

State of the Institute 2000

Defining the Technological University of the 21st Century





Student Qualifications Keep Rising

<hr/>	<u>2000</u>	<u>1999</u>	<u>1994</u>
Average SAT	1330	1304	1275
Perfect SATs	12	6	4
Nat'l Merit	124	100	108

First year retention reaches an all-time high of 90%.

Georgia Tech Regional Engineering Program

ATLANTA
● Georgia Tech

STATESBORO
● Georgia Southern State University

SAVANNAH
● Armstrong Atlantic State University
● Savannah State University

Dr. J. David
Frost, Director



Athletic Achievements

Academic All Americans

Carolyn Clevenger, volleyball

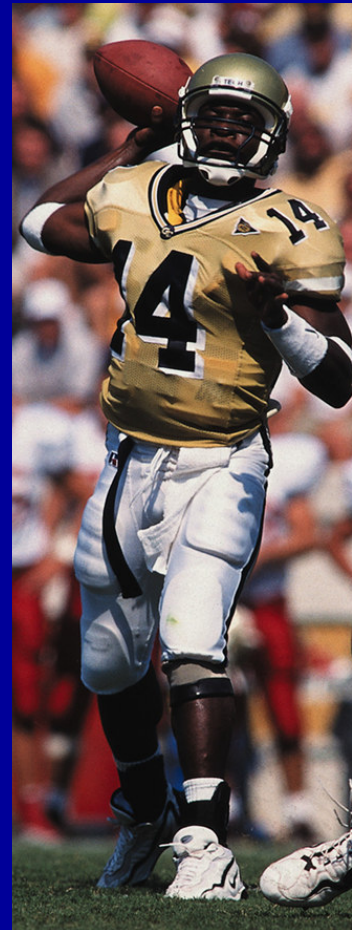
Dan Dyke, football

Bryce Molder, golf

Mark Teixeira, baseball



Mark
Teixeira,
National
College
Baseball
Player
of the Year



Joe Hamilton,
Nation's Best
College Quarterback



Bryce Molder,
World Amateur
Championship
medalist

Honing Administrative Talent



- Campus training participants increased from 428 to 1,611 last year.
- Number of classes increased by 276%.
- Cancellation rate dropped from 54% to 15%.
- 98% rated the quality as high.

Faculty Excel



C. P. Wong, Regents Professor
Materials & Science Engineering,
is elected to the **NAE**.



Dick Lipton, **NAE member** from
Princeton, accepts the Frederick G.
Storey Chair in Computing.

From Virtual Identities

The Turing Game tests the ability to recognize false online identities.

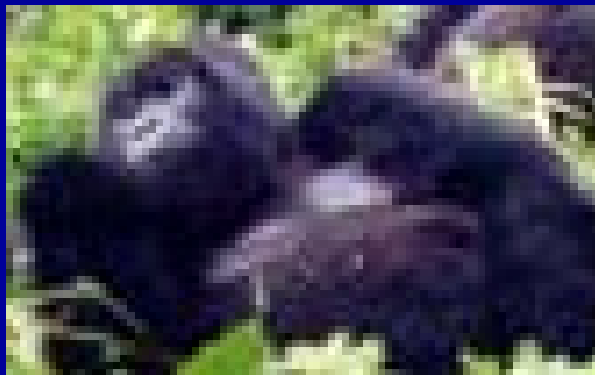


to Virtual Factories

Computer models enable manufacturers to explore the implications of changes before making them.

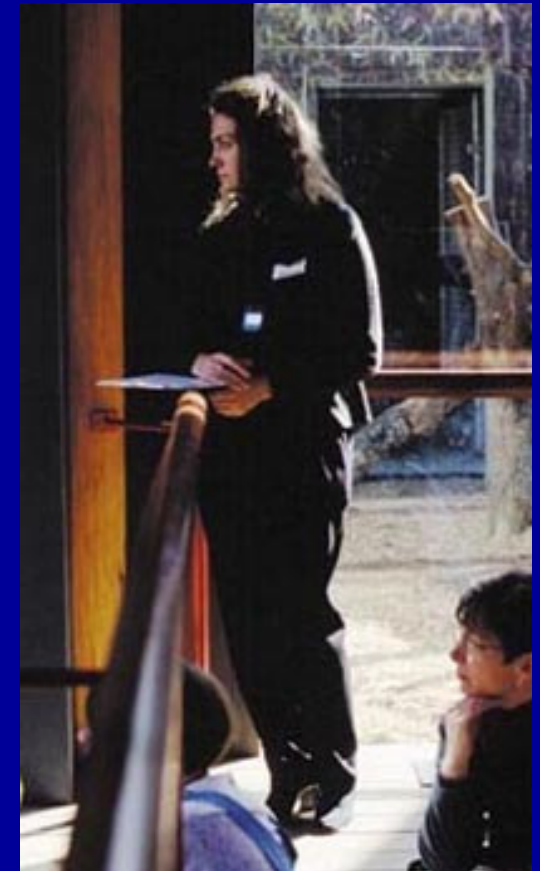


GT's three-screen visualization system in use for gorilla habitat in Rwanda.



