

SUNIVA'S SOLAR CELLS SHINE

RAMBLIN' WRECKS GO UNDER THE GOLD DOME — TECH ATHLETES AIM FOR SUMMER OLYMPICS

GEORGIA TECH

ALUMNI MAGAZINE

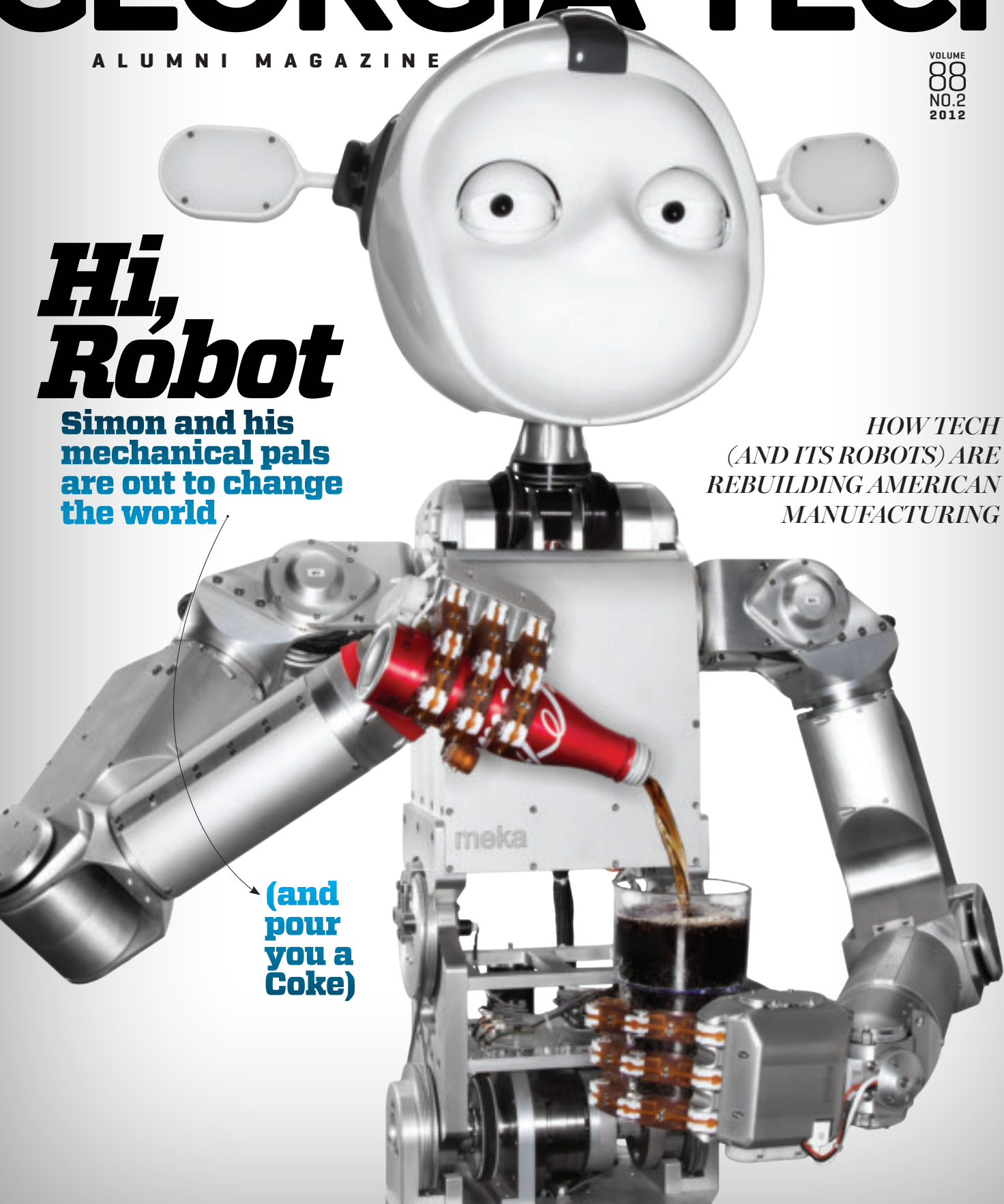
VOLUME
88
NO.2
2012

Hi, Robot

**Simon and his
mechanical pals
are out to change
the world**

*HOW TECH
(AND ITS ROBOTS) ARE
REBUILDING AMERICAN
MANUFACTURING*

**(and
pour
you a
Coke)**





Pictured with three of their scholarship recipients (left to right): Shinjini Das, Salim Choueiki, and Aubrey Davis McKnight

“We hope that our gift will encourage the
brightest and best leaders to choose Georgia Tech.”
— *Patricia and Don Pirkle, IE 1958*

Giving back to Georgia Tech has always been a top priority for Don Pirkle, IE 1958. Inspired by the difference that a Georgia Tech degree made in his life, Pirkle has contributed to Tech since his graduation day. Pirkle and his wife, Patricia (Pat), have created two endowed scholarships funded through gifts made during their lifetimes and enhanced by provisions made in their estate plans. Their gifts support Georgia Tech President's Scholars and Tech Promise students majoring in industrial engineering.

As an undergraduate, Pirkle majored in industrial engineering, joined the American Institute of Industrial Engineers and the National Society of Scabbard & Blade, and participated in Air Force ROTC. In addition, Pirkle taught Sunday school, sang in the choir, and served as president of the North Georgia Conference Methodist Youth Fellowship.

Following graduation, Pirkle married Patricia Fincher and served three years on active duty in the Air Force. In 1961,

Pirkle began a successful career at Dow Chemical Company. There he held several leadership positions before retiring in 1995 as vice president for Global Information Systems and member of the Global Management Board.

An active member of the Georgia Tech community, Pirkle served on the National Advisory Board, ISyE Advisory Board, and his 25th, 40th, and 50th Reunion Committees. In 2000, Pirkle was inducted into the H. Milton Stewart School of Industrial and Systems Engineering Academy of Distinguished Alumni. He is a charter member of the Western North Carolina Alumni Club, an active contributor to three capital campaigns, and a proud supporter of Roll Call for more than fifty consecutive years.

A love of travel and volunteerism has taken the Pirkles around the world. They enjoy spending time with their two children (Melany Ann Raubolt and Mark Pirkle), five grandchildren, and one great-grandchild.

**Georgia
Tech**



**Founders'
Council**

Founders' Council is the honorary society recognizing donors who have made estate or life-income gifts of \$25,000 or more for the support of Georgia Tech. For more information, please contact:
404.894.4678 • founderscouncil@dev.gatech.edu • www.development.gatech.edu

IMAGINE

what you could do with your
special savings on auto insurance.

Get your feet wet, give your apartment a quick facelift, or donate to your alumni organization...whatever moves you most.

As a GA Tech alumni, you could **save up to \$343.90*** on your auto insurance with Liberty Mutual. You could also enjoy valuable discounts tailored to the way you live today and save even more by insuring your home as well.

Responsibility. What's your policy?



CONTACT US TODAY TO START SAVING

CALL	(888) 618-2146	Client #5906
CLICK	www.LibertyMutual.com/gtalumni	
COME IN	to your local office	



**Liberty
Mutual.**
INSURANCE

AUTO | HOME

This organization receives financial support for allowing Liberty Mutual to offer this auto and home insurance program.

*Discounts are available where state laws and regulations allow, and may vary by state. To the extent permitted by law, applicants are individually underwritten; not all applicants may qualify. Savings figure based on a February 2011 sample of auto policyholder savings when comparing their former premium with those of Liberty Mutual's group auto and home program. Individual premiums and savings will vary. Coverage provided and underwritten by Liberty Mutual Insurance Company and its affiliates, 175 Berkeley Street, Boston, MA.

© 2011 Liberty Mutual Insurance Company. All rights reserved.

CONTENTS

Co

HERE COMES THE SUN P46

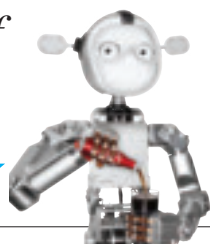
Tech professor Ajeet Rohatgi is pioneering solar cell technology to replace fossil fuels and power the future.

features



HI, ROBOT P58

Cody and Tech's other robots are helping create the health care, manufacturing and defense technologies of tomorrow.



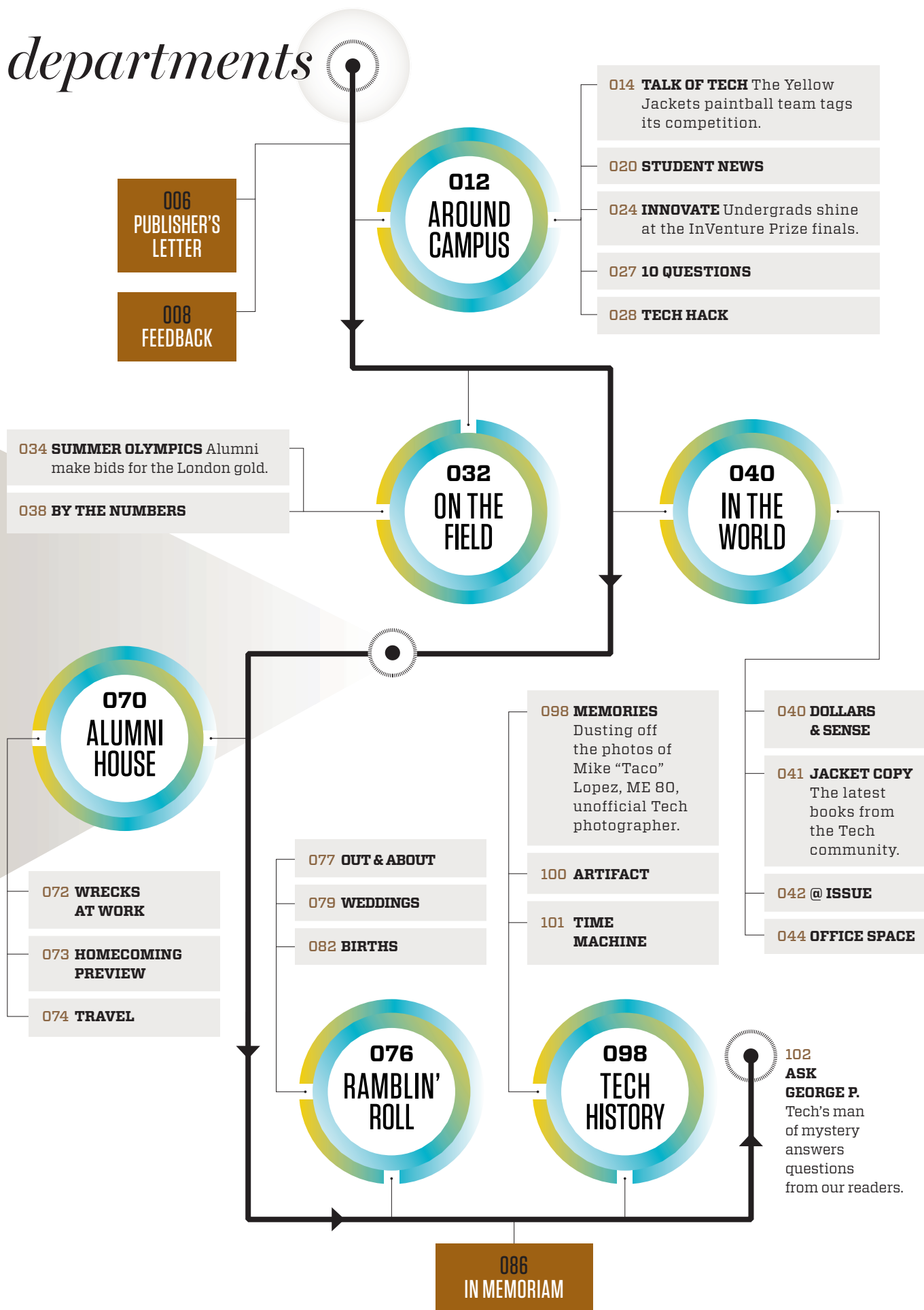
INDUSTRIAL EVOLUTION P52

Tech President G. P. "Bud" Peterson is focusing the Institute's might on rebuilding the American manufacturing industry.

Simon wants to be your friend. It was built in the Socially Intelligent Machines Lab with the goal of creating an expressive robot that could interact easily with human users (thus the eyes, the moveable LED "ears" and the humanoid arms). The face is designed to appear youthful, intimating that Simon is ready to learn. Research is underway using Simon to determine how, in the future, people might interact with robot helpers in day-to-day life.

