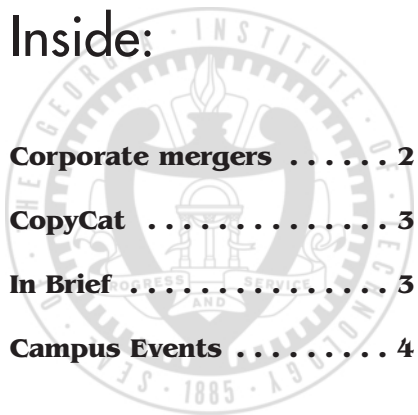


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THE WHISTLE

FACULTY/STAFF NEWSPAPER

Volume 30, Number 27 • October 31, 2005

THE GEORGIA INSTITUTE OF TECHNOLOGY



Bozeman



Foley



Gole



Liotta



Pearson



Webster

AAAS taps six Tech faculty

Michael Hagearty
Institute Communications
and Public Affairs

A diverse group of faculty have been recognized for their professional contributions by the world's largest scientific society.

Last week, the American Association for the Advancement of Science (AAAS) named six Georgia Tech faculty among the 376 newly appointed AAAS fellows, bringing the total number of Tech faculty who have been awarded this distinction to 38.

Election as a fellow is an honor bestowed upon AAAS members by their peers. AAAS Steering Groups hold sway over nominations in 24 academic categories. Each of Tech's faculty member were tapped from a different section: Bozeman from Societal Impacts of Science and

Engineering; Foley from Information, Computing and Communications; Gole from Chemistry; Liotta from Industrial Science and Technology; Pearson from Social, Economic and Political Science; and Webster from Atmospheric and Hydrospheric Sciences. (Official citations, below).

Each year, AAAS elevates individuals to the rank of Fellow in recognition of their efforts toward advancing science applications that are deemed scientifically or socially distinguished. New fellows will be presented with an official certificate and a rosette pin at the Fellows Forum during the 2006 AAAS Annual Meeting in St. Louis.

For more information...

**American Association for the
Advancement of Science**
www.aaas.org

Summer session opened to incoming freshmen

Rashida Syed
Institute Communications
and Public Affairs

While many graduating high school seniors will be enjoying their last summer before college with vacations or working summer jobs, 200 incoming freshman will be making the most of their time in a different way — by enrolling early at Georgia Tech.

A number of departments on campus, including Undergraduate Studies and Academic Affairs, Enrollment Services, Student Affairs, Admissions, Housing and the Registrar's office are now zeroing in on the details of a program that will allow freshmen to begin taking core classes and living in residence halls one semester earlier than they would have normally.

According to Vice Provost of Undergraduate Studies and Academic Affairs Andy Smith, this is an opportunity that will serve two different types of students well.

"We want to be able to have freshmen who would like to start early come in in the summer and be ready for the fall. So they might come in, for example, if they are a student who is accepted to Georgia Tech, but maybe they are on the lower end of

the acceptance scale. These students could come in and take a pre-calculus class, or they could take one or two classes that would give them a head start on what they would need during the regular year. Also, it would allow the very good students to come in and take a class and get started early."

The criteria for admittance into the program is still being finalized, but Smith says some students may be asked to participate in the program as a condition of acceptance, and some will be able to volunteer for the program.

The final list of courses that will be open is still being developed, but most will be offered in Ivan Allen College and the College of Sciences, who have agreed to offer the short summer sessions. Each of the courses offered in this program will be blocked so freshmen are guaranteed to get in.

One class being planned is a bridge chemistry class, which will allow freshmen to participate in lectures during the summer and continue the class during the fall semester with laboratories — giving the students an extra seven weeks to

Summer continued, page 3

2005 AAAS Fellows

Public Policy Regents' Professor **Barry Bozeman**, for distinguished contributions to scholarship, teaching and mentoring in science and technology policy, particularly for research in evaluating the societal implications of research.

Computing Professor **James Foley**, for early contributions to the fields of computer graphics and user interfaces.

Physics Professor **James Gole**, for fundamental studies at the interface of chemistry, physics, and materials science in high-temperature molecules, laser spectroscopy, sensors, porous silicon and nanotechnology.

