**Dr. Peterson**

**2014 Institute Address**

**Full Script as written/ not necessarily as delivered**

**Welcome**

Good morning. As part of our ongoing commitment to continual communication with the Georgia Tech community, I provide an update at the start of each new academic year. This is a busy, vibrant campus, so there’s a tremendous amount of ground available to cover. No doubt, I won’t get to everything that every person watching or listening today might want to hear. But I will provide an overview and go over many of the exciting things that have happened since the last Institute Address, and I’ll also look a bit into the future to provide a glimpse of where we’re heading.

**Expanding Our Influence**

Our country’s public research universities are laboratories of innovation. We not only invent new tools, discover new processes, and design new solutions, but we are also preparing the next generation of leaders and innovators. Georgia Tech is making its mark in areas ranging from energy to cybersecurity, to space, with faculty, staff, and alumni offering expertise on panels, testifying before Congress, and serving as media experts and in other leadership positions. During the 2013-14 academic year, U.S. Cabinet-level secretaries in Homeland Security, Commerce, and Energy visited Georgia Tech to find out more about what the Institute is doing in their fields. Our Provost Rafael Bras serves on Secretary Moniz’ Energy Advisory Board. I had the privilege of co-authoring an op-ed with Secretary Pritzker for U.S. News and World Report designed to encourage young people to explore careers in modern manufacturing.

**Outstanding Students**

Word is getting out about Georgia Tech and the tremendous educational and career opportunities available here. For the sixth straight fall semester, we are welcoming the best-qualified, most diverse freshman class in Georgia Tech’s history. In the past five years, applications have risen 127 percent. I think we can attribute this to several factors. When I announced at convocation that this year’s freshman class is 39 percent women, I don’t know who cheered louder, the men or the women! Next year we’re going for 40 percent. I want to thank our Admissions staff, as well as faculty and staff from throughout the campus, for your work in attracting and retaining our outstanding students. We’re proud to say that for the second straight year, the Georgia Tech Office of Undergraduate Admission has been recognized by the *Atlanta Business Chronicle* as one of Atlanta’s Top 100 Best Places to Work.

**An Impressive Five Years**

Freshmen have very impressive academic credentials, but equally as impressive are the ways they have engaged in leadership, innovation, and community activities before they set foot on the campus. When the average high school GPA is 3.94 and the average SAT is 1443, leadership and their potential to take that to a new level at Georgia Tech is what sets them apart. Looking at our student body, over the past five years, enrollment is up by 11 percent; underrepresented minorities and women are up by about 20 percent.

**Environment for Success**

Projections are that by 2020 more than 60 percent of Georgia’s jobs will require a certificate, associate’s degree, or bachelor’s degree. As part of Georgia Tech’s commitment to student success, we are participating in Governor Deal’s Complete College Georgia initiative. In the past five years, we’ve increased the first-year retention rate to 96 percent. Our five-year graduation rate is 75 percent, and the six-year rate is 82 percent. It is incredible to think that 18 percent of all Georgia Tech degrees have been awarded in the past five years.

One of Complete College Georgia’s strategies is to increase access and completion for students traditionally underserved in postsecondary education, such as veterans. Last fall, we opened our new Veterans Resource Center. In addition, this week we opened the LGBTQIA center, and we have had a Women’s Resource Center for 16 years.

**Faculty**

One of the best things we can do for our students is to attract, retain, and develop the best faculty. Over the past five years, young faculty have received 73 NSF CAREER awards. Since the program began in 1995, Georgia Tech faculty members have received 192 NSF CAREER awards, among the highest in the nation. We have invested $14.3 million to create 123 fully funded tenured or tenure-track faculty positions. The number of women tenured/tenure-track faculty has increased by 17 percent. Through Campaign Georgia Tech, we are working to add 100 new endowed chairs or professorships. We have funded 80 of those, 41 of which have been secured in the past five years.

We are continuing to work to reduce the student-faculty ratio. When I came to Georgia Tech it was 21 to 1, and now it is 23 to 1. That’s obviously the wrong direction, and we have a number of measures in place to address the challenge.