Cover photo Josh Meister

departments



Planning the Alumni Association of Tomorrow

Last fall, the Alumni Association began the most comprehensive strategic review of our operations in our 104-year history. We talked to more than a thousand of you, our alumni, and the great things we heard helped us develop a vision for the future.

We learned that you are very satisfied with our performance. You believe that the Association represents you well, performs a vital role in the Tech community and builds your loyalty to Tech. Seventy-six percent of you said you promote Tech to others “regularly” or “all the time.” Among donors to the Roll Call annual fund, 97 percent plan to donate again or increase your gift. That speaks volumes about the transformational nature of earning a Tech degree.

Another remarkable fact is that our donor retention rate is 90 percent, far outstripping the national average of 41 percent.

The Association’s communications efforts are viewed among alumni as both important and successful. This includes the *Alumni Magazine*, emails, newsletters, invitations and websites. There is great pride in our magazine—it ranked as the top service we provide to increase your loyalty to Tech—and we’re grateful that you like it.

We benchmarked our alumni relations efforts with peer schools, and the Association outperformed peer alumni associations in almost every category.

As part of our research, we talked to many Institute leaders (most of those we talked to are not Tech alumni), who made comments such as the following:

- *“I’ve never seen such a visible and impactful group of alumni at any school including my own two.”*
- *“I wish I was a Tech alumnus. There’s a bond that spans the generations.”*
- *“The relationship that Tech enjoys with its alumni is nothing short of*

extraordinary.”

➤ *“I’ve never been at an institution where the alumni association and the alumni were as tightly woven into the fabric of the life of the university.”*

This strategic assessment will help us build a new, sustainable business model for your Association. After four years of budget reductions, we have to either stop doing some of our good work or find a new way to more fully fund the Association. As of this writing, we’re still working through the process with President G. P. “Bud” Peterson and the Georgia Tech Foundation, our primary source of funds.

The most important things we can do to build your loyalty to Tech are things that we do every day: Strengthen the alumni network around the world; provide top-notch career services; be the voice of alumni to Tech and from Tech to alumni; advocate for Tech politically, corporately and through recruiting students and hiring graduates; and provide ways for alumni to interact with Tech from student mentoring to service.

We have been hard at work developing the new vision for the Alumni Association based on all of our research and your invaluable feedback. This vision is summarized in the following



chart, created by the Executive Committee of the Alumni Association Board of Trustees, led by Chair Dean Alford, EE 76.

Alumni	Students & Services	Roll Call
Career Services	The Experience	Participation
Engagement	Philanthropy	Unrestricted Monies
The Voice	Traditions	Future Harvest

Each of these columns includes a focus area, which we will use to drive our efforts and resources. Our goal is to build great things from the remarkable support that you provide to Georgia Tech. You have affirmed what we do as an organization, and we’re most grateful.

JOSEPH P. IRWIN, IM 80
PRESIDENT & CEO
GEORGIA TECH ALUMNI ASSOCIATION

The Leadership Circle is the cornerstone of Roll Call, Georgia Tech's annual fund. By becoming a member of the Leadership Circle, you help ensure Tech's prominence and adaptability in an ever-changing world.

Join one of our leadership giving clubs and enjoy benefits such as a limited edition tie or scarf and an invitation to the annual President's Dinner.

A tradition of leadership has evolved at the Georgia Institute of Technology over many generations ... we hope you'll join us.

THE CORNERSTONE OF ROLL CALL IS LEADERSHIP

"We give back in appreciation for what Georgia Tech enabled us to achieve and so others can benefit from the knowledge, skills, and experience that Tech provides."

— JOCELYN M. STARGEL IE '82, MS IE '86 AND ROBERT N. STARGEL, JR. EE '83
(EXECUTIVE COMMITTEE MEMBER, GEORGIA TECH ALUMNI ASSOCIATION BOARD OF TRUSTEES)
30 CONSECUTIVE YEARS OF ROLL CALL GIVING AND LEADERSHIP CIRCLE SINCE 2001



THE GIVING CLUBS OF THE LEADERSHIP CIRCLE

BURDELL SOCIETY
a gift of \$25,000 in support of Roll Call

PHOENIX CLUB
gifts between \$10,000 and \$24,999

TRADITIONS CLUB
gifts between \$5,000 and \$9,999

TOWER CLUB
gifts between \$2,500 and \$4,999

CORNERSTONE CLUB
gifts between \$1,000 and \$2,499

*Please send your gift or pledge to:
Roll Call, Georgia Tech Alumni Association
190 North Ave., Atlanta, GA 30313-9806*

*Donate online at www.gtalumni.org
or call (800) GT-ALUMS*

ROLLCALL
Your Gift Enhances the Value
of Every Tech Degree
GEORGIA TECH ALUMNI ASSOCIATION • ANNUAL ROLL CALL



I just finished reading the new issue. The new design and content are great!”

John D. Beck, IE 59, Ooltewah, Tenn.

Everyone Enjoys the Redesigned Magazine...

I really like the new design! The content and organization are great. I never felt any displeasure with the old magazine until the new one arrived. I will be proud to display it on my coffee table or at work. Thanks for representing our institution so well!

Adam Dieterich, ME 01
Atlanta

I can identify with Bob Duggan, a classmate, when he writes that he’s “proud of the magazine” [Feedback, Vol. 88, No. 1]. I have seen the magazine change over the years, but always for the better. Congratulations on a job well done.

Bruce Smith, EE 51
Hancock, N.H.

This volume is exciting in its content and format. It is a highlight of Georgia Tech’s long history of outstanding achievements.

Philip Compton, MS AE 50
Front Royal, Va.

In the past, I just quickly perused the articles, but this issue was really enjoyable and interesting to read with the new format and content. Keep up the good work.

Paul Fredrickson, Phys 68
Roswell, Ga.

It is a pleasure to send unsolicited congratulations to the entire staff of the “revamped” *Georgia Tech Alumni Magazine*, which is a great step forward. Well done!

David Milton, IE 58
Founder of the Georgia Tech Rambler
Foster City, Cal.

Love it. It is fresh, hip and current. Ya done good.

Mark Corsini, IM 80
Birmingham, Ala.

Just recently received the new *Alumni Magazine*. It was terrific to see the new layout as well as the increased focus on technology in the articles. I’m looking forward to receiving the next issue.

Eric Mansfield, MS MSE 11
Columbus, Ind.

...Well, Almost Everyone

Whenever the *Alumni Magazine* would arrive, I looked forward to reading it. Was I in for a surprise when I opened the current issue.

It was the most chopped up, difficult to look through publication I have ever handled. Perhaps most of your readers will think it is a wonderful change, but I don’t care for it. Bottom line: into the trash after I struggled through about a third of it. I am not looking forward to the next issue.

Robert W. Roane Jr., CE 57
Fort Oglethorpe, Ga.

Correc_ing_he_!

There is an article regarding stealing T’s around campus [“S_op S_ealing_he_!,” Vol. 88, No. 1] in the latest issue. The opening sentence says, “Stealing the T has been a Tech tradition since 1969, when a group of students celebrated the retirement of President Edwin D. Harrison by scaling Tech Tower and snatching one of its most important letters.” The sentence clearly gives the impression that the T was stolen because the students were overjoyed with the President’s retirement. The truth is quite different. The T was stolen to give to Harrison as a gift from the student body for his leadership in the turbulent 1960s. The implication in the



Congratulations on the new look for the Alumni Magazine. It is absolutely fabulous! I was so excited last night when I got home to find it in my mailbox. It is truly a major upgrade, and I know that it will be well received by our alumni.

Susan Sanders, M Arch 89
Atlanta, Ga.

article besmirches the reputation of a great Tech president.

Marc Dash, AE 66, MS AE 68
Tucson, Ariz.

In the article on stealing the T that appears in the latest issue of the *Alumni Magazine*, it is stated that the tradition of removing the T started in 1969. This

Want to get in touch? Send letters to: Editor, *Georgia Tech Alumni Magazine*, 190 North Ave. NW., Atlanta, GA 30313, or editor@alumni.gatech.edu. Comment at gtalumimag.com or on the Alumni Association's Facebook page. Tweet to us at [@gtalumni](https://twitter.com/gtalumni). Send address changes to: Biographical Records, Alumni Association, 190 North Ave. NW., Atlanta, GA 30313, or bioupdate@alumni.gatech.edu. View our Letters to the Editor policy at gtalumimag.com/letters-policy.

is completely untrue! The T had been removed numerous times before 1969. It happened at least once during my tenure as a student and that definitely was not near the start of the removal of the letter.

Glen E. Zook, IM 67
Richardson, Texas



Redesign of the Georgia Tech Alumni magazine is badass. It feels like I'm reading *Wired*, *Inc.*, & *Forbes*. Nice job GT! @Melonze

Mag is great. I think I actually gasped when I saw it on [the Society of Publications Designers website]. So good. @bvankat

Awesome! Congrats on the new Georgia Tech mag. If you like space exploration, there are tons of good articles. @robertvenditti

→ tweet to us at @gtalumni

Editor's Note: Marilyn Somers, director of *Living History* at the Alumni Association, responded, "I do not recall seeing any documentation of T stealing before the one for Harrison. No one I have interviewed has ever mentioned an incident prior to that date." Anyone who has evidence of pre-1969 T thefts, please email

editor@alumni.gatech.edu. Regarding Mr. Dash's letter, we in no way meant to imply that students held any animosity toward Harrison.

Doppelganger Georgia Tech

Did you know there is another Georgia Tech? I did not until recently.

I currently serve as president of the Rotary Club of Baton Rouge, La. This past week, one of our guests for lunch was a PhD student who had gotten her undergraduate degree from the Georgian Technological University in Tbilisi, Georgia.

Ken Best, IM 67
Baton Rouge, La.

Alumni kept astronauts safe

Editor's Note: Our article on astronaut Sandra Magnus ["Up in the Air," Vol. 88, No. 1] inspired alumni to share their memories of space programs, including one alum who helped create heat shields for NASA and another who created a system for measuring those same shields. They wrote in independently, neither realizing another Tech grad worked on the same project.

I congratulate you on your recent issue of the *Alumni Magazine*, which included several fine articles involving NASA's space programs. It brought back many nostalgic memories of my own participation in 35 years with NASA.

In 1959 I was invited to join the NASA Space Task Group with responsibility for developing an ablative heat shield for the Mercury Program. I was project engineer of the Big Joe Project, which included a flight proof test using a rocket carrying the prototype heat shield. It was an outstanding success, and the heat shield was adopted for Mercury and the Gemini and Apollo projects.

Aleck Bond, AE 43, MS AE 47
Temple, Texas

During the 1960s I had the privilege of managing an

engineering group at the Budd Co. Instruments Division in Philadelphia.

One day our chief engineer came into my office and said, "Avco, the manufacturer of the Apollo re-entry heat shields, needs a method to accurately measure the shield's thickness. Do you think you can come up with something?" The heat shield on the Apollo was a nominal two-inch-thick dense ablative plastic. As the plastic outer layer burned, it would flake off, leaving a fresh layer, which in turn burned and flaked off. If the heat



• The Mercury space capsule undergoing tests in January 1959.

shield was too thick it would cause a weight

penalty at liftoff, and if it were too thin the astronauts would be toast.

I developed an electromagnetic technique that could accurately sense the distance from the surface of the heat shield to the metal substructure supporting it. I successfully demonstrated this to Avco, where it was subsequently used to inspect the Apollo heat shields.

Roy A. Nance, ME 54
Murfreesboro, Tenn.

Scooter Not an Eagle

I enjoyed the article by Tony Fritz [Tech Hack, Vol. 88, No. 1], because I owned a Cushman Eagle scooter when I was a youngster. But a correction is needed. The scooter he renovated is definitely not a Cushman Eagle, but rather one of the standard scooters they made at the time. The Eagle was a distinctive design in which the gas tank is located between the seat and the handlebars.

John Gullatt, MS EE 62
Austin, Texas

Editor's Note: Fritz responded, "He's right. An Eagle has two cylinders." We regret the error.

Recognition of Veterans Appreciated

The recent *Alumni Magazine* [Vol. 87, No. 7] had many great articles, including the story of Michael Arad, designer of the 9/11 memorial, and a profile of Lt. Col. John Burson. In addition, Joe Irwin led off his column remembering those serving our country.

