SACS process focusing on undergraduate research, international competence

Dan Treadaway
Institute Communications and Public Affairs

With the successful completion of Tech’s off-site review, the attention of faculty and staff involved in the Southern Association of Colleges and Schools (SACS) accreditation process now turns to the preparation of a Quality Enhancement Plan (QEP).

Associate Provost Jack Lohmann gave an update on the progress of the SACS process at the Feb. 1 combined meeting of the Academic Senate and General Faculty.

“The off-site SACS review went very well,” said Lohmann. “There were questions on only about 10 percent of the material that we provided, and all of those had to do with governance and administrative issues. There were no questions or requests for more documentation related to curricular issues. We didn’t see any questions related to previous issues SACS has had with Georgia Tech.”

Lohmann said that Tech’s SACS team has now turned its attention to preparing a QEP, an element that SACS requires of all universities seeking accreditation. He said the QEP would focus on two areas: developing international competence among students and strengthening the undergraduate research experience.

“We want to achieve several things with undergraduate research,” he said. “We want to increase the number of undergraduates participating in research from its current level of about 40 percent to 60 percent. We also want a larger number of students to participate in more than one semester of research. Our goal is to have at least 70 percent of students participating in research do so for multiple semesters.”

The SACS teams is also proposing a Research Plan program that would require three semesters of research—two semesters with the same project, writing class and symposia presentations, creating a research proposal or thesis/research report and adopting a Research Plan designator for undergraduate diplomas—which would join the existing Cooperative Plan and Regional Engineering Program designators.

In a presentation that followed Lohmann’s, Director of International Education Howard Rollins outlined the SACS goals related to international studies. “We now have about 34 percent of undergraduates involved in some form of international study.”

Rollins said, “We are doing extraordinarily well. We rank in the top 20 among all research universities and the top one or two among technologically universities. Still, we know that we can do better, and we would like to see participation increase to 50 percent of undergraduates.”

One strategy for increasing participation is the adoption of an International Plan designator for undergraduate degrees. “The International Plan will integrate substantive and challenging international experiences into students’ studies,” Rollins explained. “We want to help students develop international competence, not just provide overseas experiences. The International Plan will be available to all the colleges and schools, and the faculty in the units that adopt it will develop a plan tailored to that specific discipline.”

Rollins said the three overarching elements of the International Plan are international coursework, second language proficiency and two academic terms of residential international experience.

“This will be a very demanding program,” said Rollins. “We’re asking students to do a lot. I think it will spark a lot of interest among our very best students.”

Later in the meeting, the Academic Senate and General Faculty voted to adopt the International Plan designator, which has previously been approved by the Undergraduate Curriculum Committee.

Lohmann said the draft QEP is nearing completion and should be disseminated on campus in mid-February. He expects the final QEP to be disseminated on campus in mid-February.

A passion for chicken

S. Truett Cathy, founder and CEO of Chick-fil-A, spoke with a room full of students eager to learn from the entrepreneur’s experience as part of the College of Management’s IMPACT Speaker Series. The 83-year-old Cathy is still passionate about the restaurant chain he started in 1967 as well as the company’s popular slogan — “Eat more chicken.”

Cathy discussed his early years in business and offered advice for Atlanta’s next generation of business leaders.

“Pick a company you can be proud of and make the company proud to have you,” he said.

Chancellor addresses budget issues in annual assessment of University System

Michael Hagearty
Institute Communications and Public Affairs

Hearing that the state’s public colleges and universities may continue to experience lean fiscal times, Chancellor Thomas Meredith said he would continue to look for new sources of revenue and stress efficiency to “maintain access and quality” of higher education in Georgia.

Meredith delivered his State of the System address during the monthly meeting of the University System of Georgia’s Board of Regents on Feb. 2, saying “we must be prepared for an era of tighter state budgets.”

The state appropriates approximately one-third of the System’s total budget, but that number has been in decline for several years. Since 2001, student enrollment in the University System has grown by 44,000, but its budget has been cut by nearly $400 million, a shortfall that has largely been made up through tuition increases.

For the next fiscal year, Governor Sonny Perdue’s recommendations for higher education include full formula funding ($103.4 million), a 2 percent salary increase for faculty and staff ($17.7 million) and enhanced Major Repair and Rehabilitation funding ($65 million). The budget is currently under review in the legislature.

“We deeply appreciate the fact that Governor Perdue has recommended an increase of 8.3 percent for the University System,” Meredith said. “That means our formula has been fully funded, which will help us address our enrollment growth.”

He went on to suggest that further tuition increases may be necessary to contend with the “continuing financial
Faculty/Staff SPOTLIGHT

George Nemhauser

He’s assisted with the logistics for airlines and shipping ports, but a chaired professor in the School of Industrial and Systems Engineering is now responsible for ensuring the Yankees play the Red Sox in September.