**Global Partnerships**

During the past two decades, Georgia Tech has grown into one of the world’s most globalized technological universities, with collaborations in more than 80 countries, and institutional partnerships in more than 30 countries. Along with our full campus in France, we have global centers in China, Singapore, Costa Rica, Panama, and Mexico. We have students from 115 countries.

In partnership with Tianjin University in China, Georgia Tech became a member of the Shenzhen Virtual University Park in April 2013. In April 2014, we began offering a Master of Science in Electrical and Computer Engineering in conjunction with Shenzhen Virtual University Park.

In May we opened the Lafayette Institute on the Georgia Tech Lorraine campus in Metz, France. It is providing an ecosystem to create value for our international partners.

**Global Opportunities**

We have students studying or working in about 70 countries, and 46 percent of our students have a study or work abroad experience before graduation. The value of an international experience goes way beyond academics.

This summer I had the privilege of being a guest of General Philip Breedlove, Supreme Allied Commander for Europe, at the NATO Supreme Headquarters Allied Powers Europe, or SHAPE. General Breedlove is a 1977 Civil Engineering graduate of Georgia Tech. We had a group of students who were participating in a study-abroad experience, and they had a chance to ask general questions during a reception. He made arrangements for all Georgia Tech students studying this summer at Georgia Tech Lorraine to participate in the 70th anniversary of D-Day and the Battle of Normandy. Many said it was the experience of a lifetime.

**Strategic Plan**

Our increased global focus is part of our 25-year strategic plan, “Designing the Future,” that was created by the Georgia Tech community four years ago. Last year we formed the Strategic Plan Advisory Group under the leadership of David Frost. The group has worked to improve the process by which new projects are identified and funded. They are in the final stages of developing a process document for submitting proposals to help us realize Strategic Plan goals, and will have that document available on the Strategic Plan website in the near future.

The plan was designed for flexibility, as a living document to evolve as the Institute evolves. Initiatives are seldom linear. In the same way that interdisciplinary collaboration many times results in solutions in the margins of disciplines, we have developed several big ideas that morphed from the original concept. The impact of the plan is far reaching.

Switching to the common app for admissions has resulted in the most highly qualified freshman class in the Institute’s history. More than 38 percent of Georgia Tech undergraduates now participate in research. We have expanded living/learning communities.

Under the leadership of Dean Jackie Royster and the Ivan Allen College of Liberal Arts, Georgia Tech sponsored yearlong Africa Atlanta events, culminating with the opening of the KONGO Across the WATERS exhibit opening at the Jimmy Carter Presidential Library and Museum.

Working together over the past five years, we have been able to accomplish some amazing things. In just about every area we measure, Georgia Tech has made marked improvements. We cannot stand still. Our vision is to define the technological research university of the 21st century.

In 2010 we outlined strengths to build on in the Strategic Plan. The plan states, “The Georgia Tech community is bound together by a culture that nurtures innovation, by a shared commitment to excellence, by a commitment to collaborative and interdisciplinary pursuits, and by a commitment to both challenge students and enrich their education.”

Building on those strengths, we aspire to do the following:

**Goal No. 1**

**Be among the most highly respected technology-focused learning institutions in the world**

* Differentiate undergraduate education and enhance the student experience.
* Increase financial aid; provide resources to enable student success.
* Continue to transform the curriculum for quality and efficiency, using the best education technology.
* Pursue growth in graduate programs.
* Build on our track record of academic excellence to achieve increased global visibility and prestige.

**Goal No. 2**

**Sustain and enhance excellence in scholarship and research**

* Continue our research strategy derived from the Strategic Plan. Maximizing societal and social impact will require the involvement of the entire Institute.
* Diversify and strengthen research support (25 percent industrial research).
* Pursue transformative research.
* Strengthen collaborative partnerships.
* Lead in targeted reputational areas.

**Goal No. 3**

**Ensure that innovation, entrepreneurship, and public service are fundamental characteristics of our graduates.**

* Significantly expand the Institute’s leadership position in innovation.
* Continue to build on our culture of innovation – in students, faculty, staff, in our partnerships, and our economic impact on our state and our region.
* Expand Georgia Tech’s regional innovation system.