The action taken during the Virginia Tech football game played on Nov. 10, 2011 was so inspiring. During a timeout, the members of the Tech Letterwinners Club who also are veterans were recognized on the field. Forty-five members who served in the military have been located, and 22 of us were able to make it to the game. The crowd reacted with enthusiasm, and I guarantee all of us were touched. Thanks and congratulations to all who helped organize this event. Actions such as this one are part of what makes Tech so great.

Jim Harberson, ME 66
Petaluma, Calif.

CT

**JOE CIARDIELLO**

illustrates the Ask George P. column (page 102). His work has appeared in just about every major magazine and newspaper over the past 38 years. His portraits can be seen regularly in the *New York Times Book Review*.

**DANIEL KRALL**

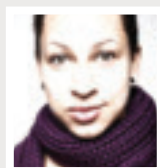
contributes art to a preview of the Summer Olympics (page 34). He lives in Baltimore, where he freelances and teaches in the Illustration Department at M.I.C.A. His clients include *Wired*, *The New Yorker*, *McSweeney's*, *Business Week*, *Details*, *The New York Times*, *The Village Voice*, *Brand New School*, *YM*, Random House, *Ebony* and *GQ*.

**L. MITCHELL GINN**

shares a memory of Tech's unofficial photographer (page 98). Ginn, Arch 82, M Arch 85, previously contributed an article about Tech leaving the SEC. He is the owner of the residential design firm Ginn & Associates in Newnan, Ga.

**ANN HARDIE**

reports on Tech's efforts to reinvigorate American manufacturing (page 52). She is a senior writer and editor at Habitat for Humanity International and freelances for multiple media outlets. Hardie spent two decades as a reporter and columnist for the *Atlanta Journal-Constitution*, where she wrote about government, politics, business and Georgia Tech.

**T. LYNNE PIXLEY**

snapped photos of a Tech student interning in the Georgia capitol (page 20). Pixley is an editorial photographer and filmmaker based in the Southeast specializing in entertainment, portraits and dance photography. Her work has been featured in *The New York Times*, *Uptown*, *Mate*, *Sunday Mirror* and several other publications.

*Georgia Tech
Alumni Magazine
Vol. 88, No. 2*

PUBLISHER

Joseph P. Irwin, IM 80

VP OF MARKETING/COMMUNICATIONS

Renee Queen

EDITOR

Van Jensen

ASSISTANT EDITOR

Rachael Maddux

CREATIVE DIRECTOR

José Reyes for Metaleap Creative
metaleapcreative.com

DESIGNERS

Joshua Baker, Jennifer Castles

STUDENT ASSISTANTS

Eric Hamilton, Karah Tarpley

PUBLICATION BOARD

C. Dean Alford, EE 76; Bird Blitch, IE 97; Bill Todd, IM 71; Tracey Jennings, ME 89; Andy Runtun, ID 98, M ID 00; Michael Warden, Tech Vice President of Communications and Marketing; Michael Hagearty, Tech Director of Internal Publications; Rachael Pocklington, Parents Program Communications Manager; Eric Hamilton and Karah Tarpley, Student Assistants.

EXECUTIVE COMMITTEE

C. Dean Alford, EE 76, **Chair**
Alfredo Trujillo, AE 81, **Past Chair**
Walt Ehmer, IE 89, **Chair-elect**
Steve Chaddick, EE 74, MS EE 82, **Vice Chair**
Bird D. Blitch, IE 97, **Member at Large**
Marian H. Epps, IM 83, **Member at Large**
Robert N. Stargel Jr., EE 83, **Member at Large**
Joseph P. Irwin, IM 80, **President & CEO**

BOARD OF TRUSTEES

Stanley E. Anderson, IM 75; Thomas G. Arlotto, ME 82; Jennifer M. Ball, Arch 94, M CP 01; Coe A. Bloomberg, ME 66; Fred H. Carlson, CE 01, MBA 04; Ralph Cleveland Jr., ME 86; C. Richard Crutchfield, IM 69; Richard DeAugustinis, IE 92; J. Gregory Foster, ME 95; Paul S. Goggin, Phys 91; Nicolette A. Gordon, ME 93; Richard A. Guthman Jr., IE 56; S. Wesley Haun, Mgt 72; Russell H. Heil, AE 64; Thomas N. Herrington Jr., IM 82; Jeffrey S. Hurley, MS Chem 90, PhD Chem 92; Joseph C. Irastorza, EE 60, MS EE 68, PhD IE 73; Troy N. Ivey, CmpE 90; Cayman James, CE 99, MS EnvE 01; Tracey K. Jennings, ME 89; Ashley Gigandet Joseph, IntA 94; Kelli H. Keb, IM 78; Andrea L. Laliberte, IE 82, MS IE 84; Jesús León, Cls 74; Robert A. Madayag III, ChE 02; Errika N. Mallett, IE 96; John M. McKenney, IE 90; Tyrone Murray, ME 82; Eric L. Pinckney Sr., ME 86, M CP 93; Heather S. Rucker, IE 98; Karen C. Thurman, IM 82; Elizabeth H. Wallace, Arch 96; Philip L. Williams, Text 70; Janet C. Wilson, ICS 81; Ronald L. Yancey, EE 65; S. Brent Zelnak, Mgt 94

ADVERTISING

Holly Green (404) 894-0765
holly.green@alumni.gatech.edu

STUNT DRIVER

George P. Burdell

GEORGIA TECH ALUMNI MAGAZINE

(ISSN: 1061-9747) is published quarterly by the Georgia Tech Alumni Association, 190 North Ave. NW, Atlanta, GA 30313. Periodical postage paid in Atlanta and additional mailing offices. © 2012 Georgia Tech Alumni Association

POSTMASTER

Send address changes to: Georgia Tech Alumni Magazine, 190 North Ave. NW, Atlanta, GA 30313.

CONTACT

Georgia Tech Alumni Association
(404) 894-2391 • Change address or unsubscribe at bioupdate@alumni.gatech.edu

THE RACE IS ON!

HELP THE GTAA EARN \$10,000 IN CONTRIBUTIONS FROM
GEORGIA NATURAL GAS BY JOINING THE GIVES BACK PROGRAM

SIGN UP
FOR GAS SERVICE

EARN
\$5.00 A MONTH FOR THE GEORGIA
TECH ALUMNI ASSOCIATION

SAVE
UP TO A 15¢ PER THERM DISCOUNT!*

www.gnggivesback.com

USE PROMO CODE: **GIVESBACK**



Georgia Tech Alumni
ASSOCIATION®

 **Georgia Natural Gas**
Gives Back
www.gnggivesback.com



You Save. We Give.

See gnggivesback.com for additional terms and conditions. Enrollment eligibility, price plan availability and actual customer service charge, deposit requirement and price per therm are subject to GNG credit and payment policies. See onlygng.com for price plans and customer service charge ranges.
*Offer limited to qualified new residential customers who enroll on an eligible price plan between 7/1/2011 and 6/30/2012, using applicable promotion code. Some plans may not be eligible. Up to \$0.15/therm discount on gas consumed available for a total of 12 consecutive months provided customer remains on the selected price plan during the applicable period and pays all billed charges by the date due. Actual discount per therm dependent upon price plan selected by customer. Cannot be combined with any other offer.

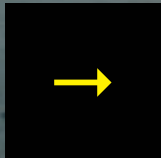
©2011 Georgia Natural Gas 07/2011 GNG-0815

Around CAMPUS



What are these Yellow
Jackets geared up for?





TURN THE PAGE



Have Paintball Gun—Will Travel

📍 Van Jensen



It hadn't been a banner year for Tech's club paintball team. The squad placed poorly at most of its 2011 events, and odds didn't look great heading into the national tournament in Florida, where 52 top teams from around the country waited.

But club president Steve Fox, a second-year computer science major, held onto hope. The club had struggled, but its members formed a close bond through weekly 9 a.m. Sunday practices and long road trips.

"As cliché as it sounds, the first thing I usually think at the end of practice is that I can't wait for next weekend to come so I can get right back out there with everyone," Fox said. "It isn't uncommon to see paintball teams bicker among themselves. But we haven't had that problem, and I think that is

one of the big things that sets us apart."

When the national tournament began, Tech's taggers took the field against higher-ranked foes. Ducking behind obstacles and launching staccato bursts of fire, the Jackets splattered the No. 1 and No. 4 teams with orange, knocking them out of the tournament. At the end of the weekend, Tech finished fourth overall.

"The entire experience was unreal," Fox said. "Everything we had worked on for the whole year just started clicking, and we surprised a lot of people."

Fox played paintball in high school and was excited his freshman year when he learned Tech had a team. Matches are staged in enclosed spaces filled with obstacles. Teams begin on opposite sides and fire paintballs from markers (guns powered by compressed air or carbon dioxide) until everyone from one side is "tagged" and eliminated.

At Tech, Fox learned the club level is far more competitive than recreational paintball, "like the difference between riding your bike to class and mountain biking."

The team, which has 10-15 members year to year, practices for about five hours a week. They drill technical skills and scrimmage against squads from local colleges.

As president, it's Fox's job to manage the balancing act of work and fun.

"We try to have as much fun as possible at practice because it is just a club sport," he said. "However, we always work hard and try to make the most of our time because, at the end of the day, we want to win tournaments." ▲



YELLOW JACKETS ON THE SILVER SCREEN

📍 Rachael Maddux

In February, two Tech teams won big at the 2012 Campus Movie Festival, an annual event for student auteurs.

Connie Chen, a fourth-year computational media major, worked on the crew of *Elevator Experiences* (which earned a Best Actress award for science, technology and culture major Louella Lugo), which she squeezed in while writing, directing and doing cinematography for her own entry, *The Therapist*, which took home the festival's top honors.

The prize? A screening at the prestigious Cannes Film Festival this summer. Chen's short, about a psychologist visited by an unexpected patient, was filmed, like all Campus Movie Fest entries, over the course of one week in January.

This spring, Chen was applying to film school, eyeing jobs at advertising agencies and considering taking a plunge into Atlanta's independent film community. "I've realized what I'm really passionate about and what I really enjoy," she says. "... It's not about winning any kind of competition for me. It's expressing my artistic vision. I think I'm very lucky to be able to find out what I want to do." ▲

the BASELINE



64% of tweets not worth reading, reports Tech's Kurt Luther. His advice: Be brief, don't abuse hash tags.

Learning Gerrymandering from the Old Spice Guy

✎ Van Jensen

The man wears only a towel around his waist as he stands in a shower, speaking in quick bursts that are almost too fast to follow. But rather than hocking shower gel, he's delivering a two-minute rapid-fire lecture on gerrymandering.

"Since you don't want to vote for me but your friend does, we're going to split up the district," the man exclaims, suddenly clad in a suit and standing outside in a neighborhood.

This spoof of the Old Spice Guy ad campaign is one of 40 video entries in the first TechBurst competition, which allows students to create instructional videos based on curricula from Tech classes. The project was inspired by the Khan Academy, which features short educational videos that explain topics such as the Vietnam War and nucleophilicity.

TechBurst is one of the inaugural efforts of the Institute's Center for 21st Century Universities.

"We see ourselves as a test bed for innovative ideas on education," said Emily Ivey, MS PubPol 10, a research scientist at C21U who oversees TechBurst.

The first batch of videos was submitted in January and went live on YouTube in February. Tech faculty members ensured the videos met pedagogical standards, and faculty and staff voted for the three best ("Constructing the Perfect Cube" was the winner). YouTube popularity determined the crowd-sourced prize, which went to a video explaining chemical combustion.

The goal is to eventually create a database of videos that cover the entirety



of Tech's academic offerings. This would be useful to students who want additional study material, or who find the Old Spice Guy more engaging than their professor.

"We have the rigor of the Georgia Tech curriculum, but also there's this variety of approaches," Ivey said. "The more engaged students are, the more likely they are to understand the concept. Ultimately, we want to create a library for faculty and a chance to learn for people all over the world." ▲



OF COURSE: MOVIE TECH

(LCC 3352: Film Technology, Fall 2012)

Instructor: Angela Dalle Vacche, professor in the School of Literature, Communication and Culture.

