Technology boosts efforts to protect mountain gorillas, rebuild Rwandan economy

John Toon
Research News and Publications

A partnership involving conservation organizations and Georgia Tech researchers is bringing new technology to bear on efforts to protect the endangered mountain gorillas popularized by the movie Gorillas in the Mist. The effort will put remote sensing technology into the hands of field scientists and trackers working to protect the gorillas, while helping the African nation of Rwanda rebuild its national university and recover from a devastating 1994 war and genocide.

The project, which carries on the work of naturalist Dian Fossey, will also demonstrate how advanced technologies can help in the struggle to protect other endangered species.

“Our first goal is to use modern-day technology to bring new clout to field conservation, ecosystem management and endangered species protection,” said Clare Richardson, president of the Atlanta-based Dian Fossey Gorilla Fund International. “Because we are a field conservation organization, it is imperative that we aggressively pursue more efficient ways to collect data, then have experts available to analyze that data, especially as it applies to habitat.”

Habitat loss poses the single greatest threat to the mountain gorillas, Richardson said. The most densely populated nation in Africa, Rwanda is struggling with the task of resettling more than a million people in the aftermath of war. The need for more crop land, as well as timber for homes and cooking, threatens the protected reserves and introduces human disease into the fragile gorilla habitat in the Virungas Mountain Range area.

The first applications of the new technology, therefore, will be to assess the existing gorilla habitat, said Nickolas Faust, principal research scientist and director of the Georgia Tech Research Institute. Georgia Tech researchers will work with H. Dieter Steikl, chief scientist for the Fossey Fund, to combine geographic information system (GIS) data from satellites with hyperspectral data gathered by a special aerial camera and demographic information recorded on the ground. That will give the researchers and Rwandan authorities a measure of how many gorillas the area can support and establish a baseline for documenting future habitat loss.

“The carrying capacity of the area can be assessed by examining the quantity of preferred gorilla food,” Steikl said.

“In order to determine how many gorillas the habitat can sustain. This would provide the park authorities with information that would help them manage the National Park.”

The trackers will soon receive additional training to use the new technology. Working with researchers and field scientists, they will break new ground in combining GIS data with position systems (GPS) technology and wireless communications. Ultimately, wireless communications systems tied into the Internet will allow quick transfer of data from field scientists to researchers anywhere in the world.

“The idea of tying GIS, GPS and communications together is a fairly new concept that we hope to explore through this collaboration,” Faust said. “We will be bringing in technology professionals to researchers anywhere in the world.”

In other business, the faculty groups heard a presentation on the new web-based parking registration process being offered for the first time this year by Parking and Transportation Services. Parking and Transportation Director Gene Weiss said that 2,000 employees completed web-based parking applications on April 17, the first day online registration was available. Weiss also said employees must be eligible for payroll deduction to register on the web. To submit a parking application online, go to www.applyparking.gatech.edu.

Following the joint meeting of the General Faculty Assembly and Academic Senate, the Academic Senate held its regular meeting, which included a vote to amend the policies regarding “dead week.” Previously, dead week policies prohibited faculty from giving quizzes and tests after Wednesday of the week preceding final exams. Under the new policy, proposed by SGA President Tyler Brown and SGA Vice President of Faculty, page 2
Microsoft grant gives OMED another reason to celebrate at Tower Awards

Richard Hermes
Institute Communications and Public Affairs

Georgia Tech's talented African-American, Hispanic and Native American students soaked up the spotlight for April 13 at the Seventh Annual Tower Awards: A Celebration of Performance. One by one, they walked across the stage in the Hyatt Regency's International Ballroom and accepted their recognition for achieving a GPA of 3.0 or better. The too-often-undercounted students of OMED deserve the award.

