Georgia Tech

Brook Byers Institute for Sustainable Systems

2025

ANNUAL REPORT

LETTER FROM THE EXECUTIVE DIRECTOR

The last year has brought new challenges and opportunities. I am proud to see how the BBISS community has responded with collaboration, resilience, and lasting research contributions, improving real lives. Our commitment remains clear: a sustainable future for all, grounded in Georgia and global in impact.

A highlight of the year was the Sustainability Next Research Seed Grant program, which awarded funding to 17 transdisciplinary teams comprising 51 collaborators from 21 units across six Georgia Tech Colleges. In a challenging funding climate, the Georgia Tech community came together. Contributions from multiple interdisciplinary research institutes, centers, and Schools helped keep the program strong. Funded initiatives translating research into everyday impact included building a sustainable electric vehicle workforce, developing community-based food system resilience, strengthening coral reef health, and advancing water reuse in Atlanta.

Past seed grants incubated new centers and initiatives such as the Center for Critical Energy Mineral Solutions, the Center for Inclusive Climate Communications, and the Initiative to Preserve Georgia's Biodiversity — collaborative work that continues to evolve and grow in impact.

Valuing strong networks and partnerships helps scale our work. These include a campus wide BBISS Faculty Fellows network, a partnership with Oak Ridge National Laboratory on southeastern resilience, and community and regional academic partnerships through the Center for Sustainable Communities Research and Education (SCoRE), housed in BBISS. Our New York Climate Exchange partnership brings Georgia Tech's innovations to the global stage at platforms like Climate Week NYC.

Engaging local and regional communities, SCoRE has made impressive strides in national thought leadership, community carbon management programs, and faculty programming to advance community-engaged research at Georgia Tech.

The BBISS Graduate Fellows Program exemplifies our dedication to interdisciplinary training of early-career researchers. The SCoRE Sustainable Communities Summer Internship Program places students in community-based organizations where they contribute to and learn from civic sustainability work.

These pages offer a window into the BBISS community's work—though they can't capture it all. I hope what you find here inspires you as much as it does me!

We are deeply grateful to our partners, collaborators, and alumni for their dedication and support. BBISS catalyzes and supports this important work — and your contributions help fuel it. If you'd like to be part of what comes next, I'd welcome you to reach out to us.

L. BERIL TOKTAY

Regents' Professor and Brady Family Chair
Scheller College of Business

Executive Director
Brook Byers Institute for Sustainable Systems

TABLE OF CONTENTS

ABOUT BBISS

CULTURE STATEMENT

The BBISS team is collaborative, welcoming, and respectful in how we treat one another and how we meet the world. Our culture is that of a cohesive learning organization: open-minded, creative, and committed to continuous growth. We achieve meaningful results through mutual inspiration and shared ownership. Finally, we keep it fun, celebrating our unique strengths and finding joy in our work to make a lasting, positive impact on society.

OUR VISION

A sustainable future for all, grounded in Georgia and global in impact.

OUR MISSION

To realize Georgia Tech's potential for sustainability impact by advancing transdisciplinary research, transformative innovation, trusted partnerships, and exceptional student and workforce development.

OUR STRATEGY

We are proud to be a key partner in the implementation of Georgia Tech's **Sustainability Next 2023-2030 Strategic Plan** and help advance Georgia Tech's vision of addressing the biggest local, national, and global challenges of our time, relentlessly serving the public good, and developing exceptional leaders who strive for positive societal impact.

As a key Georgia Tech hub for interdisciplinary sustainability research and education, we prioritize creating linkages among researchers in all disciplines toward the achievement of the United Nations Sustainable Development Goals (SDGs).

CULTURE STATEMENT

The BBISS team has grown over the past year. We recently spent some time together to get to know each other better and to collectively agree on a statement for how we want to engage with each other and those we serve. We jumpstarted our creative flow with a workshop in Suminagashi, the art of Japanese paper marbling, led by Anna Doll, education curator at the Robert C. Williams Museum of Papermaking.

OUR IMPACT AREAS

The variety of sustainability-related research happening in nearly every School and every College at Georgia Tech is inspirational. Incorporating sustainability into research is part of our culture. BBISS chooses to highlight, amplify, and foster sustainability research in four key strategic areas.

Climate Science, Technology, and Solutions

We advance climate action through cutting-edge research, translating scientific insights into practical mitigation strategies. Collaborating with industry, government, and NGOs, we co-create solutions with the civic and private sectors to address climate challenges and drive meaningful regional and global impact.

Health of Ecosystems, People, and Resources

We protect interconnected natural resource systems from coral reefs to urban water resources. Through community, NGO, and industry collaborations, our work advances sustainable practices, ensuring thriving ecosystems and communities, healthy materials, and circular resource management.

Resilience and Regeneration

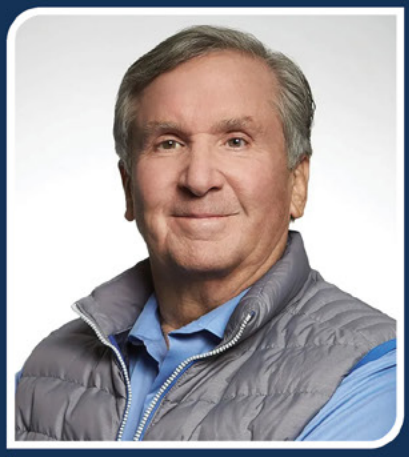
We advance resilient systems — from community-based food networks to sustainable mobility solutions to resilient infrastructure — working alongside industry and civil society partners. Our collaborative approach strengthens local capacity, fosters regenerative practices, and creates sustainable solutions that help communities thrive.

