Four Faculty Members Named AAAS Fellows

The American Association for the Advancement of Science (AAAS) is the world’s largest general scientific society, and the election as a Fellow is an honor bestowed upon AAAS members by their peers. news.gatech.edu

Biomedical Engineering Student Wins 3MT

Nusaiba Baker’s work focuses on the use of nanotechnology in medicine. Watch her deliver her thesis in three minutes. grad.gatech.edu

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Cultivating Community: Meet Christopher Burke

VICTOR ROGERS
INSTITUTECOMMUNICATIONS

As director of Community Relations in the Office of Government and Community Relations, Christopher Burke spends his days enriching current relationships and cultivating new ones on behalf of the Institute.

The relationships include the immediate neighborhoods surrounding campus, the state of Georgia, and the public school system.

“We have a unique role in our office because we are outward facing,” Burke said. “Our full-time focus is external. When you engage externally, you get to hold up a mirror and really see what the outside world thinks of you. Whether you think you’re doing well or not, the outside world will let you know.”

Burke and his Community Relations staff regularly receive feedback from hundreds of visiting students, parents, and teachers. The department works with schools and centers across campus to bring students from metro Atlanta and beyond to campus to see engineering and computing demos to get excited about STEM. One impactful event the office holds twice a year, Middle Grades Discover Georgia Tech, brings 200-240 students to campus. They divide the students into groups of about 25 students per rotation to keep them actively engaged.

“There is universal excitement among the students about the visits,” Burke said. “We approach the visits with the overall goal of exposure. It’s about helping to pique the students’ curiosity. The more they can be exposed to what engineering or computer science is, the more they can get engaged in their own education and what they want to pursue. For a lot of kids, they won’t necessarily know what engineering is until they have the opportunity to touch, feel, or see something.”

Burke said that Community Relations takes pride in

Library Renewal Moves into Next Phase of Construction

KRISTEN BAILEY AND JASON WRIGHT
INSTITUTE COMMUNICATIONS

What’s been the home of the Georgia Tech Library for the past two years is about to be closed until 2020.

Price Gilbert, the portion of the Library that has welcomed campus since 1953, will close for renovation on Friday, Dec. 14. Its sister building next door, Crosland Tower, will reopen after three years of closure and will be the new Library home for campus starting Sunday, Jan. 6, 2019, at 8 a.m.

The Library, currently located in Price Gilbert, will be open 24/7 during final exams. From Dec. 14

Diversity Fellows Celebrate Second Cohort

MICHAEL HAGEARTY AND CHRISTOPHER MOORE
INSTITUTE COMMUNICATIONS

A pilot program seeking to build a network of ambassadors in support of inclusive excellence celebrated the completion of its second group of fellows this month at the Diversity and Inclusion Fellows Program Poster Expo. The expo was a showcase of the projects created by, and lessons learned from, its participants.

The second cohort of staff, students, and faculty — Trey Barugul, Natadusha Boland, Rachel Chen, Sheila Cramkan, Rishabh Datta, Claudio Di Leo, Heather Dicks, Jennifer Glass, Skyler Henckell, Lacy Hodges, Avanti Joshi, Angela Keys, Preksha Kukreja, Minda Monteagudo, Rhea Perkins, Raneem Rizvi, Rockie Marie Rodriguez, Sahana Srivatsan, Maloreigh Todd, Emily Weigel, and Conan Zhao — have spent the past year developing, planning, and executing their proposals, each designed to accelerate cultural transformation on campus.

For the program’s sponsors, the goal is to create an environment where all people feel safe, comfortable, and empowered to discuss diversity and inclusion.

“Diverse collaboration often sparks great innovation,” said Magnus Egerstedt, professor and Steve W. Chaddick School Chair in the School of Electrical and Computer Engineering, and co-director
EVENTS

ARTS AND CULTURE

Nov. 30
Georgia Tech’s Women’s Choir hosts a fall concert from 7:30 to 9:30 p.m. in Room 175, West Village. music.gatech.edu

Nov. 30
Georgia Tech’s Rock/Pop Ensemble hosts a fall concert from 8 to 10 p.m. at Under the Couch, second floor, Student Center. music.gatech.edu

Through Jan. 31, 2019
The Office of the Arts hosts the Faculty/Staff Art Exhibit at the First Center for the Arts. arts.gatech.edu

SEMINARS AND LECTURES

Nov. 28
Human Resources hosts a Be Well session on Powers of Attorney from 11 a.m. to noon in Room 320, Student Center. RSVP at hr.gatech.edu/bewell