"These awards represent Georgia Tech's commitment to quality diversity, and they serve as a quick snapshot of the lives of students who deserve credit for overcoming the odds and performing at a top technical school," said S. Gordon Moore Jr., OMED's managing partner and director. "The metaphor is appropriate, as Eastman Kodak Company placed a complimentary disposable camera at each seat. The software gift, valued at approximately $1.5 million, will strengthen OMED's existing educational programs and allow the office to integrate technology into the lives of its students from the moment they step on campus. "Microsoft's gift provides our minority students with the same technological tools as their peers," Moore said. "They already have the ingenuity and creativity it takes to succeed. Now, for the first time, they also have the resources. Microsoft is going beyond the issue of recruitment here, to retention, which is just as important."

"We are honored to support a program which clearly is providing leading edge learning experiences to minority students entering technical fields," said Craig Cumberland, program manager, Microsoft Research University Relations at Microsoft Corp. Dorothy Cowser Yance, president of Johnson C. Smith University, gave the keynote address. Yance, the first African-American female president of Tech and the leading force in the establishment of OMED more than 20 years ago, urged the students to remember their obligation of service as they achieve success.

In one of the most touching moments of the ceremony, James E. Wright, father of master's degree candidate Monica J. Wright, emerged from the long line of students and accepted the award for his daughter. "We came all the way from Columbia, S.C.," he said, and the look of pride on his face reflected the expressions of hundreds of other parents in the audience.

Many of the award winners are first generation college students—certainly the first generation to enter science and engineering," Moore said. "That newness is one reason why it is important to continue to celebrate in this way. The Tower Awards are a reaffirmation not only for the students, but for an entire community."

The awards banquet is part of a three-day series of events that includes the Society of Hispanic Professional Engineers Awards banquet and a design competition where students and corporate friends interact in an informal, creative, high-energy environment.

School of Chemistry and Biochemistry

Assistant Professor Andrew Lyon has been awarded a Beckman Young Investigator Award. This is one of the most prestigious awards a young scientist can receive. The Arnold and Mabel Beckman Foundation is an independent, non-profit foundation that supports basic scientific research, primarily in the fields of chemistry, biochemistry and medicine. The Young Investigator awards are given to honor and encourage young scientists who are conducting their research programs at prominent universities and research institutes nationwide.

Professor Emeritus Aubrey Bush has been named division director for the National Science Foundation's Division of Advanced Networking Infrastructure and Research Directorate of Computer and Information Science and Engineering. Within the Advanced Networking Infrastructure and Research Division, there are two basic research programs and one experimental facility program. The research programs support research in the technical areas relevant to understanding the global information infrastructure and to establishing the basis for future advancements. The Advanced Networking Infrastructure program develops and enables the use of experimental advanced networks in broad support of the research and education community.

People

Counseling Center

Scott Friedman, director of the Counseling Center, has been selected to participate in Harvard's prestigious Management Development Program this June. College administrators from around the country participate in an intensive two-week program focusing on effective leadership, innovation and change, planning, diversity and community, financial management and professional development of staff.

Woodruff School of Mechanical Engineering

Assistant Professor Daniel Baldwin was elected to the Board of Advisors for the Association for Electronics Manufacturing of the Society of Manufacturing Engineering (SME). SME is the world's largest professional society serving the manufacturing industries.

Chris Lynch, assistant professor, has received the New Mechanism Educator Award for exceptional contributions to mechanics education from the Mechanics Division of the American Society for Engineering Education.

Georgia Tech Research Institute

Krishan Ahuja was named Engineer of the Year for 2000 by the American Institute of Aeronautics and Astronautics (AIAA). Previously, Ahuja was named AIAA Region II Engineer of the Year (Georgia, Florida, Alabama, Tennessee and Mississippi). A Regents' researcher in the Georgia Tech Research Institute's Aerospace, Transportation and Advanced Systems Laboratory, Ahuja also is a professor in the School of Aerospace Engineering.

OMED staff members pose proudly with a check representing Microsoft's software gift. Pictured from left to right: Frank Stanley, Gordon Moore Jr., Mona Meddin (standing), Jackie Cox and Letitia Nyandwi.

