ENGINEERING WINTER

Students Nick Beyer and Adam Borsch put their mechanical and civil engineering skills to use during a January cold snap to make snow on the front lawn of their fraternity house on Techwood Drive. The two created the snow machine with parts they already had and a $30 nozzle from The Home Depot.

Connolly Named Chief of Police


Connolly joined GTPD in 2010 as deputy chief of police, later serving as both acting chief and interim chief. At Tech, Connolly has directed the operational activities of GTPD as well as developed and implemented a five-year strategic plan. He also oversaw the process of GTPD’s certification through the prestigious Commission on Accreditation for Law Enforcement Agencies (CALEA), and provided guidance for the department’s intelligence-led response to phone calls and emails.

Royster Appointed to Second Term as Dean

KRISTEN BAILEY
INSTITUTE COMMUNICATIONS

Following a review over recent months, Jacqueline Jones Royster, dean of the Ivan Allen College of Liberal Arts, has been reappointed for a second term.

The Georgia Tech Faculty Handbook calls for a review of the performance of academic deans after five years of service. This past fall, Provost Rafael Bras appointed a committee to review Royster’s first term. The committee’s report culminated in a hearty affirmation of Royster’s work and her competence in the role of dean.

“The committee commended Dean Royster’s emphasis on equity, fairness, transparency, high academic standards, and open communications,” said Bras. “It was my pleasure to offer her reappointment, and she has enthusiastically accepted.”

Royster was lauded for her prioritization of growing Ivan Allen’s reputation both on and off campus, along with other leadership qualities.

“The position calls for an innovative leader capable of not just finding opportunities, but making them,” the report stated. “Dean Royster is such a leader.”

Royster was also commended for articulating the role of liberal arts at Tech, defining Ivan Allen’s institutional role as “innovation at the crossroads of humanities, social science, and technology.”

Her particular emphasis on civic leadership aligns with Tech’s strategic goals of graduating good global citizens and instilling public service as a priority in graduates. She was also praised for her availability, including her willingness to have individual meetings and timely response to phone calls and emails.

“The Ivan Allen College of Liberal Arts is at a wonderful place in its long history at Georgia Tech, and I am pleased that this second appointment as dean permits me to continue working with wonderful colleagues — faculty, staff, fellow administrators across the College and the Institute, students, alumni, partners, and friends.

2015 Football Schedule Released

The 2015 football home opener will be against Alcorn State on Thursday, Sept. 3. View the full season schedule at ramblinwreck.com

More Than 5,000 Students Accepted in Early Action

5,273 high school students got good news in January, indicating they were accepted during Tech’s Early Action Admission decision process. The students’ diversity and academic qualifications top those of years past, with an average of 1488 on the ACT and 10 college-level classes under their belts. Legacy students, which include siblings, children, and grandchildren of Tech grads or employees, were admitted at a rate of 51.5 percent. Regular admission decisions go out March 14. Read more at c.gatech.edu/earlyaction2015

Prepare Now for Severe Weather

The state of Georgia’s Severe Weather Awareness Week takes place Feb. 2 – 6, providing a chance for you to be sure you are ready for potential crises. Monitoring weather in your area, knowing where to seek shelter during a tornado, and signing up for emergency alerts from Tech are all good ways to prepare. A test of the Georgia Tech Emergency Notification System (GTENS) will take place Feb. 5 at 11 a.m. Learn more and sign up for the GT In Case of Crisis App for iPhone or Android at emergencypreparedness.gatech.edu

RACHAEL POCKLINGTON
INSTITUTE COMMUNICATIONS

Rob Connolly

INSTITUTE COMMUNICATIONS
ARTS & CULTURE

Feb. 9
The Office of International Education hosts a Chinese New Year Celebration, during International Coffee Hour, including food, performances, games, and a documentary screening. It begins at 6 p.m. in Tech Rec, First Floor, Student Center.