Nov. 28
Mostafa El-Sayed and Asheek Goel will discuss their work and experience at a Revolutionaries lecture hosted by the Student Government Association at 6 p.m. at the Historic Academy of Medicine. sga.gatech.edu

Dec. 3
Kim Cobb and Younan Xia will discuss their work and experience at a Revolutionaries lecture hosted by the Student Government Association at 6 p.m. at the Historic Academy of Medicine. sga.gatech.edu

Dec. 5
The Blockchain Roundtable will bring together faculty, scientists, students, and industry experts interested in applications of the blockchain technology, from 1 to 7:30 p.m. at the Historic Academy of Medicine. RSVP at blockchain.gatech.edu

Dec. 12
Georgia Tech’s Smart Cities and Inclusive Innovation initiative and Newsweek host a seminar on How Driverless Cars Will Change the World, from 8:30 a.m. to 12:30 p.m. at the Technology Square Research Building. smartcities.gatech.edu

LIBRARY, from page 1

to Jan. 6, 2019. Library employees will work out of the Clough Undergraduate Learning Commons, with employees available at the second floor Core Desk from 8:30 a.m. to 6 p.m. on weekdays. Users will be able to request gadgets and return materials at this desk.

Requests for library materials will continue to be made through the Library’s website, and delivery will continue from the Library Service Center through the transition.

Users might experience delays or service interruptions due to a software upgrade scheduled to take place Dec. 14–17. The switch from Price Gilbert to Crosland marks the last phase of the Library Next project, a five-year transition that has seen the renovation of one building, opening of the Library Service Center with Emory University, and reimagination of how the Library uses its space and serves its users.

The project is scheduled to be complete in 2020, with the reopening of Price Gilbert and new connectivity between the two buildings. Learn more about the project at librarynext.gatech.edu.

EVENTS continued on page 3

EVENTS

Celebrate Commencement

Mark your calendar to celebrate Fall 2018 graduates this season. Both the master’s ceremony and bachelor’s ceremony are ticketed events. For more information, visit commencement.gatech.edu.

Ph.D. Ceremony
Friday, Dec. 14
9 to 11 a.m.
McCamish Pavilion

President’s Graduation Celebration
Friday, Dec. 14
11 a.m. to 1 p.m.
Student Center Ballroom

Master’s Ceremoney
Friday, Dec. 14
3 to 5:30 p.m.
McCamish Pavilion

Bachelor’s Ceremony
Saturday, Dec. 15
9 to 11:30 a.m.
McCamish Pavilion

FACULTY AND STAFF ACHIEVEMENTS

Gregory Abowd, professor in the School of Interactive Computing, received a 10-year recognition award at the Ubicomp 2018 conference in October for work with former Ph.D. student Shwetak Patel and postdoctoral student and research scientist Matt Reynolds. The paper was originally presented at the Pervasive 2008 Conference and was titled "Detecting Human Movement by Differential Air Pressure Sensing in HVAC System Ductwork: An Exploration in Infrastructure Mediated Sensing."

School of Computational Science and Engineering Chair and Professor David Bader was named Editor-in-Chief of ACM Transactions on Parallel Computing. He serves a three-year term beginning this month.

Pamela Bhatti, associate professor in the School of Electrical and Computer Engineering, has been appointed as the editor-in-chief of the IEEE Journal of Translational Engineering in Health and Medicine (J-TEHM) for a three-year term, beginning Jan. 1, 2019. The peer-reviewed, open-access scholarly journal and community forum bridges the engineering and clinical worlds.

Morris B. Cohen, associate professor in the School of Electrical and Computer Engineering, has been named president-elect of the Atmospheric and Space Electricity Section of the American Geophysical Union. He will serve a two-year term.

Sherry Farrugia, chief operating and strategy officer for the Georgia Tech/Children’s Healthcare of Atlanta Pediatric Technology Center, earned the Women in Technology Women of the Year award for the Medium/Mid-Size Organization and Education Institution category.

Tequila Harris, associate professor in the George W. Woodruff School of Mechanical Engineering and one of Georgia Tech’s experts on thin film coatings, recently received the L.E. Scriven Young Investigator Award.

The American Society of Civil Engineers Foundation has invited Kimberly Kurtis, professor in the School of Civil and Environmental Engineering, to join its Council of Trustees for 2019.

Moinuddin Qureshi, professor in the School of Electrical and Computer Engineering, received the Best Paper Award at the 51st Annual IEEE/ACM International Symposium on Microarchitecture, held Oct. 19–24 in Fukuoka, Japan.

