Technological Leadership in a Changing World

State of the Institute 2002
Year in Review

- Students
- Faculty
- Rankings
- Research
- Improving the Institute
- Facilities
Students

Student caliber continues to rise

- 16,400 total enrollment
  - 15,800 on Atlanta campus
  - 600 in southeast Georgia, France, Singapore, or online
- 2,234 freshmen
  - 1336 average SAT score
  - 3.8 average GPA (of 4.0)
Athletes achieve new heights

15 of 17 intercollegiate teams in post-season play

**Students**

**ACC championships:**
- men’s golf
- softball
- women’s indoor track

**ACC coaches of the year:**
- Alan Droskey, women’s indoor track
- Grover Hinsdale, men’s indoor track
- Bryan Shelton, women’s tennis
- Bruce Heppler, golf
- Kate Madden, softball

**ACC players of the year:**
- Maja Pachale, volleyball
- Brandon Mahoney, Indoor track
First 50 years of women at Tech

Much to celebrate; more to be done:

– Female enrollment increased from 24% to 28% over past decade, but has been flat for several years.

– Female faculty increased from 11% to 16% over past decade.
2001-02 academic year brings 67 new faculty, including 16 endowed chairs and 3 school chairs.

Faculty

William T. Trotter, Mathematics

Anselm Griffin, Textile & Fiber Engineering

Judith Curry, Earth & Atmospheric Sciences

New school chairs
Awards honor outstanding faculty

Presidential Early Career Awards for Scientists and Engineers:
John Zhang, Chem & Bio
Reggie DesRoches, Civil Eng

Robert Dickinson, Earth & Atmospheric Sciences, becomes the first Tech professor to be a member of both the National Academy of Engineering and the National Academy of Sciences.
Faculty books attract accolades

Eugene Comiskey & Charles Mulford: Book on detecting deceptive accounting puts them in spotlight.

Hanchao Lu wins Urban History Association Award for *Beyond the Neon Lights*.

Eleanor Alexander’s *Lyrics of Sunshine and Shadow* on the cover of the August 18 *New York Times Book Review*. 
Rankings

Nation’s 9th best public university

- 9th among public universities; 38th among all universities, *U.S. News & World Report*.
- Graduate rankings strong:
  - Engineering ranks 4th; all ranked schools in top 15.
  - Science programs fall largely in the top 10%.
  - Computing ranks 12th.
  - Management ranks 39th, all ranked programs improve.
- Architecture ranks 5th in *Almanac of Architecture and Design* study.
Research awards increase

In millions

FY93 FY94 FY95 FY96 FY97 FY98 FY99 FY00 FY01 FY02

Research

$0 $50 $100 $150 $200 $250 $300

FY93 FY94 FY95 FY96 FY97 FY98 FY99 FY00 FY01 FY02
Entomopter
Improving the Institute

- New strategic plan
- Campus safety
- Academic accountability
- Greek system
- Undergraduate initiative: second year
- Enhancing vitality of campus core
Improving the Institute

Midterm grades prove helpful

- 91% of last year’s freshmen are back
- Number of students receiving a D or F in core courses dropped from 11% to 9%.

Students have become more aware of the support services that are available to them.
Improving the Institute

Undergraduate research expands

- New website alerts students to opportunities.
- 108 students received funds from President’s undergraduate research initiative.
- Almost 10% of undergraduates received academic credit for supervised research activities.
Improving the Institute

A new campus focal point

- New Quad
- Undergraduate Learning Center
- Library West Commons
- Houston Building
Improving the Institute

New concept in undergraduate education

- Freshman and sophomore labs
- Academic services
- Information Commons
- Enhancing teaching and learning
A new focal point

for student* recreation

* and faculty and staff
Facilities

Technology Square tops out
Facilities

Life Sciences Complex takes shape

Ford Motor Company ES&T

Whitaker Biomedical Engineering
Technological Leadership in a Changing World

State of the Institute 2002
President Bush Views Tech's Advanced Homeland Defense Technology

A packed house of about 2,000 invited guests greeted President George W. Bush with thunderous applause, at Georgia Tech’s O’Keefe gymnasium nearly drowning out the music that signaled his entrance.

In town for a fund-raiser on behalf of his fellow Republican, Congressman Saxby Chambliss, the President attended Tech’s annual "serving national needs" celebration on Tuesday.
President George W. Bush views a demonstration of first-response technologies.

Georgia Tech civil engineers assess the damage at Ground Zero with an advanced digital data system they developed.
GTRI researchers are developing a shoe-box sized integrated-optic sensor that can detect multiple biological and chemical agents in seconds.

