Tech aims to take international education to the next level

Provost's office outlines plans for future growth to General Faculty and Academic Senate

Dan Treadaway
Institute Communications and Public Affairs

The state of international education at Georgia Tech is very good. Nationally, the Institute ranks 19th among research universities in the number of students participating in international activities such as study abroad and exchange. In 2001-02, 783 students participated in international activities, including faculty-led summer study abroad programs, exchange programs with foreign universities, international academic projects, international co-op and internship assignments, and non-Georgia Tech programs. Approximately 35 percent of Tech students participate in an internationally oriented academic activity before they graduate. This record represents a great deal of progress over the past few years, according to Howard Rollins, director of the Office of International Education (OIE). However, Rollins believes there is much potential for even more growth in the opportunities for international education that Tech offers to students. Rollins was joined by Provost Jean-Lou Chameau and Associate Provost Jack Lohmann at the Dec. 2 joint meeting of the Academic Senate and General Faculty, where they made a presentation on the state of international education at Tech and the administration’s plans for strengthening internationally focused academic offerings in the future.

“Globalization is happening very rapidly, like it or not,” said Chameau. “It’s very important for Georgia Tech to be in the game.” He pointed out that Tech is already in a good position. “There are very few scientific and technological universities in the United States that can claim as many as 35 percent of their students have some kind of international academic experience,” he said.

Chameau also said that Georgia Tech’s campuses in France and Singapore are distinctive ways of Tech’s campuses in France and technological universities in the world at large and is well placed to offer degree programs, courses, and academic and research partnerships with local universities. Similar programs are being considered for India, China, and Central and South America.

‘An operational plan’

In looking at how Tech moves beyond its current level of international academic activity, Lohmann announced that the Provost’s Office would sponsor a major retreat next spring that will “continue and deepen the conversation around international education with individual faculty and key faculty committees.” Lohmann said the specifics of the retreat format have not been finalized, but rather than a single retreat lasting for one or two days, there could be a series of mini-retreats held over a month.

Using the results of the retreat as a guide, Lohmann said, “We will articulate an operational plan, obtain the necessary approvals, seek funding and then take action. The intent of the retreat is to create an operational plan, not a strategic plan.” Increasing student participation in international academic activities to 50 percent has been part of the Institute’s strategic plan for several years.

In addition, Lohmann said the Institute is considering offering an international degree designation for undergraduates, similar to the existing cooperative plan designation. Students seeking the degree would be required to learn a foreign language; study, work or do research abroad for at least one semester; and study a core of designated global/international subjects. He said such a program could succeed if:

• Interested students are identified very early in their Tech careers,
• Effective academic advising is available,
• No more than nine hours of requirements are added to current degree requirements,
• Formal collaborations with select overseas partners are developed,
• The existing Internship Program is enhanced, and
• Technology-based learning via the Global Learning and Conference Center is used extensively.

Undergraduate Jia Xu named a Marshall Scholar

Aerospace engineering student Jia Xu hasn’t yet finished his degree, but that fact hasn’t prevented him from helping the U.S. Navy design the next generation of warships. As Georgia Tech’s newest Marshall scholar, Xu spent the past summer at the Naval Surface Warfare Center in Maryland helping the Navy use a technique developed at Tech in which architects build hundreds of ships in a computer and test them under a myriad of conditions.

Xu’s work with the Navy, along with his research at Tech and the University of Maryland, helped the 21-year-old senior become the third undergraduate student in four years to win the prestigious Marshall Scholarship.

“He has a great awareness of the world at large and is well placed to integrate his technical training with perspectives in international relations,” said P.K. Yeung, associate professor of aerospace engineering at Tech.

Xu (pronounced “zoo”) will use his scholarship to pursue a master’s in international relations at the London School of Economics and a master’s in aerospace engineering at Imperial College. Afterwards, he plans to pursue a doctorate in aerospace engineering followed by a career in the defense industry as both engineer and analyst.

He believes that supplementing his aerospace training with a degree in international relations will give him the right training for a career as a...
Climate questions send scientists to the bottom of the earth

Sean Selman
Institute Communications and Public Affairs

A mystery in the skies above Antarctica and the ice below its snow pack is the subject of a new scientific expedition being led this month by a team of investigators from Georgia Tech.

It is to be the first of two expeditions to the South Pole region that will provide data for the four-year, $1.8 million Antarctic Tropospheric Chemistry Investigation (ANTCI), a grant funded by the National Science Foundation’s Office of Polar Programs.