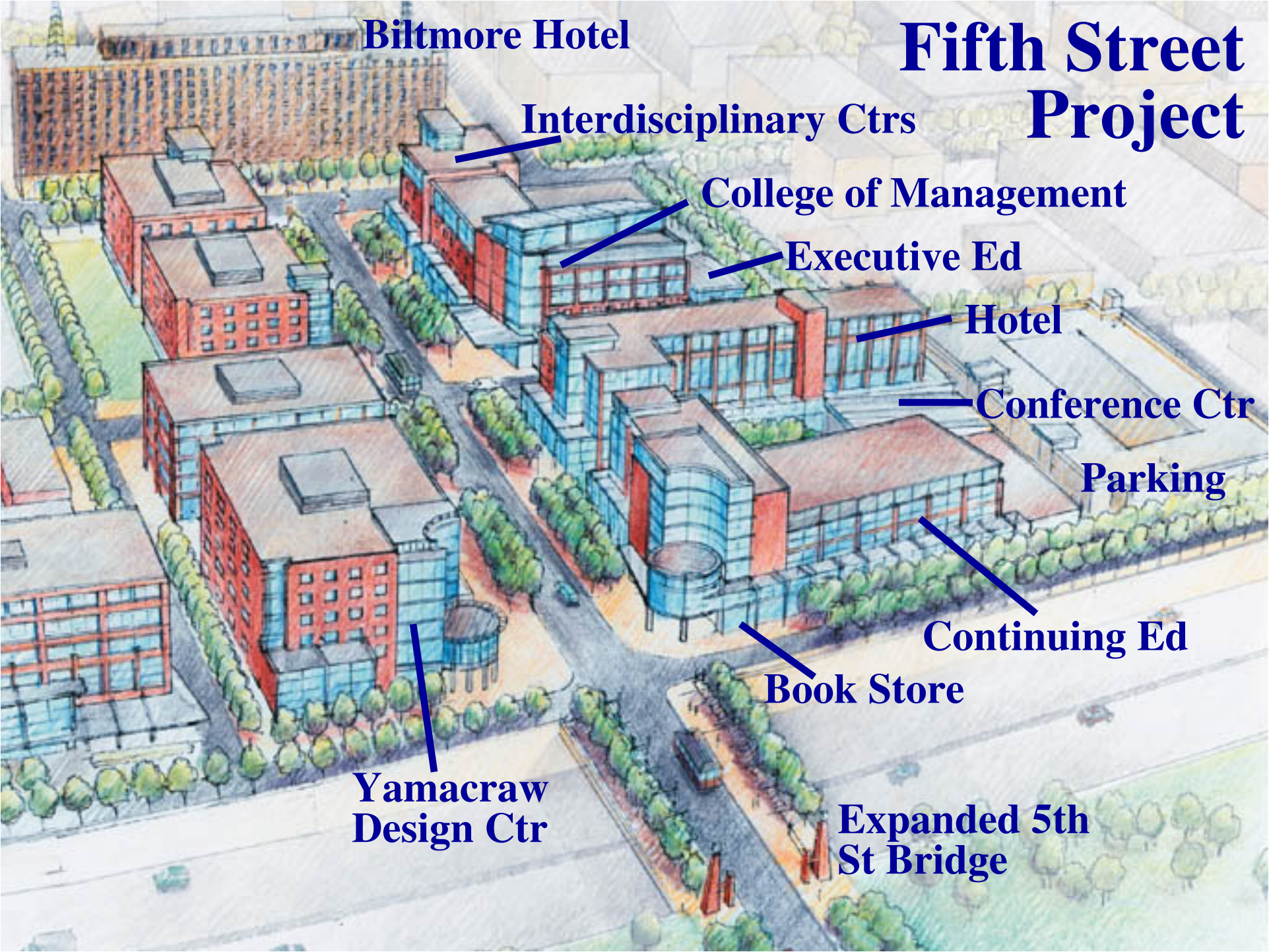
Preserving Endangered Species

Graduate student Rebecca Snyder moved from China to Zoo Atlanta with Lun Lun and Yang Yang.





The August 18 issue of *Science* featured Dr. Uzi Landman's work to develop a tiny jet nozzle with a diameter of six nanometers (six-billionths of a meter). Potential uses: injecting genes into cells or fuel into nanoengines, and producing micro-electronic circuitry.



Fifth Street Project

Biltmore Hotel

Interdisciplinary Ctrs

College of Management

Executive Ed

Hotel

Conference Ctr

Parking

Continuing Ed

Book Store

Expanded 5th St Bridge

Yamacraw Design Ctr

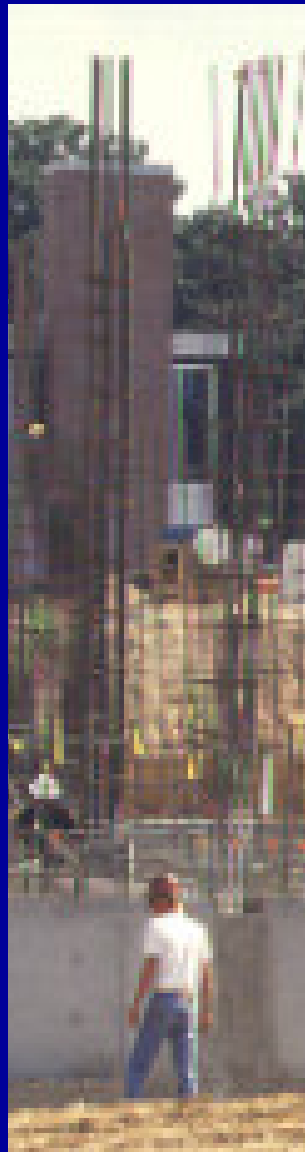
Campus Transformation Continues

Now Open

Love Manufacturing
Building
Combustion Lab
Adv Wood Prod Lab
GTRC, OIT in new
homes