Smart Sustainability and Sustainable AI

We leverage artificial intelligence to accelerate sustainability breakthroughs, partnering with technology companies and organizations across sectors. Our transdisciplinary work harnesses AI's transformative potential while ensuring that its development aligns with environmental stewardship and fair access to solutions.

BBISS AND SCoRE TEAMS

(Back row, left to right) Ameet Pinto, Gay Burchfield, Tressa Hoyer, Scott Duncan, Beril Toktay, Josiah Hester, Kristin Janacek, Ruthie Yow, Trisha Sisk, Brent Verrill, (Front row, left to right) Racheal Woods, Yuanzhi Tang, Nicole Kennard, Alexandra Rodríguez Dalmau, Anna Tinoco-Santiago, and Jennifer Hirsch.
Not pictured: Kristina Chatfield and Susan Ryan.



Brook Byers (EE 1968, HON Ph.D. 2010, Stanford MBA 1970) is a founder at Kleiner Perkins, where he has been closely involved with more than 50 new technology-based ventures, over half of which have become public companies. Byers was awarded the Georgia Tech College of Engineering Distinguished Alumnus award in 1998.

He has provided volunteer leadership and service to Georgia Tech through his involvement on multiple boards, including the Georgia Tech Advisory Board, the Campaign Georgia Tech Steering Committee, and the Class of 1968 40th and 50th milestone reunion committees. He currently serves as an honorary chair of the steering committee for Transforming Tomorrow: The Campaign for Georgia Tech.

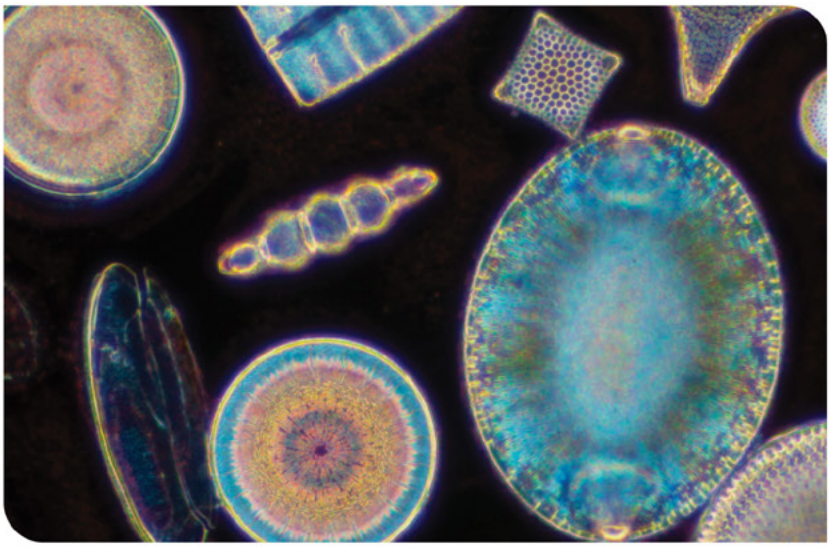
Drawing upon his professional work on energy/climate, sustainability, and healthcare innovation and reform, Byers has made strategic philanthropic investments in Georgia Tech to address these critical issues. Together with his wife, Shawn, he has provided transformative support for the Brook Byers Institute for Sustainable Systems (BBISS) at Georgia Tech, as well as philanthropic support for need-based undergraduate scholarships, graduate fellowships, the Pathways to Policy, and the Master of Sustainable Energy and Environmental Management programs in the Jimmy and Rosalynn Carter School of Public Policy.

CLIMATE SCIENCE, TECHNOLOGY, AND SOLUTIONS

CAN COOL ROOFS HELP ATLANTA BEAT THE HEAT? GEORGIA TECH EXPERTS WEIGH IN

In a unanimous vote on June 2, the Atlanta City Council approved a significant ordinance requiring all new and replacement roofs to be built with light-colored, reflective materials, commonly known as “cool roofs.” The ordinance, set to take effect in one year, is part of a growing effort to reduce the city’s vulnerability to extreme heat. Georgia Tech researchers say the new policy marks a major step forward in climate adaptation, especially for heat-vulnerable communities, and could help position Atlanta as a national leader in urban resilience.

RAPID TRANSFORMATION OF BIOGENIC SILICA TO AUTHIGENIC CLAY: MECHANISMS AND GEOCHEMICAL CONSTRAINTS



In a study published in Science Advances, Georgia Tech School of Earth and Atmospheric Sciences researchers found that diatoms’ intricate silica-based skeletons transform into clay minerals in as little as 40 days. Until the 1990’s, scientists believed that this enigmatic process took hundreds to thousands of you years. This improved understanding helps produce more accurate predictions of how oceans store and release carbon and nutrients, directly affecting climate forecasts and ecosystem management.

DIGITAL DASHBOARD HELPS EVERYONE FIND ACCESSIBLE CLIMATE SOLUTIONS IN GEORGIA

Electric vehicles. Rooftop solar. Cycling to work. Knowing where to start when reducing your personal carbon footprint can be daunting. But a new tool developed by BBISS and Regents’ Professor Marilyn Brown and collaborators makes it easier for anyone to figure out how they can help address climate change. The Drawdown Georgia Solutions Tracker is a digital dashboard that enables everyday Georgians to see how effective various technologies could be for each county.

RESILIENCE AND REGENERATION

GEORGIA TECH AND PARTNERS TO ESTABLISH STATE-SPECIFIC FOREST CARBON EXCHANGE

The Ray C. Anderson Center for Sustainable Business is working with the Georgia Forestry Foundation and University of Georgia researchers to establish a Georgia-grown forest carbon exchange. The collaboration bridges academia, nonprofits, industry partners that are seeking high-quality carbon credits, and small-acreage landowners who can benefit from potential economic opportunities.