www.whistle.gatech.edu

SEMINARS & LECTURES

Feb. 6
Marlin Brown (public policy) and Adam Stubberg (international affairs) speak on energy and security at a free Innovation and Collaboration in Liberal Arts, Science, and Technology lecture to noon to 1 p.m., Room 185, J. Erskine Love Building. RSVP at: c.gatech.edu/ICLASTpanel

Feb. 11
Marc Lomart Hill, associate professor of education at Columbia University’s Teachers College, delivers a keynote address as part of Black History Month from 5:30 to 7:30 p.m. in the Student Center Ballroom. RSVP at: c.gatech.edu/BHMlecture

Feb. 18
Guest speaker Mattia Gazzola of Hafnia University discusses the Inverse Design of Swimming Dynamics from 3 to 4 p.m. in Room 185, J. Erskine Love Building. c.gatech.edu/ICLASTpanel

TRAININGS

Feb. 13
The Georgia Tech Library hosts a free session on Communication Ethics: Avoiding Plagiarism. Learn how to provide adequate credit notations including authorship and locate appropriate citation style and supporting resources needed to properly cite your work. From 2 to 3:30 p.m. in the Kaiser Room, Library. Register online at: c.gatech.edu/plagiarism

MISCELLANEOUS

Feb. 7
The Parents Program hosts Georgia Tech’s first Sibs Day, where current students are invited to host brothers, sisters, nieces, nephews, cousins, or family friends ages 7–16. Held from 8 a.m. to 5 p.m. in various campus locations.

parents.gatech.edu/sibsday

Events continued on page 3

Campus News

Sustainable Communities

Focus of Undergrad Plan

MICHAEL HAGEARTY
INSTITUTE COMMUNICATIONS

Georgia Tech is laying the groundwork for its next undergraduate learning focus, which will provide students the opportunities to learn and serve around the theme “creating sustainable communities.”

The initiative known as Serve•Learn•Sustain is Tech’s newest Quality Enhancement Plan, an essential component for reaffirmation of accreditation where a university must develop a long-term vision that unapologetically supports student learning and reflects the institute’s mission.

Building upon Tech’s traditional disciplinary excellence, Serve•Learn•Sustain will improve undergraduate educational and administrative practices across academic courses and experiences that combine community involvement with sustainability. By focusing on global challenges in critical areas of energy, environment, water, health, food, security, and global health, students will have the opportunity to make service contributions based on their disciplinary expertise, bringing renewed meaning to Tech’s motto, “Progress and Service.”

To increase broad exposure, Tech will begin to blend sustainability and community engagement content into its curriculum. Upperclassmen who opt to delve more deeply into the topics will have additional structured learning experiences to choose from, to complement their academic program. Over time, Tech graduates will not only have a deeper understanding of the environment, social, and cultural impact of their profession, but also be capable of effectively addressing community-level sustainability challenges in their professional and civic lives.

Serve•Learn•Sustain formally begins in 2016. Learn more about the plan and provide feedback at serve-learn-sustain.gatech.edu.

FRAUD PROVES COSTLY TO INSTITUTE IN FUNDING, REPUTATION

RACHAEL POCKLINGTON
INSTITUTE COMMUNICATIONS

As a public research university, Georgia Tech is a steward for a variety of financial resources, including state tax dollars, federal-sponsored research grants, and tuition paid by students and their families. While it is a known fact that fraudulent acts are damaging to the Institute, most don’t realize the true extent of financial fraud.

“The Association of Certified Fraud Examiners, organizations typically lose 5 percent of revenues annually to fraud,” said Melissa Hall, associate director of Forensic Audits. “But the total costs are often three- and-a-half times the original amount diverted from the Institute, and that doesn’t even address the damage to our reputation and the human toll caused by these unethical acts.”

If stolen funds originated from state or federal agencies, the Institute must pay back the awarding agencies. Additionally, there are resource costs including the extra employee time needed to investigate and evaluate evidence, payments to consultants to assist in the investigations, and administrative costs associated with criminal and legal actions. These legal actions can take months or years to complete.