Coming Soon

State Street Deck
Environmental Science
and Technology



On the

Drawing Board

Advanced Computing
Technology
Fifth Street Project
SAC-II
Baseball/Football
Stadia
Molecular Science &
Engineering
Biomedical Engineering

Campaign Hits the Home Stretch

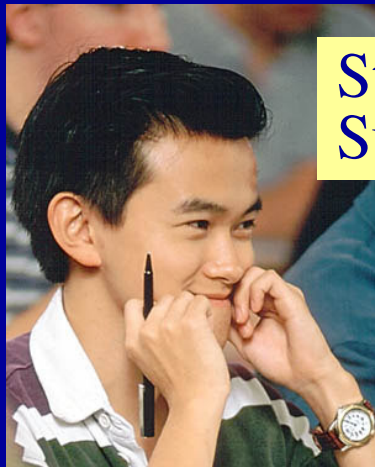
- Increased the goal to \$600 million by Dec 31.
- Raised \$567 million to date.



Interdisciplinary
Facilities



Endowed
Chairs



Student
Support



Student
Activities

- \$107 million in donated income last year set a record.
- Investments already making a difference.



USN&WR: #8 among national public universities

- Graduate programs:
 - College of Engineering # 4
 - College of Computing # 13
 - College of Architecture # 15
- All ranked engineering programs in the top 15
- College of Sciences Nonlinear Dynamics #5

DuPree College ranked # 30 overall,
15 by corporate sector in *Business Week*.





Buzz Named
Best College
Mascot in the
Nation

The Challenges Ahead

Defining the Technological University of the 21st Century

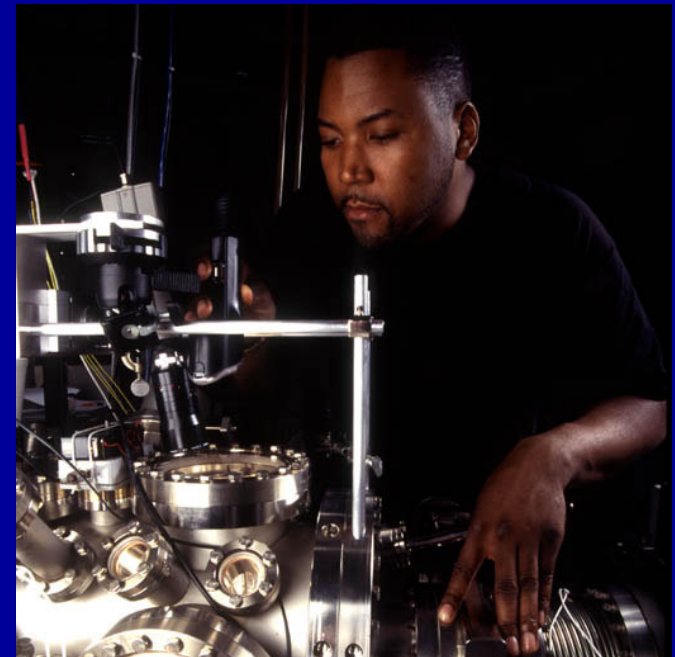




Undergraduate Teaching and Learning

Our retention and graduation rates do not live up to the quality of our students.

The qualifications of our 10,000+ undergraduates are rising, and they deserve our best efforts.



From the Undergraduate Student Handbook, Woodruff School of Mechanical Engineering:

The students and faculty of the Woodruff School of Mechanical Engineering are committed to continuous improvement in the quality of undergraduate education...

Faculty Expectations of Students:

- review prerequisite course materials.
- read handout materials provided in class.
- complete out-of-class assignments on time.
- come prepared for class. Participate in the classroom by asking questions and contributing to any discussion.
- get help/feedback from professor as needed.
- follow the Woodruff School Honor Code.

“It is really the undergraduate who makes a university, gives it its lasting character, smell, feel, quality, tradition... whose presence creates it and whose memories preserve it.”

Sean O’Faolain
Harvard Alumni Bulletin

The Student Government Association's Joint Commission on Enhancing Undergraduate Learning brought students, faculty and staff together to discuss ideas.



Undergraduate Initiative



- Create \$250,000 fund for undergraduate research.
- Recognize faculty efforts with undergraduates and provide core curriculum oversight.
- Increase graduate and undergraduate TAs; provide more training for TAs.
- Document, reinforce, and share best practices.

We have
a firm
foundation
on which
to build.





The College of Architecture created a common first-year curriculum:

- Exposes freshmen to the big picture to see the integration of design and construction.
- Reflects professional practice by emphasizing teamwork and collaboration.

The distinguishing characteristic that sets the research university apart from other institutions of higher education is the integration of all of its people – students, faculty, and staff – into all of its missions – education, research, and service.



Jeremy Farris developed a fungus that kills kudzu and was an American delegate to the Asian Pacific Economic Cooperation Conference in Singapore before he arrived on campus this fall as a freshman and President's Scholar.





“We do all of our research as teams. Undergraduates usually work with a PhD student as a mentor. If they’ve been with us for a couple of years, they become full partners, taking data, analyzing data, presenting papers, and co-authoring literature.”

