

2007 State of the Institute



VANISHING BOUNDARIES



Georgia Institute
of Technology

VANISHING BOUNDARIES



“Life is a petty thing unless it is moved by the indomitable urge to extend its boundaries.”

José Ortega Y Gasset
Invitation to Understanding 1925

Georgia Tech vision and mission

Georgia Tech will define the technological research university of the 21st century and educate the leaders of a technologically driven world.



VANISHING EDUCATIONAL BOUNDARIES



"The classroom with all its limitations remains a location of possibility. In that field of possibility we have the opportunity to labor for freedom, to demand of ourselves and our comrades an openness of mind and heart that allows us to face reality even as we collectively imagine ways to move beyond boundaries."

bell hooks
Teaching to Transgress 1994

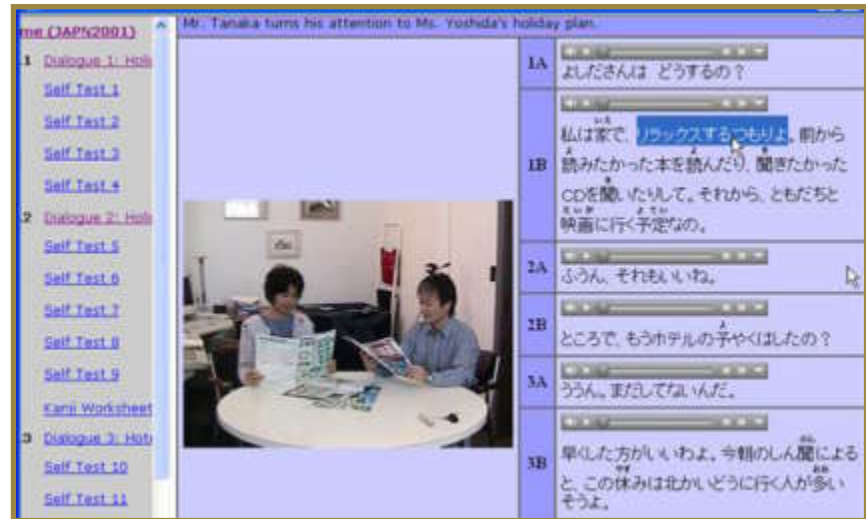
Transforming the learning environment

🌐 Online learning comes alive

- Horizon Wimba Live Classroom for languages
- Halo technology

🌐 Library East and West Commons : 2007 Excellence in Academic Libraries Award

🌐 Sophomore Experience in the North Avenue Apartments



Live environment, real-time interaction



East Commons

A uniquely diverse community

🌐 Economically diverse: Georgia Tech Promise

- Inaugurated this fall with 200 students
- Average family income: \$22,754
- Majority minority



🌐 Ethnically diverse:

- Nation's No. 1 producer of under-represented minority and female engineers
- Awards 10% of nation's African-American engineering PhDs

🌐 Culturally diverse: More international students than any other college or university in Georgia

A new breed of graduate who...

- 🌐 Understands technology.
Even liberal arts studies are imbued with technology.
- 🌐 Knows how to ask questions as well as find answers.
Almost half of undergraduates do structured research for credit.
- 🌐 Has a sustainability perspective.
Environmental sustainability pervades the curriculum.
- 🌐 Is a citizen of the world.
More than a third of undergraduates study abroad.
- 🌐 Is prepared for leadership.
Tech offers a multitude of leadership learning experience in and out of the classroom.

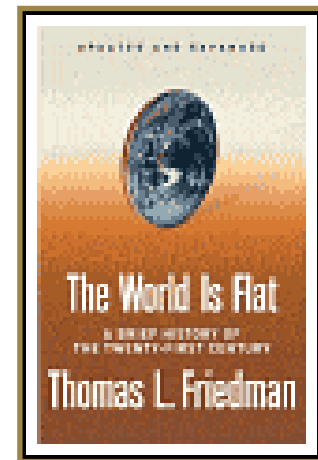




Tech has the “right stuff”

“What the Georgia Tech model recognizes is that the world is increasingly going to be operating off of the flat-world platform, with its tools for all kinds of horizontal collaboration.”

Thomas L. Friedman
The World is Flat



Career Fair draws the usual...