Syllabus says: "This is not a technical class, but an historical one that probes the ideological, philosophical, narrative, moral and artistic reasons behind editing choices. Finally, the class will meditate on how different directors deal with contingency, improvisation, randomness during the shooting process and why editing is interwoven with so many other aspects of film style."

Required viewing: Films by Soviet directors Pudovkin, Eisenstein, Kuleshov and Vertov; European art films; Andre Bazin's concept of montage interdit; Orson Welles' deep-focus editing; Hitchcock's hidden editing in *The Rope*.



3 number of 2012 Final Four teams correctly picked by the Logistic Regression Markov Chain, created by Joel Sokol and Paul Kvam.



0.14 cubic kilometers of magma that has entered the magmatic system beneath Santorini and caused tremors, according to Tech's Andrew Norman.



Finding the Flashpoint

Van Jensen

On the third floor of an unassuming building in Technology Square is what looks like a half-finished office. The floor is polished concrete. The ceiling is exposed, ducts and wires hanging down. The furniture is a smattering of office chairs and unfinished wood tables covered with laptops and books. The walls are white, except for the numerous places where they're covered with notes, calculations, quotations and doodles scrawled in black marker.

This is Flashpoint, Tech's newest launching pad for startup businesses. From the look of things, it's kind of a startup itself. The brainchild of Merrick Furst, a distinguished professor in the College of Computing, and Ravi Bellamkonda, the Institute's associate vice president for research, Flashpoint offers intensive three-month-long programs that foster fledgling companies before launching them into the world.

Guiding a visitor through the Flashpoint office last winter, where 17 teams (about half affiliated with Tech) were busy prepping their startups, Furst nodded to the graffiti. "It's erasable," he said.

"Most of it," added Elli Kaplan, COO of the program.

Flashpoint grants entrepreneurs education and access to mentors and investors; its first session was held last fall. This is nothing new for Georgia Tech—the Advanced Technology Development Center, for one, has been active for 30-plus years—but Flashpoint introduces a few new tweaks.

It's an intensive program, with a huge amount of work crammed into those three months. Several teams said they'd all but moved into the office. The process also requires frequent testing.

"It's not a business until you have revenues that exceed expenses," Bellamkonda said. "Until then, everything from the nature of the product to the customer base is a hypothesis. This is like in research—we hypothesize about how things work and we test them scientifically. The Flashpoint curriculum urges them to test every hypothesis leading to a positive cash flow. Build a first web



the BASELINE

4

consecutive years the Arbor Day Foundation has named Tech a Tree Campus USA school.

14,700

students who applied for 2,400 spots in the 2012-13 freshman class.



0.1

seconds of deviation per 14 billion years of a nuclear clock proposed by a team of Tech physicists.

page, not all 20 pages. Test it. See if people will click to see more.”

What’s truly unique about Flashpoint, though, is that the program itself is an experiment. Furst’s hypothesis is that intensive business training will help a greater percentage of Flashpoint companies to succeed. Along the way, he’s tracking the progress, measuring his inking against real results.

This metatextual test within a test puts Tech at the forefront of what Furst calls “startup engineering,” the application of science to the wilderness of entrepreneurialism. Typically, startups are a big gamble. Every so often there’s a Facebook, but most fail. Flashpoint aims to identify the elements that encourage success. It’s the only program of its kind at an academic institution.

“Our goal is to figure out, as a discipline, can this be done better?” Bellamkonda said. “Right now, it’s more art than science. We’re very fortunate to have thought-leaders like Merrick on our faculty to lead this experiment.”

That winter night, Furst gathered the teams for a weekly critique session. “Let’s get annoyingly close,” he said as team members grabbed pizza, sodas and beers.

Teams took turns presenting pitches, rough versions of what they’d sell to investors. After each turn, classmates and Furst peppered the presenter with sharp questions.

Talking to members of CollectorDASH, an online community for toy collectors, Furst noted, “Your business isn’t managing the collectors, it’s managing the collections.”

Grant Schindler, CS 03, MS CS 06, PhD CS 10, a research scientist in the College of Computing, had created a 3-D scanning app called Trimensional for the iPhone and iPad that was downloaded 50,000 times soon after he added it to the iTunes store. But Schindler didn’t know how to turn the software into a business, which led him to sign up for Flashpoint.

“It’s absolutely helpful,” Schindler said. “I come from an engineering background, so I had no business sense. Creating a business model, going after markets, that’s something I had no knowledge of before.”

In January and February, the 15 teams that survived the program had demo days for potential investors in Atlanta, New York and San Francisco. Furst’s hypothesis proved correct: Three teams quickly earned funding, and most are now negotiating with investors.

The first class succeeded beyond expectations in terms of raising capital, Bellamkonda said.

“An unexpected outcome has been the overwhelming support of successful entrepreneurs such as Allen Nance [MS MoT 06], Meade Sutterfield [EE 72] and Sig Mosley [a member of the College of Computing Advisory Board] serving as mentors to Flashpoint teams,” he said.

After poring over the results of the first class, Furst is readying to launch the second session of Flashpoint in June. There are new companies to foster and new hypotheses to test. ▲

A Century of Experience that Works

www.coop100.gatech.edu

On September 18, 1912, a dozen students began a grand experiment at Georgia Tech. That experiment—the co-op program—has grown to become the nation’s largest voluntary program, helping thousands of alumni become leaders in their respective fields.



In the 2012–2013 school year, Georgia Tech will celebrate the program’s 100th anniversary with special commemorative pieces and events:

- commemorative book and video (summer 2012)
- co-op centennial birthday bash on September 18, 2012, at 11:00 a.m.
- co-op alumni brunch and time capsule dedication (Homecoming 2012)
- campus memorial dedication (spring 2013)
- inaugural co-op Alumni Hall of Distinction induction (spring 2013)

In the summer of 2012, an ongoing campaign will be launched to secure endowment funds for the continued successful operation of the co-op program as part of Georgia Tech’s Capital Campaign.



Tiny Houses, Big Lessons

It was February, and Hugh Crawford, associate professor in the School of Literature, Communication and Culture, was looking for help moving a house—an unusual predicament, but not for the seemingly obvious reasons. 📞 Rachael Maddux

First, it wasn't a very big house. It was a playhouse, actually, one modeled after the cabin built by German naturalist and author Bernd Heinrich, the setting of his 1994 book, *A Year in the Maine Woods*. Heinrich would be coming to campus in March to deliver the 2012 Karlovitz Lecture, and he would see the house, which Crawford's students had constructed. This

as a capstone project. One group took the Heinrich house, one reconstructed Henry David Thoreau's famous cabin on Walden Pond, and another tackled the shack naturalist Henry Beston built on the sand dunes of

Cape Cod in the 1920s. (In 2010, Crawford oversaw the construction of a scale replica of Thoreau's cabin; the process was cataloged online at thoreauhouse.org.)

The teams studied the authors' work within their original historical contexts (right down to the food and drink each man might have consumed while living in his home) and researched the construction techniques and supplies that would've been used in the original structures. The students then built their playhouses according to those specifications, sourcing materials and hammering out their own work schedules and safety guidelines.

Building construction isn't the only lens through which Crawford's students explore the connectedness of history and technology and culture. This spring, he taught an interdisciplinary honors seminar on Herman Melville's *Moby Dick*, and his students plotted projects ranging from the construction of a life-sized whale skeleton laser-cut from plywood to the forging of a 19th century-style harpoon.

The Heinrich house was eventually lugged from its spot in front of the architecture building into the Clough Commons atrium, and on March 7, when Heinrich appeared for his lecture, Crawford and some students showed the 72-year-old writer their work. "He laughed, then inspected it, read the posters," Crawford reports.

Later that month, the house was installed on the playground of the Atlanta Day Shelter for Women and Children.

Meanwhile, the Thoreau and Beston houses are taking on quite different roles. Tech architecture students, working in partnership with the Georgia Tech Research Institute, are employing the roofs in a project to design mounts and connections for residential solar panel installations, funded by a grant from the Department of Energy. The playhouses, still nestled on the lawn outside the architecture building, now feature one-kilowatt solar arrays.

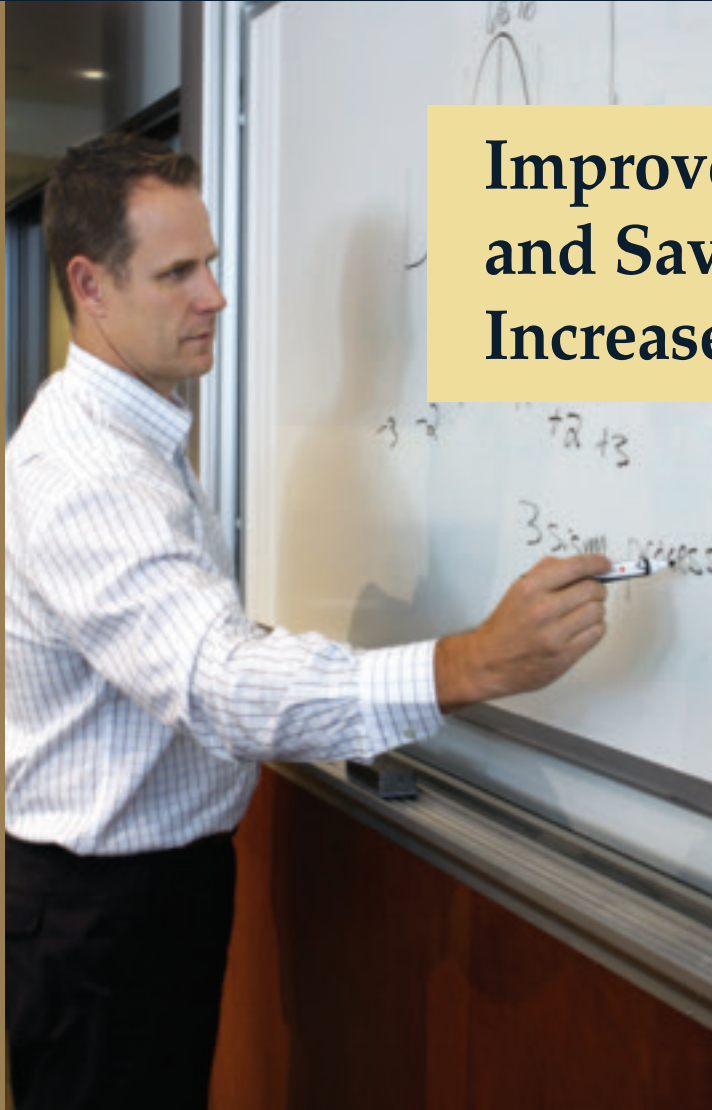
"Now," Crawford says, "they just have to figure out what Thoreau would have done if he had electricity." ▲



wasn't the first time Crawford and his students had replicated the home of a famous naturalist, but it would be the first time they had the opportunity to show off their handiwork to the structure's original designer, builder and occupant.

During the fall semester, Crawford tasked the upper-level building construction majors in his Environmentalism and Ecocriticism course with building three historic structures

Lean Six Sigma Certification at Georgia Tech



**Improve Customer Satisfaction
and Save Money through
Increased Efficiency**

- Lean Six Sigma Green Belt
- Applied Statistics for Six Sigma
- Lean Six Sigma Black Belt

Free Information Session: August 17, 2012. *To register, email execed@gatech.edu*

Lean Six Sigma Green Belt
June 11–15, 2012
\$3,950 per person

Applied Statistics for Six Sigma
Nov. 12–14, 2012
\$2,550 per person

FOR MORE INFORMATION VISIT
ExecInfo.org

Lean Six Sigma Green Belt
Sept. 10–14, 2012
Oct. 29–Nov. 2, 2012
\$3,950 per person

Lean Six Sigma Black Belt
Dec. 3–6, 2012
\$3,500 per person

Questions? Call us at
404.894.8700

Save \$1,000 when you register and pay for all three courses at once.

Georgia Tech | **Executive Education**

THE BUSINESS SCHOOL AT GEORGIA TECH



Van Jensen

Semester in the Statehouse

With its close proximity to the Georgia State Capitol, Tech has become a top supplier of interns to senators and representatives. The internship program is managed by Tech's Department of Government and Community Relations through the School of Public Policy. One intern, TJ Kaplan, a fourth-year public policy major, shares excerpts from the journal he kept as part of his internship with Sen. Butch Miller, a Republican from District 49.



Jan. 18: I met with the governor's staff and Sen. Miller to go over what bills the administration wants to promote this year, so that Sen. Miller and the other floor leaders can get them on the floor early in the session and get them passed.