Chemistry Regents' Professor, Vice Provost for Research and Dean of Graduate Studies **Charles Liotta**, for distinguished contributions to the field of physical organic chemistry and for outstanding leadership and vision in enhancing academic and industrial research partnerships.

History, Technology and Society Professor and Chair **Willie Pearson Jr.**, for distinguished contributions to the scholarship of diversity in science and for promotion of broadened participation of underserved populations in the sciences.

Earth and Atmospheric Sciences and Civil and Environmental Engineering Professor **Peter Webster**, for outstanding scientific discoveries of the coupled ocean-atmosphere system and for superior scientific and organizational leadership of international field campaigns.

Homecoming 2005: A Nightmare on Techwood Drive

A student's garb doesn't survive the slip-and-slide portion of last week's Halloween costume contest, one of several competitions between student groups that took place as part of Homecoming Week festivities.

After being judged by a panel of three staff members, each entrant took two turns along the slippery track, earning additional points for distance and style.



QUOTE UNQUOTE

"It is not that global warming is causing the hurricanes, it's modifying the hurricanes. Forming hurricanes over warmer sea surface temperatures is like increasing the octane in your car."

—Peter Webster, professor in the School of Earth and Atmospheric Sciences, on how the rise of global mean temperatures create more violent storm cycles.
(Gannett News Service)

"Many employers view my online degree as worth less than a traditional degree ... Until [they] know more about what it takes to succeed in an online program, the stigma will remain."

—Karen Glover, an assistant department head in the Library and Information Center, who earned her master's degree through Florida State University's online program.
(Library Journal)

Regents propose performance-based funding model

The number of students graduating and retained annually by University System of Georgia (USG) institutions soon will take on even greater significance, as part of a proposed change in the way the state's public colleges and universities are funded.

The new "performance-based funding model" was announced during the Board of Regents' October meeting as part of the System's response to Gov. Sonny Perdue's charge to all state agencies to increase accountability.

In the presentation to the regents, Senior Vice Chancellor for Academics and Fiscal Affairs Daniel Papp and Vice Chancellor for Fiscal Affairs William Bowes outlined the principles, process and method by which a percentage of the System's annual budget request will be determined on the proposed performance model.

Using current University System performance as a baseline measure, the proposed model calls for significant improvements in retention, progression and graduation rates for all System institutions through 2015, as

well as increases in externally funded research and continuing education enrollment.

Under the proposed model, a goal has been set to increase retention rates from the current rate of 75.3 percent to 85 percent. Goals also include increasing the pass rate on the Regents' Test from 78.4 percent to 88 percent, and the University System's institutional six-year graduation rate from 46.7 percent to 57 percent. These targets equate to annual improvement rates of one percent in each of the three categories.

"One percent per year initially may not sound like much," said Papp. "But over the past seven years, national graduation rates have not changed by more than 1 percent to 1.5 percent. We are setting very ambitious goals for the University System." Meeting the goals on six-year graduation rates would move Georgia from 42nd to 18th nationally, he noted.

Under the new model, University System officials propose aligning approximately \$3 million in funds earned through student enrollment

increases to annual targets in these key performance measures. Should the institutions meet 81 to 85 percent of the annual targets, the System would earn the \$3 million in its annual allocations from the General Assembly. Should it fall below or surpass the target goals, the System would receive less or more than the \$3 million.

"For example, if we failed to meet at least 70 percent of our annual targets, we would lose \$3 million; but if we hit 100 percent of our goals, we could potentially earn a total of \$6 million, according to this model," said Bowes. "If adopted, this model could lead to more significant changes in the way the University System is funded in the future."

The proposed performance funding model will be presented to the Governor's Office of Planning and Budget and the General Assembly for further discussion and finalization. Papp said current plans are to implement the new model with the Fiscal Year 2007 budget.

In cross-border corporate mergers, national culture has a role

Brad Dixon
College of Management

Culture clashes are an expected consequence when companies from different countries merge. But contrary to conventional wisdom, cross-border mergers and acquisitions tend to be most successful long-term, when the cultural divide between nations is wide, according to a new study by researchers in the College of Management.