Dr. Charles Eckert



Students float through their experiment aboard the "Vomit Comet."

Student Teams

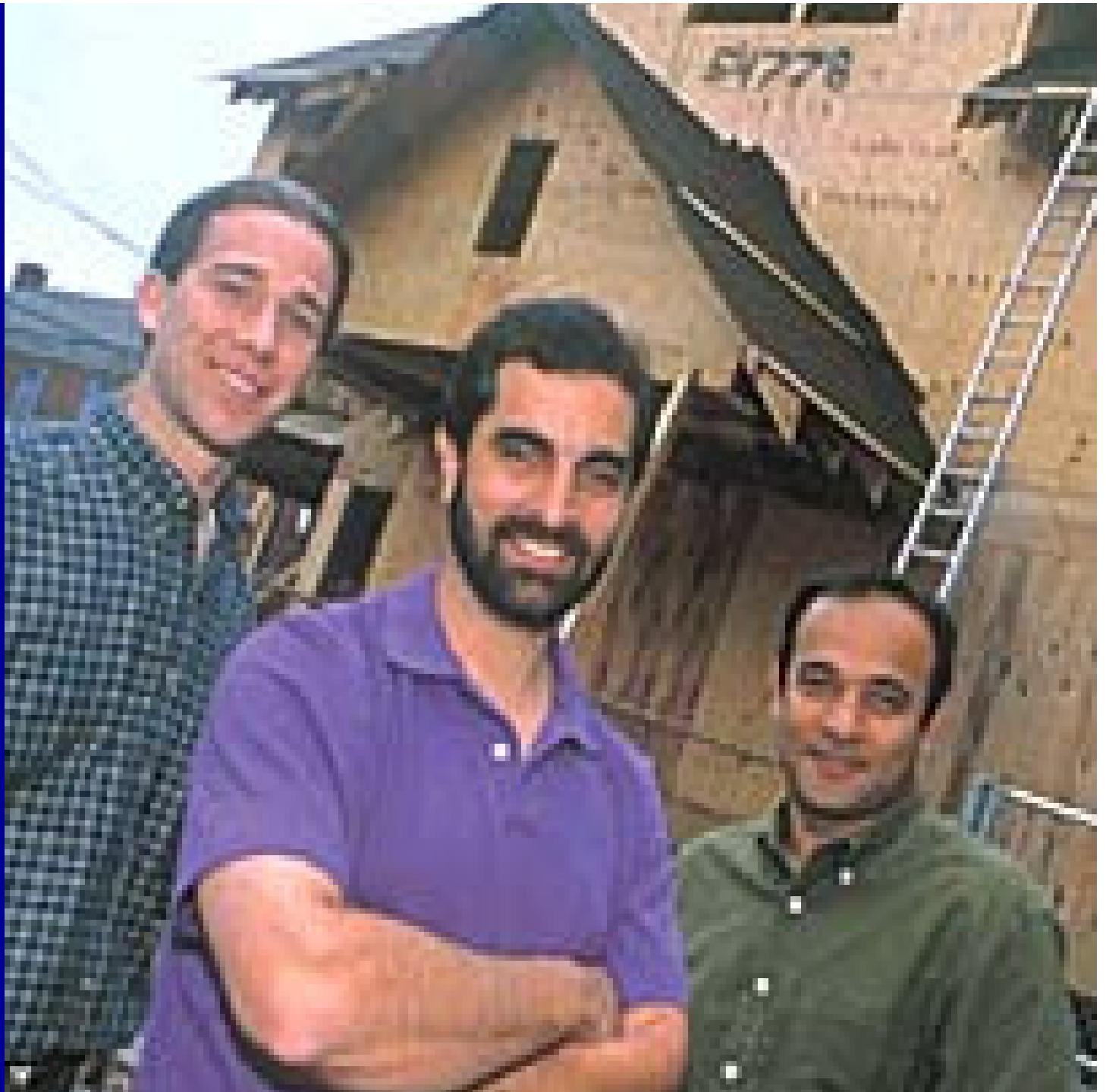
Rise to Research Challenges

Student prepares an aerial robot for lift-off.



Broadband Institute's Aware Home

Cory Kidd
poses with
Dr. Gregory
Abowd and
Dr. Irfan Essa



GTRI Offers Co-op Students...

Jessica Shearer checks
decibel levels inside
the “Quiet Curtains.”



Opportunities for Research

Matthew Bennett adjusts a
clock pendulum in the
replication of a 1665
physics experiment.

