Scholarship effort to support students of Cuban descent

Dan Treadaway
Institute Communications and Public Affairs

Georgia Tech is widely recognized as one of the most globally engaged universities in the world, with a large proportion of international students studying at the main Atlanta campus as well as three international campuses in Europe and Asia. This wasn’t always the case. The Institute began making efforts to internationalize the student body in the 1950s and 1960s, and Cuban students initially played an important role in that process. "Many leading companies had locations in Cuba in the 1940s and 1950s, and there was a lot of Georgia Tech influence throughout Cuba," said Juan Michelen, an alumnus and native of Cuba who now resides in Key Biscayne, Florida. "Georgia Tech was a household name in Cuba, and the Institute helped build the country’s economy.”

Michelen and his fellow Cuban American alumni want Georgia Tech to be a household name in Cuba in the future for playing a leading role in rebuilding the country’s infrastructure after years of neglect and extreme economic hardship. The alumni group established a holding fund to provide low-interest educational loans to students of Cuban descent living outside of Cuba for the purpose of attending Georgia Tech. This fund ultimately developed into a full-fledged scholarship initiative dubbed "Reconstructing the Bridge.”

The long-term goal of the program is to have students who benefit from the Scholarship effort to support students of Cuban descent continued, page 3

Sustainability and stewardship underscore Think Green Week

Melissa Moore
Auxiliary Services

In 1998, Georgia Tech held its first Earth Day celebration with a few booths along Skiles Walkway to remind the campus community to conserve and recycle.

Friday, April 20 will mark the 10th annual Georgia Tech Earth Day celebration, involving more than 60 organizations from government and industry, providing information and activities centered on humankind’s environmental impact. It will also be part of a larger, weeklong focus on environmental sustainability and stewardship. Called Think Green Week, the series of events will offer the campus community a variety of educational and enjoyable events designed to raise social consciousness about environmental issues.

"When we started planning this year’s Earth Day, we realized there were other Georgia Tech departments and organizations also planning environmentally conscious events,” said Cindy Jackson, manager of the Institute’s solid waste management and recycling program and Earth Day coordinator.

Events scheduled between April 14 and 21 include a bluegrass music festival, a sustainability workshop and Tech Beautification Day.

For Earth Day, Jackson said, “Our theme this year is ‘Make a Commitment.’ We want people to be committed to recycling and conservation.”

Partnering with Atlanta Recycling Solutions, Tech will collect electronic devices including personal computer hard drives, computer monitors, cell phones, ink and toner cartridges, used batteries and more at eight collection sites around campus.

Green continued, page 3

Helping performance sounds carry to back row

Megan McRainey
Institute Communications and Public Affairs

As the ancient Greeks were placing the last few stones on the magnificent theater at Epidaurus in the fourth century B.C., they couldn’t have known that they had unwittingly created a sophisticated acoustic filter. But when audiences in the back row were able to hear music and voices with amazing clarity — well before any theater had the luxury of a sound system — the Greeks must have known that they had done something very right. They made many attempts to duplicate Epidaurus' design, but never with the same success.

Researchers at Georgia Tech have pinpointed the elusive factor that makes the ancient amphitheater an acoustic marvel. It’s not the slope or the wind — it’s the seats. The rows of limestone seats at Epidaurus form an efficient acoustics filter that hushes low-frequency background noises, such as the murmur of a crowd, and reflects the high-frequency noises of the performers on stage off the seats and back toward the seated audience member, carrying an actor’s voice all the way to the back rows of the theater.

The research, done by acoustician and ultrasonics expert Nico Declercq, an assistant professor in the School of Mechanical Engineering and Georgia Tech Lorraine in France, and Cindy Dekeyser, an engineer who is fascinated by the history of ancient Greece, appears in the April issue of the “Journal of the Acoustics Society of America.”

While many experts speculated on the theater continued, page 3
When the Whistle Blows: a remembrance ceremony

There is nothing that can replace the joy that a loved one or cherished friend brings to our lives. Each year the Georgia Tech community is deeply saddened by the loss of members of our own community.

On April 12, we will honor the memory of each student, faculty, and staff member who has died in the last year. Join us as we pay tribute to these individuals who have touched our lives and contributed to our community.

Thursday, April 12, 2007
6:00 P.M.
Tech Tower Lawn*

*Rain Location: Alumni House

When the Whistle Blows: a remembrance ceremony

Michael Hagearty
Institute Communications and Public Affairs

Georgia Tech’s Office of the Registrar is implementing a couple of new services that promise to empower students while simplifying the administrative process.