FOREST EXPANSION INCREASES AGRICULTURAL OUTPUT, NEW STUDY SHOWS

Agriculture is the largest cause of deforestation, so you would expect that forest expansion efforts would displace agriculture — but new research from Georgia Tech's School of Economics reports that's not necessarily the case. In fact, the study showed that forest expansion actually increased agricultural output. The researchers believe this is due to increased pollinator activity and rainfall in the newly forested areas.

USING HEMP IN BUILDING INSULATION COULD MAKE STRUCTURES GREENER AND CREATE JOBS

A new study from Georgia Tech engineers suggests that insulation made from hemp fibers could be a viable industry in the U.S., creating jobs, a manufacturing base, and greener homes and buildings at the same time. Making the switch could slash the impact of one of the biggest sources of greenhouse gas emissions: Buildings account for roughly 20% of emissions globally. By some estimates, using hemp-based products would reduce the environmental impact of insulation by 90% or more.

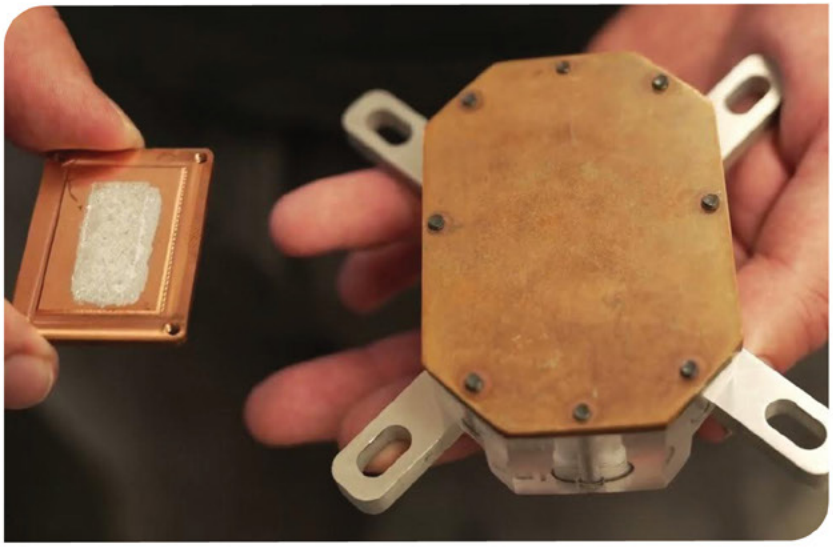
SMART SUSTAINABILITY AND SUSTAINABLE AI

FROM RESEARCH TO REALITY: ALGAEPRIZE 2022–23 CHAMPIONS LAUNCH SKOPII

Ameet Pinto, BBISS' associate director of Interdisciplinary Research and Collaboration, along with two of his students, Benjamin "Ben" Gincley and Farhan Khan, are launching a company called Skopii. They have developed an affordable version of a device called an imaging flow cytometer. It uses AI to count cells, classify them, and characterize their shape and behavior. This device will be used in the cultivation of algal crops to help the burgeoning industry deal with crop health, pests, and yields. They were awarded the AlgaePrize for 2022-23 by the Algae Foundation for their work.

LIQUID COOLING TECH DEVELOPED AT GEORGIA TECH PATENTED, COMPANY RAISING CAPITAL

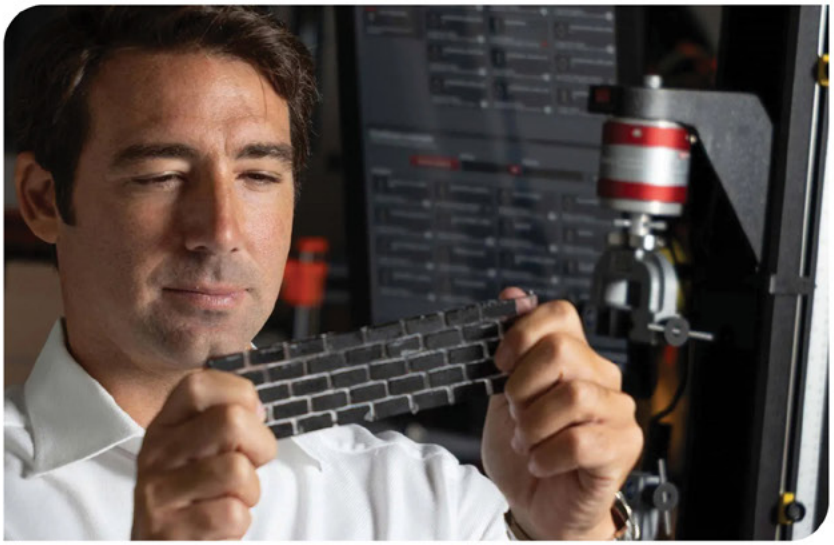
Developed by Daniel Lorenzini, a 2019 Tech graduate who earned his Ph.D. in mechanical engineering, the cooling system uses microfluidic channels — tiny, intricate pathways for liquids — that are embedded within the chip packaging. He worked with the Georgia Tech Office of Commercialization to spin his research into a startup company called EMCOOL. Because this cooling solution is directly integrated into the electronic components, it is significantly more efficient than conventional cooling methods, helping reduce the carbon footprint of AI.