Schedule-makers deal with conflicting requirements and preferences as a matter of course, but as the financial and competitive stakes in athletics at the college and professional level rise, so does the complexity of creating a balanced schedule. George Nemhauser — a mathematician and a sports fan — noticed it could benefit from specialization.

He’s a partner in a company called the Sports Scheduling Group, which has handled athletic scheduling for several college conferences, including Tech’s own Atlantic Coast Conference for nearly a decade. The objective, he said, is to balance the requirements of the television contract with competitive fairness while accommodating the needs of fans, coaches, players, media, sponsors and facility operators.

For some time, Nemhauser and his partners have had their eye on Major League Baseball, which lets companies submit proposed schedules and selects the best one. After several attempts, the office announced last fall it was awarding $50 the scheduling contract through 2006.

Compared with collegiate scheduling, though, baseball is another order of magnitude. In fact, the complexity of the task makes it too large to handle as a whole. Developing a viable schedule, he noted, involved 12 high-performance computers running virtually non-stop for five months.

“It’s a wildly constrained process and to come up with something feasible is very difficult,” he said. “Perhaps IBM’s Blue Gene computer could handle something as big and complicated as this, but I doubt it.”

Age: 67
Occupation: Professor
Job description: Teaching, research with graduate students on discrete optimization (both theoretical and applied) and faculty athletics representative to the NCAA.
What I find most rewarding about my job: Working with students.
What I find most challenging about my job: Keeping up with the graduate students.
Years at Tech: 19
Education: Bachelor’s degree in chemical engineering from City College of New York; master’s degree in chemical engineering from Northwestern University; doctoral degree in operations research from Northwestern University.
Hobbies: Tennis, hiking, travel, wine collecting (and drinking)
The CD in my stereo: ‘60s-era Bob Dylan.

Another occupation I’d like to try: Centerfielder for or owner of the New York Yankees. Unfortunately, they require ability and money I don’t have.
My first paid job: Camp counselor in the mid-1950s. We were paid $250 for the summer.
One place I’ve always wanted to visit: I traveled a lot both for business and pleasure and enjoy almost everywhere I’ve been.
One talent I would most like to have: Athletic ability
What I consider my greatest accomplishment: Being selected as one of the eight best instructors in the Johns Hopkins University student course guide three years in a row.
My pet peeve is: People who don’t respect confidentiality.
My day would not be complete without: A glass of good wine.
What I most value in my friends: Humor and loyalty
My motto: Work and play hard.

Tech2Nite classes announced

Georgia Tech Professional Education has announced the schedule for the spring session of Tech2Nite — a series of personal enrichment classes held in The Global Learning and Conference Center at Technology Square.

Instructors — faculty and staff from Georgia Tech as well as industry professionals — will explore the topics listed at right for three- or six-week sessions.

The spring series is scheduled for March 8-April 14, though some classes have alternative meeting dates. Classes meet Tuesday or Thursday nights, and Georgia Tech employees are eligible for a discount.

To sign up, visit www.pe.gatech.edu. For more information, e-mail tech2nite@dppe.gatech.edu.

- Popular Astronomy
- Freehand Drawing — Just for the Fun of It
- Good Urbanism: Design Principles for Neighborhood Activists
- Home Computing Basics: Networking, Security and Self-Support
- Digital Photography Made Simple
- Real Estate: The Buying Process and Investment Strategies
- Business Etiquette: Protocol for Professionals
- Investing for Financial Independence
- Creating the Balanced Life: relaxation and Renewal Through the 5 Elements
- Roadmap to Prosperity: Planning for Your Financial Future
- Starting a Business in Georgia
- Interior Re-design
- Design Basics for the Novice
- Film and Technology
- Beginning Conversational Spanish
- Becoming Media Wise: How to Work with the News Media
- Entertaining 101
- Traveling Interior Decorating Show
Researchers validate energy savings of probabilistic bits

Elizabeth Campbell
Institute Communications and Public Affairs

A new approach to semiconductor design developed at Georgia Tech could significantly reduce the energy demands of electronic devices. Recently, Professor Krishna Palem announced that he had confirmed his probabilistic bits (PBITs) discovery, producing a device based on this new approach.

The validation of PBITs is most significant in the area of reduced power consumption and increased processing speeds, resulting in computer devices that run faster and are more energy efficient. A PBIT is like a conventional bit in that it takes on a 0 or a 1 value, except that one is certain of its value only with a probability of p. Current hardware, using conventional bits, expends large amounts of energy calculating with absolute certainty.

"Our PBITs model is now backed by measurements of an actual probabilistic device," said Palem, a joint professor in the College of Computing and the School of Electrical and Computer Engineering and is the director of the Center for Research in Embedded Systems and Technology. "Our device takes advantage of noise at thequarter-micron [0.25 micron] level and uses probability to extract great energy savings. Noise and energy savings are becoming increasingly important as semiconductors approach the nanoscale."