**Goal No. 4**

**Expand our global footprint and influence to ensure that we are graduating good global citizens**

* Expand the world’s footprint at Georgia Tech; extend and leverage Georgia Tech’s impact around the world.
* Strengthen Georgia Tech’s leadership position in preparing globally engaged graduates by creating opportunities so that significantly more than half of Georgia Tech students will have an international study or work experience.
* Pursue additional global partnerships when they make sense; strengthen the ones we have.

**Goal No. 5**

**Relentlessly pursue institutional effectiveness**

* Maximize resources; plan for the future.
* Capitalize on our sound fiscal planning in institutional capacity that has put us in a position of strength, with flexibility to take advantage of strategic opportunities as they arise.
* Attract, develop, and retain the best faculty and staff.

**Interdisciplinary Research**

Georgia Tech has outstanding interdisciplinary research in numerous areas such as energy, manufacturing, cybersecurity, robotics, and bioengineering.

Atlanta is a cybersecurity research hub, and we do our part through ongoing research in the Georgia Tech Information Security Center (GTISC) and the Georgia Tech Research Institute (GTRI). Combined cybersecurity research expenditures in Fiscal 2013 by GTISC and GTRI were more than $25 million.

The newest of our ten Interdisciplinary Research Institutes, or IRIs, is the Institute for Robotics and Intelligent Machines, launched last November. IRIM brings together robotics researchers from across campus — spanning colleges, departments, and individual labs — to support and connect research initiatives, enhance educational programs, and foster advances for the National Robotics Initiative.

Joint work between the Coulter Department of Biomedical Engineering, Children’s Healthcare of Atlanta, and Emory University has resulted in a breakthrough in treating a deadly brain cancer. Ravi Bellamkonda, lead investigator and BME chair, said that cancer cells normally latch onto these natural structures and ride them like a monorail to other parts of the brain. By providing an attractive alternative fiber, they can efficiently move the tumors along a different path to a chosen destination, reducing the tumor size and making them more operable. Those are just a few examples of some of the amazing breakthroughs at Georgia Tech.

**Our Research Strategy**

We are pursuing a research strategy involving the entire Institute to maximize economic and societal impact. We’re also collaborating with organizations like the U.S. Centers for Disease Control and Prevention, or the CDC, and Children’s Healthcare of Atlanta.

With Children’s Healthcare of Atlanta, we have the Quick Wins program, which provides rapid solutions to unmet clinical and business needs at Children’s. The projects must be capable of delivering a workable solution within 18 months of the project’s start.

Another example of collaboration is the work between scientists at the Georgia Tech Research Institute (GTRI) and Cisco Systems Inc. to help patients in rural Georgia receive world-class medical care at their local hospital via a state-of-the-art telemedicine link to Marcus Autism Center in Atlanta.

**Innovation Ecosystem**

Georgia Tech has created innovation neighborhoods including Tech Square, Technology Enterprise Park, and the North Avenue Research Area. Home Depot will soon join our already strong lineup of innovation centers in Tech Square. Companies like Thyssen Krupp are taking advantage of their location on campus by hiring Georgia Tech students and graduates, identifying joint research areas, and engaging faculty in employee development.

Last year we welcomed the AT&T Foundry Innovation Center to Tech Square. It is interesting to note that they created two AT&T innovation internships for Georgia Tech students, the first such positions that they’ve created worldwide.

We’re well into the planning stages for the High Performance Computing facility in Tech Square. The new development will drive anticipatory innovations in high performance computing to serve a diverse research community by converging industry, research, and educational leadership in a dynamic, world-class environment. Once completed, it will also free up precious campus space for academic uses, while supporting the economic development of Atlanta and the State of Georgia by creating jobs, new tax revenues, and technology clusters. It has the potential to provide preeminence in the field of big data with major benefits to Georgia Tech and as a resource for high-tech startups in Atlanta.

**Nurturing Startups**

Our Enterprise Innovation Institute (EI2) is Georgia Tech’s primary business outreach organization. In Fiscal 2014, EI2 had an impressive report card. It helped 1,770 Georgia manufacturing companies reduce operating costs by $36 million, increase sales by $191 million, and create or save 950 jobs.