EMPOWERING USERS TO MAKE SUSTAINABILITY-FORWARD DECISIONS FOR COMPUTING SERVICES

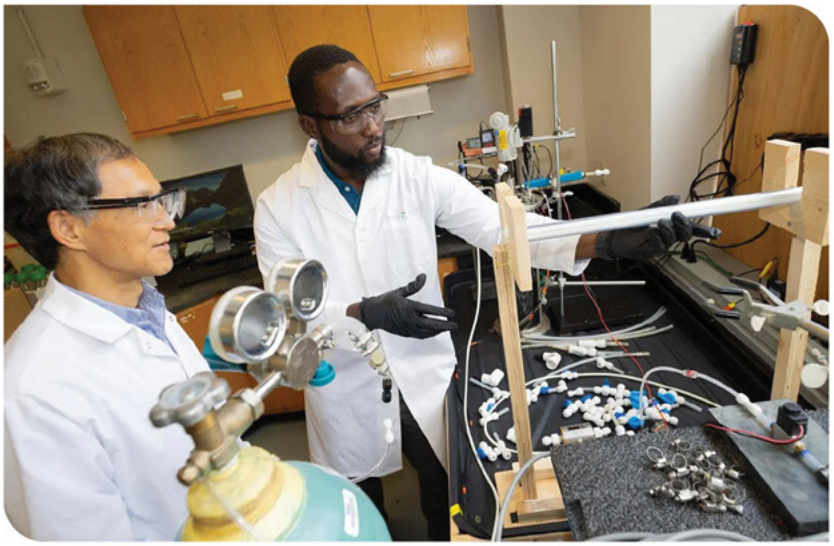
This paper, co-authored by BBISS Associate Director for Civic Innovation and AI Josiah Hester, proposes to give users of energy-intensive cloud computing systems, like AI and machine learning platforms, some choices in how queries are processed to reduce emissions and harm based on the users' preferences for factors such as latency, quality, and availability.

HEALTH OF ECOSYSTEMS, PEOPLE, AND RESOURCES



SEASHELLS INSPIRE A BETTER WAY TO RECYCLE PLASTIC

Researchers from Georgia Tech have created a material inspired by seashells to help improve plastics recycling and make the resulting material more reliable. Recycled plastics aren't pristine materials — they're a chaotic mix of past lives. When we recycle them by melting them all down, we get a material that's weaker than virgin plastic — and wildly unpredictable. That's why recycled plastics rarely make it back into products that need strength, safety, or consistency like construction materials or car components. Innovations in plastics recycling like this give engineers the confidence they need to design them into products.



'BIOCHAR' CAN NATURALLY CLEAN THE POLLUTION THAT RAIN WASHES OFF GEORGIA'S ROADS

Engineers at Georgia Tech and Georgia Southern University have found that biological charcoal, or biochar, can be mixed with soil and used along roadways to catch grimy rainwater and filter it naturally before it pollutes surface water. Their tests found that the mixture works just as well in the sandy soils of the coastal plain as in the clays of north Georgia. Their biochar-soil mixture can be easily substituted for expensive materials mined from the earth that are typically used on roads.

BREATHING IN A BETTER CLIMATE

As the planet warms, changing weather patterns are only one effect. Warming air is often more toxic, leading to asthma and even heart attacks. A better understanding of these air quality changes can help society mitigate their consequences. Georgia Tech researchers are innovating ways to study air quality — beginning with prehistoric insights and zooming all the way to satellites in our orbit.

SUSTAINABILITY NEXT SEED GRANTS

SUSTAINABILITY NEXT

The Sustainability Next Seed Grant program is a Georgai Tech strategic plan program administered by the BBISS.

The goals of the program are to:

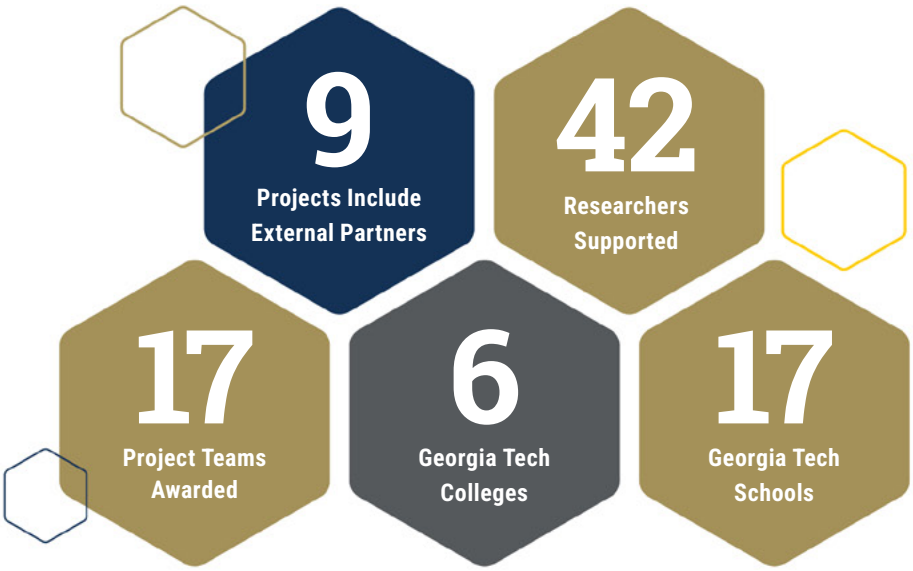
- Nurture promising areas for future, large-scale, collaborative, sustainability research, research translation, and/or high-impact outreach
- Provide mid-career faculty with leadership and community building opportunities
- Broaden and strengthen the Georgia Tech sustainability community as a whole, in accordance with Georgia Tech's Big Bet No. 3 - Double the Scale and Amplify the Impact of Our Research Enterprise.

