2021 ANNUAL REPORT

Georgia Tech Research Institute

GTRI.gatech.edu

James Hudgens
Director, Georgia Tech Research Institute
Senior Vice President, Georgia Institute of Technology

Message From the Director

I am pleased to share with you the Georgia Tech Research Institute's (GTRI) 2021 Annual Report. This past year has brought challenges and opportunities for our organization. But thanks to the innovation and dedication of our team, we have been met with great success and growth.

GTRI has experience in solving some of the nation's toughest problems as the applied research unit of the Georgia Institute of Technology (Georgia Tech) and as a Department of Defense (DoD) University Affiliated Research Center (UARC). As we launched our ten-year Strategic Plan, we laid out the ideals that at GTRI: we strive for excellence, thrive on diversity, celebrate collaboration, champion innovation, safeguard freedom of inquiry and expression, nurture the well-being of our community, act ethically, and be responsible stewards.

Many of these values are displayed as GTRI's science and engineering expertise turns ideas into realizable solutions for our sponsors. We take the best ideas, often co-developed with our Georgia Tech academic partners, and turn them into systems applications that provide a significant technological advantage over other approaches.

Throughout this report, you will read about our technical achievements, which I hope you find as exciting and inspiring as I do. However, as GTRI continues to develop and achieve new heights, we are equipped with the knowledge that people are our core and our differentiator. We are committed to personal and professional growth by investing in our employees and offering a work environment that fosters new ideas and a community of inclusive excellence.

To our research sponsors and potential sponsors, to our peers and colleagues across industry and academia, to our military and civilian leaders, and to our men and women in uniform for whom much of our work is dedicated, thank you for your partnership, your support, and your willingness to enact change.

I am thrilled about what the future will bring to GTRI. Join us as we advance technology and provide innovative solutions to enhance the state of Georgia's economic development, serve national security, educate future technology leaders, and improve the human condition. GTRI remains ready to take on the most challenging problems, in progress and service for all.

GTRI Leadership

James J. Hudgens
Director, GTRI
Senior Vice President, Georgia Institute of Technology

Don Davis
Deputy Director, Electronics, Optics, and Systems

Kim Toatley
Deputy Director, Finance and Research Administration

Bill Melvin
Deputy Director, Sensors and Intelligent Systems

Emily Monago
Deputy Director, Diversity Strategy

Romy Smith
Chief Counsel

Keith McBride
Chief of Staff

Don Davis
Deputy Director, Information and Cyber Sciences (Interim)

Troy Littles
Deputy Director, GTRI Operations Officer

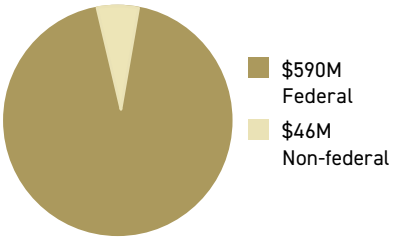
Raj Vuchatu
Deputy Director, GTRI Information Officer

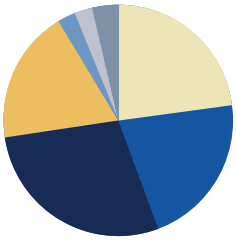
Mark Whorton
Deputy Director, Chief Technology Officer

Tineke Battle
Deputy Director, Talent Management

Financial Statement

SPONSOR PERCENTAGES FOR FY21





RESEARCH BREAKDOWN BY CUSTOMER FOR FY21

Air Force	28.80%
Army	21.31%
Navy	20.58%
Other DoD	20.07%
State, Local Gov't.	3.66%
Private	3.54%
Other Non-DoD Federal Agencies	2.03%

GTRI BY THE NUMBERS

	GA TECH FY21	GTRI FY21
Sponsored Research Awards:	$ 1.20B	$782M
Revenue Earned:	$ 1.25B	$641M
Economic Impact to State:	$ 4.01B*	$1.67B
Total Employees:	9,025	2,884

- Generating high-paying jobs.
- Keeping University System of Georgia graduates in Georgia.
- Driving economic growth in Georgia.

* Provided from USG's *FY20 Economic Impact Report* published July 19, 2021.

GTRI houses a 5G laboratory where researchers test and prepare 5G networks for DoD tactical deployments.