Nicolea Serban, professor in the H. Milton Stewart School of Industrial and Systems Engineering, has been selected to participate in the Interdisciplinary Research Leaders program, one of the Robert Wood Johnson Foundation’s leadership development programs.

Shyh-Chiang Shen, professor in the School of Electrical and Computer Engineering, has been elected to the class of 2019 OAIA Fellows.

Professor John Stasko received a 10-year legacy award at the IEEE VIS 2018. The paper was presented at InfoVis in 2008 and was titled "Effectiveness of Animation in Trend Visualization."
not turning away any group or individual who wants to visit campus. He said that, depending on the community, people may be skeptical of the Institute’s intentions. But, he said most groups welcome the idea of the Institute doing something to enrich the lives of their children.

For Burke, being able to engage with young minds is the most rewarding part of his job.

“I see the joy on their faces, whether they’re middle school students coming here for a one-day experience or high school students who I get to spend a little more time with,” he said.

In addition to working in Community Relations, Burke co-teaches an Honors Program special topics course, Near Peer Mentoring: An Urban Education Experience (HTS 2813), with Carol Subino Sullivan, senior academic professional with the Center for Teaching and Learning (CTL).

Burke said the course spawned from an observation about seven years ago that, at the time, there were only about 40 Tech students who came from the Atlanta Public Schools system.

Burke worked with CTL to apply for the Near Peer Mentoring Challenge Grant. They received the grant, and Burke and Sullivan designed the course to look at the obstacles preventing Atlanta Public Schools students from attending Tech.

“It’s challenging because the data that you’re combing through paints a very grim story about what happens in urban education circles,” he said. “There’s such a wide gap in terms of the rigor that students in predominately low-income communities get to experience. There’s also a lack of belief in themselves and what they think they can do. It goes back to the exposure issue.”

In the course, Tech students spend one day in class and one day at Atlanta Public Schools’ BEST Academy doing one-on-one mentoring with middle school students. The goal is for the high school students to apply to and attend a four-year university.

“It’s very impactful for the high school students, but the immediate impact is on our Tech students,” Burke said. “There isn’t a week that goes by that I don’t hear from a Tech alumnus regarding something in their professional life that reminds them of the work we did in the class or draws them back to want to do more.”

Burke said his work always reminds him of the responsibility that comes from Georgia Tech being a public university.

“We create a lot of jobs and contribute patented technologies to the world. But I’m cognizant of the fact that many of the children in the communities we talk to are not going to attend Tech,” he said. “Their parents work in jobs where what we do at Tech has little to no impact on their lives. So, what more can we do to honor ourselves as a public entity to those who have less? I think about that all of the time.”

He said that one answer largely lies with working with children, and he recently wrote a paper in an economic development journal outlining details.

“A key contribution universities can make for economic development is through opportunities to deeply engage primary and secondary grade students in activities that could lead them to pursue a STEM career,” Burke said.

“We can’t be everything to everybody,” he said, “but we can be mindful and try to meet people where they are.”

Music, Music, Music

When he isn’t working, Burke is a frequent concert-goer, avid music lover, and musician. In his suburban Chicago high school, he was a governor’s music scholar who played five instruments. He was supposed to study music, but he gave it up to defy his father, who was a jazz pianist.

“He always said, ‘You’re gonna regret giving up music. But, I never really gave it up. I just stopped playing the instruments,’” Burke said.

He recently started playing music again, learning a new instrument—a Fender bass guitar.

He listens to UK soul music, such as Incognito. He also listens to a lot of jazz artists.

“I try to find artists who are taking the genre in a new direction — any direction,’” he said. “Whether it’s Kamasi Washington, Tom Misch, Radiohead, or Thom Yorke as a solo artist, they take the genre in a new direction. They are doing something outside the realm of traditional music. That’s what attracts me to an artist, more than the genre.”

Burke is married, has four children, and lives in Duluth, Georgia. He has a daughter who works at Tech’s library and a daughter who is a first-year student at Tech.

Burke’s office is decorated with items from his mother’s travels.
The Student Competition Center is the starting line for seven student engineering competition teams. Located in a 17,000-square-foot space on 14th Street near Hemphill, the center is designed to foster innovation among hundreds of students who design, build, and compete using a variety of vehicles or robotic or autonomous systems. In addition to having a separate workspace for each team, the center is equipped with extensive machining resources in its Common Machining Area.

See the full gallery at c.gatech.edu/compcenter.