... and the not-so-usual



VANISHING DISCIPLINARY BOUNDARIES



“As boundaries vanish in science and engineering, entirely new possibilities open up on many horizons.”

Arden Bement
Director, National Science Foundation

An interdisciplinary culture attracts faculty to Georgia Tech



The photonics group merges science with engineering.



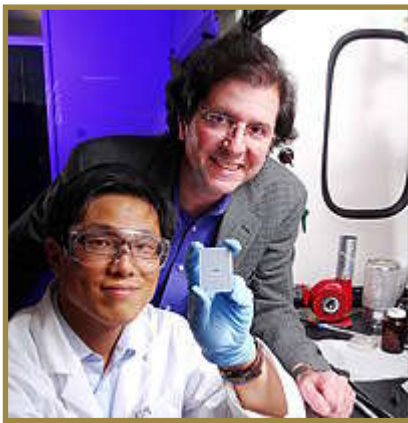
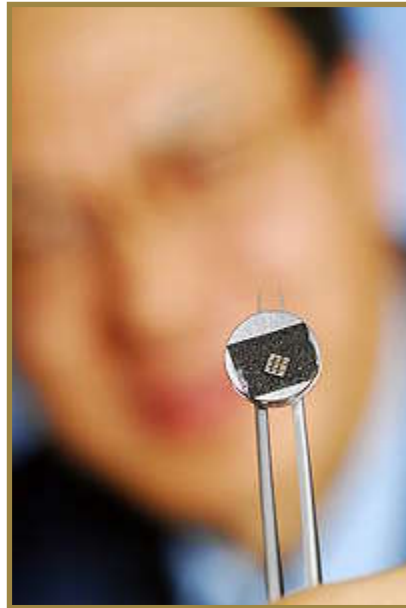
Jay Bolter has advanced degrees in the classics and computer science.



Mostafa El-Sayed began the Laser Dynamics Lab

Focus on energy

Tiny nanogenerator harvests energy from environmental sources like ultrasonic waves, mechanical vibrations, or blood flow.



New nanoparticle film may make energy storage in devices like cell phones more effective.



Biofuel sources

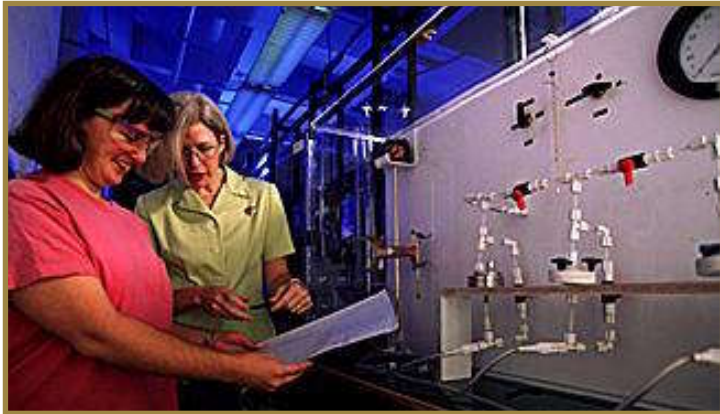


Southern pine, switchgrass



3-D solar cell captures almost all light that strikes it.

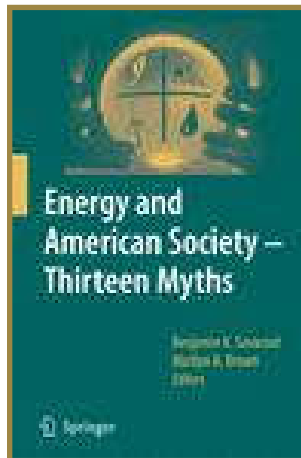
Energy – sustainability – climate change



