Tech Joins Project to Aid Veteran Amputees

LIZ KLIPP
INSTITUTE COMMUNICATIONS

More than 1.8 million amputees are living in the United States, and that number is expected to triple by 2050, according to a recent report by the National Limb Loss Information Center.

That's why researchers at Georgia Tech and Florida State University are working to develop an advanced prosthetic socket system that could offer better comfort, functionality and mobility for military-veteran amputees.

Tech is part of a $4.4 million contract awarded to Florida State University by the U.S. Department of Veterans Affairs (VA). Ben Wang and Chuck Zhang, professors in the School of Industrial and Systems Engineering, will lead the work that the Institute will be conducting on the project.

The VA Innovation Initiative (VAi2) project is aimed at addressing the shortcomings of current prosthetic socket systems — the part where a patient's limb connects to a prosthetic device — through the development, testing and delivery of “Socket Optimized for Comfort with Advanced Technology” prototypes.

“The transformative project will leverage the latest advances in innovative materials and advanced manufacturing technologies to build the next-generation prosthetic socket system with significantly improved comfort,” said Wang, who is also the executive director of the Georgia Tech Manufacturing Institute.

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The report includes 15 supporting recommendations for improvement.

Cross Discusses Resources that Support Researchers

RESEARCH COMMUNICATIONS

Every day, researchers at Tech are hard at work discovering new information and creating new devices. But what happens after the research is completed — and what impact does it have on the world around us?

“Georgia Tech has always had a focus on industry and economic development,” said Steve Cross, executive vice president for research. “We seek to grow our impact in ways that directly support the research enterprise and maximize the benefit Georgia Tech brings to our region, state, nation and the world.”

In part two of this Q&A, Cross elaborates on the

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Task Force Shares Family Friendly Policy Report

INSTITUTE COMMUNICATIONS

After several months of examining Georgia Tech’s practices for easing the integration of work and life, the Task Force on Family Friendly Policies is sharing its recommendations with the campus community.

“The strategic plan begins by reminding us that, ‘As leaders, designers, and innovators, our role is not only to solve problems, but also to shape our world,’” said Scott Morris, chief human resources officer. “Our ability to do that depends in part upon our efforts to engage our workforce and to continue to distinguish the Institute as an employer of choice. This task force considered an important question: How can we build a great place to work?”

Last spring, the team — which was co-chaired by Morris and Archie Ervin, vice president for Institute Diversity, and included graduate students, faculty and staff — was charged with assessing Tech’s environment, conducting an inventory of current programs, identifying gaps and

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**Campus News**

**Tree Campus USA Honors Tech for 5th Year**

**KRISTEN BAILEY**

**INSTITUTE COMMUNICATIONS**

Some things might get old when they happen five years in a row, but for Hayacinth Ide, Georgia Tech’s associate director of landscape services, having the Institute name a Tree Campus USA by the Arbor Day Foundation isn’t one of them.

“A beautiful campus provides a recruiting and retention tool for students, faculty and staff,” Ide said. “A great number of students selected Tech Georgia because of the beauty of the campus.”

Tech occupies 400 acres in Atlanta. Atlanta is often referred to as the “city in a forest,” boasting 36 percent tree coverage — the highest among all major U.S. cities.

To have received the 2012 Tree Campus USA designation, a campus must have put in place five core standards for sustainable campus forestry: a tree advisory committee, a campus tree-care plan, dedicated annual expenditures for a campus tree program, an Arbor Day observance and the sponsorship of student service-learning projects.

Ide credits the work of students, faculty and staff on the campus tree advisory committee for helping carry the honor. Support from campus administration and student participation in tree plantings, during events such as Tech Beautification Day, demonstrate the importance of the campus environment to all who inhabit it, he said.

For Ide, earning the honor for five consecutive years demonstrates Tech’s leadership in sustainability compared to other colleges and universities.

For the full article, visit [http://c.gatech.edu/XsTpej](http://c.gatech.edu/XsTpej)

**Professional Ed Announces New Leadership Team**

**NIKKI TROXCLAIR**

**PROFESSIONAL EDUCATION**

The Institute has announced the appointment of a new executive leadership team for Georgia Tech Professional Education.

Four scholars and education professionals, under the leadership of Nelson Baker, will lead the Institute’s global Professional Education programs and initiatives. The appointments complement Tech’s mission to be a leader in improving the human condition in Georgia, the United States and around the globe.

“Georgia Tech Professional Education seeks to define and be the 21st century transformational leader in professional education,” said Baker, dean of Professional Education. “This team will define new ways to meet global industry needs and apply cutting-edge research to aid in the education of individuals of multiple generations and their employers.”