This ability to cope with noise is also increasingly relevant in the context of the impact of noise as devices scale to increasingly small sizes as projected by Moore's Law. Palem's approach opens up an entirely new way of overcoming this hurdle.

The research team estimates that 100-fold improvements are possible to the energy consumed and performance of complex applications such as neural networks and voice recognition programs.

Next, the research team would like to work on implementing a computing tile at the chip level. Palem sees this technology being used in robotics, natural language processing, data mining and a range of applications with a probabilistic and an embedded characteristic.

For more information...
Probabilistic Bits (PBITs)
www.crest.gatech.edu/palemprobincurrent

Panel discussion features Georgia tech research innovations

The Alumni Association invites the campus to attend "Georgia Tech: Innovating Here and Now," a panel discussion, led by President Wayne Clough, on Tech’s role as an innovation leader in the 21st century.

The event, which will be streamed live through the Association’s Web site, features top faculty members discussing progress made by the Institute and its role in the future. School of Biology Chair John McDonald will address "Future Biology and Georgia Tech," Electrical and Computer Engineering Professor Gary May will share insights on "Intelligent Semiconductor Manufacturing," and Regents’ Professor Uzi Landman’s topic will be "Materials by Numbers: Calculations as Tools for Discovery."

The event will be held on Tuesday, Feb. 15, at the Georgia Tech Hotel and Conference Center. There is no charge to attend, but reservations are required. For more information, visit www.gtalumni.org/innovationevent or call 894-7085.

IN BRIEF:

Pre-retirement seminars announced

The Office of Human Resources will hold a series of pre-retirement meetings next month for employees within 10 years of retirement. Registrants will hear a presentation and have an opportunity to ask questions. The meetings will take place in the Student Services Building, room 1117 from 1:30 to 4:30 p.m.

The March 9 session is split into two segments: Social Security and Georgia Tech benefits. The first segment will cover current changes in the law, how to file for benefits, military service credits, the proofs needed for filing for benefits and when checks are paid. The second segment provides information on how to apply for retirement, when benefits are paid, cost of living adjustments, unused sick leave credit, and what happens to your Georgia Tech health and life insurance benefits at retirement.

The March 16 session is also divided in two parts: Teachers Retirement System (TRS) and supplemental retirement benefits. The first half covers specifics regarding TRS benefits, types of service that can be established, survivor benefit options, cost of living adjustments and how to apply for service retirement. The second half will cover distribution options at retirement for 401(a), 403(b) and/or 457(b) accounts, explaining the full range of income options and flexibi- lity that is offered.

Employees must register separately for each of these two free courses at www.trainweb.gatech.edu/mastscal.asp.
C A M P U S  E V E N T S

Arts & Culture
Feb. 12
The American Museum of Papermaking hosts a Valentine Family Workshop, from 1 - 3 p.m. For more information, visit www.ipst.gatech.edu/amp.

Feb. 16
The Ferti Center for the Arts hosts the Concord Jazz Festival with Diane Schuur. Karen Alyson, Otela Adams and Sara Gazzere. For tickets, call 894-9600 or visit www.ferstcenter.org.

Feb. 19
The Ferti Center for the Arts welcomes the Ballets Trockadero de Monte Carlo for an 8 p.m. performance. For tickets, call 894-9600 or visit www.ferstcenter.org.

Brown Bags/Conferences/Lectures
Feb. 9
The School of Biology welcomes Adrienne Froelich Sponberg, public policy director at the American Geophysical Union, to discuss "Science Versus Fiction and Effects on Environmental Policy," at 3 p.m. in ISB's Suddath Seminar Room.

Feb. 11
Georgia Tech Government Relations Director Andrew Harris gives an update about the current Georgia Legislative session at 11:30 a.m. in the Piedmont Room of the Student Center Commons.

Feb. 15
The School of Mechanical Engineering's Woodruff Colloquium Series features Chih-Ming Ho, professor of engineering at UCL, on "Control of a Bio-Semiconductor Through Technology Fusion," at 3 p.m. in the NIRC auditorium.

Feb. 16
The College of Management's IMPACT Speaker Series welcomes Sig Moseley, president of Imly Investments, at 4:30 p.m. in the LeCraw Auditorium.

Feb. 17
The Architectural Program's lecture series continues with Parsons School of Design Director David Lewis on "The Opportunities of Restrictions," at 5 p.m. in the College of Architecture auditorium.

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Feb. 18
The Office of Information Technology hosts a brown bag seminar, "Introduction to Windows Security," to help users understand how to secure their computers. The primary focus will be on Windows XP. To register, visit www.trainsweb.gatech.edu/masctal.asp.