Jan. 20: I have been working for a few days now on SB 225, which addresses a loophole in the "false statements" law regarding criminal offenses. ... I sat down to discuss the bill with Sen. Miller today. ... After our discussion, he asked if I would introduce it to Judiciary on Monday. I was both excited and nervous.

Jan. 30: Today I presented SB 225 again in the Judiciary committee. ... The bill passed out of Judiciary 7-0.

Feb. 9: Today I presented Unregistered Vehicles in the Transportation committee, which went extremely well. The last time I presented this bill, the climate was mixed. Over the

past week we redrafted the bill through Legislative Counsel and have spoken with most of the Senators who serve on the committee, and have gotten their approval for the bill. This approach is advantageous because it gives them a heads up about what is coming in committee and allows me to establish relationships with the Senators

and raises Sen. Miller's profile among his peers. I have no doubt that this will come in handy later.

Feb. 21: Today was a crazy day because Sen. Miller had two bills that went to the Senate floor, a committee meeting to chair and a bill to present in House committee.

Feb. 28: There was not enough time for us to drop a bill and get it through committee, so we had to decide whether we would get another bill that isn't going anywhere and gut it and put in our language, or whether we would try to tack it onto another bill that is already over to the House. This is possibly my favorite part about politics, the strategy and maneuvering that is required to succeed.

Feb. 29: I had the opportunity to speak with Newt Gingrich and his wife for a few minutes, which was just a phenomenal experience.

March 1: I spent most of the day working on various odds and ends. This included redoing much of the wiring in [Sen. Miller's]



the BASELINE

3.9 average GPA of students admitted to Tech for the 2012-13 academic year.

1,059 contributors to Tech's 2011 Charitable Campaign, raising \$292,364.

200 million dollars funding the Big Data Research and Development Initiative; part will go to Tech to create supercomputer instruments.



office. He needed all three of the electrical outlets in the room to be changed, and for his light switch to be replaced. My fellow intern, J. J. O'Brien, and I were able to accomplish this task with minimal injury!

March 7: Crossover Day—when all bills must pass at least one chamber or die for the year! I have heard horror stories about staying at the Capitol until 2 a.m. with little time for meals, but I genuinely enjoyed it. I got to see the Democrats really fight for some of their legislation.

March 8: None of us got home until after midnight, so we came in late today. It was a good opportunity to catch up on tasks that I don't always have a chance to do during the busy weeks.

March 29: Sine Die is an incredibly exciting time as Senators and House members run in between the two Houses trying to make deals and get their bills on the calendar. Senator Miller and I had done most of our legwork ahead of time and were completely prepared. ... I will never forget the incredible time that I had during my semester in the State Senate.

• **At left:** TJ Kaplan strategizes with Sen. Butch Miller. **Below:** Kaplan and Miller meet with Deb Bailey, a health care lobbyist.





EXPERIENCE THE GEORGIA TECH MBA

“My undergrad experience gave me the tools to be successful. When I wanted to transition my career to consulting, **returning to Tech** for my MBA was the logical choice.

The **Evening MBA** enabled me to **apply my skills** in a **new industry** without having to press “reset” on my career.”

Chris Geganto
MBA 2011

Senior Consultant, North Highland
BS, Civil Engineering, 2000

RETURN TO TECH **TO EARN YOUR MBA**

Full-time MBA • Evening MBA • Global Executive MBA • Executive MBA in Management of Technology

Learn more at: **www.back2tech.com**

**Georgia
Tech**  College of
Management

THE BUSINESS SCHOOL AT GEORGIA TECH



Service Council Revived



This year, Emma Bones, a fourth-year environmental engineering major and dedicated campus volunteer, decided to resurrect a dormant organization that once served Tech's campus.

The Community Service Council, active from 2007-09, relaunched with a greater focus on serving the entire Tech community. The group aims to help student service organizations operate better and to make service opportunities easier to access.

The council developed an online calendar that aggregates volunteer opportunities from various organizations, and is developing a database to enable users to search for service opportunities based on interest or group. The Council builds on a strong legacy of service at

Tech, which was named to the 2012 President's Higher Education Community Service Honor Roll.

"We did outreach to organizations that we'll support to see what their challenges or barriers to service are right now, and how we can help," said Bones, chair of the council. "We also want to integrate more with faculty, staff and the administration."

"There's been a big push on service learning and it's something students really want." ▲



the BASELINE

100,000

watts broadcasted from the WREK radio station's new HD antenna.



1

silver award from the Columbia Scholastic Press Association won by the *Blueprint* yearbook.

QUIZ!

GEORGIA TECH IS FAMOUS FOR ITS MULTITUDINOUS ACRONYMS, BUT NOT ALL ARE SO WELL KNOWN AS "THWG." CAN YOU PICK THE CORRECT DEFINITION FOR THE BELOW ABBREVIATION?

NEETRAC

A) Northeastern Extensional Tectonics Ruptures Amid Crust

B) National Electric Energy Testing Research and Applications Center

C) No English, Esperanto To Rule All Countries

D) Nuclear Energy Emerging Threat Response and Coordination

Post your guess at
[facebook.com/
georgiatechalumni](https://facebook.com/georgiatechalumni)



Undergrad Inventors Shine at InVenture Prize

On March 13, six teams of Tech students and recent graduates took the Ferst Center stage at the fourth annual InVenture Prize finals to show off their extracurricular innovations. The event was broadcast live by Georgia Public Broadcasting, emceed by David Pogue of *The New York Times* and featured a panel of celebrity entrepreneurs who selected the night's winner. Meet this year's six finalists.

1ST PLACE

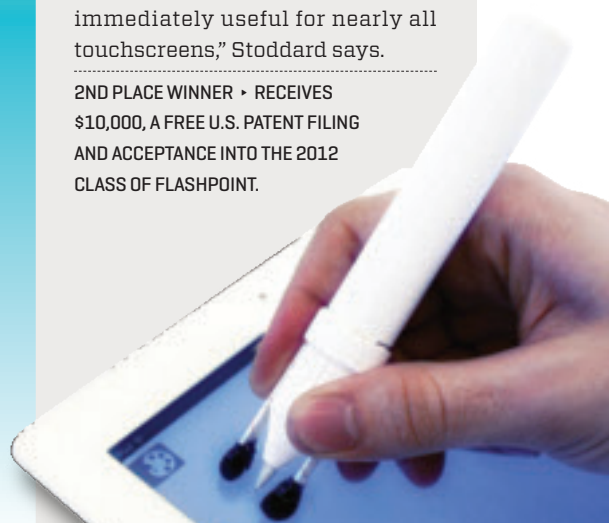


→ **RE-HAND** **What is it?** A software-assisted hand rehabilitation device. **Who made it?** Alkindi Kibria, Elizabeth LeMar, Kunal Dean MacDonald and Daphne Vincent, all 2011 biomedical engineering graduates. **What inspired it?** LeMar's mother had two surgeries on her hands for carpal tunnel and struggled through painful recoveries. LeMar and her teammates aim to improve hand rehabilitation for those recovering from carpal tunnel, strokes, arthritis or injuries. **Why is it game changing?** The 30 million Americans with hand weakness previously only had a squeeze ball for physical therapy. Re-Hand, which can be used at home, offers more engaging exercises and tracks patient progress. "The idea is to use technology to take rehabilitation into the home setting," Vincent says.

1ST PLACE WINNER • RECEIVES \$15,000, A FREE U.S. PATENT FILING AND ACCEPTANCE INTO THE 2012 CLASS OF FLASHPOINT, A TECH STARTUP ACCELERATOR.

→ **STYLII** **What is it?** An extraordinarily precise and pressure-sensitive digital stylus. **Who made it?** Industrial design major Matthew Stoddard and electrical engineering major Christopher Vollo. **What inspired it?** Stoddard was using an iPad for a class project and grew frustrated trying to take notes with a standard stylus. **Why is it game changing?** Through its hardware and software, the Stylii incorporates the "pinch and zoom" function and unlocks other capabilities of tablet computers. "This is something that is immediately useful for nearly all touchscreens," Stoddard says.

2ND PLACE WINNER • RECEIVES \$10,000, A FREE U.S. PATENT FILING AND ACCEPTANCE INTO THE 2012 CLASS OF FLASHPOINT.



the BASELINE
40,000

rubidium atoms in an ensemble used by Tech's Michael Chapman for a record-breaking atom-squeezing experiment.

200

days and counting that rats with cancer survived after receiving an experimental treatment developed by Tech researchers, compared to 19 days for rats not treated.



→ CARDIAC TECH

What is it? A chest retractor for open-heart surgery. **Who made it?** Mechanical engineering majors Josh DeVane and Kevin Parsons, and alumni Benji Hoover, ME 11; Matthew Lee, BME 11; and Priya Patil, BME 11. **What inspired it?** Retractors currently used can cause significant blood loss during surgery, and the team sought a way to improve on that design. **Why is it game changing?** The retractors in use today are based on a 50-year-old design. CardiacTech improved on the size and positioning of the blades on the device to minimize damage and blood loss. "I wanted to work on a project that had a real-world clinical application," Parsons says.

PEOPLE'S CHOICE AWARD WINNER
• RECEIVES \$5,000.



→ COURSE SHARK

What is it? An online system to create and share college class schedules. **Who made it?** Computer science majors Gregg Cobb and James Rundquist. **What inspired it?** His freshman year, Rundquist and his friends struggled to plan out their full course schedules, some of them resorting to sticking Post-it notes on the wall. **Why is it game changing?** CourseShark offers new tools that allow students to map out their entire class schedule with ease. "The registration tools used by schools around the country are stuck in the dark ages," Rundquist says.

→ **ENTROPIC WAKE** **What is it?** An inflatable obstacle and rail system for extreme water sports. **Who made it?** Spencer Price, an industrial design major, and Graeme Wicks, PFE 10. **What inspired it?** Wicks and Graeme saw that other water sports rail systems were bulky and difficult to move and store. **Why is it game changing?** Entropic Wake requires only an air pump to set up, and it's easy for wake boarders to customize, move and store. "We're trying to let them push their skill level and their sport to the next level," Price says.



→ **DEFT PAD** **What is it?** A touchscreen device that gives guitarists the functionality of a distortion pedal. **Who made it?** Computer engineering major David Burke and Bradley Keller, Sarosh Ali Shahbuddin, Michael Barrington Stone and Jarred Vallbracht, all 2011 electrical engineering graduates. **What inspired it?** Burke saw the band Muse in concert and was intrigued by the way Matt Bellamy used a Kaoss Pad to distort the sound of his guitar. **Why is it game changing?** The DEFT Pad takes all of the distortion capabilities of a pedal and puts it on the guitar, within easy reach. "It uses a touchscreen, so you have a lot more control. There's no limit to what you can do," Burke says.



Think of it as a post graduate program in home economics.



Introducing The Alumni Home Savings Program

The right way to make yourself right at home when
buying, selling or refinancing anywhere in the US.

- CASH BACK when buying or selling a home
- Revenue Generation for your Local Alumni Network
- Local Real Estate professionals anywhere in the US
- Competitive interest rates with EXCLUSIVE Float Down Option protection
- Personal service

Selling, Buying or Refinancing now? Register to be approved for all of these Alumni Home Savings benefits. Just want to learn more about the best strategies in the current market? Ask for one of our **FREE** guides.