In addition to Baker, the Professional Education executive leadership team is comprised of the following individuals:

- Leo Mark, associate dean for academic programs and student affairs
- Patrice Miles, assistant dean of business operations
- Mark Weston, associate dean of learning systems
- Diane Lee, director of development and interim director of Georgia Tech-Savannah

For the full article, visit [www.gtpe.gatech.edu](http://www.gtpe.gatech.edu)

**AMPUTEES, continued from page 1**

Services, Prosthetic and Orthotic Associates, Quantum Motion Medical and St. Petersburg College.

“Despite the advances made in prosthetics over the years, the socket continues to be a major source of discomfort for our amputees due to issues arising from poor fit, elevated temperatures and moisture accumulation,” said Changshun (Chad) Zeng, a Florida A&M University-FSU College of Engineering assistant professor and principal investigator on the project. “These adverse conditions effectively limit the basic activities of amputees and can greatly diminish their quality of life. This award gives us the opportunity to tackle those problems so our veteran amputees can live better, more fulfilling lives.”

The first phase of the two-year contract will focus on developing and testing the specific technologies for individual socket components. The second phase will involve the refinement of each system and material, as well as the complete production of the prototypes. Launched in 2010, VA2 leverages cutting-edge progress in the private sector and academic communities with the federal workforce to improve access to healthcare and services, control costs and increase quality.

For the full article, visit [http://c.gatech.edu/WkaAxp](http://c.gatech.edu/WkaAxp)

**FAMILY, continued from page 1**

recommendation changes.

The task force researched national best practices and met with deans, other leaders, and University System of Georgia personnel. From this, the following seven focus areas were identified:

- Connect communities and increase camaraderie.
- Develop the people who work at Tech.
- Facilitate the transition of new faculty, staff, graduate students and their families into the Institute.
- Assist with work-life demands.
- Help faculty and staff balance family care responsibilities.
- Promote financial security.
- Encourage healthy life choices.

“We hope that faculty and staff will read this report and provide comments that will help the Institute better understand how we can build upon our momentum in making Georgia Tech a great place to work,” Ervin said.

The report is available at [provost.gatech.edu/projects-reports](http://provost.gatech.edu/projects-reports)
OIT Offers LastPass Password Storage Tool

AMELIA PAVLIK
INSTITUTE COMMUNICATIONS

Creating passwords for everything from email to credit card accounts is a challenge. But remembering all of them—especially your Georgia Tech password—must be changed every three months—can require Herculean effort.

That's why the Office of Information Technology (OIT) is offering a new resource for faculty and staff called “LastPass.”

"As requirements for passwords become more complex, there's a greater possibility of poor password management habits such as writing down passwords," said Jimmy Lummmis, information security policy and compliance manager for OIT. "LastPass provides a means to manage the creation of very strong passwords and the ability to store those passwords in a single location, which is secure and encrypted and available to the user in any location." OIT decided to offer the tool after a decision was made to shift Tech's password standard from eight to 11 characters beginning Jan. 31 (the result of new state and Board of Regents requirements).

LastPass is compatible with many different types of computers and mobile devices and offers cloud storage of all passwords among all of a user's devices without relying on a third party service such as Dropbox. There is no limit to the number of passwords that can be stored in a user's LastPass "vault," which is encrypted with a LastPass master password that is required to lock and unlock the account.

"The beauty of this tool is users only need to remember their LastPass password, rather than the 50 passwords that many of us have to remember to access all of our accounts," Lummmis added.

To obtain a LastPass account, contact the Technology Support Center at support@dot.gatech.edu. For more information about the tool, visit http://c.gatech.edu/14DkBwq

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RESEARCH, continued from page 1

resources that Tech has in place to help faculty, staff and students ensure that their research—which has an impact once the lab work is completed.

What is an Interdisciplinary Research Institute supposed to be, and how does it contribute?

An Interdisciplinary Research Institute (IRI) is a research organization that includes representation from across Tech and that administratively reports to me. Each IRI is led by a research-active faculty member who is a thought leader in a core research area and is committed to supporting those doing research in that area. Additionally, IRIs provide laboratory and shared administrative support, as well as new collaborative research opportunities, to faculty-led research centers and groups that elect to be affiliated with the IRI.

What has Tech done so far to advance the commercialization/startup process?

After the strategic plan was published, we created strategic initiatives to look at what we could do to move us closer to our vision. One of the efforts was to experiment with accelerated startup formations, and that resulted in the Georgia Tech Integrated Program for Startups (GT IPS), where faculty members can license their intellectual property much more quickly to create a startup company. Another example is Flashpoint, a startup accelerator for our region. Tech also won a grant from the National Science Foundation (NSF) to be among a select group of universities to host the Innovation Corps (I-Corps) program. I-Corps is an accelerator for NSF grantees at universities around the country.