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Feb. 20
Trockadero de Monte Carlo for an 8 p.m. performance. For tickets, call 894-9600 or visit www.ferstcenter.org.

Feb. 23
The Office of Sponsored Programs offers a class in "NSF FastLane Proposal Preparation and Project Reporting." Call 894-6944 to reserve a seat.

Faculty/Staff Development
Feb. 10
The Office of Information Technology explains Georgia Tech's information security architecture at 9 a.m. in room 242, Rich Building. To register or for more information, visit www.trainsweb.gatech.edu/masctal.asp.

Feb. 16
The Center for the Enhancement of Teaching and Learning will host a Faculty Development Seminar on "Educational Components of Research Proposals." From 11 a.m. - 1 p.m. in the Library's Homer Rice Training Center. Lunch is provided to registrants. Visit www.cetl.gatech.edu.

Miscellaneous
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MISCELLANEOUS
Feb. 17
The VOICE Initiative hosts an orientation on how to play a role in ending sexual violence at Georgia Tech at 4 p.m. A training session follows at 5 p.m. To sign up, e-mail ann.frazer@health.gatech.edu or call 894-9980. For more information, visit www.voice.gatech.edu.

AUTOMOBILES
1967 Triumph TR4A. Owned for 27 years by Tech professors. Keep it in the family. Runs and looks great. $7,500. Call 894-2719 or e-mail andrew.math@gatech.edu.

1992 Volvo 240. Champagne, beige interior, automatic, a/c, 110K miles, regular maintenance, $4,500. Call 894-2719 or e-mail neil.mcghee@alumni.gatech.edu.

1995 Buick Century. Good condition, 110K miles, $1,250. Call 404-255-894-0761 or e-mail

1999 Ford Taurus SE. Great condition, leather, sunroof, CD. $1,950.00 or $169,000. Call 404-931-9922.

Two-story, 2BR/2.5BA updated condo in Buckhead. patio overlooking golf course, W. T. Jackson school district, gated community. $1,250/month includes association fee. Call 404-418-1252.

1985 Black GMC Sonoma. Two-passenger, like new. 20K miles, with warranty. $1,000 OBO. Moved and must sell. Call Bob at 678-478-2142.

1998 Chevrolet Silverado K1500. Burgundy, 88K miles, off-road package, premium sound, 2"inch mud tires, brush guard, furbars. Asking $9,999. E-mail brye.walker@stceng.gatech.edu or call 894-7579.

1999 Ford Taurus SE. Good condition w/maintenance records, leather, A/C, dual front air bags, remote key entry plus new. 2"inch mud tires, power seats, power seats, 97,700 miles, $3,900. Call 404-579-6676.


2000 BMW 528i. Dark blue, excellent condition, fully loaded, sport suspension, moonroof, leather, remote entry, dual air bags. CD, alarm. 88K miles, $21,000. Call 770-813-1714 or e-mail mary.duncan@dev.gatech.edu.

2005 Black GMC Sonoma. Two-passenger, like new. 20K miles, with warranty. $1,000 OBO. Moved and must sell. Call Bob at 678-478-2142.

FURNITURE
4-piece white bedroom set: 9-drawer dresser, 5-drawer dresser, 2-drawer night stand and 30"x40" mirror. $350. Dark walnut dining table, 6 chairs, and hutch, selling for $250 OBO. Call Diana at 404-667-6290.

REAL ESTATE/ROOMMATES
1BR/1BA condo in perfect location. Walk to Chastain Park. Largest 2nd floor unit, new paint and HVAC. hardwood floors, security system, swimming pool, assigned parking. Priced at $135,000. Call 404-951-9922.

2BR/2.5BA updated condo in Buckhead. patio overlooking golf course, W. T. Jackson school district, gated community. $1,250/month includes association fee. Call 404-418-1252.

200BR/2.5BA new house for rent at 1895 West Kimberley Road in Fulton County. $1,250/month negotiable, section 8 welcome. Call 404-484-4662.

2BR/2.5BA townhome w/garage in East Lake. 12 minutes to GT. 2 bedrooms. Ideal roommate plan. Spacious bedrooms, gourmet kitchen, gas fireplace & hardwood floors; swim community. $1,300/month. Call 404-325-1909.

SPORTS/FITNESS/RECREATION
C L A S S I F I E D S

Sports/Fitness/Recreation
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STORM HINGE.

Storm door, white aluminum w/brass handle and dead bolt. Left hinge. Full glass w/screen. Paid $249, sell for $125. Photos available. Call 678-232-3475 or e-mail david.gifford@htr.gatech.edu.

New, gas-powered leaf blower. Moved to townhouse, must sell. $75. Call Bob at 678-478-2142.

The classifieds are a free service provided to members of the faculty and staff. To submit an ad, e-mail the text to editor@opca.gatech.edu. Due to the volume of submissions, it may take several weeks for ads to appear in print.