Ten other institutions are involved in the project, including scientists at the National Center for Atmospheric Research in Colorado plus contributions from researchers at the University of California, Irvine and NASA’s Langley Research Center in Virginia, among others.

This first ANTCI expedition runs Nov. 15 through Jan. 4, 2004. A second expedition is planned for 2005 or 2006.

“Antarctica is a land of mystery.”

But with these expeditions, we’re going to be probing some fundamental questions posed by science about the region,” said Professor Emeritus Doug Davis, ANTCI’s mission scientist and the project’s co-principal investigator, along with Principal Research Scientist Fred Eisele, both from the School of Earth and Atmospheric Sciences.

“In fact, we’re rewriting the book on atmospheric chemistry in Antarctica,” Davis said. “The data we’re collecting down there is changing our whole view of what’s happening in the atmosphere, and why.”

The broad goal of ANTCI is to gain a better understanding of the air above Antarctica. This includes measuring two major chemical families in the atmosphere and in the local environment — sulfur and nitrogen — and the oxidizing agents that affect their levels.

Sulfur is of interest because it is a major component of the atmosphere above Antarctica, and it can be transferred from the air to the snow, where it eventually ends up in the ice. When it appears in ice-core samples going back hundreds of years, it can be used to indicate major geophysical events from the past, such as volcanic eruptions or major climate changes.

What has been puzzling about this data is that it shows much higher levels of sulfur in the atmosphere over the polar plateau than scientists have been able to explain.

Back to the South Pole for answers

There are several reasons why they need to better understand the processes at work affecting these levels of sulfur and nitrogen in the atmosphere, Davis said.

Chief among them is that a better understanding of these two families of gases affects how scientists interpret ice-core samples, which in turn project global understanding of past atmospheres and, hence, climate and what might affect it today.

“The chemistry of the atmosphere is what interests us,” said Associate Professor Dave Tan, another member of the scientific expedition going to Antarctica this fall. “Previously, we thought that the Antarctic atmosphere was inert, but it turns out, it’s not.”

In fact, the region’s atmosphere is quite active.

In 1998, NASA satellite data showed that the Antarctic ozone hole was the largest on record, covering 27 million square kilometers — bigger than Antarctica’s entire 14 million square kilometers of surface area.

This warming climate appears to be melting glaciers across the planet, raising concern that the planet’s sea levels may begin to rise in the coming decades, inundating coastlines from Florida to Indonesia.

Scientists — not to mention policy makers and the general public — need to understand what might be happening in the atmosphere as a whole so as to understand that phenomenon, he said.

“The question is no longer what is happening,” Davis said. “The only question is why is it happening?”

Because ANTCI is a regional experiment, the data collected during this project also involves participation of Jill Beach, a teacher from Rockdale County High School in Conyers, Ga., who will communicate what she does at the South Pole with her students via e-mail and a daily journal posted on a Web site.

An outreach component of the ANTCI project also involves the participation of Jill Beach, a teacher from Rockdale County High School in Conyers, Ga., who will communicate what she does at the South Pole with her students via e-mail and a daily journal posted on a Web site. Rockdale is the site of a magnet program founded in 2000 that is devoted to intensive science study, and Georgia Tech faculty work actively with the school in a variety of projects. Beach teaches 59 students how to conduct research — from generating a research idea, to conducting experiments and reporting their results.

“The goal in a lot of these field exercises is to involve high school teachers, to share some of the excitement that this land of mystery has to offer,” Davis said. “We’re trying to get that excitement into the high schools themselves, and what better way is there to do that than by getting teachers involved in the actual science?”

If teachers can become excited about current scientific questions, then they’re going to take that excitement back with them to young people and, hopefully, spark an interest in science that will produce future investigators with more questions.

“Jill’s experience there is likely to spawn some projects that she can share and involve students with here,” Davis said. “Once she’s in Antarctica, then she’ll be exposed to a broad cross section of other people working in the sciences. I’m sure she’ll walk away with ideas for projects she can do with her students.”

For more information...

Professor Emeritus Doug Davis is the mission scientist leading the first of two expeditions to the South Pole region that will provide data for the four-year, $1.8 million Antarctic Tropospheric Chemistry Investigation.
Search begins for new GTRI lab director

In other business, Emeritus Professor of Physics Edward Thomas gave a brief presentation on the Faculty Ombuds Program, which began in 1999. Thomas reminded faculty members that the program is open to all Tech faculty and is strictly confidential. The program seeks to resolve conflicts involving faculty members at the lowest levels, avoiding the use of formal grievance procedures whenever possible.