"Mergers and acquisitions involving firms from countries with dissimilar cultures, on average, do better than those between firms from countries with similar cultures," write Georgia Tech professors Rajesh Chakrabarti and Narayanan Jayaraman and doctoral student Swastika Mukherjee in the study "Mars-Venus Marriages: Culture and Cross-Border M&A."

According to the study, which examined 405 cross-border mergers and acquisitions from 1991 to 2000 involving acquiring companies from 34 countries and target firms in 37 countries, greater cultural disparity can be beneficial due to:

- lower likelihood of acquisitions motivated by hubris;
- greater autonomy granted to acquired firms in distant cultural locations;
- better screening, contracting, and due-diligence during the deal-making process; and
- diverse organizational strengths

leading to performance-enhancing synergies.

Mergers and acquisitions rarely deliver their promised benefits, often resulting in long-term under-performance. But researchers found that greater cultural disparity between merging firms seems to lessen detrimental effects.

Despite their risks, mergers and acquisitions are becoming increasingly common events as a result of rapid globalization. American companies conducted nearly \$4 trillion worth of acquisitions between 1998 and 2000 — more than in the previous 30 years combined. Twenty percent of those acquisitions were cross-border.

The researchers point to General Electric's acquisition of the Hungarian light-bulb maker Tungram in 1989 as an example of a cross-border merger fraught with difficulty. Individualism and individual responsibility defined GE's culture but not that of Tungram, reportedly drawing out the latter's assimilation by several years. Problems also plagued the merger of Michigan-based Upjohn and Sweden's Pharmacia B in 1995, with the former firm used to a more hierarchical structure. Their differences appear to have stemmed not only from corporate-level practices, but also from national cultural traits, the researchers note.

"While corporate culture may be extremely difficult to measure, there exist widely accepted metrics of national culture," they say. "It is

important to reiterate that we focus on national culture as opposed to corporate culture in our study."

The study measured national cultural differences using not only language, religion and corporate governance systems, but also widely accepted measures developed by Geert Hofstede in his landmark book on international management, "Culture's Consequences: International Differences in Work-Related Values." Hofstede's measures include power distance (the degree of inequality between people in a country), individualism (the extent to which society emphasizes individual achievements over collective ones), masculinity (how much society reinforces the traditional model of male power in the workplace) and uncertainty avoidance (societal attitudes toward ambiguity and unstructured situations).

In the study sample, Australia and the United States proved to have the most similar cultures, while New Zealand and Malaysia had the most disparate. The study also found evidence that acquisitions go better when acquiring companies are from countries with stronger corporate-governance systems than the target firms.

For more information...

College of Management
www.mgt.gatech.edu



THE WHISTLE

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Institute Communications and Public Affairs
Wardlaw Center
177 North Avenue
Atlanta, Georgia 30332-0181

Georgia Tech is a unit of the University System of Georgia.

Computing partnership creates sign language tutor

Joy Weeks
College of Computing

Researchers in the College of Computing at Georgia Tech have developed technology, in partnership with the Atlanta Area School for the Deaf (AASD), to help hearing-impaired children improve their language development. The CopyCat project is an instructive computer game that uses a virtual sign language tutor to augment the classroom experience for hearing-impaired children.

Funded in part by the National Science Foundation and the U.S. Department of Education's National Institute on Disability and Rehabilitation Research, CopyCat enables hearing-impaired children to interact with and sign to on-screen characters, while improving their communication skills. Results from fourth and fifth grade students at AASD already suggest CopyCat is a powerful tool for enhancing the communication skills of hearing-impaired children.

"By encouraging deaf children to practice signing in complete thoughts and ideas, this project has proved to be a great use of computing technology," says Thad Starner, an assistant professor in the College of Computing.

Early childhood is a critical period for language acquisition, and exposure to language is key to linguistic development. However, since 90 percent of deaf children are born to hearing parents who do not know or have low levels of proficiency in sign language, a hearing-impaired child's only exposure to sign language is often at school. In addition, American Sign Language (ASL) is a distinct language from English, involving a significantly different grammar and lexicon. This limited exposure slows the pace of their linguistic development.