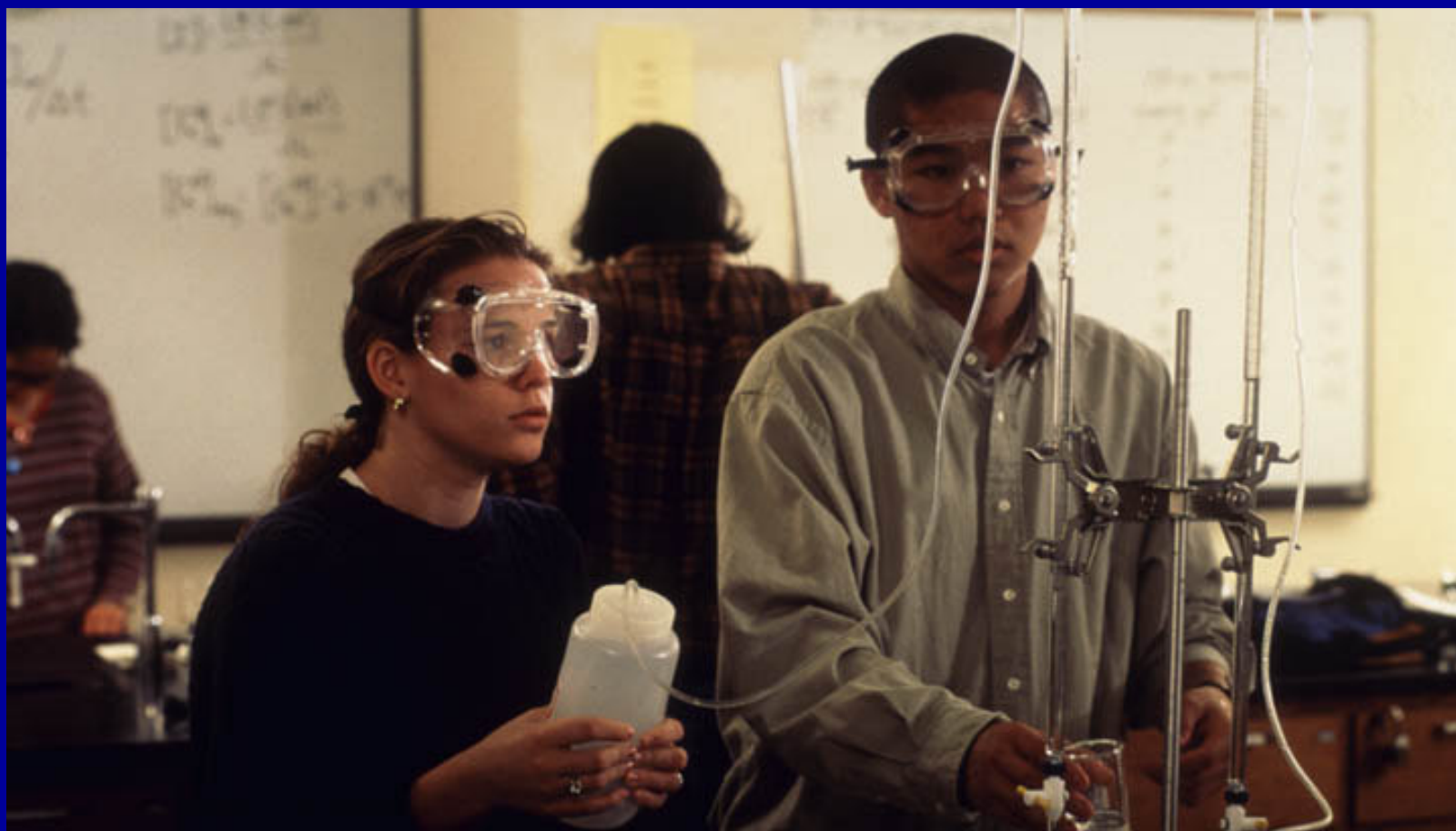
Undergraduate Initiative



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“The ability to interact with really bright students is one of the major attractions here at Tech.”

Dr. William S. Rees, Jr.
Director, Molecular Design Institute



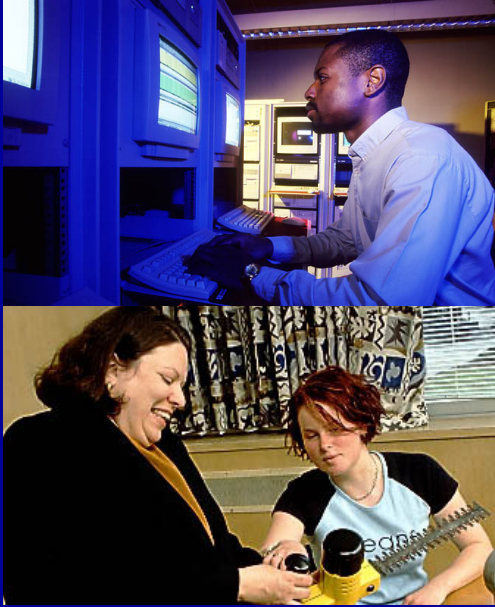


Dr. Bill Chameides, Smithgall Institute
Chair of Earth and Atmospheric Sciences,
teaches an introductory course.

Vice Provost of
Undergraduate
Studies Bob
McMath teaches
southern history.