Additional funds were provided for this year's grants by the Georgia Tech Arts Initiative, BBISS, Wallace H. Coulter Department of Biomedical Engineering, School of Civil and Environmental Engineering, College of Design, School of City and Regional Planning, School of Computer Science, Ray C. Anderson Center for Sustainable Business, Energy Policy and Innovation Center, Parker H. Petit Institute for Bioengineering and Bioscience, Institute for Matter and Systems, Institute for People and Technology, Institute for Robotics and Intelligent Machines, Strategic Energy Institute, and Center for Sustainable Communities Research and Education.

The seed grant program connects interdisciplinary teams spanning many Georgia Tech colleges and schools.

MEETING THE MOMENT

The seed grants were an opportunity to support the Georgia Tech community during a time of funding uncertainty. Almost half the grant recipients had experienced setbacks in their federal research funding. To meet the moment, we increased BBISS' contribution and partnered with Georgia Tech Colleges, Schools, centers and institutes, nearly doubling total seed grant funding.



SELECTED SUSTAINABILITY NEXT SEED GRANT PROJECTS FUNDED IN 2025

Unlocking Circularity at Scale: Platform-Based Solutions for Advancing Material Reuse and Supply Chain Resilience

Principal Investigator(PI): Marco Ceccagnoli

Co-PIs: Matthew Realff, Patricia Stathatou, Christos Athanasiou. Co-funded with the Ray C. Anderson Center for Sustainable Business, and the Institute for Matter and Systems.

Guiding Transportation With Community Action Through Research, Education, and Service (GT-CARES)

Principal Investigator: Rounaq Basu

Co-PIs: Ruthie Yow, Sofía Pérez-Guzmán, Rebecca Watts Hull. Co-funded by the College of Design and the School of City and Regional Planning.

Co-optimizing Design and Coordination for Sustainable Multi-Robot Construction

Principal Investigator: Edvard Bruun

Co-PI: Harish Ravichanda. Co-funded with the Institute for Robotics and Intelligent Machines.

Sonifying Climate Infrastructures: Community Outreach and Education With Shade Synthesizer

Principal Investigator: Heidi Biggs

Co-PIs: Clint Zeagler, Alexandria Smith. Co-funded with the Georgia Tech Arts Initiative and the Institute for People and Technology.

Are Data Centers the New Landfills? Social, Economic, and Environmental Tradeoffs

Principal Investigator: Allen Hyde

Co-PIs: Josiah Hester, Cindy Lin, Nicole Kennard, Joe Bozeman, Elora Raymond, Tony Harding, Jung-Ho Lewe. Co-funded by the Energy Policy and Innovation Center.

Strategic Application of Antibiotic-Independent Therapy to Treat Coral Disease Outbreak

Principal Investigator: Lauren Speare, in collaboration with the University of Miami. Co-funded with the Institute for Bioengineering and Bioscience.

THOUGHT LEADERSHIP

SUVRAT DHANORKAR

"The 'supercenter' effect: How massive, one-stop retailers fuel overconsumption – and waste"

JENNIFER HIRSCH

"Community-based research supports more just and equitable industrial decarbonization"

YUANZHI TANG AND SCOTT McWHORTER

"How the US can mine its own critical minerals – without digging new holes"

PATRICIA STATHATOU

"3 questions that reveal if a green idea will actually work," TedX Atlanta 2025

VALERIE THOMAS

"How the US cut climate-changing emissions while its economy more than doubled"

BERIL TOKTAY AND MANPREET HORA

"Companies are still committing to net-zero emissions targets, even if it's a bumpy road – here's what the data show"

BROOK BYERS PROFESSORS AND BBISS FACULTY FELLOWS

BROOK BYERS PROFESSORS

Made possible by a gift from Shawn and Brook Byers, the Brook Byers Professorships provide resources to enable cross-disciplinary, collaborative research and education in sustainability. Recommended by their peers, the three recipients were selected by a committee of associate deans for Research and approved by the Provost. These appointments recognize superior scholarly achievement. The Brook Byers Professorship is the highest title bestowed at Georgia Tech for those specifically engaged in sustainability related-research and education.

BERT BRAS

Brook Byers Professor

Associate Chair for Administration and Professor

George W. Woodruff School of Mechanical Engineering

Founding Member and Co-Director, Center for Biologically Inspired Design

MARILYN BROWN

Brook Byers Professor

Regents' Professor, Jimmy and Rosalynn Carter School of Public Policy

Director: Marilyn A. Brown and Frank Southworth Policy Innovation Lab

MARC WEISSBURG

Brook Byers Professor

Professor, School of Biological Sciences

Founding Member and Co-Director, Center for Biologically Inspired Design

BBISS FACULTY FELLOWS

BBISS Faculty Fellows receive support for their innovative research and areas of expertise and take on key leadership roles within BBISS. They serve as strategic advisors, help cultivate a vibrant community of sustainability-focused scholars and students across Georgia Tech, and champion the Institute's mission, values, and goals to broader audiences. Established in 2014, the program draws talent from all seven Georgia Tech Colleges and the Georgia Tech Research Institute.

(L to R, T to B) Omar Asensio, Christos E. Athanasiou, Emily Barrett, Fani Boukouvala, Peng Chen, Kelly Comfort, Constance Crozier, Suvrat Dhanorkar, Ashutosh Dhekne, Ebenezer Fanijo, Katherine Graham, Anthony Harding, Bobby Harris, Yiyi He, Jennifer Kaiser, Neha Kumar, Pengfei Liu, Jian Luo, Akanksha Menon, Johannes Milz, Sofía Pérez-Guzmán, Ahmed Saeed, Ali Sarhadi, Patricia Stathatou, and Micah Ziegler.