One of EI2’s programs is the Advanced Technology Development Center (ATDC), a startup incubator that helps technology entrepreneurs in Georgia launch and build successful companies. In the past year, ATDC program companies reported revenues totaling more than $1.3 billion and more than 5,500 jobs.

We have a vision of extending the Tech Square vitality and entrepreneurial spirit around the entire campus. We want to proactively diversify our research portfolio by doubling our industry sponsorship over the next five years. We want to encourage “sponsors who live with us” and make it easier for faculty and students to co-innovate with sponsors because that will translate into additional sponsored support and shared-use facilities.

**Student Innovation**

As we work with innovators in the community, we’re just as committed to our students.

Project One is a reading program that links first-year students, peer mentors, faculty, staff, and alumni to facilitate academic self-discovery.

Invention Studio is a 3,000-square-foot, million-dollar, industry-sponsored, student-run “maker space” that turns Georgia Tech’s creative thinkers into hands-on doers. Dozens of universities have visited to see how they might emulate it. Ours is primarily student-run, and it’s available for personal and class projects. You might see students preparing for competitions such as our Capstone Design working on their projects in the Invention Studio.

The InVenture Prize is the nation’s largest undergraduate invention competition. Our 2014 Georgia Tech InVenture Prize winner was Team Sanivation, which invented an inexpensive mobile solution to help nearly 2.6 billion people who don’t have access to hygienic bathrooms. All three team members traveled to Kenya this summer for field trials. One of the InVenture participants was included in the first White House Maker Faire this summer, demonstrating his team’s Better Walk crutch.

**Innovative Learning Approaches**

We employ a number of innovative approaches to learning. We encourage collaboration and interdisciplinary problem solving. As part of our Distance Learning, Georgia Tech has become a leader in online courses and programs. Our OMS-CS, just entering its second year, now has approximately 1,200 students from around the world. It has been covered in 600 media articles. From teaching in an online format, we’ve gained insight that is helping with on-campus learning. For example, we use “flipped” classrooms where students review the material before coming to class and use class time for discussion with the professor. We encourage undergraduate research, service learning, and working to develop solutions to global challenges.

As part of Georgia Tech Professional Education, we educate more than 600 graduate students each year. That’s roughly 17 percent of Georgia Tech’s master’s degree students. In addition to our roughly 21,500 credit-seeking students on our campus, we have another 13,500 who seek educational credits from GTPE. Among our freshman class, almost 11 percent participated in GTPE’s distance calculus program while still in high school.

All these opportunities are part of our innovation ecosystem. In addition to the creative inventions students come up with in competitions, 60 percent of all invention disclosures from Georgia Tech include at least one student as co-inventor.

**Student Engagement**

Georgia Tech students are engaged on campus in more than 400 student organizations. They participate in Campus Recreation Center Outdoor Recreation programs and leadership training programs such as Leading Edge. Living-Learning communities like Start-up House help mentor budding entrepreneurs.

**Community Engagement**

One of Georgia Tech’s deeply imbedded values is community engagement. You might have seen on the news early this month that Georgia Tech will offer automatic acceptance and four-year in-state tuition scholarships to all Atlanta Public Schools valedictorians and salutatorians. This initiative will increase exposure and access to Georgia Tech for APS’ most prepared students. Many of our students volunteer in the Atlanta Public School System.

We’re all about finding solutions not just for far-away places that face challenges, but also those here in our own backyard. I’m proud to say that Georgia Tech students reach out beyond our campus to put their skills and passions to use close to home. Some of the ways they do this:

Students Organizing for Sustainability (SOS) grows and harvests more than a dozen crops — without chemical fertilizers or pesticides — in its Community Garden on the southeast side of the Instructional Lawn. Part of the harvest is donated to local soup kitchens.

Georgia Tech is a founding partner of the Atlanta Science Festival, which attracted 30,000 visitors this spring. Tech hosted 11 of the 100 events across Atlanta.

**Athletics**

Athletics is the lens through which much of the world sees a university, and our 356 student-athletes are ambassadors. Georgia Tech student-athletes continued to excel in the classroom as well as the competitive arena, with a six-year Graduation Success Rate (GSR) of 79 percent. The collective student athlete GPA of 3.0 for spring semester is also impressive.