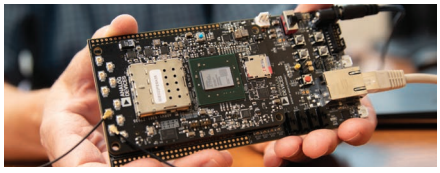
Developing 5G Solutions for the State of Georgia, Nation

GTRI is leading several efforts to develop next-generation 5G wireless technology for government partners and the state of Georgia that directly contribute to national security and economic development.

Researchers have established 5G prototypes at Hill Air Force Base in northern Utah, with funding awarded by Advanced Technology International (ATI). The project is specifically looking at using dynamic spectrum sharing, or DSS, to allow 5G networks and military radars to operate on the same spectrum band. GTRI is also researching the concept of network slicing for tactical applications, which allows multiple independent virtual networks to operate on one logical network. In a hypothetical military setting, network slicing could enable soldiers to exchange vital information while reserving higher-quality bandwidth to stream video back to a command headquarters – all while ensuring the data remains secure.

GTRI is also examining ways to cost-effectively bring high-speed broadband networks to rural Georgians and 5G to agricultural communities in the state. 5G stands to transform things like crop management, where farms could use the technology to monitor crops, allowing fertilizer or pesticide treatment of specific portions of fields instead of applying the same treatment to an entire field. Farms could also use 5G to equip farm machinery and equipment with higher compute power and more advanced data collection capabilities.

GTRI currently houses a 5G laboratory where researchers test and prepare 5G networks for Department of Defense tactical deployments and explore ways to improve the technology's efficacy.



A commercially-purchased circuit board GTRI is integrating into one of its 5G networks.

Peachy Robot of the Future

GTRI has developed an intelligent robot designed to handle the human-based task of thinning peach trees, which could result in significant cost savings for peach farms in Georgia. The robot uses a LIDAR sensing system and highly-specialized GPS technology to self-navigate through peach orchards and steer clear of obstacles. Once at a peach tree, the robot uses an embedded 3D camera to determine which peachlets need to be removed and grabs the peachlets using a claw-like device, known as an end effector, that is connected to the end of its arm.

Cultivating peaches is a complex and manually-intensive process that has put a strain on many farms stretched for time and workers Additionally, current efforts to automate the harvesting of peaches and other specialty crops so far have not been as successful as advancements in commodity crop automation, where machines can collect hundreds of acres of the goods at a time. Due to peach orchards' unstructured environments, which includes factors such as unpredictable weather and uneven terrain, peach harvesting remains difficult to automate.

To address these issues, GTRI is exploring ways to incorporate artificial intelligence and deep learning training methods to improve the robot's image classification abilities and overall performance. GTRI has also partnered with the Department of Horticulture at the University of Georgia Griffin Campus in Griffin, Ga., to further explore the intelligent automation of peach farming.

A close-up of the end effector device that grabs and removes peachlets.

Claims Database Will Provide New Information on Healthcare in Georgia

A new and comprehensive database of healthcare claims paid in the state of Georgia will help identify disease trends, provide information for making public policy decisions, facilitate new research – and offer a way for consumers to determine the average cost of common procedures such as knee replacement or diagnostic testing such as MRIs. Administered by Georgia Tech's Center for Health Analytics and Informatics (CHAI) and including leadership from GTRI, the Georgia All-Payer Claims Database (GAPCD) will move Georgia into the ranks of more than two dozen states that provide such a pathway to healthcare cost and quality transparency.

Scheduled to launch by January 2023, the GAPCD will include de-identified data on patients from most public and large private payers of healthcare costs. The GAPCD will be a significant new resource for health discovery and research in the state, facilitating an understanding of issues around healthcare costs, quality, utilization and healthcare disparities. With it, the state will be able to look at questions that it has not been able to thoroughly explore before, going beyond data maintained by individual health systems.

This project is being led by the Georgia Office of Health Strategy and Coordination in collaboration with other state agencies. The GAPCD was created by the Georgia General Assembly in 2020.

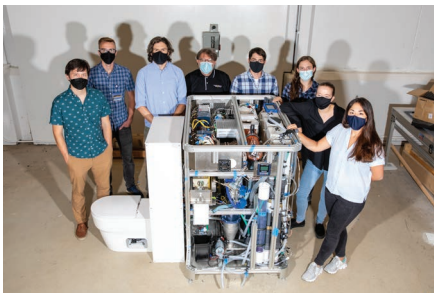
Narrowing the Digital Divide in Georgia

As part of the Georgia Smart Communities Challenge (Georgia Smart), GTRI and Georgia Tech are exploring ways to enhance rural connectivity in Georgia – a mission seen as vitally important amid the pandemic-driven shift to remote work and distance learning.