For more information...
Academic Senate:
www.facultysenate.gatech.edu
Office of International Education:
www.oie.gatech.edu
Faculty Ombuds Program:
www.ombuds.gatech.edu

Scholar, cont’d from page 1

The old design methods are no longer working,” said Xu. Designing ships on a computer allows the Navy to test performance with different weapons systems, hull types and engines, revealing the best design for specific applications.

Both the new ships and their design method represent a transformation in the Navy’s combat and planning philosophy. “The Navy is undergoing a dramatic shift in operations,” said Xu. “They’re focusing on developing smaller, more agile ships that can fight in shallow waters.”

The new ships would deploy in large groups in front of a group of more traditional ships. Launching unmanned submarines to clear mines and drone helicopters for surveillance, an LCS group would operate much like a swarm of insects.

“The idea behind these ships is that many smaller ships are harder to destroy than a few larger ships,” said Xu. This year marks the 50th anniversary of the scholarship program. The British Government established the scholarship for American students in 1953 in appreciation for assistance received after World War II under the Marshall Plan. The scholarship encourages potential leaders to become ambassadors for the United States and establishes personal ties between the two countries. The award covers tuition, books, travel and living expenses. Prominent former Marshall scholars include U.S. Supreme Court Justice Stephen Breyer; former U.S. Secretary of the Interior Bruce Babbitt; New York Times foreign affairs columnist Tom Friedman, and scientist/inventor Ray Dolby.

For more information...
Aerospace, Transportation and Advanced Systems:
www.gtri.gatech.edu/atas

Lea McLees
Georgia Tech Research Institute

Parekh assumes deputy responsibilities

A search has begun for a new director of the Aerospace, Transportation and Advanced Systems (ATAS) Laboratory, as the lab’s previous leader, David Parekh, takes on a new assignment within the Georgia Tech Research Institute (GTRI). In October, Parekh became GTRI’s deputy director and associate vice provost for research. Reporting to director Steve Cross, who joined GTRI in September, Parekh oversees laboratory operations and business development. In addition, Parekh represents GTRI in interactions with Charles Liotta, Tech’s provost for research, thus working to ensure GTRI’s role in campus-wide research initiatives and special projects.

Parekh will join Cross and GTRI’s laboratory directors to make up the organization’s new Leadership Council, which will develop GTRI’s vision, strategy and the resulting action plans. “David did a super job leading ATAS over the past six years,” Cross said. “We share common thoughts about leadership, strategy and the future of GTRI. With David’s help, I have no doubt that our best days lie ahead.”

Jim McMichael, a GTRI engineer who has worked with ATAS since 1999, is serving as interim director of ATAS while a national search is conducted to fill that position permanently. Chief Scientist Jeff Sitterle leads the search committee.

Committee members are Randy Case, director of the Information Technology and Telecommunications Laboratory; Ward Whiner, chair of the School of Mechanical Engineering; Robert Lowry, chair of the School of Aeronautics and Astronautics; researchers Vince Carter, Allan Williams, Chuck Stancil and Rick Gaeta. Together, they will review and evaluate applicants and then develop a short list for Parekh and Cross.

Approximately 100 researchers and staff members conduct $15 million in embryonic and applied research on innovative ground and air vehicles, future energy sources, mobile radar systems and other technologies relying on aerodynamics, acoustics, power electronics and prototyping experience and knowledge.

Lab director

Search begins for new GTRI lab director

A new director accused of a sexual assault by a Georgia Tech alumna in memory of those killed on Sept. 11 is one of eight being exhibited in New York.

Michael Arad, who graduated from Tech in 1999 with a master’s degree in architecture, has submitted “Reflecting Absence: A Memorial at the World Trade Center Site” as a design for the international World Trade Center Site Memorial Competition, launched this past April. In what has become the largest design competition in history, 5,201 submissions were received from 63 nations and 49 states, according to the Lower Manhattan Development Corporation (LMDC). Each proposal was evaluated by a 13-member memorial jury.

Arad’s Reflecting Absence design includes reflective pools set into the ground to cover the WTC footprints. Each pool is fed by a waterfall around its edges, and names are engraved in the stone around them. The pools also are surrounded by pine trees and stone paths.

Arad moved to New York in 1999 and worked as an architect at Soho Pedemen Fox for three years. He recently joined the Design Department of the New York City Housing Authority and has been working on the design of two NYC police stations.