Four Georgia Tech teams — football, golf, women’s tennis, and men’s swimming — rank in the top 10 percent nationally within their sport for APR. I think it is impressive that 8 of Tech’s 17 varsity sports teams scored a perfect 1,000 on their single-year Academic Progress Report (APR), and the football team was in the top 10 percent in the nation with its highest APR ever. Georgia Tech’s golf program has recorded 1,000 every year since the introduction of APR in 2003-04.

**Graduates in Demand**

Georgia Tech graduates continue to be in high demand. In spring 2014, 68 percent of job-seeking B.S. recipients reported having a job at graduation, up significantly from 53.3 percent in spring 2010. The median salary for Georgia Tech bachelor’s graduates is $64,000; for master’s recipients it’s $79,500. More than 85 percent of students who took our career and salary survey remained certain they would select Georgia Tech again to attend college. And 91 percent who took the baccalaureate alumni survey admitted advanced math classes like calculus prepared them for their jobs!
 **Health and Safety**

We remain committed to providing outstanding resources for learning, and a safe and healthy environment for our community. This past spring, we appointed a Presidential Task Force to explore, and find solutions to, an issue that is being addressed both nationally and here at Georgia Tech: sexual violence. The Task Force has submitted a final report, and we are moving forward with many of its recommendations.

In addition, the Mental Health Task Force has fulfilled its charge, and we are well down the path of implementing its recommendations. Our students function in what can be a high-stress, high-productivity environment, and we want to do everything we can to assist them so that they can be as successful as possible.

You will hear more details about the progress made on the recommendations from these two task forces as the year progresses. I encourage you to become familiar with the many on-campus resources that are available.

The Georgia Tech Police Department has opened a new operations center featuring state-of-the-art video camera technology to assist first responders and investigators, and to help protect the campus community. This coincides with the phased installation of safety-camera coverage on the campus perimeter, reinforcing existing security cameras and 500 emergency phones located throughout the campus.

As you might have heard, the University System of Georgia (USG) Board of Regents voted in March that all USG institutions and affiliates are now required to be tobacco (and smoke) free. As a result, we started the Fall Semester as a tobacco-free campus. Our emphasis will be on education, communication, and respect for others.

**Focus on People**

We are continuing our efforts to attract, develop, and retain the highest quality faculty and staff. Faculty are the heart and soul, and staff are the backbone of a university.

Salary adjustments put in place this summer included a limited economic adjustment program, focused on maintaining our competitiveness with local and regional markets, effective May 1. In addition, leaders were asked to recommend merit increases based on demonstrated achievements, effective July 1 for employees paid monthly.

When I first came to Georgia Tech a little over five years ago, one of the first things I noticed is that we didn’t have a group in place to share insight and advice on decisions that affected staff. Now, we do. Like faculty and students, our staff will have a formal channel of communication with Georgia Tech’s senior leadership via the Staff Council. Elections will be held this falI for the 20-member Staff Council to begin its work in January 2015. I would like to thank the planning committee and the members of the initially appointed council for their work in helping to make this a reality.

**The Campus**

The past five years has been a time of positive momentum at Georgia Tech, both on our physical campus and in our academic mission. During that time, we have added or renovated almost 2.2 million gross square feet of space. About 1.3 million of that is new construction. We have made major renovations, as well as smaller changes such as new sidewalks, stone walls, and landscaping, all of which contribute to the Georgia Tech campus becoming a thriving, live/work/learn environment.

As research libraries across the nation seek to reimagine their spaces and services, the Georgia Tech Library is leading the way in defining what it means to be an innovative, user-centered research library for the 21st century. The Library is pursuing institutional effectiveness by renewing spaces to recapture valuable space on central campus and creating a 21st century research resource. We are also partnering with Emory Libraries to create a high-quality environment for the long-term preservation of library collections called the Library Service Center, and pursuing our goal ofexpanding access to the print and digital library collections of both Georgia Tech and Emory.