Carbon capture and sequestration to minimize CO₂ emissions



Solar house takes shape

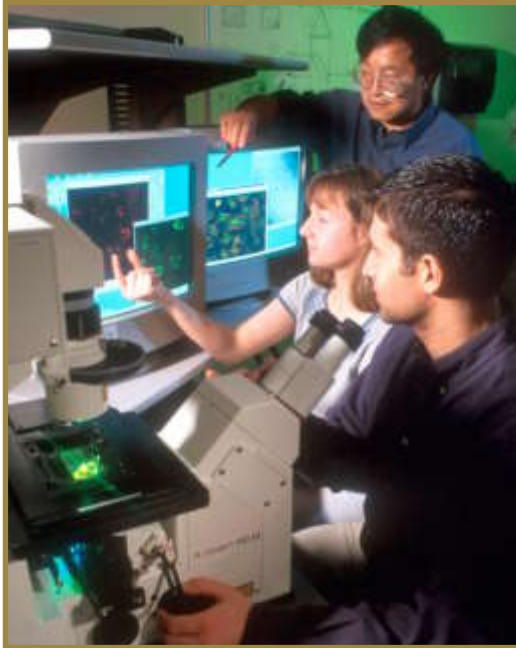


Marilyn Brown

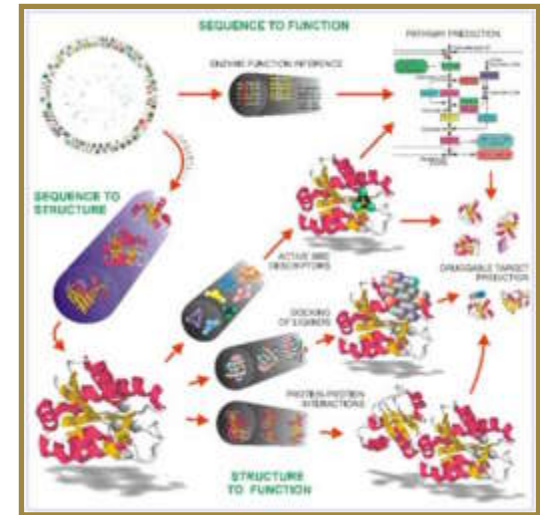


Impact of global warming

Transforming healthcare



Modeling an optimal heart surgery plan



Designer drugs based on the human genome

3 NIH Nanomedicine Centers:
Cardiovascular
Cancer
DNA and RNA repair



Electronic health systems



Technology meets the arts



Professors Janet Murray, Ian Bogost

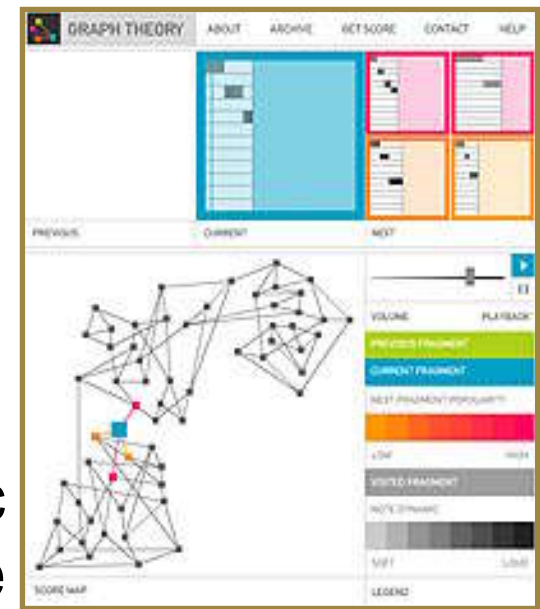


Living Game Worlds III:
Playing with Reality was
simulcast in Second Life



Flora Electronica:
A real-time electronic
media performance
garden

Participating in music
composition online

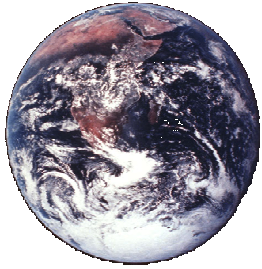


VANISHING NATIONAL BOUNDARIES



“In strategy it is important to see distant things as if they were close, and to take a distanced view of close things.”

Miyamoto Musashi
17th century Japanese samurai



A truly global university

- 🌐 Takes typical international programs to a higher level and includes science and engineering.
- 🌐 Builds strategic international research and education platforms that are interconnected with the activities of the home campus.
- 🌐 Stimulates economic development and works on policy issues in a global context.
- 🌐 Links to the highest levels of government in multiple international locations.