F. Joseph Schork, Chem & Biochem, tests a skin-barrier gel he and Jan Goch developed to protect and treat wounds.
Technology Aids Land Mine Victims

Land-mines strike thousands of innocent victims every year, shattering lives and destroying futures. A new Georgia Tech-led project could have a significant impact on the care and rehabilitation of land-mine survivors.

"finding international solutions"
Mark Geil’s work with international land mine victims blossoms into the nation’s only master’s degree in prosthetics and orthotics in a new School of Applied Physiology.

Tech professor turned astronaut, Mike Massimino, helped install a new camera on the Hubble Telescope that is now providing the clearest and deepest pictures ever taken of the universe.
Tech Professor Develops Water Management for Nile River

In many parts of the world, water is a precious and often fought-over resource. To help lessen such conflicts, a Georgia Institute of Technology researcher has developed a computer-based system he hopes will establish a scientific basis for equitable and sustainable water resources management.

"Today and in the years to come, water is and will continue to be a serious reason for conflict ... especially when different countries share a limited resource," said Dr. Aziz.
Aris Georgakakos oversees the design of an integrated management system for the Nile River, whose 4,000 miles touch 250 million people.

Amy Sullivan checks data from automated air pollution sensors developed at Georgia Tech and now in use around the world.
At Skidaway Institute of Oceanography, Mark Hay studies the complex chemistry of marine environments, including the development of toxins and toxin resistance, which determines who lives where and who eats whom.

David Parekh directs the Center for Innovative Fuel Cell and Battery Technologies, which develops new cleaner, longer-lasting fuel sources.
"shaping national policy"

Georgia Tech President Named to Presidential Policy Council

President George W. Bush today appointed G. Wayne Clough, President of the Georgia Institute of Technology, to his Presidential Committee on Science and Technology. Dr. Clough is one of 24 members of the prestigious board and is the first Georgia Tech representative to serve on the Council.

“Dr. Clough also noted the importance of having two Atlanta representatives on the Council. Walter Massey is highly regarded in Washington and has been instrumental in shaping national policy for years. Our ability to focus on the issue of research and technology transfer-through examples like the Georgia Research Alliance, Yvescamp, and the Center Initiative..."
Industrial and Systems Engineering Professor Chip White advised the U.S. Senate on incorporating security features into the nation’s intelligent transportation systems.

New Dean of Computing Rich DeMillo provides policy expertise on defending against cyber attacks.

Susan Cozzens, Public Policy, chairs the Committee on Science, Engineering and Public Policy of the American Association for the Advancement of Science.
Sy Goodman, Computing and International Affairs, provides information technology expertise to foreign governments.

GT CIBER provides data about business standards, technological opportunities, and threats in the global marketplace.

Larry Keating, Architecture, works with Atlanta neighborhoods and advises community leaders on improving the quality of life for minority and low-income residents.
"educating tomorrow's leaders"

Georgia Tech Students Cross Boundaries to Study in Cuba

When Georgia Tech associate professor Kirk Bowman made plans a year ago to visit Cuba with 23 international affairs students, he had no idea the class would be studying there at the same time former President Jimmy Carter made his historic visit.

"It was pure serendipity," Bowman says. "We didn’t know until the last moment." Bowman’s students visited dance halls to learn the salsa, son and rumba. They observed the rites of Santeria, Cuba’s quasi-oficial religion, and attended a “baseball” game.

"I wanted students to understand Cuban civil society," Bowman says. "Cuba is impacting the island through e-mail and the Internet. They are indicators of openings in the society."
“The thing that distinguishes Georgia Tech’s attitude about leadership from that of other schools is our notion that leadership skills should be taught to everyone, not just a select few.”

Lee Wilcox
Vice President for Student Affairs

- 2 new leadership courses and website
- $1 m endowment to support practical leadership experiences
- Leadership portfolio
- Partnership with Hands on Atlanta
Study abroad programs give students a global perspective as well as teaching flexibility and creative communication skills.

Prestigious scholarship programs offer opportunities for outstanding Tech students to hone their leadership abilities.
Trey Childress was a Governor’s intern at the State Technology Policy Council while getting a B.S. in industrial engineering. As a graduate student he juggled studies in public policy with a job as an analyst in the State Office of Planning and Budget.

Graduate student Amin Holmes was a two-time summer intern at MITRE, a non-profit organization that operates federally funded technology research centers. His efforts were recognized with a GEM Student Leadership Award.
“The open society, the unrestricted access to knowledge, the unplanned and uninhibited association of men [and women] for its furtherance – these are what may make a vast, complex, ever growing, ever changing, ever more specialized and expert technological world nevertheless a world of human community.”

J. Robert Oppenheimer

*Science and the Common Understanding*

1954