School of Electrical and Computer Engineering

Assistant Professor Emmanouil M. Tzentzis received a 2000 National Science Foundation (NSF) CAREER Award for "novel multidisciplinary time-domain schemes for the adaptive analysis and design of high-frequency circuits and packaging structures." This award has also been formerly known as both the Presidential Young Investigator Award and National Young Investigator Award.

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Faculty, continued from page 1

Administrative Affairs Nick LaRwani as an amendment to the Faculty Handbook, faculty are not allowed to give quizzes and tests at any time during the week preceding finals. Student Regulations Committee Chair Paul Benkiser said the revised policy makes sense under the semester system; studying for semester finals is much more time-consuming than studying for quarter finals because semesters are so much longer.

A few faculty members expressed concern over the constraints that the policy places on faculty. Ultimately, however, the proposal was approved by a wide margin. The Academic Senate decided to defer action on a recommendation from the Registrar's Office that would have required faculty to submit final grades within 48 hours of the completion of the final exam for the course. A number of faculty objected to the proposal over concerns that such "haste" in assigning grades could compromise the fairness and accuracy of the grading process.

The Registrar's Office had proposed the recommendation in an effort to comply with a new policy to take effect in fall 2001 that will require all graduating students to take final exams during finals week. Once that policy is implemented, the Registrar's Office will receive final grades later than in years past and will have less time to certify students for graduation.

As a compromise, President Wayne Clough recommended that the Registrar's Office deal with these issues informally before requesting a formal policy change.
Regional Engineering Program starts strong in Southeast Georgia

Victor Rogers
Institute Communications and Public Affairs

Southeast Georgia extended a warm welcome to Georgia Tech during the last year, as enrollment in the Georgia Tech Regional Engineering Program (GTREP) reached nearly 130 students, doubling projected figures.

"That's a very good indicator that we're doing something that's important to the region, and there's a real demand—not just a perceived demand," said David Frost, GTREP director. GTREP began last fall as a way to bring the demand for engineers in Southeast Georgia. It currently offers undergraduate degrees in computer engineering and civil engineering in collaboration with Armstrong Atlantic State University, Georgia Southern University and Savannah State University.

GTREP students matriculate in either Statesboro or Savannah for the duration of their degree program, physically remaining in Southeast Georgia while academically becoming Georgia Tech students in their junior year.

"A recent three-day open house and forum allowed the local community to learn about the program and meet with representatives from Tech's Admissions Office, Bursar's Office, Co-op Program, Enrollment Services, Student Financial Services and Planning, Student Affairs, Office of Information Technology and the Registrar's Office," Robert Bryant, a junior at Georgia Southern, hopes to enroll in GTREP next spring and continue living in Statesboro. "When I first came to Georgia Southern I was interested in the Regents' Engineering Transfer Program," Bryant said. "After learning about GTREP I realized I would not have to move to Atlanta. I think it's better to remain stable in the same environment."

Georgia Tech co-op student Donnie Smith agrees. The junior in computer engineering alternates between classes in Atlanta and his co-op position as a computer programmer in Screven County. He said he would like to finish his degree in Statesboro, and next spring he will take GTREP courses at Georgia Southern.

For years, advocates of an engineering school in Southeast Georgia have argued that having a school would increase the pool of technology workers and foster economic development in the region. GTREP officials regularly meet with industry leaders to discuss and address critical needs of the community.

"Often when you talk about engineering education, you're immediately talking about other factors as well," said Frost. "In this case, economic development is a significant component. For example, when an organization tries to recruit a company to this area, they have to be able to tell the company executives about educational opportunities. Up to this point they've been able to sell the many excellent programs with Georgia Southern, Savannah State and Armstrong Atlantic. But one of the missing programs was engineering. Now, I think that collectively we've been able to resolve that issue," Frost said.