The finalists’ designs can be viewed at www.wtcsitememorial.org.

Grant funds center on paper industry

The Center for Paper Business and Industry Studies (CPBIS), a Sloan Foundation Industry Studies Center at Georgia Tech, has been awarded its second three-year grant totaling $1.3 million from the Sloan Foundation to continue building an academic center that underst ands the paper industry.

Pat McCarthy, chair of the School of Economics and CPBIS director, stated that “along with direct paper industry and GT support, this new grant provides critical funding necessary to help facilitate CPBIS’s still developing education and research activities for the Center’s second three years of focused work.”

The award follows a $2.1 million grant from Sloan to help create CPBIS three years ago.

Development of Excellence

The Atlanta Regional Commission (ARC) and the Regional Business Coalition awarded Technology Square and Centergy with a Development of Excellence Award at the ARC’s State of the Region Breakfast last month. The award is the second honor the two developments have received since their completion in July. Pedestrians Educating Drivers on Safety gave the projects a Golden Shoe Award in August for most pedestrian friendly development.
**C A M P U S  E V E N T S**

**Arts & Culture**

Dec. 11

The American Museum of Papermaking will host the opening of "Tapa Cloth/Recent Works," a new exhibit showcasing this ancient art of the Pacific Islands. A reception featuring artist Jena Sible will be held from 5:30 p.m. at the museum, located within the Institute of Paper Science and Technology. Guests will also enjoy a 20 percent discount on all gift shop items during the event and also on Dec. 12 from 8 a.m. – 5 p.m.

**Brown Bags/Conferences/Lectures**

Dec. 11

The Molecular Design Institute’s fall lecture welcomes Chad Mirkin, professor of chemistry at Northwestern University, on “Nanostructures in Biology: Will They Make a Difference?” at 4 p.m. in the MaRC auditorium. For more information, e-mail vcses@chemistry.gatech.edu.

Jan. 22

Faculty and research administrators are invited to meet National Institutes of Health (NIH) officials while participating in a forum on the NIH Common and other NIH eRA initiatives, from 1-4:30 p.m. in GCATT. Panelists will provide information on the eGrants, CGAP (Competing Grant Application Process) and instruction on using NIH’s Commons applications (more information at commons.era.nih.gov/commons). To reserve a seat, call 894-6944 or e-mail nadia.zitman@osp.gatech.edu.

**Faculty/Staff Development**

Jan. 6

The Office of Organizational Development sponsors a course in “Polishing Your Presentation Skills,” from 8:30-11:30 a.m. in room 508, Savant Building. To register, visit www.tiaa-cref.org/moc.

Jan. 7

The Office of Organizational Development begins an 11-week course in “Workplace Spanish Level I” from 11:30 a.m. - 1 p.m. in the Savant Building. A similar course in “Workplace Spanish Level II” begins Jan. 9. To register, visit www.trainswb.gatech.edu/mastcal.asp.

Jan. 8

The Office of Organizational Development sponsors a course in “Time Mastery,” from 8:30 a.m. - 5 p.m. in room 508, Savant Building. To register, visit www.trainswb.gatech.edu/mastcal.asp.

**Miscellaneous**

Ongoing

Techmasters: Tech’s chapter of Toastmasters International for faculty, staff, alumni and spouses, meets every Thursday at 7:30 a.m. in room 102 of the Microelectronics Research Center. For more information, e-mail terry.nolan@business.gatech.edu or refer to www.techmasters.gatech.edu.

**Classifieds**

**Appliances**

Whirlpool 2-side refrigerator w/ice maker. Excellent condition, beige color. $250. OBO. Call 894-2871.

**Automobiles**

Ford F-250 w/ towing package, high mileage, needs some minor repairs, perfect work truck, must go. Will sell to highest bidder. E-mail josie.gilles@bche.gatech.edu or call 358-2299.

1987 Nissan Maxima. Maroon, automatic, 6-cylinder, 4-door, sunroof, recent brake job, good tires, new alternator. High mileage, very reliable. Perfect local transportation for students. $1,000 OBO. E-mail mbaquerm@bellsouth.net.

1990 Honda Accord XL. Auto, 4-door, 120K miles, gray-blue color. Power accessories. New battery & alternator. $2,300. Call 894-3653 or e-mail david.goldfarb@facilities.gatech.edu.


1997 Hyundai Accent GT. Very good condition, dependable. CD player, airbags, sunroof, a/c. 76K miles, 5-speed, purple. KBB price $2,500, asking $2,200 OBO. Call 770-444-9138 or e-mail ali.homal@gatech.edu.