“The money we receive from state and federal agencies is not Tech’s money, so anything misappropriated in these areas must be paid back in full,” said Jim Forner, associate vice president for Financial Services.

“In addition to the payback requirement, there is corresponding heightened monitoring of Tech’s activities, which ultimately increases demands on staff and results in additional audits from state and federal agencies related to sponsored programs or P-CARD abuse. Increased monitoring takes time and energy from the administrative and financial employees to demonstrate that Tech can appropriately administer state and federal funding.”

There is also the collateral damage associated with fraud — potential losses of state funding and sponsored research dollars that can come from legislative actions, including suspended grants and contracts.

In cases where the asset diverted is intellectual property, the value of unrealized royalties and rights from intellectual property can result in the loss of millions of dollars. If the resources diverted are used to pursue undisclosed outside interests, such as a private company or private consulting contracts, the loss includes the total income from direct contracts that have been diverted.

While the actual occurrence and types of financial fraud are not unique to higher education, higher education differs from the corporate environment in that it embodies a culture of trust along with academic freedom and integrity. Also, a decentralized operating corporate environment in that it embodies a culture of trust along with academic freedom and integrity. Also, a decentralized operating corporate environment in that it embodies a culture of trust along with academic freedom and integrity. Also, a decentralized operating corporate environment in that it embodies a culture of trust along with academic freedom and integrity. Also, a decentralized operating environment is common in higher education. When these attributes combine with a complex financial model, an inherently risky environment evolves.

The most common type of fraud nationally and at Georgia Tech is asset misappropriation fraud, which involves employees taking assets for private interest. The asset could be money, materials and supplies, or other items of value. Asset misappropriation usually begins with a small action, such as forgoing a proper reimbursement. But typically involves providing falsified documents and intentionally misleading supervisors and administrators as to the business purpose for the purchase.

In terms of prevention, education and training are still considered the most effective ways to deter and minimize the impact of fraudulent behavior. This means learning from past events and proactively teaching employees what to look for.

Internal Auditing is focusing on fighting fraud by encouraging the use of the EthicsPoint hotline, working closely with management to identify risk areas, and developing new uses of data analytics to identify potential fraudulent activities.

“Even with all the appropriate controls in place to mitigate risk, if employees don’t take compliance seriously and question suspicious activities, the controls won’t work effectively,” said Phil Hurd, chief audit executive and director of Internal Auditing. “As a part of the University System of Georgia, we are required by Board of Regents policy to report any and all instances of suspected malfeasance. If you know something, please do something. We want employees to be the first line of defense.”

Understanding and advocating for ethical behavior is everyone’s responsibility. All members of the Tech community are encouraged to educate themselves and speak up to protect Tech’s resources and reputation.

Anonymous reports of suspected unethical behavior, including financial fraud, can be submitted at www.ethicspoint.com.

DEAN, from page 1
— near and far,” said Royster. “Looking ahead, I remain excited to be connected to the remarkable vision and mission of liberal arts at Tech as we continue to set an ambitious pace for what the liberal arts should be in our 21st century world.”

Steven French, dean of the College of Architecture, chaired the committee, with Ivan Allen faculty comprising the rest of the group: Jennifer Clark (Public Policy), Kelly Coats (Modern Languages), Carl DiSalvo (Literature, Media, and Communication), Byung-Chol Kim (Economics), Steven Isselmann (History, Technology, and Society), and Katja Weber (Sam Nunn School of International Affairs).

The committee developed its evaluation with input from various sources, including students, faculty, administrators, and the rest of the group. Royster, a survey of Ivan Allen faculty and staff, open office hours with Ivan Allen faculty and staff, interviews with Ivan Allen leadership, and a peer evaluation from one of five other peer institutions. Royster’s new appointment is for an additional five years, beginning Aug. 1.
“Approximately 80 percent of those who start a fitness program will not be there in four to six weeks,” said CRC Director Michael Edwards, adding that “for profit fitness centers bank on this.”

