REMARKS BY GEORGIA TECH PRESIDENT  G. WAYNE CLOUGH
Women’s Leadership Conference, February 18, 2000

I am pleased to welcome all of you to this Women’s Leadership Conference on behalf of the Georgia Institute of Technology. I especially want to welcome the high school seniors who have been visiting our campus today and have stayed for this evening’s session. We hope to see some of you back as Tech students next fall.

We are very excited to welcome Janet Wylie back to campus this evening. She was an outstanding engineering student here at Tech and has compiled a stellar career since she graduated. And I know you are also looking forward to Sheila Ceasar’s visit tomorrow. Both of these women are inspiring role models.

If we look back over the 20th century, two of the most powerful social trends were the technological revolution and the women’s movement. Technology now permeates every aspect of our lives at work and at play, from the office to the kitchen. Two-thirds of women now work outside the home, up from one-third just 30 years ago, and their advances have affected our social institutions to such a degree that we cannot imagine how a woman’s role could have been so narrowly defined 100 years ago.

But these two trends have not yet converged, and that is our challenge for the 21st century. Although women make up 46 percent of the total U.S. workforce, they comprise only 22 percent of the scientific workforce and only 9 percent of the engineering workforce. As a technological university, Georgia Tech has a unique opportunity to help change those numbers.

Right now, most technology is being developed by young, white males, which is a pretty narrow demographic slice of the population. It is not that women are not good at technology, but rather that boys are inducted into the world of technology by playing video and computer games, which do not appeal to girls because they mostly feature violence or men’s sports. Although it gives them a head-start, this immersion in electronic games also gives young men a very abstract view of technology, and as a result they do not necessarily apply it where it’s needed most.

In contrast, women are much more practical about how technology can be used to affect people’s lives. Anita Borg, who founded the Institute for Women and Technology in 1997, says that guys think, “Here is this cool technology; what neat things can we do with it?” But women tend to start with a practical problem and look for ways to solve it using technology.

When women technology designers met last fall in Silicon Valley, they asked questions like: Why hasn’t someone invented a smoke detector that can tell the difference between a burning house and burning toast. Or, why hasn’t someone invented a sensor you can put in a Tupperware container to tell you when the food has gone bad? These are questions that it simply does not occur to young white males to ask, yet they represent very useful applications for technology. As technology becomes ever more pervasive in all of our lives, it is clear that a broader perspective needs to be brought to bear on its design.
And as technology becomes ever more pervasive, it is also clear that scientists and engineers are becoming leaders. It used to be that the MBAs ran the world while the engineers tinkered with mechanical things in the back shop. In today’s high-tech world, scientists and engineers are gaining power and influence. They can control their own destiny, and the broader leadership opportunities for experts in science, math, engineering and computing have grown astronomically. Women need to be full partners and participants in these opportunities, and not be left behind.

Here at Georgia Tech, women make up 28 percent of our student body. Our big success story is the College of Sciences, where women make up about half of the student body, and they outnumber men in biology, chemistry, earth and atmospheric sciences, and discrete mathematics. Women also have a strong presence in the Ivan Allen College and the Colleges of Architecture and Management.

We do less well with engineering, where 23 percent of our students are women, but that is better than the national average of 19 percent. And it has been improving. Since 1995, female engineering enrollment is up 14 percent, and in chemical and industrial engineering, women make up 37 to 38 percent of our students.

Where we really need to get more women involved is in computer science and computer engineering. Twelve of Fortune magazine’s 50 most powerful women are executives at high-tech companies, up from eight just a year ago. And we are proud to have a Georgia Tech graduate among them – Deborah Willingham, who is Microsoft’s highest-ranking female executive.

Yet women majoring in computer science represent a shrinking percentage of both college enrollment and degrees awarded in this field. Back in 1984, women received 37 percent of computer science degrees awarded, but by 1998 that number had dwindled to 16 percent. Here at Georgia Tech, only 9 percent of the computer science degrees we conferred last year went to women. But things are looking up. This year 16 percent of our computer science students are women, and 24 percent of our graduate students in computer science are women.

Of our academic faculty, 14 percent are women. We have 100 female professors, and 42 of them have tenure. A decade ago, we were hiring about a half-dozen women faculty each year, and more than half would leave without ever achieving tenure. Within the past two years, however, we hired 24 women faculty. Five have already achieved tenure, and the remaining 19 are on track for tenure.

The percentage of our engineering faculty who are women is twice the national average, but it is still only about 10 percent, so we need to do better. And we are doing better. Since 1995, the number of women faculty in engineering has increased by 80 percent.

We also have more women in leadership roles at Georgia Tech. Within the past year, we appointed not one but two female academic deans in the Ivan Allen and DuPree Colleges, as well as Georgia Tech’s first female registrar. Our dean of students is a woman, and so is the associate vice president for auxiliary services who presides over such thorny matters as parking and housing. I could continue with more examples, but my time is up and you get the point.
Victoria Friedensen, director of Diversity in Engineering Workforce for the National Academy of Engineering, says the problem is not that women are dumb – they get higher grades in science and engineering than men do. The problem, she says, is that “the academic climate is chilly.”

So, today and tomorrow, we are turning up the thermostat. We are going to affirm the women who make up Georgia Tech’s student body and faculty. We are going to encourage our prospective women students and our female alumnae. Because we need the women’s movement to converge with the technological revolution. We need your intellect and your talents. We need your participation and your perspective. We need your leadership. And we believe that Georgia Tech, Georgia and the United States will be better places because of the contributions you will make.