BBISS GRADUATE FELLOWS

The BBISS Graduate Fellows Program ran for four years, from 2021 through 2025. Selected graduate students were provided with enhanced training in sustainability, team science, and leadership in addition to their usual programs of study. Each two-year fellowship was funded by a generous gift from Brook and Shawn Byers and was guided by an advisory board composed of the faculty who submitted the students' nominations. Continuing and expanding the program at this critical time is one of our top three fundraising priorities. The 18 students who went through the program continue to have an impact in their chosen field. Some selected highlights are below.

AMINAT AMBELORUN
Ph.D. Student
School of Earth and Atmospheric Sciences

Co-author of: "Where do we want the glaciological community to be in 2073?"

BETTINA ARKHURST
Mechanical Engineer

Consultant at Boston Consulting Group

"Applying energy justice metrics to photovoltaic materials research"

MIN-KYEONG (MIN) CHA
Newcleo Fellow

London School of Economics and Political Science

Co-author of: "Measuring Adoption of Household Climate Solutions:..."

MEGAN CONVILLE
Principal Analyst

Applied Housing Research, Georgia Department of Community Affairs

"BBISS Graduate Fellows Lightning Talks"

ERIC GREENLEE
Ph.D. Candidate and Graduate Research Assistant

Georgia Tech's Computing and Society Lab

"Culture and conservation thrive as Great Lakes..."

MEAGHAN MCSORLEY
Assistant Professor

Florida State University, Department of Urban and Regional Planning

FSU Faculty Profile

SARAH RONEY
Ph.D OSE 2025

Marine Conservation and Education Fellow at Georgia Conservancy

"Restoring and Protecting Georgia's Coast — With Oysters"

VISHĀL SHARMA
Provost's Postdoc, University of Notre Dame

Co-author of: "Post-Growth HCI: Some Reflections and a Call to Action"

GEORGIA TECH COLLABORATOR SPOTLIGHTS

BBISS thrives through strategic collaborations with centers across Georgia Tech and beyond. Such partnerships amplify our collective impact and open new pathways for addressing society's most pressing sustainability challenges.

CENTER FOR URBAN RESILIENCE AND ANALYTICS (CURA)

CURA is a new interdisciplinary research center at Georgia Tech formed to synergize research addressing critical urban challenges in the College of Design, across campus, and beyond. This research center consolidates a set of Georgia Tech faculty who are nationally recognized leaders in the growing field of urban resilience planning. Thanks to the decades of research from the Center for Spatial Planning Analytics and Visualization, the Center for Quality Growth and Regional Development, and the Urban Heat Lab, CURA is positioned to tackle problems at an urban level with a signature combination of agility and technical know-how.

SUSTAINABILITY EDUCATION CURRICULUM COMMITTEE AND CENTER FOR TEACHING AND LEARNING

The Sustainability Education Curriculum Committee is comprised of school representatives and deepens sustainability learning through Sustainability Next education seed grants. Grant recipients participate in the Community of Practice on "Transformative Teaching with the SDGs," which is housed in Center for Teaching and Learning.

RAY C. ANDERSON CENTER FOR SUSTAINABLE BUSINESS

The Ray C. Anderson Center for Sustainable Business, directed by Emeritus BBISS Fellow Andre Calmon, focuses on educating tomorrow's business leaders, partnering with industry practitioners, and supporting high-impact research to accelerate the development of sustainable business practices.

KA MOAMOA CENTER

Ka Moamoa Center, directed by BBISS Associate Director Josiah Hester, is a multidisciplinary research center working to reduce the carbon costs of computing and design computing that is more sustainable, durable, and useful to everyone. The center explores and develops new hardware designs, systems, interaction techniques, tools, curricula, and programming methods so that anyone can learn about, design, debug, and deploy more sustainable computing systems that work despite frequent power failures, constrained resources, and unpredictable conditions.

GEORGIA TECH FOR GEORGIA'S TOMORROW

Georgia Tech for Georgia's Tomorrow, directed by Joel Kostka, was created to foster science-based research related to the health and resilience of Georgia's people, ecosystems, and communities. It will enhance research collaboration across the Institute, pave the way for public-private partnerships, and expand opportunities for Georgia students and communities to engage with Georgia Tech researchers.

CENTER FOR CRITICAL MINERAL SOLUTIONS

The Center for Critical Mineral Solutions, which grew from a joint program between BBISS and SEI and is led by BBISS Associate Director Yuanzhi Tang, provides an interdisciplinary umbrella where critical mineral research and solutions converge and sets the stage for regional collaboration and development. The center's mission is to develop innovative solutions and train the future workforce for sustainable critical mineral production.

OFFICE OF SUSTAINABILITY

The Office of Sustainability supports a key Institute foundational priority: Build and operate a model, sustainable campus that inspires and supports the well-being of people across the Institute and surrounding communities.

COMMUNITY-ENGAGED RESEARCH

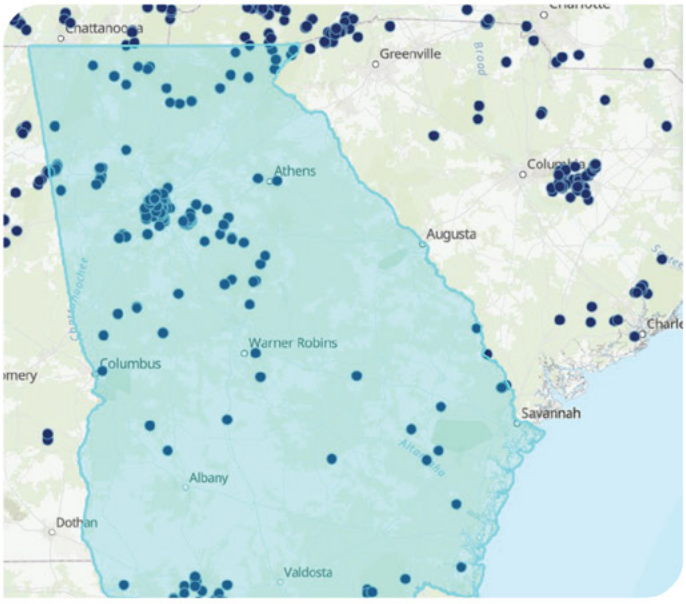
(L to R) Pegah Zamani - Kennesaw State University, Erin Lebow-Skelley - Emory University, Pam Fann - Integrated Solutions, Ruthie Yow - GT SCoRE, and Jay Basset - Lifecycle Building Center.