The 2021 Georgia Smart cohort includes the cities of Woodbury and Concord, and Pike and Spalding counties. Georgia Tech researchers will provide the communities with technical and research support at no charge for two years. Such assistance includes assessing technology alternatives, community engagement, project planning, pilot implementation, results evaluation, and funding models and opportunities. Program funding originates from many sources, including Georgia Tech, the Georgia State Government, and local industry partners.

Rural Georgia's connectivity challenges have been exacerbated by Covid-19, which has required many of the participating communities to park school buses equipped with Wi-Fi hotspots in various parking lots so that students can attend "virtual" school.

GTRI and Georgia Tech established Georgia Smart in 2018 to expand and enhance mobility, connectivity, and equity in cities and counties in Georgia with the ultimate goal of improving their services, efficiencies, and cost savings as they plan for a smart and connected future. Georgia Tech has worked with the following Georgia Smart communities over the years: The City of Albany, City of Chamblee, Chatham County, Clayton County, Columbus Consolidated Government, Gwinnett County, Macon-Bibb County, City of Milton, City of Sandy Springs, City of Savannah, City of Valdosta, and the City of Woodstock.



The G2RT project could save countless lives in parts of the world lacking access to basic sanitation.

Reinventing the Toilet to Solve a Global Health Emergency

Over 20 GTRI researchers have contributed to the advancement of the Generation 2 Reinvented Toilet, or G2RT, a project led by Georgia Tech. The initiative could save hundreds of millions of lives in underdeveloped countries and parts of developed countries that lack access to basic sanitation. A reinvented toilet processes human waste onsite in household bathrooms instead of relying on traditional – and costly – sewage treatment systems.

G2RT is split into two components – a user-friendly frontend with a commode, and the backend, where waste processing occurs. GTRI developed a Volume Reduction (VR) module that uses a pasteurizer or heated pipe to kill pathogens found in fecal material and then a filter press that acts as a coffee press to flatten the waste matter into cakes that are later dried and turned to ash.

Shannon Yee, an associate professor in the George W. Woodruff School of Mechanical Engineering, leads the project.

Close to half the world's population lacks regular access to improved sanitation, a problem that kills over 500,000 children each year from preventable diarrheal disease. Though this global health problem most severely impacts the world's poorest countries, communities in wealthy countries aren't immune. In rural America, for example, hundreds of thousands of people still lack access to improved sanitation solutions.

GTRI and the Georgia Tech College of Engineering are collaborating on the project with EOOS Next in Vienna, Austria; Helbling Technik in Zurich, Switzerland; and about a dozen other universities and entities. Reinventing the toilet has been funded by the Bill & Melinda Gates Foundation, which in 2011 began the Reinvent the Toilet Challenge aimed at developing safe sanitation solutions that work without relying on output sewer or input water.

The G2RT prototype is set to begin field trials early next year in household test sites in South Africa, India, and China.

Researchers are developing a system to continuously monitor building air for the SARS-CoV-2 virus that causes Covid-19.

Research Seeks to Detect SARS-CoV-2 Virus in Building Air

Tests to detect SARS-CoV-2 infection in humans have become more widely available as the Covid-19 pandemic approaches the end of its second year. But rapidly monitoring for and detecting infectious virus aerosols within indoor environments is currently not possible.

As workers go back to the office and children return to school, knowing what's in the air they breathe is important because scientists now understand the role that airborne virus particles play in transmitting this highly infectious disease. In a program funded by the Defense Advanced Research Projects Agency (DARPA), researchers at GTRI – in collaboration with scientists and engineers from the Georgia Tech College of Engineering and the semiconductor company Cardea Bio – have taken important steps toward developing a system that would continuously monitor building air for the SARS-CoV-2 virus.