Undergraduate Initiative



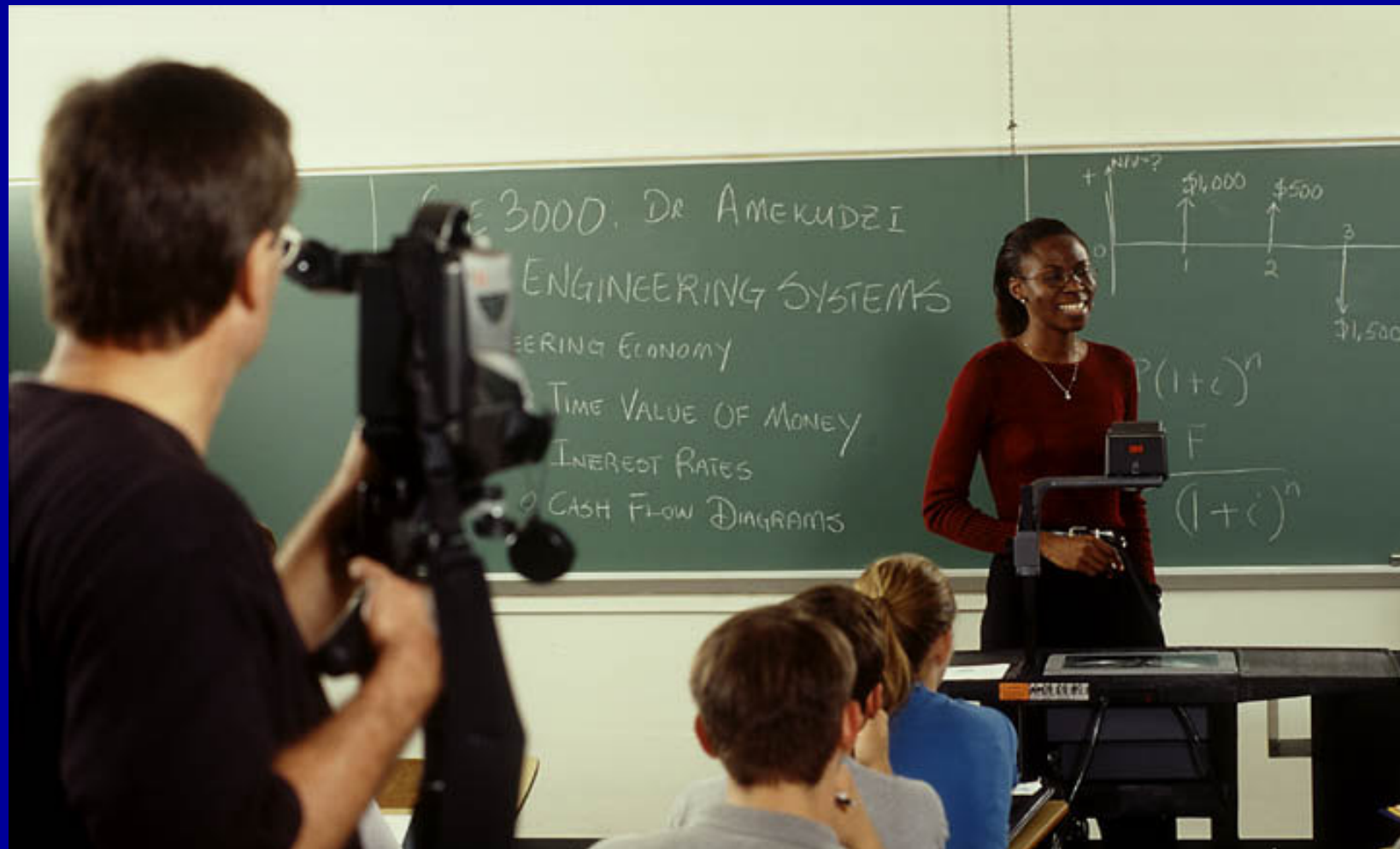
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CETL videotapes lectures and offers helpful suggestions to improve presentation techniques.



Undergraduate Initiative



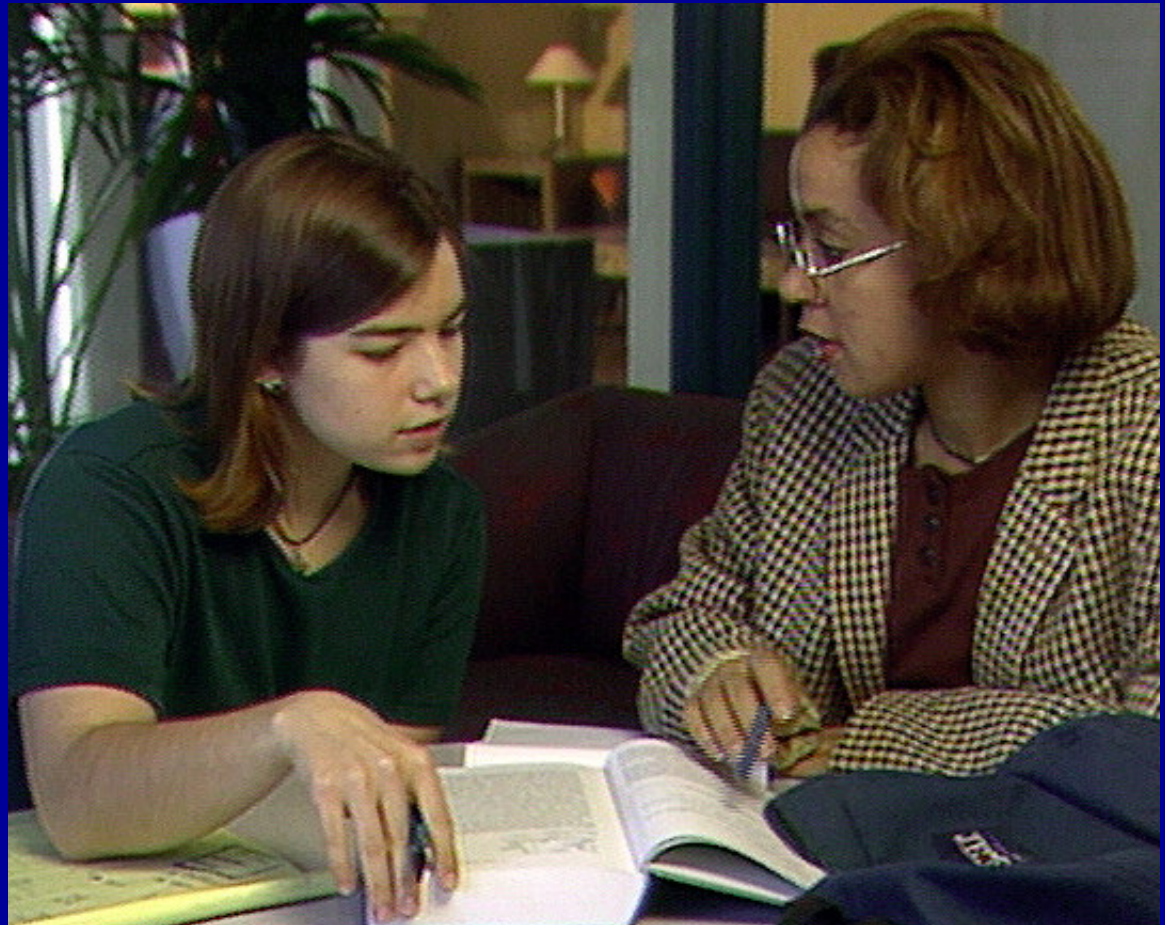
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Griffith in Context



