Georgia Tech Update

President G. Wayne Clough

Georgia Tech Advisory Board
April 19, 2004
Applications

- 8,556 applications (up slightly)
- 63% applied electronically
- Deposits (deadline May 1)
  - In-state running 16% ahead of last year
  - Out-of-state running 78% ahead of last year
- Computing down, engineering steady, all other programs up
- Women and minorities up; international students steady
General Assembly update

- Special session likely on budget
- Present budget includes:
  - $116 million in formula funding for system enrollment growth
  - $2 million for design of Nanotechnology Research Center
  - $1 million increase in GTREP funding
  - MRR funding: $55 million ($5-6 m for GT)
  - GRA: $25 million, including $0.8 m for National Lambda Rail
Rankings remain high

Engineering holds at #5
- Industrial/systems engineering #1 for 14th consecutive year
- Biomedical engineering jumps up to #2
- Aerospace, civil, electrical, environmental and mechanical engineering also in top 10

College of Management climbs to #42, tied with UGA’s Terry School of Business

Public Policy’s information and technology management program ranks #8
Students shine

GT Motorsports wins Formula SAE in Australia

Monica Gupta, Churchill Scholarship to Cambridge

Jia Xu, Marshall Scholarship to Imperial College, London School of Economics

Goldwater Scholarships:
Thomas Oliver
Mark Callaghan

Mellon Fellowship in Humanistic Studies
Laurence Ralph

Gabe Brostow, Marshall Sherfield Fellowship
Faculty, alumni honored

Chaddick Chair Russell Dupuis wins National Medal of Technology

Memorial designed by alumnus Michael Arad chosen for World Trade Center site

National Academy of Engineering: Fred Juang, Motorola Foundation Chair, and Jeff Wu, Coca-Cola Chair
Construction continues

Campus Rec Center  Student Center Commons

Klaus Advanced Computing Building  Molecular Science and Engineering Building
Spectacular run through the brackets made Tech the first Georgia team to play in a national championship game.

Volleyball team finished its season ranked 8th in the nation.

P.J. Daniels rushed 307 yards in the Humanitarian Bowl 52-10 victory.
Update on policy involvements

- National Innovation Initiative
- Moon to Mars Mission
- Sam Nunn Policy Forum on Bioterrorism
“We might wish that we ourselves owned such a computer to do the work for us. Such a situation would have its disadvantages, however. Electronic computers are bulky, expensive, complicated, and can be handled only by people with special training.”

Isaac Asimov

An Easy Introduction to the Slide Rule, 1965
Georgia Tech: Yesterday

- Little inter-disciplinary collaboration
- Singular points of excellence and interest, but no critical mass
- Did not make the investments needed to be competitive when supercomputing was developing under the Strategic Computing Initiative
Georgia Tech: Today

- Critical mass (over 150 tenured or tenure-track faculty in College of Computing, School of ECE)

- Strong interdisciplinary collaboration

- Leader in:
  - Architecture
  - Graphics/visualization
  - Underlying basic technologies like signal processing and network technologies
Today: Asking “what” rather than “how”

- A variety of high-performance options
  - Parallel processing
  - Supercomputers
  - Clusters and grids

- Focus is now on what researchers want to do, rather than the research process being driven by the “how” of technology
The virtual test tube of the 21st century

- Simulating and modeling large-scale events and systems
- Simulating and modeling nanoscale behaviors
- Manipulating large databases

DOE makes research awards in the currency of time on the department’s supercomputers.
Driving high-end economic growth

- Bioinformatics: $9 billion industry in 2003
- Nanotechnology: projected to exceed $1 trillion within the next decade

The Council on Competitiveness will examine the economic impact of high-performance computing at the request of DOE.
Where are Tech’s opportunities?

- National centers of high-performance computing already established
- Oak Ridge National Laboratory
- National Lambda Rail Inc.
Questions to ponder

- How can Georgia Tech improve our basic approach? Do you see gaps?
- What other applications should we consider 5-10-15 years down the road?
- What is your advice as we lead the way in connecting to Europe?
- How can Georgia Tech become a leader at the intersection of high-performance computing and networking with business and management?