The idea is that if somebody in a medium-sized building were sick with the virus that causes Covid-19 and spreading that infection by talking, singing, coughing or sneezing, the system would be able to detect that and sound an alert within 15 minutes. At the downstream sensor level of the system, GTRI researchers have been able to show specific detection of SARS-CoV-2 with about a thousand viral particles in a very pure sample. They are now working to demonstrate that the front-end collection and fluidics filtering and sample concentration strategies can collect enough air to deliver a sample containing that amount of virus to the sensor.

Researchers Test Microchip for High-Density Synthesis of Archival Data Storage DNA

Researchers have made significant advances toward the goal of a new microchip able to grow DNA strands that could provide high-density 3D archival data storage at ultra-low cost – and be able to hold that information for hundreds of years. To enable the technology, researchers have also developed a correction system able to compensate for errors in reading data stored in the DNA.

DNA data storage uses the four bases that make up biological DNA - adenine (A), thymine (T), guanine (G) and cytosine (C) – to store data in a way that is analogous to the zeroes and ones of traditional computing. DNA-based techniques could dramatically reduce the amount of energy used for archival data storage, helping address world climate change concerns.

The microchip work is part of the Scalable Molecular Archival Software and Hardware (SMASH) project, a collaboration led by GTRI to develop scalable DNA-based read/write storage techniques. The project, supported by the Intelligence Advanced Research Projects Activity (IARPA) Molecular Information Storage (MIST) program, could help address the growing demand for archival storage, providing a cost-effective alternative to current tape and hard-drive systems.

The proof-of-concept nanofabricated microchips include tiny microwell structures a few hundred nanometers deep from which the DNA strands grow in a massively parallel process. The chips will ultimately include a second layer of electronic controls – fabricated in conventional CMOS – that will manage the chemical process as a unique molecule of DNA is grown in each of the wells, one base at a time.

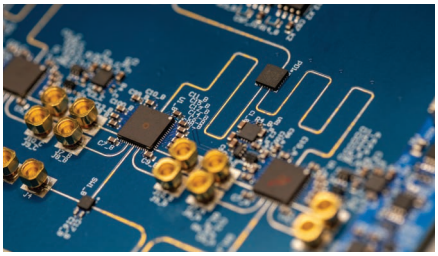
GTRI is working with California biotech companies Twist Bioscience and Roswell Biotechnologies, the University of Washington, and Georgia Tech's Institute for Electronics and Nanotechnology on this project.

Trapped Ions to Create Entangling Gates

Trapped ions excited with a laser beam can be used to create entangled qubits in quantum information systems, but addressing several stationary pairs of ions in a trap requires multiple optical switches and complex controls. Now, GTRI scientists have demonstrated the feasibility of a new approach that moves trapped ion pairs through a single laser beam, potentially reducing power requirements and simplifying the system. Quantum computing techniques could help accelerate the discovery of new pharmaceuticals and create advances in materials engineering.

The researchers implemented two-qubit entangling gates by moving calcium ions held in a surface electrode trap through a stationary bi-chromatic optical beam. They showed that ion transport can be applied in unique ways to produce an entangled state using fine control over the ion transport. Because most ion trap experiments have some control over the motion of the ions, the work shows that this existing transport could be integrated more widely into quantum information systems.

The researchers moved the pair of trapped ions by precisely varying the electrical confinement fields in the trap by controlling the voltages applied to adjacent electrodes. Measurements showed that the entangled quantum state of the two qubits transported through the optical beam had a fidelity comparable to entangled states produced by stationary gates performed in the same trapping system. The research was supported by the Army Research Office.



A new integrated circuit could meet the need of high-frequency, specialized wideband analog electronics.

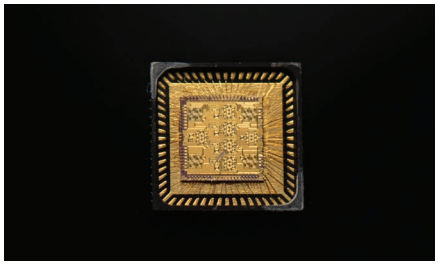
Silicon-Germanium Integrated Circuit Enables Direct Throughput RF Signal Processing

Researchers have developed a new general-purpose, high-performance monolithic microwave integrated circuit (MMIC) for the direct filtering and processing of radio frequency (RF) signals in the microwave and millimeter-wave spectrum. The IC is designed to meet the need for high-frequency, wideband analog electronics for specialized applications with small form factors and challenging weight and power budgets.