Community-engaged research (CER) is a key methodology that underlies the work we do at BBISS. Executed in collaboration with the Center for Sustainable Communities Research and Education (SCoRE), we build and nurture relationships that support community-led visions for sustainable change and research collaborations dedicated to a sustainable future. BBISS is building the infrastructure to ensure that CER will be the preferred method for researchers and communities to co-create impactful research projects.

PROJECTS

SCoRE COMMUNITY-ENGAGED SUSTAINABILITY RESEARCH FACULTY FELLOWS

To solve the pressing issues of our times, it is essential for researchers to work in close partnerships with communities to combine academic knowledge with the deep expertise developed through lived experience and community action. SCoRE Faculty Fellows Programs train faculty from Colleges and Schools across Georgia Tech to develop community-engaged research collaborations and projects with partners throughout Atlanta and the Southeast. Fellows expand their research and teaching in new directions, while also informing strategic direction for SCoRE and our key partners in this program: the **Brook Byers Institute for Sustainable Systems** (BBISS), the **Renewable Bioproducts Institute** (RBI), and the Strategic Energy Institute (SEI).



COMMUNITY CONNECT

This tool will help researchers and community partners and organizations to discover and connect with each other so they can work together to build more sustainable and thriving communities. The website has a searchable directory and interactive map to make finding local partners as easy as possible. Both researchers and community partners can create posts describing their needs and interests. It's still in development, but will launch soon.

ATLANTA GRADUATE STUDENT COMMUNITY-ENGAGED RESEARCH PROGRAM

The Atlanta Graduate Student Community-Engaged Research Program, co-led by BBISS Assistant Director for Community Engaged Research Nicole Kennard, will bring together students from Georgia Tech, Emory University, Georgia State University, and Spelman College to work with each other and with community partners to develop the skills and relationships to undertake community-engaged research. It is supported by the Atlanta Global Studies Center and the Georgia Tech Provost's Excellence in Graduate Studies Fund, and includes the local non-profit Science for Georgia as a partner.

COMMUNITY-ENGAGED RESEARCH PROJECT HIGHLIGHT: WAWA OUTDOOR CLASSROOM

In the old-growth forest that joins Atlanta's Bush Mountain and Oakland City neighborhoods, Georgia Tech students led the building of an outdoor classroom to celebrate nature and community. A collaboration between Georgia Tech and the West Atlanta Watershed Alliance (WAWA), the classroom is located at the Outdoor Activity Center campus, a City of Atlanta public park and 22-acre nature preserve managed by WAWA. The classroom was co-designed and constructed with WAWA, Georgia Tech alumni, volunteers, and donors as part of a Vertically Integrated Project (VIP) Course, created and co-taught by SCoRE. The students drew inspiration from the design principles embodied in Georgia Tech's living building, The Kendeda Building for Innovative Sustainable Design.

COMMUNITY-ENGAGED RESEARCH COUNCIL

BBISS and SCoRE are part of Georgia Tech's Community-Engaged Research Council, a network of research units dedicated to developing infrastructure and advancing institutional support for community-engaged research at Georgia Tech. The council's work is guided by five priorities: coordination, partnerships, faculty training and recognition, communication, and resource development. Progress on these priorities enhances Georgia Tech's ability to support community-engaged research collaborations that will have societal impact across the state and beyond.

SCoRE EDUCATIONAL AND PARTNERSHIP PROGRAMS

SCoRE integrates community partnerships into sustainability-focused courses and runs professional development programs that support students, faculty, and partners and advance regional collaboration. These programs build on the work started during in SCoRE's previous incarnation as the Center for Serve-Learn-Sustain. These programs include an internship program, a grant-writing technical assistance program for community partners, and our multi-stakeholder Regional Centre of Expertise (RCE) Greater Atlanta, affiliated with United Nations University, which advances the SDGs through regional education and training.

EVENTS

Panelists (L to R) Iris Tien, Donn Digamon, Ria Aiken, Tejas Kotak, and Jason Stott talk about infrastructure resilience.

SUSTAINABILITY SHOWCASE

Each spring, the Brook Byers Institute for Sustainable Systems holds its signature event called the Sustainability Showcase. We invite Georgia Tech researchers, students, staff, alumni, and partners to share their work with the campus community. The showcase consists of multiple sessions with keynotes, speakers' panels, presentations, and lightning talks. The 2025 theme focused on resilience — how we can strengthen our communities, ecosystems, and infrastructure to thrive in a rapidly changing world.

NEW YORK CLIMATE EXCHANGE

Nicole Kennard, BBISS' assistant director for Community-Engaged Research, attended the New York Climate Exchange NYC Climate Week to give a talk about sustainable food systems with Janelle Wright from the West Atlanta Watershed Alliance. She also helped to organize "Climate Storytelling: A Community-Engaged Workshop," hosted by The Moth, a NYC-based nonprofit dedicated to promoting the craft of storytelling.