Hosting global leaders



France:
Catherine Bréchignac
President, Centre
National de la
Recherche



Christine Lagarde
Minister for Foreign
Trade



Liberia: Ellen Johnson-Sirleaf, President



Ireland:
Mary McAleese, President

North Korea:
Kim Myung Gil, Deputy
UN Ambassador



Addressing global environmental issues



Mark Hay, Julia
Kubanek in Fiji



Hermann Fritz in Java



Engineering Students
Without Borders in
Los Lima, Honduras



Peter
Webster in
Bangladesh

Students head abroad



John LeTourneau,
Venice



Travis Mitchell,
Melbourne



Beijing/Singapore Summer
Program, Inner Mongolia



Summer Program,
Georgia Tech Lorraine

An international flavor at home



Multi-disciplinary
studies through the
Korea Initiative

Paul Simon Award
for internationalizing
our campus

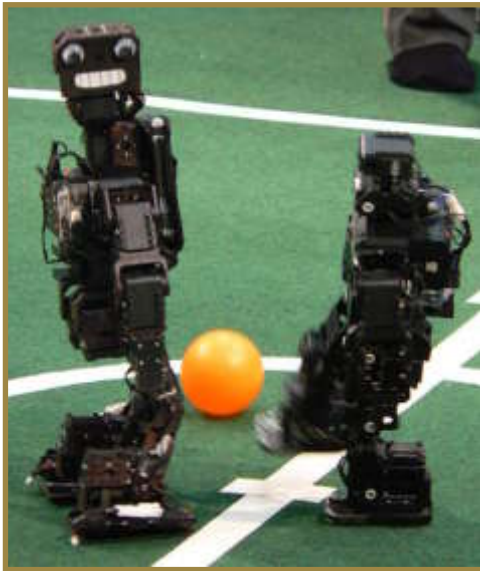


International
House
immerses
students in a
multi-cultural
residential
community.



Karan Chopra
2007 International Student
Leader of the Year

RoboCup 2007

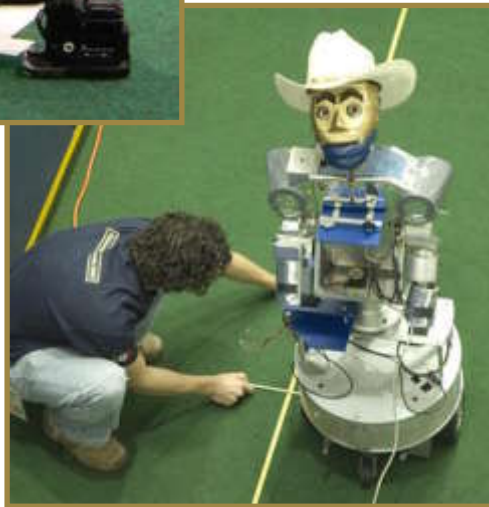


🌐 300 teams from 37 nations

🌐 Competitions:

- 4-legged and humanoid soccer
- Search-and-rescue
- Microscopic robots

🌐 450 media hits, 10 major story placements



VANISHING CAMPUS BOUNDARIES



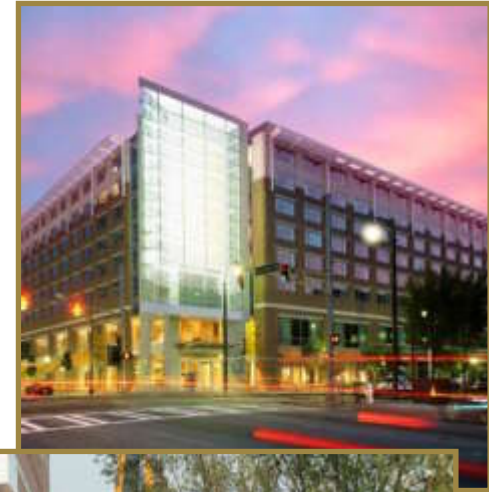
***“To do more for the world than the world
does for you – that is success.”***

Henry Ford
Founder, Ford Motor Company

Transforming Midtown

From this...

... to this



Students reach out



Campus Christian Fellowship, MOVE, AASU and GTSBE organize work trips to the Gulf Coast.



Sympathy, solidarity with Virginia Tech



TEAM Buzz celebrated its 10th anniversary.



IFC Habitat for Humanity House

Atlanta



Five campuses on three continents

France



Ireland



Savannah



Singapore



One Georgia Tech

VANISHING BOUNDARIES



***“Knowledge for the sake of understanding,
not merely to prevail, that is the essence of
our being. None can define its limits or set
its ultimate boundaries.”***

Vannevar Bush
The Search for Understanding 1967