The device, known as Transversal Radio Frequency Filter Integrated Circuit (TRAFFIC), has demonstrated a fully-reconfigurable 10-to-1 analog finite impulse response (FIR) filter for tunable filtering across a wide band of frequencies from 2 to 20 gigahertz. TRAFFIC was implemented in silicon-germanium (SiGe) technology, a platform designed for high-frequency performance of mixed-signal and analog IC designs.

TRAFFIC is intended to reduce the size, weight and power (SWaP) requirements of RF front-ends while providing broadband, instantaneous reconfigurability and multi-function RF capability. The GTRI team has already demonstrated TRAFFIC as a front-end reconfigurable filter and new efforts are on-going to leverage this technology as an analog signal conditioner within a self-interference cancelling system.

By putting more of the functionality closer to the aperture, TRAFFIC potentially reduces size, weight, power and also cost, while lowering latency through the system and relieving some of the burden on digital components. Filtering out unwanted high-power or out-of-band signals before they enter digital signal processing can improve a system's ability to process low-power signals of interest by preserving the dynamic range of the incoming signal.



TRAFFIC is designed to reduce size, weight, power and cost requirements while lowering system latency.

GTRI Uses Photonic Integrated Circuits to Improve RF Operations

GTRI has made investments and won programs to advance the research field of radio frequency (RF) photonic integrated circuits (PIC). The technology improves the government's ability to operate in the millimeter band, which has become increasingly congested amid the push to 5G mobile technology. RF photonics helps address this issue by first modulating radio frequency signals onto an optical carrier for broadband signal processing. Such systems can be further miniaturized through RF PICs, which use microelectronic fabrication techniques to build compact circuits that manipulate light.

BLUESHIFT, a significant investment that concluded in 2021, develops capabilities at GTRI to help the government access this emerging technology through design, fabrication, and demonstration of prototypes through an array of external foundries. Challenges of the PIC research landscape include a relatively immature fabrication ecosystem, lack of robust packaging solutions, and limited investment dedicated to government applications. Since the conclusion of the project, the capabilities established through BLUESHIFT are actively supporting sponsored programs across multiple labs and military branches of service.

Development of BLUESHIFT was supported by GTRI's Independent Research and Development (IRAD) program and won an IRAD of the Year award in fiscal year 2021.

GTRI's photonic integrated circuits research won an IRAD of the Year award in FY 21.

Collaborative Weapons Work Together to Respond to Changing Conditions

GPS and laser guidance systems enabled smart weapons to hit predesignated targets with amazing precision. Now researchers at GTRI are helping develop smarter weapons that are able to work together to identify, target and update target selections after launch in response to changing conditions such as the last-minute identification of new targets.

The Air Force Research Laboratory (AFRL) Munitions Directorate leads the U.S. Air Force Vanguard innovation program known as Golden Horde where, in a recent test, six modified small diameter bombs (SDBs) - unpowered

Small diameter bombs were given the ability to communicate and work together to update target selections after launch.

glide weapons - communicated and collaborated to establish initial weapon/target assignments after release from two F-16s and then changed their targeting after receiving an in-flight target update.

Using their new advanced networked, collaborative and autonomous capabilities, the modified weapons determined during flight which members of the group would focus on the new target whose coordinates were transmitted to them as they glided toward their initially identified targets. The testing was done in May 2021 at White Sands Missile Range in New Mexico using F-16s from the Air Force Test Center's 96th Test Wing at Eglin Air Force Base, Florida.

The weapons collaborate with each other to share information and make decisions about which weapons will engage which targets. All of this is founded on the weapons' ability to communicate, share information, and perform collaborative autonomous behaviors in achieving the mission objectives without human involvement. The Collaborative Small Diameter Bombs (CSDBs) – as the modified weapons were called – used GTRI autonomy algorithms originally developed for powered autonomous unmanned aerial systems.

Using LIDAR to Improve Tracking of Aerial Systems

Bullet Time, a visual effect made famous by the 1999 film, "The Matrix," has implications well beyond Hollywood. GTRI researchers have developed a new optical tracking technology called Bullet Time that uses a LIDAR system to track small airborne targets – such as drones – in cluttered environments.