Two GTREP instructors, Dante Fratta and Kimberly Newman, began with GTREP last fall, and both see the freedom of the smaller class sizes at GTREP. "The whole interaction and dynamic of the class is different because the class is small," said Fratta. "If a student is not understanding the material, I know it immediately. I feel a much stronger obligation because I know them personally."

Newman, who grew up in Savannah and has strong ties to the education and industry communities in the region, said she likes being a "pseudo pioneer." "There are things we can do on a small scale—such as putting a computer at each desk—that we cannot do in a lecture hall with 200 students. There are ways to explore what works before going to the large scale," she said.

Gorillas, continued from page 1

that hasn't traditionally been used in field conservation."

The partnership may also get help from the National Aeronautics and Space Administration (NASA), whose Digital Earth initiative seeks to make the agency's vast data resource, powerful imaging tools and 25 years of expertise available to field scientists.

Using GIS and other data, Georgia Tech created a virtual Virungan environment on campus, using a three-screen projector system that allows visitors to immerse themselves in a three-dimensional simulation. By allowing a group of people to share the experience of moving through the ecosystem and examining its components, the system offers a powerful tool for visualizing the potential impacts of changes in the area.

Though the Dian Fossey Gorilla Fund focuses on conservation of the gorillas, the well-being of the animals cannot be separated from the well-being of the country in which they live. For that reason, the partnership has taken on broader goals.

"We would also like to take certain elements of these technology applications to the countries in which we work so that we are building scientific and technical infrastructure there," said Richardson. "Ultimately, we want to have centers for GIS and remote sensing dotted all around the globe."

To further that goal, Faust and collaborators at Georgia Tech's Center for Geographic Information Systems recently spent five weeks teaching two officials from the National University of Rwanda about GIS and remote sensing. Back at their university, the Rwandans will pass on their knowledge to faculty and students via GIS workstations provided by Georgia Tech through the Georgia Research Alliance.

"We will set up the first center for GIS and remote sensing at the university, and our goal will be to train other professionals in this new technology," said Safari Bonfils, dean of science and engineering at the National University of Rwanda. "The students will use this technology for applications in agriculture, social science and the sciences. This will be very helpful for our country, especially for planners in the government ministries."

Future plans call for collaboration with Zoo Atlanta to share knowledge gained from the research with broader audiences.

Training and development opportunities

The Office of Organizational Development is offering the following courses in May:

May 3: Polishing Your Presentation Skills, 8:30 a.m. - 3:30 p.m., Savant Building, Room 308, $90. Instructor: Randall Whitley.
May 4: Power Communications for Women, 8:30 a.m. - 12:30 p.m., Savant Building, Room 308, $100. Instructor: Connie Glaser.
May 9: Improving Interpersonal Communications, 8:30 a.m. - 3:30 p.m., Savant Building, Room 308, $90. Instructor: Rhonda High.
May 10: Introduction to Word 97, 8:30 a.m. - 5 p.m., Savant Building, Room 303, $50. Instructor: Executrain.
May 10: How to Organize and Manage Your E-Mail Using Eudora, 11:30 a.m. - 1 p.m., Savant Building, Room 308, no charge. Instructor: Shammon Scott.
May 11: Telephone Skills, 8:30 a.m. - 3:30 p.m., Savant Building, Room 308, $90. Instructor: Debbie Woodham.
May 15: Introduction to Excel 97, 8:30 a.m. - 5 p.m., Savant Building, Room 303, $50. Instructor: Executrain.
May 16: Preventing Sexual Harassment, 9 - 11 a.m., College Annex, Room 302, no charge.
May 16: Introduction to Access 97, 8:30 a.m. - 5 p.m., Savant Building, Room 303, $50. Instructor: Executrain.
May 17: Dealing with Difficult People, 8:30 a.m. - 3:30 p.m., Savant Building, Room 308, $90. Instructor: Edward Leader.
May 18: PowerPoint 97 Enhancing Presentations, 8:30 a.m. - 5 p.m., Savant Building, Room 203; $50. Instructor: Executrain.
May 19: Negotiating at Work, 8:30 a.m. - 3:30 p.m., Savant Building, Room 308, $90. Instructor: Anita Hope.
May 23: Grammar Goes to Work, 8:30 a.m. - 3:30 p.m., Savant Building, Room 308, $90. Instructor: Connie Glaser.
May 24: Time Mastery, 8:30 a.m. - 3:30 p.m., Savant Building, Room 308, $110. Instructor: Deborah Woodham.
May 25: Promote Yourself, 8:30 - 11:30 a.m., Savant Building, Room 308, $50. Instructor: Pearl Alexander.