3 easy ways to respond to this exclusive offer:



Phone:
1-800-251-5359



Email:
GTAA@AlumniHomeSavings.com



Register:
AlumniHomeSavings.com/GTAA



© 2012 PrimeLending, A PlainsCapital Company. Trade/service marks are the property of PlainsCapital Corporation, PlainsCapital Bank, or their respective affiliates and/or subsidiaries. Some products may not be available in all states. This is not a commitment to lend. Restrictions apply. All rights reserved. PrimeLending, A PlainsCapital Company (NMLS no: 13649) is a wholly-owned subsidiary of a state-chartered bank and is an exempt lender in the following states: AK, AR, CO, DE, FL, GA, HI, ID, IA, KS, KY, LA, MN, MS, MO, MT, NE, NV, NY, NC, OH, OK, OR, PA, SC, SD, TN, TX, UT, VA, WV, WI, WY. Licensed by: AL State Banking Dept.- consumer credit lic no. MC21004; AZ Dept. of Financial Institutions- mortgage banker lic no. BK 0907334; Licensed by the Department of Corporations under the California Residential Mortgage Lending Act- lender lic no. 4130996; CT Dept. of Banking- lender lic no. ML-13649; D.C. Dept. of Insurance, Securities and Banking- dual authority lic no. MLO13649; IL Dept. of Financial and Professional Regulation- lender lic no. MB.6760635; IN Dept. of Financial Institutions- sub lien lender lic no. 11169; ME Dept. of Professional & Financial Regulation- supervised lender lic no. SLM8285; MD Dept. of Labor, Licensing & Regulation- lender lic no. 11058; Massachusetts Division of Banking- lender & broker license nos. MC5404, MC5406, MC5414, MC5450, MC5405; MI Dept. of Labor & Economic Growth- broker/lender lic nos. FR 0010163 and SR 0012527; Licensed by the New Hampshire Banking Department- lender lic no. 14553-MB; NJ Dept. of Banking and Insurance- lender lic no. 0803658; NM Regulation and Licensing Dept. Financial Institutions Division- lender license no. 01890; ND Dept. of Financial Institutions- money broker lic no. MB101786; RI Division of Banking- lender lic no. 20102678LL and broker lic no. 20102677LB; TX OCC Reg. Loan License- lic no. 7293; VT Dept. of Banking, Insurance, Securities and Health Care Administration- lender lic no. 6127 and broker lic no. 0964MB; WA Dept. of Financial Institutions-consumer lender lic no. 520-CL-49075.



Tom Akins, Co-op Centennial Commemorator

As a freshman, Tom Akins, IE 74, worked a co-op with grocery chain Colonial Stores. After a brief career in banking, Akins came back to Tech, running the co-op program. With the program turning 100 this fall, he's taken time out of retirement to plan the centennial.

What made you decide to do a co-op?

My older brother Ken, CE 70, was a co-op, and that's how I learned about it. We were the first in the family to attend college, and our circumstances meant we had to pay for our educations. Necessity was a great motivator.

What did you get out of that co-op experience?

I got money! Without it, I'm not sure I would have made it. The best lesson I learned was how to work with people from a variety of backgrounds.

Why did you come back to Tech?

By 1976, the recession was forcing many employers to cut back. A number of us [at First National Bank of Atlanta] were fairly new hires, so our positions were in jeopardy. I saw an ad for assistant director, Cooperative Division. I sent in a resume and, within two weeks, I had interviewed twice and had given my notice to come work at my alma mater.

What has surprised you most about how the program grew from 1970 to today? I'm not sure I envisioned the program expanding globally.

What have you liked most about the job? The belief that somehow, in a small way, I contributed to the education of many students.

What would surprise people about the program?

In 2002 we expanded co-op and formed the Division of Professional Practice, the umbrella organization for experiential learning. Each year, about 9,000 students engage with the office and earn well over \$30 million.

What's the most interesting co-op a student has had?

Jobs have ranged from working in sewers, battling cockroaches and rats, to repairing tiles on a space shuttle. One company that makes personal watercraft sent students to St. Augustine to test boats out, all expenses paid.

What's on tap for the centennial? The highlights include a co-op birthday bash on Sept. 18, a co-op brunch during homecoming and we'll install a time capsule in the Savant Building. This summer we will release a commemorative book and video. In the spring of 2013, we plan to inaugurate the Co-op Hall of Distinction's first class.

Want to celebrate the co-op centennial? Visit coop100.gatech.edu and share your co-op memories at gtalumimag.com.



What's the strangest thing you've learned about the program?

The author of our commemorative book learned President Matheson ran a pilot co-op with one student on the sly. When he appointed a committee to study the feasibility of co-op in 1909, he already had proof it could be done!

What do you hope the program looks like in 2112?

I hope it's routine for students to work in all the world. We may even have co-ops working around the galaxy. ▲



Rachael Maddux

Val Peterson's Bog Coats

Val Peterson, First Lady of Georgia Tech, has been making clothes for herself and her family for decades—one of her first big projects was a jacket for her husband, President G. P. “Bud” Peterson, while they were students at Kansas State University in the 1970s.



But nothing has captured her passion quite like the bog coat. “I’m addicted to bog coats,” she confesses. “I want to teach everyone in the world how to make one.”

The name comes from where the garments were first found: in a Danish peat bog, the simple pattern preserved for centuries in the mire. Bog coat patterns are cut out of a single rectangle of fabric, require minimal sewing and can serve as a canvas for endless embellishment, which is why Peterson loves them.

She’s made at least one coat in the school colors of every university where her husband has worked. But her crowning achievement is her most recent Tech-themed bog coat, which features the I-75/85 connector snaking down one side, a proud-looking Buzz or three, numerous angles of the Ramblin’ Wreck and even a stitched-out “To hell with Georgia!” She embroidered all the details herself.

Peterson recently gave the *Alumni Magazine* a tour of her bog coat collection and walked us through her process.

1. Make a custom muslin pattern “I took a class and a friend taught me how,” Peterson says, but it’s a simple project. (See below for a link to instructions.)

2. Amass your supplies. “I buy two kinds of fashion fabric, usually cotton, and usually a third fabric for bands and binding,” says Peterson. Using two different fashion fabrics means your bog coat will be reversible. Also on her list: batting and decorative bits.

3. Lay it out. “I lay down the fashion fabrics and the batting on the muslin pattern, and I cut them all—a rough cut, larger than the pattern.” Peterson works on a spacious table in the basement of the President’s House, but any clean, wide-open surface will do.

4. Quilt it! “All three layers have to be quilted together, like a quilt for a bed,” she says. Bog coats can be toasty, but she prefers it that way: “I’m a jungle flower!”

5. Then cut. “When you quilt a garment, it tends to shrink up,” Peterson warns. “So I can’t cut on the exact pattern lines until I’m done quilting.” Only then does she trim the garment to the precise size of the muslin pattern.

6. Get creative. Peterson prefers to embellish unseamed garments: “Spread out flat, it’s like a beautiful palette—you can paint anything you want on it.”

7. Stitch it up. “I sew up the two seams, add the binding and the band around the neck and the bottom of the sleeves,” Peterson says. Then she might add buttons, toggles or ruffles.

8. Admire your work. Hop to a mirror and slip on your new creation—nice work! Or, as Peterson says, “Shazam!” ▲

For detailed instructions to make your own bog coat, including a custom muslin pattern, visit gtalumnimag.org/bogcoat. **Have a Tech Hack of your own to share?** Send details to Editor, Georgia Tech Alumni Magazine, 190 North Ave. N.W., Atlanta, GA 30313, or publications@gtalumni.org. Entries will be selected for publication in the magazine and at gtalumnimag.com.



“
*It's like a beautiful
palette—you can paint
anything you want on it.*”



THE CENTER

"The facility and amenities are top notch and make for an excellent setting to host business events, especially when seeking to get away from the tired, over-used hotel meeting room space." –Suzanne Gladle, McGriff, Seibels & Williams Inc.

- Conveniently located in Midtown Atlanta
- 32,000-square-foot facility in Georgia Tech's Technology Square
- Five amphitheaters and flexible room setups in conference rooms, meeting rooms, and computer labs
- Holds groups of five to 250 people
- Productive and professional learning environment

Georgia Tech Global Learning Center

Our purpose-built facility is unlike other conference centers. As part of Georgia Tech, we foster the relationship between people and ideas and learning and working. It's a place where *meeting and learning converge*.



SERVICE

"The staff, from sales people to event planners were all very friendly and accommodating. I would recommend this facility to anyone planning on hosting a meeting, seminar or workshop in the Atlanta area." –Laura Cusick, LiveText

- Enthusiastic and experienced event planners
- All-inclusive Complete Meeting Package (fixed per-person, per-day rate)
- Step-by-step consultation before, during, and after the event
- In-house technical support, from start to finish
- Business concierge
- Continuous refreshments



TECHNOLOGY

"Their built-in technology made our event flow smoothly."

–Colin Owens, Hay Group

- Built-in audio/visual systems with easy-to-use controls
- Drop-down screens and wireless microphones
- Laptop connectivity and desktop computers for speakers
- Wireless Internet for presenters and attendees
- Videoconferencing
- Audio and video capture for recording meetings



We invite you to take a tour and learn how we can help your organization have a successful meeting at the Center. Simply call us at **404-385-6203** or go to www.gatechcenter.com/alumni





O'Neill a Major Pain for Opponents

Jillian O'Neill, a senior management major, made it to the third round of the NCAA championships in 2010-2011, her first season with the Yellow Jackets after transferring from Hillsborough Community College. She started this season 30-11.



Why did you come to Tech? I came because of [coach] Bryan Shelton, my teammates and the strong academics that Georgia Tech provides.

What's your favorite tennis memory from college? Playing in the NCAAs in Stanford last year. It was a great experience, and I look forward to having another opportunity to qualify this year.

What hobbies do you have outside of tennis? I love music, dancing,

movies and hanging with friends.

Who's the best opponent you have played? NCAA champion Chelsey Gullickson [of Georgia].

What's your favorite movie? A tie between *Major Payne* and *Love and Basketball*.

What are your plans after college? I'm looking to start playing professional tournaments during the summer and fall.



WHITE MAKES STRIDES ON THE GREEN

James White, a senior management major, has been a key Tech golfer since his freshman year. The Acworth, Ga., native has been ranked as high as fourth nationally by *Golfweek*.

Why did you come to Tech?

I saw it as a challenge and a chance for me to get ahead of my peers, plus there's the program's history of producing excellent golfers.

What's your favorite golf memory from college?

The 2011 U.S. Collegiate Championship, when I won my first individual title shooting a course record (62) in the first round, and winning the team title.

What hobbies do you have outside of golf?

I like to fish and hang out in the woods.

What's the hardest course you've played?

The Collegiate Masters at Southern Highlands in Las Vegas.

What's your favorite movie?

Braveheart.

What are your plans after college?

I am going to turn pro.



the BASELINE

5.3

height in meters cleared by pole vaulter Nikita Kirillov, a new school record.

1,000

wins and counting for baseball coach Danny Hall.



32

points scored by women's basketball guard Sydney Wallace in a Sweet Sixteen loss to eventual NCAA champion Baylor.

GEORGIA TECH FOOTBALL

**The Countdown to Kickoff
HAS BEGUN**

Get Your 2012 Season Tickets Today
888.TECH.TIX
or
RAMBLINWRECK.COM



Follow us



GEORGIA TECH ATHLETICS



@GEORGIATECHATHLETICS



**YELLOW
JACKETS**
Go For The
GOLD

WV

With the 2012 Olympics and Paralympics right around the corner, a number of Tech alums are narrowing their focus on the medal stands—or at least the qualifying rounds. Here's a look at some of the promising competitors angling for spots at this summer's games (the Olympics kick off on July 27, the Paralympics on August 29, both in London). To track the progress of these world-class Yellow Jackets and others, visit gtalumnimag.com/olympics.



Kimery Hern, Mgt 09

Hometown: Clinton, Wash.

Event: Hammer throw

Career highlights: 2007 All-American; 2007 and 2008 All-ACC; holds Tech record (197 feet, 11 inches)



↑ **Chaunté Howard Lowe, Econ 08**

Hometown: Riverside, Calif., and Loganville, Ga.

Event: High jump **Career highlights:** 2003, 2004 and 2005 NCAA national champion; 2004 ACC outdoor champion; qualified for 2004 Olympic Games; sixth place in 2008 Olympics; holds U.S. record for high-jump (2.02 meters); won the 2012 USA Indoor Track & Field Championship



Cassie Mitchell, PhD BME 09

Hometown: Atlanta **Events:** Handcycling, wheelchair track racing

Career highlights: 2010 U.S. Handcycling national champion (first female quadriplegic handcyclist to win); 2011 gold medals in individual time trial and road race events at the Union Cycliste International Para-cycling World Championship; 2011 USA Cycling and Paracycling national champion



James Wade, IE 10, current BME PhD student

Hometown: Boise, Idaho **Event:** Slalom K-1 kayaking

Career highlights: 2009 U.S. national champion; member of U.S. national team in 2006-07, 2009-10; top U.S. competitor and eighth overall at 2012 Oceania Championships



Chandler Alford, ME 09, MS ME 12

Hometown: Atlanta **Event:** Weightlifting

Career highlights: 2004-2008 All-American, 2008 national university champion, 2000-2011 American Open competitor (2007, second place); 2006 resident athlete at U.S. Olympic Training Center; ranked 16th in 2008 Olympic trials; coaches Olympic weightlifting around the United States through CrossFit, Inc.