SUPER SOUTH – NYCE EVENT

Georgia Tech innovators and partners took center stage at Climate Week NYC 2025, spotlighting Southeast-based sustainability solutions. From student and faculty startups in the SUSTAIN-X Scale Lab, to partners in the Drawdown Georgia Business Compact and Super South, our community is accelerating real-world solutions, proving that climate action and business innovation go hand in hand. Special thanks to Drawdown Georgia Business Compact member Rivian for hosting us at their NYC showroom.

GEORGIA RESILIENCY CONFERENCE 2025

The Georgia Resiliency Conference 2025, organized by the Georgia Department of Natural Resources, brought together more than 430 leaders and experts from across the public, private, nonprofit, and academic sectors, including a large delegation from Georgia Tech. Faculty, administrators, research fellows, students, collaborators, and Georgia Tech President Emeritus G. Wayne Clough brought diverse perspectives to discussions ranging from coastal vulnerability to data-driven decision-making.

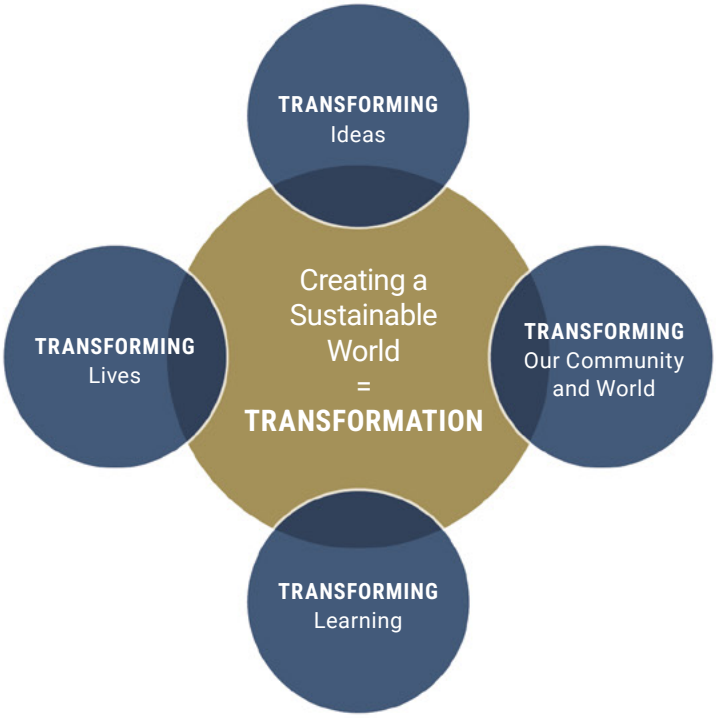
DIRECT AIR CAPTURE WORKSHOP

Together with Georgia Tech's Direct Air Capture Center (DirACC), SCoRE facilitated a year-long Community Direct Air Capture (DAC) Workshop series bringing together over 150 researchers, community leaders, project developers, and government agencies to explore community perspectives on DAC. The series included a tour of Georgia Tech's DAC research labs and sessions on innovation and CO_2 storage.

GIVING TO BBISS AND OUR PARTNERS

TRANSFORMING TOMORROW: SOLUTIONS FOR A SUSTAINABLE WORLD

As we embrace a new phase of growth, we are counting on our alumni's ever-growing support and partnership through Georgia Tech's ***Transforming Tomorrow*** campaign. From building our core capacity to helping us develop future leaders, there are many opportunities for philanthropic support that will help us make a difference.



BUILDING CORE CAPACITY

- Grow the BBISS endowment.
- Establish a BBISS Excellence Fund (expendable contributions).
- Endow the Center for Sustainable Communities Research and Education.

CATALYZING HIGH-IMPACT INTERDISCIPLINARY RESEARCH

- Support established and emerging affiliated centers.
- Support strategic faculty cluster hiring in Schools.
- Endow four more BBISS professorships (one per College).
- Endow 10 BBISS early-career professorships.

ADVANCING PARTNERSHIPS AND COMMERCIALIZATION

- Endow five BBISS professorships of the practice
- Establish executives-in-residence program.
- Fund the Sustain-X Entrepreneurship Program

LEADING BY EXAMPLE ON CAMPUS

- Establish a Living Campus Research and Education Fund.

DEVELOPING FUTURE LEADERS

- Establish 100 graduate research fellowships (mix of expendable and endowed).
- Establish 10 BBISS postdoctoral fellowships (mix of expendable and endowed).
- Fund the Sustainable Communities Summer Internship Program.
- Fund the Carbon Reduction Challenge.

INFORMING POLICY AND ADVANCING THE PUBLIC GOOD

- Establish an Economic and Policy Studies Fund.
- Establish a Public Engagement Fellows Program.
- Establish a Community Fellows-in-Residence Program.
- Fund the multi-stakeholder RCE Greater Atlanta regional network.

THE GEORGIA TECH DIFFERENCE

Public Mission + Unmatched Scale + Premier Technical Excellence + Trusted Partnerships + Entrepreneurial Culture + Gateway to the Southeast + Civic Engagement Heritage + Global Influence

The work we do matters. Your contributions to BBISS, and to our affiliated centers and partners, will allow us to greatly accelerate our collective impact.

Georgia Tech

Brook Byers Institute for Sustainable Systems

Visit
BBISS Website

Subscribe to the
BBISS newsletter

Follow
BBISS on LinkedIn

Find
BBISS on YouTube

Find
SCoRE Website

760 Spring Street NW, Suite 118 | Atlanta, GA 30308 | Phone: 404-894-7895