Attendance at the CRC, which averages about 55,000 visits per month, is steady throughout January and February, but it diminishes around spring break.

“The CRC has seen a noticeable increase in attendance at the start of school and in the end of spring semester,” said Edwards. “We’re expecting the numbers will show we had a 10,000-visit increase for the month of January.”

Edwards notes that many newcomers want instant gratification, similar to clicking a remote control to make a change.

“You may look at old photos from high school or college and wonder what happened,” he said. “Remember, it took you a while to get out of shape, and it will take a while to get back. But the rewards are great.

“Having a healthy lifestyle is a marathon — not a sprint,” Edwards said, and it has to become part of a person’s daily schedule. “Progress is slow,” he said. “You should set steady goals for the short term. If you want to lose 10 pounds, aim to lose one to two pounds per week. There will be setbacks along the way, and you will have to make adjustments.”

Katherine Kanfer, professor of Psychology, agrees. “If it were easy, everyone would do it,” Kanfer said. “People start out strong with goals, but maintaining effort over time is often the most difficult part. Behavior change requires a specific plan and a way to monitor your progress. Breaking a larger goal into sub-goals allows you to feel good about your progress and to make changes to your strategy if necessary.”

“Visualizing the process, as well as the end result, is also an important step,” Kanfer said. “Visualizing your goal as a process, how you will make progress, how you will pick yourself up after setbacks, and enlisting the aid of others to support you in accomplishing your goal are all important elements for accomplishing difficult but important personal goals,” Kanfer said.

Start with Small Steps

A recent Georgia Tech study found that, while all adults, even those over the age of 65, should strive to attain the weekly goal of 150 minutes of exercise, individual goals must be realistic, taking into account possible physical limitations and established patterns of inactivity.

“Only about one in 10 adults aged 40 and older in the U.S. and the U.K. is getting what is considered to be ‘sufficient’ exercise,” said Philip Sparling, a professor emeritus in the School of Applied Physiology and lead author of the paper.

Sparing and colleagues made the case that any increase in physical activity, even small amounts, will be beneficial. For sedentary individuals, a gradual transition to increased activity may be the most practical way to improve health.

“For example, adding five to 10 minutes per day of light walking and standing is a good start, building up to 30 minutes per day during the course of a month,” he said.

“Long-term sitting has been cited by the World Health Organization as a leading risk factor for death.

“A major point we were trying to make is that older adults should replace sitting with standing and light activity,” said Sparling. An inability to meet the 150 minutes-per-week standard shouldn’t keep sedentary individuals from increasing their physical activity in small increments, though the greatest benefit will go to those who invest the most in their health, he added.

FACULTY AND STAFF ACHIEVEMENTS

John Crittenden, professor in the School of Civil and Environmental Engineering, was named a President’s Distinguished Scientist by the Chinese Academy of Sciences. Crittenden will spend a few weeks this year visiting Chinese institutions for in-depth discussions with researchers and graduate students.

Russell Dupuis, professor and Steve W. Cladddick Endowed Chair in the School of Electrical and Computer Engineering, earned a Draper Prize for LED pioneers. Dupuis invented the process that is the basis of virtually all production of high-brightness LEDs, laser diodes, solar cells, and high-speed optoelectronic (light controlling) devices.

Rosario Gerhardi, professor in the School of Materials Science and Engineering and executive director for Institute Diversity, was named the Goizueta Faculty Fellowship Chair. The Goizueta position is awarded to outstanding nonfunded faculty members who show academic promise and have demonstrated leadership in the campus Hispanic community.

Bob Goldberg, executive director of the Parker H. Petit Institute for Bioengineering and Bioscience, won a Georgia Bio Community Award. The award acknowledged his efforts in fostering an environment in which interdisciplinary research can flourish.