In the past, 16 or 17 companies were created annually with help from Tech. Just last year, Tech participated in projects that supported the formation of more than 100 new companies. New facilities like the Carbon Neutral Energy Solutions Building to directly support the commercialization/startup process? What is an Interdisciplinary Research Institute?
The desire to understand her boyfriend’s career field is what motivated Debby Turner to take her first accounting course. Little did she know that what started as a whim would evolve into a career.

“I had just started dating the man who would become my husband, and he was a CPA,” said Turner, who is the John and Wendi Wells Associate Professor for Teaching Excellence in the College of Business. “I was a math education major at the time but decided to enroll in an accounting course to see what being a CPA was all about.”

Turner’s professor for the class was a charismatic man who shared stories of how he would regularly fly to Las Vegas for gambling trips. He opened Turner’s eyes to something she hadn’t previously been aware of.

“I realized that maybe accountants weren’t all boring, unsocial people,” she said. This professor made me realize that accountants can be interesting — and that I wanted to be one.”

Over her 28 years as an accounting professor at Tech, Turner has made it her mission to nudge students toward a similar realization.

“Many undergraduate students come into my classroom thinking that accounting is boring,” Turner said. “My goal is for them to go to law school. But a former professor talked me into pursuing a PhD and becoming a professor. I ended up earning all of my degrees from Georgia State University and my first job was at Tech.

Describe an average day in your job.

Two nights a week I teach in the evening MBA program. I love this part of my job, because many of the evening students are professionals who have come back to school and are here to get their money’s worth (which means they are really engaged in the coursework). Throughout the week, I also teach courses to undergraduate students and am responsible for encouraging teaching excellence in the college. For example, I teach a seminar to PhD students on best practices in teaching and hold brown bags for faculty members on teaching strategies.

How do you keep students engaged?

I believe in the value of anecdotes when it comes to helping students personally identify with topics. So I’m always sharing stories that stem from the work I’ve done with companies throughout my career. What is the most satisfying part of your job?

I love it when students have been offered their first job and are so excited. I also love hearing from them years after they’ve left Tech. I recently had a student, who now works with Home Depot, contact me to say that he was able to apply an example that I’d used in class — which happened to involve Home Depot — in his job years later.

What do you think about the increasing popularity of massive open online courses (MOOCs)?

I like the fact that these courses allow knowledge to be shared widely. However, I worry about the lack of face-to-face contact. It’s important to teach one to see what it’s like.

What is your favorite spot on campus?

I like the area around the Campanile. When students are sitting around chatting and studying, it’s such a vibrant scene that reminds me I’m on a university campus.

Where is your favorite place to have lunch?

It would be Moe’s, and I order the Joey Junior burrito.

Tell us something unique about yourself.

I’ve either been a Girl Scout or Girl Scout Leader for much of my life — 12 years as a scout and 11 years working with my daughter’s troop.

Community News

AMELIA PAVLIK
INSTITUTE COMMUNICATIONS

Turner Shows Accounts ‘Can Be Interesting’

Debby Turner

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Classifieds

Register Now for Campus Summer Camps

INSTITUTE COMMUNICATIONS

It may be February, but it’s never too early to start thinking about what you’ll do with the kids during their lengthy summer vacation.

Actually, many of the camps offered by Georgia Tech’s units — which focus on topics ranging from sports to engineering — open registration this month. Here are a few to keep in mind as you and your family make plans:

• Tech Wreck Day Camp. This is a day camp, based at the Campus Recreation Center (CRC), offered for rising first through eighth graders whose parents are faculty, staff or students at Tech. Participants enjoy activities ranging from field trips to places such as Six Flags to swimming in the CRC pool. The camp is offered in eight, one-week sessions during June and July. Registration opens on Feb. 26 at www.crc.gatech.edu/summercamp.

• CEISMC Summer P.E.A.K.S. The Center for Education Integrating Science, Mathematics, and Computing Education will host weekly camps for elementary schoolers through high schoolers from late May until early August. Camps focus on learning how to design an app to creating music with a program known as “Tarsketch.” Registration is open now at http://coweb.ccs.gatech.edu/ccc-gj/2089.

• Office of Arts Camps. The Office of the Arts offers two summer camp experiences for children ages 8-14: Musical Theater Camp, June 6-14, and Drama Camp, June 17-28. Registration is open now at www.ferventer.talent.gatech.edu/dramacamp.

• H.O.T. Days @ Georgia Tech. This is a one-week camp, geared toward high school students, that is designed to introduce them to electrical and computer engineering concepts. Two sessions of the program will be offered: June 10-14 and June 17-21. Registration is open now at www.ece.gatech.edu/academics/outreach/hot-days.

For a complete list of summer camps offered at Tech, visit http://c.gatech.edu/14ABpnK.