Multimedia teaching tools like Griffith in Context, developed by Assistant Professors Greg VanHoosier-Carey and Ellen Strain with funding from the National Endowment for the Humanities, help make Tech an appealing destination for Britain Fellows.

The students
are better; the
curriculum is
still rigorous.



Last year the Office of Success Programs increased
tutoring and academic counseling sessions by 70 %.

Promoting Diversity

Diversity is the key
to our institutional
credibility.



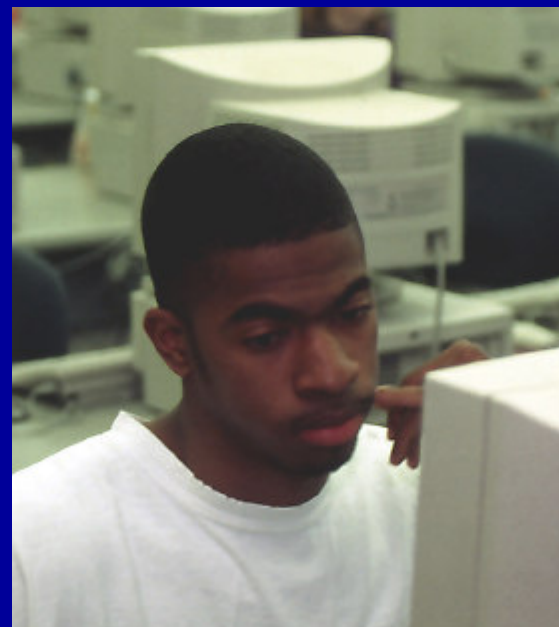
“Diversity is not an end unto itself. It is a dynamic foundation, a springboard that offers unlimited possibilities for innovation and growth.”

Paul Halata, President & CEO
Mercedes-Benz USA

Student Diversity



White Males: 48%



Minorities: 34%

Women:
28%



Achieving Faculty Diversity



Women: 15 %



Minorities: 20 %



The Women's Resource Center makes campus more supportive and inclusive for women.

OMED promotes a culture of "quality diversity" that celebrates outstanding achievements by minorities.





Last year the Counseling Center increased its outreach to international students, and the Office of Diversity Programs conducted diversity training for 1,200 students, faculty, and staff.

Institute Diversity Management Group

Council on Diversity

Diversity Forum



Pearl Alexander
director, Equal
Opportunity
Diversity Programs

The Office of Equal Opportunity/Diversity Programs

**State-of-the-Institute
Diversity Update**

Engineering Diversity at
Georgia Tech

This report was prepared in consultation with the Campus Diversity Council for the purpose of raising awareness of global diversity management challenges and opportunities. The report is not intended as an EEO compliance tool or report, but as a working document from which to build baselines for diversity measurement that exceed EEO compliance requirements.

“Nothing on earth is more gladdening than knowing we must roll up our sleeves and move back the boundaries of the humanly possible once more.”

Annie Dillard
The Writing Life

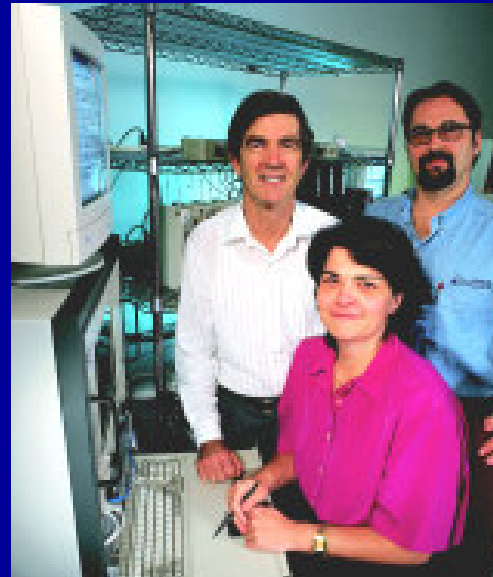




“There are lots of good ideas out there, but having a good idea is only 5 percent of the way to realizing it. The other 95 percent is dogged pursuit.”