Giacomo Paulino, professor and Raymond Allen Jones Chair in the School of Civil and Environmental Engineering, was elected a fellow of the American Academy of Mechanics. The academy selects only one fellow per year.

Aerospace Engineering Professor of the Practice David A. Spencer was elected to a three-year term on the American Astronautical Society’s Board of Directors. The organization has more than 1,400 members worldwide and produces one of the field’s leading aerospace publications, the Journal of Astronautical Sciences.

Perry Pei-ju Yang, associate professor in the College of Architecture, was appointed Bayer Chair Professor for the United Nations Environment Program for the Institute of Environment and Sustainable Development at Tongji University. Yang will develop a strategic plan and an international platform for potential contributions to urban sustainability.

Professors Mark Guzdial and Sharmant Navathe, both in the College of Computing, were selected as fellows of the Association for Computing Machinery for innovations in the field. Guzdial was recognized for contributions to computing education and broadening participation, and Navathe for contributions to data modeling, database design, and database education.

Three Guggenheim School of Aerospace Engineering faculty members were selected by the American Institute of Aeronautics and Astronautics (AIAA) to the 2015 Class of AIAA Fellows and Honorary Fellows. Ben T. Zinn, Regents Professor and David S. Lewis Jr. Chair, was named AIAA Honorary Fellow, the highest distinction conferred by AIAA.

Timothy Lieuwen and E. Glenn Lightsey, both professors, were conferred with the fellow distinction.

Four faculty members in the Wallace H. Coulter Department of Biomedical Engineering (BME) and one in the School of Chemical and Biomedical Engineering (ChBE) were selected as fellows of the American Institute for Medical and Biological Engineering. Hanjoong Jo, John and Jan Pottmann Professor in Biomedical Engineering, professor of medicine; Hang Lu, professor and James R. Farr Faculty Fellow in the School of Chemical and Biomedical Engineering, Garrett Stanley, professor and associate chair for graduate studies in BME; Johnna Temenoff, associate professor in BME; and May Wang, associate professor in BME.

EVENTS

February 12

Women’s basketball faces North Carolina State at McCamish Pavilion from 7 to 9 p.m.

February 13

Progress report deadline for all 1000- and 2000-level courses. Grades must be entered by noon.

February 16

The Campus Recreation Center offers a Break Camp for children of Tech employees from 7:45 a.m. to 5 p.m. at the CRC. The cost is $40 per child.

February 18

Learn from the Scheller College of Business Full-Time and Evening MBA programs at this free information session, from 8 to 9 p.m. at the MBA Admissions Office, Scheller College of Business. Register at: scheller.gatech.edu/info-session.html.

February 19

The Margaret Guthman Musical Instrument Competition opens to the public and brings entrants from all over the world to compete for $10,000 in prizes. The competition is from Feb. 19-20, with the finals on Feb. 20 at 7 p.m. in the Klaus Computing Building atrium.

February 23

The Georgia Tech Farmers Market returns to Tech Walk for the Spring semester. Thursdays through April 23, from 11 a.m. to 2 p.m.

Facebook.com/GTFarmersMarket

February 23

The Georgia Aquarium opens exclusively to Georgia Tech students, faculty, staff, and alumni from 6–11 p.m. Tickets are $16 for faculty, staff, and guests. Purchase online at c.gatech.edu/GTAquarium

For a more comprehensive listing of events updated daily, visit calendar.gatech.edu.
Flu Season Continues, Shots Offered at Stamps

CHRISTEN BAILEY
INSTITUTE COMMUNICATIONS

Flu season typically peaks in February and, though this year’s vaccine has doubts, medical professionals still advise that everyone receive a flu shot.

World flu experts meet in February of each year to formulate a vaccine for the next flu season. This year, after the vaccine was already manufactured and distributed, a strain evolved that is causing the vaccine to be less effective.