"The effects of late linguistic development for hearing-impaired children can lead to a lifetime of difficulty, hindering their ability to communicate with people, including their own family members, on a daily basis," said Harley Hamilton, educational technology specialist at AASD. "While using CopyCat, the children display noticeable increases in enthusiasm, focus and fluent signing. The computer provides a patient, skilled, communicative partner for the children anytime they choose, and that level of interaction is invaluable."

CopyCat's interface was designed by doctoral candidates Seungyon Lee and Valerie Henderson in collaboration with Hamilton, while Starner, postdoctoral fellow Kwang-Hyun Park and doctoral student Helene Brashear refined the sign language recognition system.

Using a video camera and wrist-mounted sensors, the user and the character of the game, Iris



Doctoral candidate Seungyon Lee demonstrates the CopyCat program, a pilot project developed in coordination with the Atlanta Area School for the Deaf.

the cat, communicate with ASL. The game is designed with a limited, age-appropriate phrase set. For example, the child will sign to Iris, "you go play balloon." If the child signs poorly, Iris looks puzzled, and the child is encouraged to attempt the phrase again. If the child signs clearly, Iris frolics and plays with a red balloon.

If the child cannot remember the correct phrase to direct Iris, she can click on a button bearing the picture of the object with which she would like Iris to play. The system shows a short video with a teacher demonstrating the correct ASL phrase. The child can then mimic the teacher to communicate with Iris. In the current game, there are eight phrases per level, and the child must correctly sign each phrase before moving on to the next level.

For more information...

Seungyon Lee
steel.lcc.gatech.edu/~slee

Summer, cont'd from page 1

complete freshman chemistry.

Registrar Reta Pikowsky is now forming an operational committee that will iron out the details relating to admission, registration, curriculum, financial aid, housing and more. The committee will be made up of members from each of the offices and departments that will be involved.

Now that the summer session for freshman has been decided upon, Pikowsky is anxious to keep the ball rolling.

"The sooner we meet, the better. We want to make sure we invite everybody who will be impacted, because we want to make sure we ask

all the right questions, and that we're ready to go and all the pieces of the puzzle are in place," she said.

Freshman in the program will live in residence halls and will be required to participate in the Freshman Experience program. And Smith promises all the services that would be offered to them in the fall — dining, tutoring, advising and GT 1000 — will be available during the summer session.

"I hope we make some moves that will increase the success of our freshman students," Smith said. "I believe that having a summer session that freshman can attend actually serves to give them a head start and allows them to be more successful than in the past."

IN BRIEF:

Open enrollment closes this week

Benefits-eligible employees must complete any changes to their 2006 benefits options before Friday, Nov. 4. No action is required unless you wish to change your benefit coverage and/or enroll in a flexible spending account (FSA). Sign in to TechWorks and click on the "Access Open Enrollment" link to enter the Open Enrollment system and submit 2006 benefit elections. For more information, visit www.techworks.gatech.edu.

Dept. of Energy grant partners Clark Atlanta, Tech

On Oct. 20, U.S. Senators Saxby Chambliss and Johnny Isakson announced a \$375,000 grant from the U.S. Department of Energy to Clark Atlanta University and Georgia Tech to establish a collaborative nuclear engineering program.

The partnership will provide new opportunities in nuclear science and engineering for undergraduate students at Clark Atlanta University.

The grant, awarded over three years through a competitive peer review process, will help Clark Atlanta establish an undergraduate minor in nuclear engineering. It will also allow several outstanding Clark Atlanta students to enroll in the master's and doctoral programs at Georgia Tech.

Tech rated among 'fittest' colleges

Men's Fitness magazine and the Princeton Review have ranked Georgia Tech as the 14th fittest college in America. The ranking is based on Princeton Review's 18-question survey of the fitness and dietary habits of college students across the country. The survey tallied information on the students' height and weight, how much weight they had gained since college, amount of exercise, fast food consumption, as well as the colleges' fitness requirements and general promotion of physical activity.

Food drive

Institute Partnerships will launch its Annual Food Drive beginning Nov. 1 until Dec. 16. Canned goods, dry goods and other non-perishables will be welcome contributions to the English Avenue Community Resource Center.

Donations can be made at the Wardlaw Center, or call 894-5187 to arrange a pick up.