Registration: To register, see www.training.gatech.edu. Click the "Online Registration" tab, and you will be directed to the TrainaWeb registration section. Follow the instructions, and you will automatically be registered for your selected courses. You will receive an e-mail confirmation one to two days after the registration is entered. Cancellations: Staff members must notify Wansley Dennis (wansley.dennis@success.gatech.edu or 404-894-2240) five days prior to the start of the course to avoid being charged. When three or more people from one department cancel, they must notify Dennis within 10 days prior to the start of the course.
**Classifieds**

**APPLIANCES**
Wanted: Window unit air conditioner for a very small space (laundry room). Cheap. Contact drew.molley@grc.gatech.edu.

**AUTOMOBILES**


1989 Honda Accord, 4-dr sedan, 5 spd, 149K miles, good shape overall, runs well. $1,600 OBO. Contact 404-894-7703 or yufeng.xu@ipst.edu.


**COMPUTERS**
Apple Stylewriter 6500 Printer, 600 dpi, prints in color, $50 OBO. Contact Kevin, 404-894-9842 or kevin.doanes@oit.gatech.edu.

**FURNITURE**
Oak entertainment center ($100; originally paid $400), natural finish. Overall dimensions: 74” wide x 48” high x 16.5” deep. Contact Richard, (w) 404-894-2682, (h) 404-377-0056 or rj7@prism.gatech.edu.

O’Sullivan fundamentals organizational cart, maple color, $50 OBO. Contact Kevin, 404-894-9842 or kevin.doanes@oit.gatech.edu.

**REAL ESTATE**
For sale: 4 BR/3 BA house in Peachtree Corners, 6 years old, off Peachtree Ind. Blvd, cul-de-sac lot, big family room with high ceiling and skylights. Contact Linda, 404-894-6158 or linda.hodge@oit.gatech.edu.

**Miscellaneous**

**Editor's Note:** Calendar items should be e-mailed to Denise.Noble@icsp.gatech.edu or faxed to The Whistle at 404-894-7214 at least 10 days prior to desired publication. For more information, contact CETL.help@gatech.edu.

**Sports**

April 28

**Baseball**
Tech vs. Clemson, 7 p.m., Russ Chandler Stadium. Faculty and staff students admitted free with current Georgia Tech ID. The first 1,000 people will receive a free floppy disk.

April 29

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**Through April 28**

Courses/Instructor online surveys. Students may complete their critiques of classes/professors through April 28. Student login to www.coursurvey.gatech.edu/student_login.cfm and Banner ID and Banner password. For more information, contact CETL.help@gatech.edu.

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1991 Toyota Camry DX, under 61K miles. Automatic, PS, PB, PW, PL, am/fm/cassette, cruise, tilt. One owner, all maintenance records. White/blue interior. $6,000. Contact 404-894-9373 or sh21@prism.gatech.edu.


1991 Toyota Camry DX, under 61K miles. Automatic, PS, PB, PW, PL, am/fm/cassette, cruise, tilt. One owner, all maintenance records. White/blue interior. $6,000. Contact 404-894-9373 or sh21@prism.gatech.edu.


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