1999 Toyota Avalon XLS. Leather interior, 78K miles, great condition, $13,000. Call Dana, 894-6946.

2000 Ford Focus. Automatic, dark green with dark tint, CD player included, runs great, 78K miles, $6,500 OBO. Call 770-210-8992.

2002 Kia Rio. Automatic, 4-door, a/c, 55K miles, $5,800. Call 894-5463.


**Computers**

Canon MultiFAX C5000 color printer/scanner/copier/fax. Very good condition, user’s manual included. Printer function only compatible with Windows 98 or 95. $60. E-mail rita.brown@edi.gatech.edu or call 3012.

**Furniture**


**Sports/Fitness/Recreation**

Bowflex workout machine in good condition with all parts. Asking $550 OBO. Will deliver if needed. Call 894-3012 or e-mail shirley.manchez@mse.gatech.edu.

Dec. 13

Georgia Tech’s 217th Commencement ceremony will be from 9 a.m. - noon in Alexander Memorial Coliseum. The Commencement speaker will be former astronaut and alumnus Capt. John Young. All are welcome to attend.

Dec. 17-18

A TIAA-CREF consultant will be on campus to conduct free individual counseling sessions. To schedule an appointment, call 800-642-2003 or visit www.tiaa-cref.org/moc.

Dec. 22-26

Campus closed for winter break.

Jan. 1

Campus closed.

Jan. 5

Spring classes begin.

Jan. 19

Campus closed for the Martin Luther King Jr. Holiday.

The last issue of 2003 will be published on Dec. 15. Faculty and staff should send calendar items for spring semester events to: editor@icpa.gatech.edu as soon as they become available.

**Discounts**

Holiday.

Campus closed for the Martin Luther King Jr. Holiday.

Campus closed.

Faculty and research administrators are invited to meet National Institutes of Health (NIH) officials while participating in a forum on the NIH Common and other NIH eRA initiatives, from 1-4:30 p.m. in GCATT. Panelists will provide information on the eGrants, CGAP (Competing Grant Application Process) and instruction on using NIH’s Commons applications (more information at commons.era.nih.gov/commons). To reserve a seat, call 894-6944 or e-mail nadia.zitman@osp.gatech.edu.

Dec. 15 - March 15 in Midtown close to Piedmont Park. Call 734-709-6359 or e-mail ruchi@mitchumch.edu.

3BR/2BA frame ranch home on large wooded lot in West Cobb. Fenced back yard, double carport, deck, quiet street, great schools. $135,000 or least or $975/mo. with year lease. Call 894-6015 or e-mail david.arnold@icp.gatech.edu.

3BR/2BA for rent in Edgewood. 10 minutes from Tech. Fenced back yard, renovated Victorian, w/d, front and back porch, pets OK. $1,100/mo. Call 678-296-3634 or e-mail ugotsez@bellsouth.net.

East Atlanta townhome. $212,900. 2BR/2BA, 2 half baths. Stainless appliances. Deck, private fenced yard, garage w/storage, washer and dryer, gated, pool, alarm. E-mail raheem.beyah@ece.gatech.edu.


2BR/1BA home, minutes from Midtown and Tech. Washer, dryer, dishwasher, hardwood floors. Fenced yard, $800/month. Call 404-452-

4406.

**Sports/Fitness/Recreation**

Bowflex workout machine in good condition with all parts. Asking $550 OBO. Will deliver if needed. Call 894-3012 or e-mail shirley.manchez@mse.gatech.edu.

**Miscellaneous**


1968 Harley Davidson Ironhead. Black/chrome. Rigid, original “Invader 5” chrome mags, new tires, chrome controls, drag bars/pipes. 95 percent complete ground up build. $6,500. Call Dave, 404-592-2040.

Antique piano. $400. Call Chad, 770-377-9273.

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2BR/1BA home, minutes from Midtown and Tech. Washer, dryer, dishwasher, hardwood floors. Fenced yard, $800/month. Call 404-452-

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4406.


2BR/1BA in Midtown, 1 mile from campus. Sunny, spacious, quiet neighborhood. W/D, dishwasher, balcony, huge closets, private entrance, parking, pool, gated community. $895/month. Call 894-6165 or e-mail michele.gordon@ece.gatech.edu.

Ads will run for a maximum of three weeks in the order in which they are received. The Whistle reserves the right to edit ads longer than 30 words.