Health industry leaders are in talks on how to improve the vaccine, looking at its creation, production, and distribution. Georgia Tech was cited in a Jan. 22 Bloomberg News article for its efforts in developing microneedle patches that would make distributing and dispensing the vaccine more efficient by eliminating the need to handle a refrigerated liquid vaccine.

In the meantime, the Centers for Disease Control and Prevention (CDC) advises that the vaccine can keep you from getting the flu, protect others around you who are more vulnerable, and make your illness milder if you do get sick.

In past seasons, the flu vaccine was cited as having a 71 percent reduction in flu-related hospitalizations among adults of all ages. Particularly for pregnant women and older adults, the flu vaccine can mitigate illness and reduce the chance of hospitalizations.

As of late December, the CDC reported that about half of the U.S. was experiencing high flu activity. Stamps Health Services still has doses of the vaccine, which it offers for $25 to faculty and staff. Employees can make an appointment to get the vaccine or receive it during any regularly scheduled appointment at the health center.

To learn more or make an appointment, visit health.gatech.edu.

Community News

Heada Hair Brings ‘Life’ to EIS Workplace

KRISTEN BAILEY
INSTITUTE COMMUNICATIONS

On the second floor of 811 Marietta Street, a fostive spirit welcomes employees and visitors alike as they exit the elevator. She’s described as lovely, quiet, and agreeable, and brings fun and life to the Enterprise Information Systems (EIS) team that no one else can.

Heada Hair came to Georgia Tech in 2006, when she was introduced as part of a spooky food spread during a Halloween celebration at EIS. Since then, she’s had a home at 811 Marietta Street in various places on the floor and can be seen donning themed outfits around Halloween, winter holidays, and other times throughout the year. She has a varied wardrobe, but her personal shoppers and dressing consultants remain anonymous.

“She’s just one of the family,” said Lori Sundal, director of EIS.

Andy Fox, a former EIS employee now in the Department of Housing, brought Heada to the department. When he moved over to Housing, Heada chose to stay, and EIS was happy to keep her.

“She’s been a partner of ours for a long time,” said Lou Zehner, business manager for EIS. “People like seeing her when they come in.”

That is, unless you encounter her in the dark in the middle of the night. Alex Gutierrez, now a marketing specialist in Parking and Transportation, was responding to a motion sensor alarm at 811 Marietta Street during his time as an officer with the Georgia Tech Police Department a few years back. He and his partner were clearing the building when they saw Heada seated at her desk from behind.

When they tried getting her attention and received no response, they approached cautiously until realizing what she was.

“She was a brUNETte back then,” Gutierrez said. (She notoriously changes her hair and was last seen sporting a pink coiffed bob.) “Once we got close we could see she was a mannequin, but we let the third officer responding find out for himself when he got there.”

Once Gutierrez met Heada, he appreciated her role in the building.

“It’s part of the culture,” he said. “Some people think it’s weird, but I think it’s cool.”

In the event of a campus emergency, Heada will work closely with GTPD since her desk is situated outside the room designated as the Emergency Operations Center. Her cube is adorned with various Tech spirit items, including a headshot of President G.P. “Bud” Peterson.

“She really adores him,” Zehner said. Heada serves as a sort of passive ringleader for other mild mischief in EIS, which includes a holiday white elephant gift exchange, Halloween parties, and monthly socials that let coworkers discuss professional and personal interests.

“We work hard, so we need to have some play too,” said Sundal. The lighthearted culture is what Sundal thinks has kept Heada here for nearly nine years.

“She knows we’re fun,” she said. “Her environment changes every day, she gets to see different people, and has gotten to have different desks around the floor over the years.”

Heada Hair’s cubicle is on the second floor at 811 Marietta Street in the offices of Enterprise Information Systems. She has been at Tech since 2006.

Teresa Crocker will be held Tuesday, Feb. 10, from 3 to 5 p.m. in the President’s Suite, Bill Moore Student Success Center.