Men's basketball tickets sold out

For the second straight year, the Georgia Tech basketball season is a complete sellout as Tech has sold the entire allotment of season tickets for the 16-game home slate at Alexander Memorial Coliseum.

Following an exhibition game against Augusta State on Nov. 6, Tech opens the regular season with a Nov. 18 home game against UNC-Asheville as Paul Hewitt's Yellow Jackets look to earn their third straight NCAA Tournament berth.

CAMPUS EVENTS

Art & Culture

Oct. 24 - Nov. 9

The School of Literature, Communication and Culture and the School of Modern Languages co-sponsor an international film series. For titles and times, visit www.film.gatech.edu/series.htm.

Nov. 4-5

DramaTech Theatre performs its fall musical, "West Side Story," at 8 p.m. Additional performances will be held Nov. 9-12 and 17-19. For more information, visit www.dramatech.org.

Nov. 11

The Ferst Center welcomes singer and artist Laurie Anderson for an 8 p.m. performance. For tickets and information, visit www.ferstcenter.org or call 894-9600.

Brown Bags/Conferences/Lectures

Nov. 1

The Healthy Places Research Group is hosting a presentation on "Physical Activity, Health and the Built Environment" by Bill Kohl of the U.S. Centers for Disease Control and Prevention at 7:30 a.m. in Emory University's Rollins School of Public Health. For more information, visit www.coa.gatech.edu/cqgrd/projects.htm.

Nov. 3

The annual Gegenheimer Lecture on Innovation will be delivered by University of Toronto Professor James DeLaurier, who will speak about "Development of a Full-Scale Flapping Wing Aircraft," at 3:30 p.m. in the Van Leer Auditorium.

Nov. 8

Mechanical Engineering Professor Peter Hesketh is the featured speaker for the monthly Nano@Tech

Volunteer Group, held at noon in room 102A of the Microelectronics Research Center. He will discuss "Microfabricated Electromechanical Valves for Miniature Fluidic Systems — Nanowire Alignment and Miniature Gas Chromatographs." To register, e-mail paul.turgeon@mirc.gatech.edu or call Diana Palma at 894-1541.

Nov. 8

The Materials Council Seminar Series continues with M.I.T. Professor Mounqi Bawendi on "Semiconductor Nanocrystals: Science and Applications," at 3 p.m. in room 185, Love Building.

Nov. 9

GT ADVANCE and the Center for the Study of Women, Science, and Technology present "Advice from Successful GT Women," a cross-college lunch and panel discussion, at noon in the Student Center Collons. Lunch is provided. To attend, e-mail angela.shartar@oars.gatech.edu

Nov. 15

The Materials Council Seminar Series continues with University of Texas at Dallas Professor Bruce Gnade on "Materials and Processes for Flexible Electronics," at 3 p.m. in room 185, Love Building.

Faculty/Staff Development

Nov. 3

The Office of Organizational Development hosts a training class in "Proofreading Made Easy," in room 308, Savant Building. To register, visit www.trainsweb.gatech.edu.

Nov. 9

The Office of Sponsored Programs hosts a workshop on "Intellectual Property and Tech Transfer," from 10 a.m. - noon. To register, call 894-6944.

Nov. 16

The Office of Organizational Development sponsors a free brown bag featuring former athletic director Homer Rice on "Leadership Fitness: Developing and Reinforcing Successful, Positive Leaders," in room 308, Savant Building. To register, visit www.trainsweb.gatech.edu.

Nov. 17

The Center for the Enhancement of Teaching and Learning's Faculty Development Series continues with "Enhancing Teaching throughout the Faculty Career at Georgia Tech," at 11 a.m. in the Library's Wilby Room. Lunch is provided to those who register by e-mail to clint.lyle@cetl.gatech.edu.

Miscellaneous

Nov. 2-3

A representative from TIAA-CREF will be on campus to conduct one-on-one financial counseling sessions. To schedule an appointment, call 800-842-2003 or visit www.tiaa-cref.org/moc.

Nov. 14 - Dec. 19

The annual Georgia Tech Best Practices Challenge begins. Applications will be accepted from Nov. 14 until Dec. 19. For information on criteria, awards and entry forms visit www.orgdev.gatech.edu/bp or call 894-1065.