In doing so, the Registrar will expand its partnership with National Student Clearinghouse (NSC) to add the two additional services — EnrollmentVerify and DegreeVerify — as part of an effort to automate some of its administrative responsibilities.

The move will free its employees, who process thousands of information requests each year, to focus on other aspects of student service. A separate self-service component allows students to print enrollment certificates and view enrollment histories and verifications via the Web.

“We want the students to be aware of what’s available to them,” said Assistant Registrar Shawn Howson. “It’s also going to free up a lot of administrative time in our office, so we’ll be able to provide better customer service all around.”

NSC is a non-profit organization that provides services to source for post-secondary student degree, diploma, and enrollment verification. Each of its programs fulfill educational record requests while maintaining the security and privacy of records in compliance with the Family Educational Rights and Privacy Act (FERPA).

Since 1995, the Registrar has been using the NSC Core Service to provide enrollment data to lenders and to the U.S. Department of Education for students with loans. EnrollmentVerify will use the same data transmitted for the Core Service, while Degreeverify will require an additional data file regarding degrees awarded.

Since the Registrar already uses NSC for tracking other student data, Tech incurs no additional costs for adding these two additional services. Students will enjoy the self-service component free of charge, but external inquiries will require a small processing fee.

“I think the ultimate result will be greater efficiency, freeing us to direct our efforts in other areas that will improve our overall operations for the students,” Howson said. “We’re trying to streamline a lot of areas, and this is just one of them.”

New NSC services:

- EnrollmentVerify — manages commercial enrollment verification requests, such as those from health care companies, employers or scholarship providers.
- DegreeVerify — fully integrated with enrollment data, it provides a comprehensive view of a student’s academic achievements.

Registrar widens student access to academic records

Georgia Tech and the School of Physics welcome Klaus von Klitzing, 1985 Nobel Laureate in Physics, for a campus visit as part of the Honeywell-Nobel Initiative, designed to connect students across the globe with Nobel Prize winners in chemistry and physics.

On Thursday, April 12, von Klitzing will deliver a lecture entitled “Micro- to Nanoelectronics,” an overview of physics, technology and the application of semiconductor quantum structures and a discussion of some of the recent research activities undertaken by his group in this field.

Named in honor of his discovery of the Quantum Hall Effect, the von Klitzing constant describes a phenomenon exhibited by certain semiconductor devices at low temperatures and high magnetic fields. It is listed on The National Institute of Standards and Technology Reference on Constants, Units and Uncertainty.

The significance of von Klitzing’s discovery, made in 1980, was immediately recognized. His experiments enabled other scientists to study the conducting properties of electronic components with extraordinary precision.

Today, von Klitzing’s research focuses on the properties of low dimensional electronic systems, typically in low temperatures and in high magnetic fields.

“It’s an honor to welcome Dr. von Klitzing to our campus,” said Mei-Yin Chou, chair of the School of Physics. “His discovery of the quantized Hall Effect has allowed for the definition of a new practical standard for electrical resistance. I know his presence and presentations will be inspiring for both our students and faculty.”

Honeywell Nobel Laureate Lecture
Klaus von Klitzing, 11 a.m.
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The possible causes for Epidaurus’ acoustics, few guessed that the seats themselves were the secret of its acoustics success. There were theories that the site’s wind — which blows primarily from the sea to the audience — was the cause, while others credited masks that may have acted as primitive loudspeakers or the rhythm of Greek speech. Other more technical theories took into account the slope of the seat rows.

When Declercq set out to solve the acoustic mystery, he too had the wrong idea about how Epidaurus carries performance sounds so well. He suspected that the corrugated, or ridged, material of the theater’s limestone structure was acting as a filter for sound waves at certain frequencies, but he didn’t anticipate how well it was controlling background noise.

“When I first tackled this problem, I thought that the effect of the splendid acoustics was due to surface waves climbing the theater with almost no damping,” Declercq said. “While the voices of the performers were being carried, I didn’t anticipate that the low frequencies of speech were also filtered out to some extent.”

But as Declercq’s team experimented with ultrasonic waves and numerical simulations of the theater’s acoustics, they discovered that frequencies up to 500 hertz were muted while frequencies above 500 hertz were allowed to ring out.