Bullet Time provides an alternative to fire control radar (FCR) that are susceptible to advanced countermeasures. FCRs are particularly vulnerable to tactical exploitation because of their unique characteristics, such as radio frequency and pulse duration, that allow adversaries to identify the radar and, in turn, the type of weapon system it controls. This project could also enable a low-cost, RF (radio frequency) silent intercept solution to protect warfighters from current and emerging threats, namely unauthorized drones that are becoming increasingly difficult to identify and thwart.

During a set of field tests in May and June at a GTRI facility, researchers demonstrated the ability for Bullet Time to perform a precision 3D track of an outbound ballistic target in real time. The demonstration proved that this technology provides a new optical search and track solution in fire control applications.

Bullet Time won IRAD (Independent Research and Development) of the Year in fiscal year 2021.

VIP remains one of GTRI's most effective tools for identifying and hiring young talent.

A Very Important Program

GTRI is advancing its core mission of educating future technology leaders through the Vertically Integrated Projects (VIP) Program. VIP is an education program supported by Georgia Tech and GTRI that allows undergraduate and graduate students to earn academic credit for working with faculty on projects they don't typically encounter in a classroom setting. The entire Georgia Tech VIP program currently serves 86 VIP teams involving more than 200 faculty and over 1,300 students. GTRI has 13 VIP teams that involve roughly 40 faculty members.

VIP extends project-based learning beyond a single semester, with students participating for up to three years. Instead of traditional class lectures, students work together to create solutions for real-world challenges. Teams consist of 10 to 20 students, who work closely with faculty advisors and graduate student mentors. VIP remains one of GTRI's most effective tools for hiring young talent with the right set of skills. Program benefits also extend well beyond graduation, providing students with the expertise and confidence to have a meaningful impact in the world.

Prospective students who are interested in joining the program can apply to a team that interests them on Georgia Tech's VIP website.

One VIP team is exploring ways to make fire alarms more secure against cyber threats.

For more information about these and other projects, please visit gtri.gatech.edu.

GTRI's 2021 High School Summer Internship Program hosted 63 Georgia high school students.

A Hands-on – and Virtual – STEM Education

In summer 2021, STEM@GTRI – GTRI's educational outreach program designed to inspire, engage, and impact educators and students in the STEM categories – hosted a virtual, five-week internship program for 63 high schoolers in Georgia. The participants, who were selected from an application pool of 364, received mentorship and guidance from 30 GTRI professionals across six of the eight GTRI labs and one support unit. This is the second year GTRI hosted its high school summer internship virtually. The ultimate goal of the program is to provide students with an immersive experience that inspires them to pursue a future career in the fields of science, technology, engineering, and math.

A student in the 2019 program works on a project related to piezoelectricity.

The students worked on projects ranging from developing a facial recognition solution that detects medical emergencies in older adults to designing an animated eLearning series intended to help K-12 students understand difficult concepts in math, science, and technology. The participating students represented the following Georgia school districts: Atlanta Public Schools, Cherokee, Cobb, Dekalb, Fayette, Forsyth, Fulton, Gwinnett, Marietta City Schools, as well as private and independent schools and homeschools.

Projects included a facial recognition solution to detect health emergencies and electrodes that accelerate wound healing.

The Tucker Middle School students' tracking device would help human trafficking victims at major points of travel.

Combating Human Trafficking at Hartsfield-Jackson and Beyond

GTRI and Georgia Tech researchers mentored students at Tucker Middle School as they developed a tracking device intended to help human trafficking victims at points of travel, such as Hartsfield-Jackson International Airport. The researchers provided mentorship, guidance, and feedback to the students as they worked through multiple iterations of their device and competition pitch. The students in 2021 were awarded the Community Choice Award at the National Level as part of Samsung's Solve for Tomorrow contest, and won a combined $80,000 for their school.

The device prototype is intended for airplane bathrooms and designed to dispense radio frequency identification (RFID) chips, which victims could affix to their skin inconspicuously. The tracker would then trigger a silent alarm to alert flight crew members that a human trafficking victim is on board. After exiting the plane, victims would walk through gate readers that silently alert security and allow them to question the individuals in a safe location.

Developing Future Technology Leaders

GTRI currently counts 328 students at Georgia Tech who are participating in its professional student programs, which includes the Cooperative Education (co-op) program, internships and student assistantships, and graduate research assistantships. The total number includes 284 undergraduate students and 44 graduate students.