**EBB**

The most ambitious project currently underway is the Engineered Biosystems Building (EBB) on 10th Street. It will have more than 200,000 square feet of multidisciplinary research space and will serve as the focus for Georgia Tech's efforts to improve human health through an enhanced understanding of complex living systems. When it opens in June 2015, it will significantly impact Georgia’s economy by driving innovation; commercializing new devices, drugs, and technologies; forming new companies; and creating high-skill, high-paying jobs. EBB has been designed as an interdisciplinary hub to foster collaboration that many times results in incredible breakthroughs. It has been said that if the cure for cancer is to be found at Georgia Tech, it will happen in the EBB.

**Arts on Campus**

Through our Arts@Tech program, the annual Clough Art Crawl, and other initiatives, we continue to have a robust support for the arts as a means of cultivating creative and analytic talents. The one-year run of Georgia Tech’s “Engineered Art: An International Sculptures Exhibition” will come to an end this month (August 2014), when seven of the 15 pieces will be shipped to Canada. With support from the Georgia Tech Arts Advisory Board, however, the other eight will remain on permanent display.

The Board has helped establish a Challenge Grant of $150,000 to inspire charitable gifts specifically for art acquisition through the newly created Art Acquisition Fund. The Challenge Grant will match dollar-for-dollar gifts to support the acquisition of art for the campus.

**SACS**

Numerous individuals and groups on campus are engaged in our SACS 10-year reaffirmation process. The formal kickoff for the current reaffirmation began in June 2013, and the process will continue through the end of 2015. We’re grateful to Dean Catherine Murray-Rust for overseeing these extensive projects.

Our compliance report and associated data are due in September. The report is a self-study of our compliance with 95 core requirements and principles, encompassing the spectrum of activities on campus from learning resources and services to faculty credentials.

**QEP**

The forward-looking part of the SACS accreditation is the Quality Enhancement Plan, or QEP. Due in December, it is designed to be long-term and transformative, similar to the study-abroad and undergraduate research focus areas in our last QEP. Ellen Zegura in the College of Computing and Beril Toktay in the Scheller College of Business are leading Georgia Tech’s QEP to combine sustainability, experiential learning, and community engagement. These are concepts that were included in the early phases of the Strategic Plan implementation.

Our last QEP was indeed transformative, as we have noted that 46 percent of undergraduates have an international experience, and according to our exit survey, 38 percent participate in some form of undergraduate research. Our new QEP holds similar promise.

**Campaign Georgia Tech**

In September 2010 we launched the public phase of Campaign Georgia Tech, an ambitious drive to raise $1.5 billion by December 2015. These funds will provide critical resources necessary for Georgia Tech to continue to thrive and realize the goals outlined by the Institute’s Strategic Plan. We are pleased to report that through July 31, 2014, under the leadership of Campaign Co-Chairs John and Mary Brock, we have raised $1.45 billion.

This summer, Georgia Tech received a $43.6 million gift from the Institute of Paper Chemistry Foundation (IPCF). This major grant, one of the single largest gifts in Georgia Tech’s history, affirms the Institute’s position as a leading driver of the future of the forest bioproducts industry.

One of Campaign Georgia Tech’s goals was to fully endow the Tech Promise Program. Through the generosity of individuals and corporations, along with a challenge grant, we have surpassed our $50 million goal for that endowment.

**Closing Notes**

Georgia Tech is a special place. If you’ve spent any amount of time here, you know that. We must continually press forward. As our Strategic Plan states, “In the years ahead, we must continue to enhance a culture of collegiality, close collaboration, global perspective, intercultural sensitivity and respect, and thoughtful interaction among a diverse community of scholars that includes all of our students, faculty, staff, and alumni.”

We challenge ourselves every day inside and outside the classroom to be better, smarter, and more responsive to hard questions than we were the day before. It’s not easy here. If it were, we wouldn’t be the Georgia Tech that we’ve all come to know and appreciate. We change lives. We cure diseases. We create inventions that help people all over the world lead better, healthier, more fulfilled lives. We influence thinking, not just in science and technology, but also in policy. At Georgia Tech, we’re always preparing future leaders and innovators who will improve the human condition close to home and far away. The role that each of us plays is different, but together we are One Georgia Tech. Through a culture of collaboration, innovation, and leadership, we are expanding our influence — in our state, our region, our nation, and our world. Thank you for your vital role in the Institute’s success, and for helping to equip the next generation.