The corrugated surface of the seats was creating an effect similar to the ridged acoustics padding on walls or insulation in a parking garage. So how did the audience hear the lower frequencies of an actor’s voice if they were being suppressed with other background low frequencies? There’s a simple answer, said Declercq. The human brain is capable of reconstructing the missing frequencies through a phenomenon called virtual pitch. Virtual pitch helps us appreciate the incomplete sound coming from small loudspeakers as in a laptop or a telephone, even though the bass frequencies aren’t generated.

The Greeks’ misunderstanding about the role the limestone seats played in Epidaurus’ acoustics likely kept them from being able to duplicate the effect. Later theaters included different bench and seat materials, including wood, which may have played a large role in the gradual abandonment of Epidaurus’ design over the years by the Greeks and Romans, Declercq said.

For more information...
WWW.WHISTLE.GATECH.EDU

Lunchtime theater
Faculty and staff are invited to abbreviated performances of DramaTech’s latest production, “An Enemy of the People,” at 11 a.m. on April 12 and 17 in the Library’s East Commons. Arthur Miller adapted the Henrik Ibsen play, which centers on a man who discovers a problem with the town’s water, yet is rebuffed by the authorities, who ignore the danger instead of trying to remedy the situation. Suddenly, the man is at odds with his entire town, who would prefer ignorance.

DramaTech will hold complete performances in its Dean James Dull Theater at 8 p.m. April 15-16 and 18-21. For more information, visit www.dramatech.org or call 894-2745.

IN BRIEF:
GTPAC helps state win $1B in government contracts
Georgia Tech’s Procurement Assistance Center (GTPAC) helped Georgia companies secure more than $1 billion in government contracts in 2006, besting its previous record by more than $350 million. According to the U.S. Defense Logistics Agency sponsoring the Center, that translates to 20,023 jobs created or saved in Georgia.

GTPAC — part of the Georgia Tech Enterprise Innovation Institute — provides assistance with government procurement to any company licensed to do business in Georgia. The Center assists companies in all aspects of federal, state and local government procurement processes, including solicitation analysis, proposal preparation, pre- and post-award counseling, and quality and accounting systems.

While several of these companies are large firms, most are small businesses in accordance with standards established by the Small Business Administration. Companies are eligible for GTPAC assistance if they are based in Georgia, have the potential to sell to the government, have e-mail or fax capability, and agree to complete a GTPAC client application, a quarterly report and an annual quality survey.

The previous best was 2004, when GTPAC-assisted companies won $648 million in contracts.

CNBC to film program at Tech
CNBC’s stock-picking show “Mad Money with Jim Cramer” will film at the College of Management on April 24 as part of the program’s college tour. Set to tape that afternoon in the College’s courtyard, the program will air at 6 p.m. and 11 p.m. Tech students interested in viewing the program live can request tickets directly from CNBC at www.cnbc.com/id/16577228 as well as submit questions there that they would like to ask Cramer on the show. Alumni and friends can request tickets by e-mail to madmoneyoncampus@cnbc.com.

This past year we ‘recycled’ more than $17,000 worth of office supply items from Georgia Tech departments,” Jackson said.

The fourth annual Environmental Leadership Award also will be presented at the Earth Day celebration to a member of the campus community who has shown a commitment to environmental issues.

Scholarship, cont’d from page 1
it go to Cuba when it becomes legally feasible and use the expertise they gained at the Institute to help rebuild the country’s infrastructure.

Former students would work in Cuba for a period of time equivalent to the time they were enrolled at Tech.

Louis Andrews is among the Cuban American alumni who are leading the effort to fund the scholarship initiative. Three of Andrews’ brothers are also Georgia Tech alumni. One of the three, Harry Andrews, is a principal research engineer at the Georgia Tech Research Institute.

“The Cuban American alumni feel that this is an absolutely critical effort,” says Andrews. “We hope this will attract more students of Cuban descent to Tech, allow them to focus sufficiently on their studies once they get here, and encourage them to go to Cuba when possible, because the country will desperately need their expertise.”

Ana Martin, MS CE 2005, would have been an ideal candidate for a ‘Reconstruyendo el Puente’ scholarship. Martin escaped Cuba on a raft in 1994 and returned to Cuba during the revolution with the hope of eventually returning to Georgia Tech, initially as a special student, then as a graduate student in civil engineering.

“My father was a student at Georgia Tech and returned to Cuba during the revolution with the idea that the government change would be only a brief period,” says Martin. “So my coming to Tech was really the fulfillment of his dream to finish up his degree. I think the alumni are doing a wonderful thing by starting the ‘Reconstruyendo el Puente’ scholarships. When I am in a position to do so, I too will contribute to this fund.”