There are currently 74 students participating in GTRI's co-op program, which allows students to alternate semesters of full-time school with semesters of full-time work at GTRI. Co-op offers students extensive opportunities to participate in diverse scientific and technological endeavors, use state-of-the-art equipment, and improve their technical and leadership skills.

In terms of GTRI's internships and student assistantships, undergraduate students have the opportunity to work with GTRI's eight laboratories and various support units on enriching, hands-on experiences that help prepare them for successful employment upon graduation. GTRI's graduate research assistantships are for master's and doctoral students at Georgia Tech, where they are able to participate in more advanced research projects on cutting edge technology and gain a competitive edge in the job market.

GTRI Strategic Plan 2020-2030
The Next 10 Years

Our Vision

Our people are the foremost innovators creating a secure nation, a prosperous Georgia, and a sustainable world.

Our Mission and Strategies

As a University Affiliated Research Center (UARC), the Georgia Tech Research Institute (GTRI) is the nonprofit, applied research unit of the Georgia Institute of Technology (Georgia Tech). GTRI leverages the science and engineering base of Georgia Tech to enhance the impact of our collective research output. Collaboratively, we advance technology and provide innovative solutions to:

- **Enhance economic impact for the State of Georgia.**
- **Serve national security.**
- **Improve the human condition.**
- **Educate future technology leaders.**

Our Values

We celebrate collaboration.
We enable and celebrate collaboration across disciplines and perspectives, between units and laboratories, and with other organizations at home and around the world. We value the contributions of all members of our community, promote civil and respectful discourse, and help one another succeed.

We thrive on diversity.
We see diversity of backgrounds and perspectives as essential to learning, discovery, and creation. We strive to remove barriers of access and to build an inclusive community where people of all backgrounds have the opportunity to learn and contribute to our mission.

We act ethically.
We hold one another to the highest standards of professional and ethical conduct. We are transparent and accountable and strive to earn and maintain the public trust.

We strive for excellence.
We strive to be among the best at what we do and set high expectations for each of us individually and for our community as a whole. The expectation of excellence, which is instrumental in our ability to have a meaningful impact in the world, extends to our teaching, our research and creative endeavors, our outreach programs, and our operations.

We safeguard freedom of inquiry and expression.
We protect the freedom of all members of our community to ask questions, seek truth, and express their views. We cherish diversity of ideas as necessary conditions for learning, discovery, scholarship, and creativity.

We champion innovation.
We inspire, empower, and provide the resources and environment for innovative ideas to flourish. We welcome new concepts and approaches that lead to creative ideas and solutions.

We are responsible stewards.
We are careful stewards of the resources we are entrusted with and strive to be an example of sustainability, efficiency, respect, and responsibility.

We nurture the well-being of our community.
We strive to build a healthy and vibrant environment that helps every member of our community to grow holistically and develop the self-awareness, knowledge, and practices necessary to pursue healthy, purposeful, and fulfilling lives.

Georgia Tech
Research Institute

ON THE WEB
GTRI.gatech.edu

ON FACEBOOK
facebook.com/GTRIFan

ON TWITTER
twitter.com/GTRI

ON LINKEDIN
tinyurl.com/GTRIresearch

E-MAIL | PHONE
comminfo@gtri.gatech.edu | 404.407.7400

LOCATIONS

Aberdeen (MD) Field Office
Atlanta (GA) Headquarters
Cobb County (GA) Research Facility
Colorado Springs (CO) Field Office
Dayton (OH) Field Office
Huntsville (AL) Field Office
Lincoln (MA) Field Office
Orlando (FL) Field Office
Panama City (FL) Field Office
Patuxent River (MD) Field Office
Phoenix (AZ) Field Office
Quantico (VA) Field Office
San Diego (CA) Field Office
Shalimar (FL) Field Office
St. Joseph (MO) Field Office
Tucson (AZ) Field Office
Warner Robins (GA) Field Office
Washington, D.C. Field Office

Michelle Gowdy, Director (Interim)
Toya Ejike, Art Direction/Design
John Toon, Editor/Writer
Anna Akins, Editor/Writer
Sean McNeil, Photography
Kristie Villejoint, Production
Christopher Weems, Editor
Christopher Moore, Photography
Branden Camp, Photography
Katrina Heitz, Writer
Mel Goux, Design/Web
Ameshia Blanton, Consultant
Robert Macedonia, Web
Ilene Peguero, Web