Nov. 15

The deadline to submit Fall semester applications for both the TAP and STRAP tuition assistance programs. Send applications to Kimberly Porter in the Office of Organizational Development, mailcode 0206. For more information, call 894-2249 or visit www.orgdev.gatech.edu/tuition.

E-mail calendar events to editor@icpa.gatech.edu.

C L A S S I F I E D S

AUTOMOBILES

1990 Toyota 4-Runner. Excellent condition, 199K miles, 6-cylinder engine, 4WD fully loaded. \$3,500. E-mail mark.sanders@gmail.com or call 404-373-7100. Pictures available. Great first vehicle for your child.

2000 Volkswagen Passat. Only 59K miles; front & side air bags, automatic, CD changer, a/c, anti-lock brakes, heated seats, black with tan leather, power steering/windows/locks, alarm, moonroof. \$10,780. E-mail william.borland@gtri.gatech.edu.

2001 Ford Taurus four-door sedan, all power. Radio and CD player, 40K miles, \$7,500. Call H. T. Marshall at 404-377-6662 or e-mail htmarshall@earthlink.net.

2004 Nissan Murano SL. Copper exterior, charcoal interior, 26K miles, air bags ABS, 6-disc CD, sunroof, Xtronic CV transmission, 20+ mpg, excellent condition, \$24,995. E-mail sabrebiker@sprintpcs.com or call Sean, 678-895-8096.

COMPUTERS

IBM Thinkpad42. Like new, still under warranty. 512MB RAM, 30GB hard drive, Mobile Centrino technology. \$950 OBO, \$400 less than regular price. Call 770-630-2727.

FURNITURE

Six-piece entertainment unit from the Bombay Company. Cherry finish, mint condition. Pieces can work together or separately. A \$2,800 value for \$750. E-mail lg113@mail.gatech.edu for pictures or call 404-869-9842.

Oval, solid cherry Queen Anne dining table w/2 leaves & 6 upholstered chairs. Overall excellent condition; table top in fair shape; one chair seat needs replacing. \$700 for all. Call 894-3113.

Solid oak, roll-top desk. Original price \$400. Asking \$200, negotiable. E-mail clint.lyle@cetl.gatech.edu for a picture.

REAL ESTATE/ROOMMATES

1BR/1BA Brookhaven condo in quiet but well-connected neighborhood. 10 minutes to Tech, gas fireplace, newly remodeled kitchen/bath,

W/D, off-street parking, balcony with lake view. \$120,000 or \$900/month starting January. E-mail annie.pearce@gtri.gatech.edu.

2BR/2BA newly renovated contemporary condo in walking distance of Tech. High-end Grohe kitchen and bath, low fees, lots of light, lots of storage, \$179,900. E-mail tyanna.herrington@lcc.gatech.edu.

1BR/1BA apartment, 950 square feet. Central air, includes wash/dryer and water. All electric, average bill \$75. One block from Georgia Tech bus, MARTA and Piedmont Park. Call 404-668-7220.

SPORTS/FITNESS/RECREATION

Transfirmer series exercise regimen. Brand new, includes step, 5 instructional DVDs, vitamins and results booklet. \$56 OBO. For more information, see www.firmedirect.com. Call 385-2354.

Weider Universal Gym with weight bar, free weights and all attachments. \$50 OBO. I want this out of my house. Call 404-484-3298 leave message.

MISCELLANEOUS

Baby clothes for sale. Boys, mostly 18-24 mos. For pictures and prices, go to www.coa.gatech.edu/jtc.

Truck bed tool box. Fits small Ford truck. Practically new and in excellent condition. Originally paid more than \$200; sell for \$100. Call Carol York at 894-8040.

Complete set of "Sports Illustrated" magazine covering 1980-present. Best offer. Call 770-428-8823.

Nikon FM10 with zoom lens and case, like new, \$180. Nikon F3 with 50mm lens, \$210. Many other photo items also for sale. E-mail jim.cook@gtri.gatech.edu or call 894-2455.

Free yellow jacket nest removal, to be used for research at Georgia Tech. Call 385-6311 or e-mail mg225@mail.gatech.edu.

E-mail ads to editor@icpa.gatech.edu.