Dr. Stephen Dickerson, professor emeritus of mechanical engineering, started a company in 1991 to market his robotic vision invention. DVT Corporation became one of Tech’s best faculty start-up success stories.

More Faculty Innovations Find their Way to the Marketplace



Two Tech faculty were partners in starting **Digital Furnace**, which recently sold for \$136 million in a stock exchange.



The smart T-shirt, which reads its wearer's vital signs, has been licensed for manufacture by start-up **SensaTex Inc.**

Technology developed at Georgia Tech was licensed to **MicroCoating Technologies**, a start-up company.



FOB Synthetics, Inc.
is one of the first
companies at
EmTech Bio.

A second client is
NuTec Sciences, one
of the nation's
leading companies in
the new field of
bioinformatics.



“There is a transition going on in Georgia’s economy from an industrial and manufacturing economy to a high-tech economy. Georgia Tech is at ground zero in re-making that economy.”

Roy Barnes
Governor of Georgia

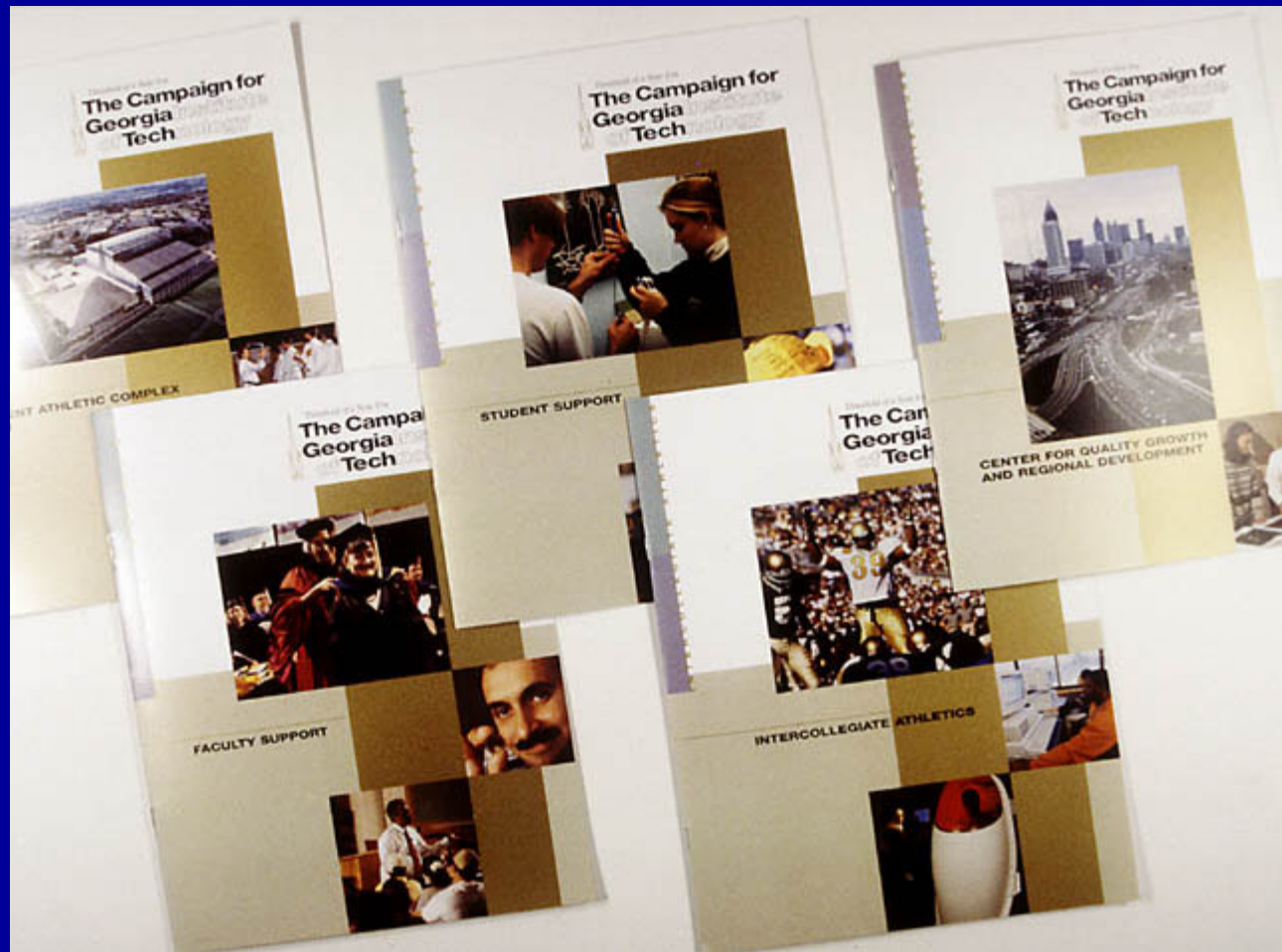
Strategic Communications



What do we
want to be
known for?

Who are our
audiences?

How do we
communicate
our message?



Giving our communications a “family feel” will help to establish an image and brand identity for Georgia Tech.



“Destiny is not a matter of chance, it is a matter of choice; it is not a thing to be waited for, it is a thing to be achieved.”

William Jennings Bryan

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