Alphonso Jordan, Arch 10

Hometown: Charlotte, N.C.

Event: Hurdles, long jump, triple jump **Career highlights:** 2007, 2008 and 2009 All-ACC; 2009 NCAA Indoor All-American; holds Tech record for triple jump (53 feet, 9.25 inches); 2012 sixth-place finish in triple jump at USA Indoor Championships



↑ **Mark Zupan, CE 99**

Hometown: Austin, Texas **Event:** Wheelchair rugby

Career highlights: 2008 U.S. Quad Rugby Association national champion; 2006 gold medal at World Wheelchair Rugby Championships; 2004 bronze medal at 2004 Paralympic Games; gold medal at 2008 Paralympics; featured in *Murderball*, a 2005 Oscar-nominated documentary about wheelchair rugby; has appeared on TV shows including *Miami Ink* and *Friday Night Lights*



\$1.8 BILLION

COST TO STAGE THE 1996 OLYMPIC GAMES IN ATLANTA

\$16.8 MILLION

Cost to build the Aquatic Center, which housed swimming, diving and water polo events during the games and now is part of Tech's CRC

340

Kilowatts produced by the solar panel array installed on the Aquatic Center roof in 1995, then the world's largest

33

Number of residence halls composing the Olympic Village on Tech campus

2,700

Number of beds added when Georgia State's Olympic Village buildings were sold to Tech in 2007

25

Percent of the Aquatic Center's power needs met by the solar array

\$93M

Debt shouldered by Tech to complete Olympic Village construction

5

Number of Olympic events held on campus (water sports at the Aquatic Center, boxing at Alexander Memorial Coliseum)

4

Number of Paralympic events held on campus



30 to 45 minutes

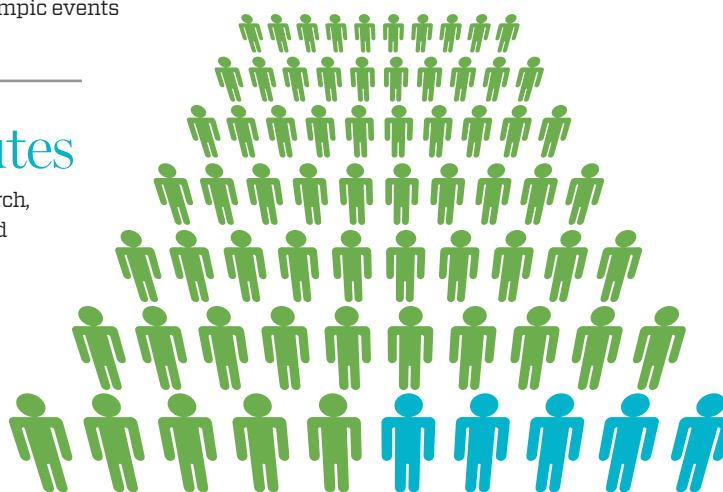
Length of time the 1996 Olympic torch, designed by Tech researchers, could burn without refueling

10,000

Estimate of total number of torches manufactured, enough for each runner to purchase his or her own as a memento

15,000

Number of miles the torch traveled on its relay course from Athens, Greece, to Atlanta



14,600

Seating capacity of Aquatic Center during the Atlanta games

1,950

Seating capacity of Aquatic Center after renovations in 2001 and 2003

Yellow Jackets on the Move

Another benefit
from the Georgia Tech
Alumni Association

Preferential **YELLOW JACKET** treatment

- * Minimum of a 55% discount on all interstate relocations.
- * Free Full-Value Coverage up to \$50,000.
- * 15% discount on all Georgia and Florida intrastate moves.
- * Guaranteed on time pick-up and delivery.
- * Personalized attention from start to finish.
- * Top rated drivers will be assigned to all Yellow Jacket shipments.
- * Sanitized air-ride vans.

Contact Tom Larkins (The Ramblin' Relocator)
for details on this program

1-800-899-2527

or e-mail him at tom.larkins@atlanticrelocation.com



Atlantic Relocation Systems/
Interstate Agent for

ATLAS VAN LINES
1909 Forge Street
Tucker, GA 30084

* A portion of the proceeds
collected from the
transportation costs will be paid
to the Georgia Tech
Alumni Association

Georgia Tech Alumni
ASSOCIATION

NCAA INFRACTIONS REPORT

In July of 2011, the National College Athletic Association (NCAA) Division I committee on Infractions found the Georgia Institute of Technology men's basketball and football programs have committed violations of NCAA regulations.

The Institute was cited for a lack of cooperation during the investigation, a failure to meet the conditions and obligations of membership and preferential treatment violations. There were additional violations in the men's basketball program related to rules stemming from a nonscholastic basketball tournament conducted on the Institute's campus, which the public report further details.

"Georgia Tech is committed to the integrity of its athletics program, including full cooperation and support of the NCAA," said Georgia Tech President G. P. "Bud" Peterson. "Given the information we had at the time, I

believe we took reasonable and appropriate steps to determine the proper course of action and acted in good faith. Looking back, there are things we could have done differently. Because of our unwavering commitment to NCAA compliance, we have already taken a number of steps to address perceived shortcomings, hopefully ensuring that our programs remain beyond reproach."

After being notified of the allegations in November 2009, Georgia Tech conducted its own internal investigation, forming a committee made up of faculty, staff and external counsel that made recommendations based on available information and the internal investigation findings.

As a result of this exhaustive review process and because of Georgia Tech's steadfast commitment to compliance, the Institute completely revamped and enhanced its athletic compliance operation and staffing.

Changes include a greater investment in experienced staff, training and awareness among staff and student athletes.

PENALTIES INCLUDE:

- Public reprimand and censure.
- Four years of probation from July 14, 2011, through July 13, 2015. The report further details this probation.
- A \$100,000 financial penalty.
- A reduction of two men's basketball recruiting days during the 2011 summer evaluation period [self-imposed by the Institute].
- A limit to 10 official visits for men's basketball for the 2011-12 and 2012-13 academic years.
- A vacation of all contests won by the football team during the 2009 season after November 24, which is when the university was alerted to the potential eligibility issues.



Dollars & Sense: Dorn Swerdlin

Van Jensen

Actuaries are not generally regarded as a lively bunch. But Dorn Swerdlin, AM 68, CEO of Swerdlin & Company, has upended that notion, leading his employees through meditation sessions and performing as Elvis at the annual company Christmas party. Here, he shares advice on cultivating a fun work environment.

How'd you get into actuarial science?

One of my fraternity brothers was studying for an actuarial exam. I thought it was something I could do with my degree. There's a set of exams, and the first was just calculus. I passed it. I passed

the second test my senior year and then graduated and took a job in New York with Metropolitan Life.

What was that like? I was doing calculations for premiums and cash values

and insurance products. It was before calculators. We did spreadsheets by hand on paper.

There's a joke that no one knows exactly what an actuary does. It used to be I'd have to explain it. Lately, more people know. Since I've been in management for so long, if you asked me now what an actuary is, I'd have to think about it.

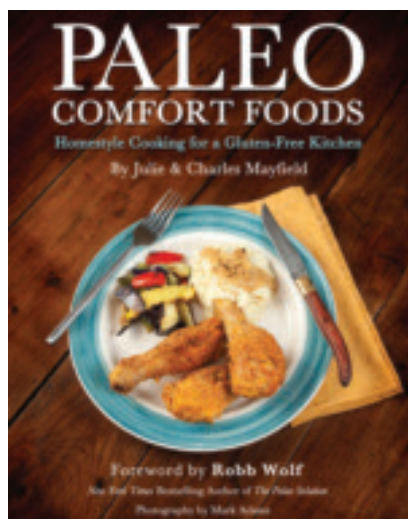
Have you ever struggled with managing people? When things went wrong, I tended to favor the clients. The employees wouldn't know I was upset. I was too soft. I didn't hold them tight enough. I've hired people that are better managers than I am. My wife and my son and two other vice presidents are on our leadership management team.

Why do you place such importance on employees' well being? I had read about the loyalty cycle, that happy employees leads to good customer service and that leads to profits. You have to train people and give them room to grow and develop.

How do you do that? We have a \$150 allowance for any employee that goes to personal development. It's not technical learning. People do art class, exercise or something that'll help them be a better-rounded person.

How does meditation fit into that? In 1990 I was taught transcendental meditation. It's very good for your body, mind and spirit. I became a certified meditation teacher under [Deepak Chopra's] program in 2008. We have taught 18 people here in the office out of 60. I don't push it. We have a quiet room set up for group meditation.

How else do you affect culture? Every year at Christmas I do an Elvis performance. I've been doing it 20 years. I'm just trying to make it fun. ▲



Paleo Comfort Foods

**Charles Mayfield, Mgt 97,
and Julie Mayfield**

The husband-and-wife team of Charles and Julie Mayfield began exploring healthy eating and found inspiration in the Paleolithic period. This cookbook collects more than 100 recipes free of grains, gluten, legumes, dairy and sugar. Though the book has been controversial among nutritionists, it spent more than 100 days on Amazon's top 100 list.

FICTION



Harriett's Walk

Lucia Notaro Matthews, IM 77 Matthews, a psychologist, pens a self-help book in the form of a novel that shows interactions between a client and counselor and teaches readers how to control their feelings and get more from life.



Legions Now Quiet

Drew Case, ME 66 This Civil War novel chronicles the exploits of a Confederate captain as he flees Sherman's troops through Georgia and South Carolina.



Peachtree Corvette Club

Bill Chastain, IM 79 Chastain, who writes for Major League Baseball, revisits the Georgia Tech of his college days in this novel about a student at Tech who finds himself pulled into counterculture's darker side.

NONFICTION



The Lost Secrets of Maya Technology

James O'Kon, CE 61 O'Kon, a professional engineer, analyzes the historical record to reveal the long-lost engineering and scientific accomplishments of the Maya civilization.



Palace in the Fields

Peter Hitt, EE 64 An anecdotal account of Hitt's childhood after his family moved from the suburbs to a tobacco farm.



The People-Profit Connection

Brent Darnell, ME 81 The third edition of this book offers Darnell's unique approach to teaching emotional intelligence skills to technical professionals.



The Stop Online Piracy Act and Protect IP Act, introduced in early 2012, sought to protect content producers, like record labels, from websites that illegally distribute copyrighted works. But the bills failed amid wide protest that they overstepped. We wondered, can you enforce copyright in the internet era? Here, three Tech experts weigh in. Amy Bruckman is an associate professor in the School of Interactive Computing. She researches copyright with Casey Fiesler, a PhD student in human-centered computing. Parag Chordia is an assistant professor who is leaving after the spring semester to become chief scientist of Smule, a music app developer.

Balance Is Crucial

🗣️ Amy Bruckman & Casey Fiesler

Are you allowed to use part of a commercial song in the home movie you post online? How long of a part? What if the video is just intended for your friends and family? What if the song is only playing in the background on the radio? These issues are complex. It's no surprise that ordinary internet users are confused, because in many cases the law is ambiguous and the specific issues have never been litigated. Copyright law was once of interest mostly to corporate copyright owners and intellectual property attorneys. However, today it affects a large number of ordinary internet users—anyone who posts content online.

The appropriation of previously existing content into new creative work is a huge part of today's internet culture, from remix videos on YouTube to image memes circulating on Tumblr. One of the challenges facing copyright owners and policymakers seeking to enforce copyright is how to avoid collateral damage to legitimate fair uses, and they are not always successful. It is easier to send a DMCA takedown notice than to fight one, and the result is a chilling effect for content creators who may not post their work online for fear of getting into trouble.

In our empirical research studying remix artists and online communities of content production, we have found that the following five dimensions are different: what the law is, what people think the law is, what people think is ethical, community norms and what people actually do. Further, social



• L-R: Casey Fiesler and Amy Bruckman

norms tend to vary by medium. What video artists consider ethical fair use is different from writers or graphic artists. By better understanding the beliefs and practices of content creators, we can guide both policy makers and content creators in better balancing the interdependent interests of property and creativity. ▲



Content Will Evolve

🗣️ Parag Chordia

Technology has created a trillion-dollar market for content: books, music, movies, video games, blogs and now apps. For example, there would be no market for music as a product, rather than an ephemeral experience, if it were not for the rise of recording technology in the 20th century. These technologies elevated the economic value of artistic expression, yet at the same time created the incentive and means for unauthorized reproductions.

