballroom. Contact: David Prophitt, dprophitt@handsonatlanta.com or 872-2252, ext. 46.

For sale: Home in Morningside, renovated, 3,400 sq. ft., 3BR, 2BA, office, finished, new furnace, water heaters. Across from park, 5 min to Tech. Asking $450K. Call Patrick, 894-6894; or Susan Schlietz, 874-6157.

Professional female seeks female roommate. 2 BR, 2 1/2 BA townhouse, Clairmont Rd. Covered parking, tennis/pool community. $450/month + utilities. Call 326-7475.


For sale: Eatonon, 13-20, lakefront, 4 1/2 BR, 2 1/2 BA, LR/DR combo, fireplace, dock, 0.91 acres, fabricated home. $100,100. Call Warren Harper, 404-305-8460.

For sale: Int'1 time share, mainhouse, Freeport, Bahamas. $2,500 (can be financed). Call Warren Harper, 404-305-8460.

For sale: Contemporary home, Lilbum, off Hagood Rd., 0.91 acres, fabricated home. $101,000. Call Warren Harper, 404-305-8460.

For sale: Home in Morningside, renovated, 3,400 sq. ft., 3BR, 2BA, office, finished, new furnace, water heaters. Across from park, 5 min to Tech. Asking $450K. Call Patrick, 894-6894; or Susan Schlietz, 874-6157.

Professional female seeks female roommate. 2 BR, 2 1/2 BA townhouse, Clairmont Rd. Covered parking, tennis/pool community. $450/month + utilities. Call 326-7475.


For sale: Eatonon, 13-20, lakefront, 4 1/2 BR, 2 1/2 BA, LR/DR combo, fireplace, dock, 0.91 acres, fabricated home. $100,100. Call Warren Harper, 404-305-8460.

For sale: Int'1 time share, mainhouse, Freeport, Bahamas. $2,500 (can be financed). Call Warren Harper, 404-305-8460.

For sale: Contemporary home, Lilbum, off Hagood Rd., 0.91 acres, fabricated home. $101,000. Call Warren Harper, 404-305-8460.

For sale: Home in Morningside, renovated, 3,400 sq. ft., 3BR, 2BA, office, finished, new furnace, water heaters. Across from park, 5 min to Tech. Asking $450K. Call Patrick, 894-6894; or Susan Schlietz, 874-6157.

Professional female seeks female roommate. 2 BR, 2 1/2 BA townhouse, Clairmont Rd. Covered parking, tennis/pool community. $450/month + utilities. Call 326-7475.


For sale: Eatonon, 13-20, lakefront, 4 1/2 BR, 2 1/2 BA, LR/DR combo, fireplace, dock, 0.91 acres, fabricated home. $100,100. Call Warren Harper, 404-305-8460.

For sale: Int'1 time share, mainhouse, Freeport, Bahamas. $2,500 (can be financed). Call Warren Harper, 404-305-8460.

For sale: Contemporary home, Lilbum, off Hagood Rd., 0.91 acres, fabricated home. $101,000. Call Warren Harper, 404-305-8460.