Copyright laws are meant to balance the incentive to create original work, by protecting the creator's ability to profit from it, while preserving the rights of the public to enjoy and build upon it.

Are current copyright laws effectively preserving this balance in the 21st century? In 2000, just after the

founding of Napster, Nielsen SoundScan estimated that 35,516 albums were produced, while in 2007 there were 79,695. The Recording Industry Association of America estimated that in one year during that period 803 million CDs were sold and 2.1 billion were pirated. In other words, piracy didn't kill creativity. The incentive to create seems stronger than ever, while at the same time billions of people, particularly in the developing world, have been given access that they otherwise would not have had.

What about other media? What would happen to authors if books were largely free? Would they stop writing? I doubt it. The opportunity for your ideas to reach millions of people is a powerful incentive, and it's likely that some would find ways to support themselves, and a few would even get rich.

Books and music are often created by one person, or a small group of people, with relatively little monetary investment. But what about

large-scale movies and video games, which can cost hundreds of millions of dollars and require hundreds of people? What if profits were smaller or distributed to other parties, such as technology companies? Would this change how and what sorts of movies are made? I suspect that small-scale movies will be produced and distributed more cheaply than ever, and that blockbuster movies, because they are primarily consumed in the theater, will continue to thrive. Content will evolve, and history suggests that it will be more diverse and more abundant than ever before.

SOPA and PIPA assumed that current copyright laws were broken and proposed measures that would have suppressed legitimate speech and interfered with the basic openness of the internet. Before we make copyright even more restrictive, let's remember the balance that copyright was supposed to preserve and that has allowed the spread of knowledge and entertainment to billions of people. ▲

🗣️ **What do you think?** Should copyright be strictly enforced online? Or does the internet age call for a new set of laws? Share your opinion at gtalumnimag.com.



✎ Rachael Maddux

The House that Neutra Built

In 2007, Sarah Lorenzen, M Arch 97, associate professor of architecture in the College of Environmental Design at Cal Poly Pomona, moved into and began to restore an old house in Los Angeles. But it wasn't some rickety Southern California bungalow—it was the VDL House, a glass-walled home constructed in 1932 by pre-eminent modernist architect Richard Neutra, where he lived and worked until his death in 1970.



← Lorenzen and her husband and business partner, David Hartwell, now live in the home's Garden House. They tend to the structures and property and raise awareness and funds for its preservation. They even celebrated the house with an interactive iPad app released last year. Lorenzen shared with the *Alumni Magazine* some of the challenges and joys of being the historic house's caretaker and resident.





➔ In addition to repainting, re-plastering and re-caulking parts of the structure, Lorenzen says, “I also had the house rewired to prevent a repeat of the 1963 disaster, when the original VDL house, built in 1932, burned down.”

➔ “Funnily enough, the furniture we already had fit the color and style of the house. The biggest issue is that we have to try to keep the space neat, and given that both David and I work from home this is sometimes difficult.”

➔ Lorenzen is especially intrigued by Neutra’s formal and material language. “What is most interesting about the VDL residences is that, because it was built in three phases—1932, 1939 and 1965—you can see in one place how Neutra’s designs evolved over the course of his career.”

➔ “A lot of what we do is very unglamorous manual labor,” Lorenzen admits. “Still, we do really enjoy living in the space and sharing this experience with our friends and family. There are few things that I enjoy more than sharing a meal and a bottle of wine with friends sitting in the courtyard of the house.”

➔ “As I write this I am sitting in the dining room of the Garden House looking into the courtyard. Dappled light is coming through the Chinese Elm tree and patches of blue sky are visible in a small reflecting pool. These are the kinds of experiences that I hope to reproduce in my own work as an architect.”





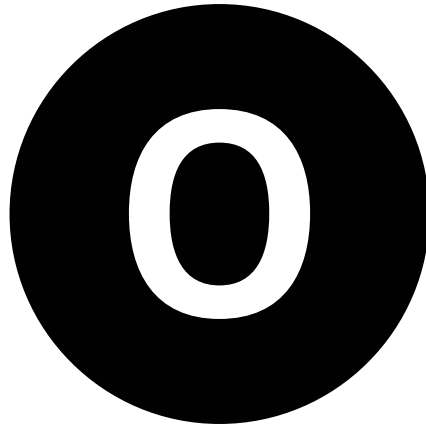
HERE

BY RACHAEL MADDUX
PHOTOGRAPHY BY JOSH MEISTER

COMES

Ajeet Rohatgi and Suniva shine
a light on solar energy

SUN



Once you notice the sound, it's hard to unhear. The low, clicking whirr fills every gap of silence in Ajeet Rohatgi's office. It's the toys, the delicate wood and metal figurines arranged atop one of the professor's sagging bookshelves—an airplane, an oil rig, a windmill. They move as long as the sun shines through his glass-block window.

The toys are simple things, set into motion by palm-sized solar cells, and the process of converting sunlight into electricity seems fairly simple, too: Sunlight hits the cells and is absorbed, then separated by a silicon semiconductor into positive and negative charges, creating a batterylike current of electrons that's shuttled off to power the adjacent contraption. Presto! But Rohatgi, regent's professor of electrical engineering at Georgia Tech, knows firsthand that the bigger picture of photovoltaic energy is far more complex.

Rohatgi is the director of Georgia Tech's University Center of Excellence for Photovoltaics Research and Education—the first-ever such center sponsored by the U.S. government—as well as the founder and chief technical officer of Suniva, a manufacturer of solar cells and modules that spun out of his work at the Institute.

These days, his life is defined by photovoltaic research, and he talks about his lab and his students with an affable, fatherly pride. But his career was once on a much different path. After earning his undergraduate degree in electrical engineering from the Indian Institute of Technology, he received a master's degree in materials engineering from Virginia Polytechnic Institute and then a PhD in metallurgy and materials

science from Lehigh University. It wasn't until he joined the team at the Westinghouse Research and Development Center, where he became a Westinghouse fellow, that his interest in photovoltaic energy surfaced.

"I had the option to work in solar or work in integrated circuits, [but] my heart was in PV because I felt it was just a great technology to work on—if I can do something, I can make a difference," he says, sitting behind a spacious wooden desk in his Van Leer building office. "I got into that, and I stayed in this field because I firmly believe in it, that this can have a very positive impact on so many things—the lives of the people, the environment, national security."

The transformative potential of solar energy is massive, but it's nowhere close to being effectively harnessed. Sunlight is free and present in unlimited quantities all over the globe, and it can't be sequestered or fought over like so many other natural resources. And its source should be hanging around for another five billion years or so. "It's as if somebody created a fusion reactor for you in a safe place, which is far away," Rohatgi says of the sun. "We know solar electricity has no undesirable impact on the environment—you just can't have a better source. It has been designed for us."

Rohatgi says that if he could develop a magic box to catch all the sunlight that shines down upon our planet over the course of just one hour, that would be enough to power human life on earth for one year. Taking a more realistic approach, he's set his sights on producing a solar cell capable of hitting 20 percent—that is, converting 20 percent of the sunlight that falls on the cell surface into usable energy. And in working toward this goal, both at Tech and with Suniva, he is motivated by one mantra: “We will not make high-efficiency cells just for the sake of high efficiency.” The aim is to develop photovoltaic cells that are both maximally efficient and maximally cost-effective, never compromising quality for cost or cost for quality. And that issue of cost is crucial: Solar needs to be competitive with fossil fuel, the current and long-standing energy paradigm, in order to gain any traction in the marketplace.

When Rohatgi started at Westinghouse in 1977, solar was still a fledgling industry. Just a few years before, in 1975, PV energy had been 80 times more expensive than fossil fuel. And in 1985, when he joined the faculty at Tech, there was nothing happening on campus in the way of photovoltaic research. So he decided to build a lab from the ground up—plumbing, equipment, furniture, everything. After years in industry R&D, he was primed to move fast and write aggressive proposals; he recruited students, raised funds and maintained the ever-expanding lab as colleagues gawked at his speed. Sometimes he wondered why he poured so much time and energy into the project when he could just teach his classes and head home at the end of the day. “In some ways you’ve created this elephant that you have to keep feeding,” he says of the lab’s early days. “But if it is done through passion, that’s the main thing.”

His passion is real. Growing up in India, Rohatgi witnessed the impact of electricity—or, more specifically, a lack thereof—on a first-hand basis. In villages and urban centers alike, electric power regularly shuts off for hours at a time. Although most people have figured out ways to work around the outages, Rohatgi knows solar energy would be a massive boon. “In many villages, at nighttime, nobody would work. If you could just put one solar panel on the roof they get three, four hours of electricity,” he says. “I’ve seen villages where there was nothing there, and now they have small industry coming up, just because they got a few additional hours of electricity. It is changing the lives of a lot of people.”

In 1992, Rohatgi’s lab was established as a University Center of Excellence, which required industry engagement in addition to the educational component: companies come to the lab with a problem, and Rohatgi and his students forge a solution. Meanwhile, the lab’s research continued on its steady course to 20 percent; it hit 17, then 18. Rohatgi was feeling good about the progress. But he was baffled when, in 2006, he was approached by NEA, a venture

capital firm that doesn’t exactly make a habit of approaching anyone. The firm wanted to help him start a solar company, to start commercially producing the cells his lab had been working so hard to perfect.

Rohatgi wasn’t sure—he thought he should get to 20 percent before branching out into a business. But the NEA folks said it was the lowest-risk investment they’d ever make: “They said whenever they make investment in companies, sometimes people have never even made a device,” Rohatgi recalls. With 25 years of experience and the world’s best solar panels under his belt, it was easy for the NEA to put their trust in Rohatgi. They told him, “Yes, granted, you’re not at your goal of 20 percent, but ... take our money and get there.”

And so, with NEA’s assistance, Rohatgi set about building the team that would launch Suniva in 2007. First up was John Baumstark, now CEO, who came to the company with two decades’ experience in business development and management. “I had the connections, I had the knowledge, I had the technology, I had the vision, but he had this team and the idea about running a company,” Rohatgi says. “It worked out beautifully. The most unique feature of Suniva, the reason it took off so quickly and so fast, is because of this complement—the business team and the technology.”

These days, Rohatgi splits his time between his lab on Tech’s campus and the Suniva offices in Norcross, Ga., a suburb of Atlanta. The lab and Suniva have separate R&D departments, but they share knowledge and talent—and the company’s close relationship with the Institute isn’t its only distinguishing factor. Suniva has pioneered a number of unique technologies, including ion implantation (long used in making chips, but never before in photovoltaics), which improved the efficiency of their cells by one percent and reduced the total number of steps needed to build a cell by two.

That’s huge, and it reflects Rohatgi’s key approach: to improve the quality and cost of his end-products by improving

“
**I’VE SEEN VILLAGES
WHERE THERE WAS
NOTHING THERE, AND
NOW THEY HAVE SMALL
INDUSTRY COMING UP,
JUST BECAUSE THEY GOT
A FEW ADDITIONAL
HOURS OF ELECTRICITY.
IT IS CHANGING THE
LIVES OF A LOT OF
PEOPLE.**
”

“If you get an opportunity to take something you built ... out in the real world, there’s nothing more exciting.”

the process by which they are created. Suniva works with what he calls “the DNA of the whole value chain,” improving the efficiency and function of every element involved in the solar cell, from raw material to manufacturing processes. “If I make more efficient solar cells I need less material, and if I make more efficient solar cells I need fewer panels to install,” Rohatgi says. And when solar panels are smaller and more efficient, it means more of them could potentially be installed—on the roof of a factory, say, or a private home—maximizing the amount of energy produced.

Rohatgi thinks his products will be able to hit 20 percent soon, and he predicts the price of solar energy is about to match that of fossil fuel. That means solar may finally start catching on in the broader consumer market. (In some states, thanks largely to government subsidies, it already has. Lower manufacturing costs—aided by lower wages, made possible in part by more lax labor laws—mean it’s closer to happening in China than anywhere else, though there are a few big markets across Europe.)

Rohatgi says he can now make a cell in the lab that could yield up to 23 percent—but if he’s learned one thing since starting Suniva, it’s a reverence for manufacturing. The most stunning advancements in the lab hardly matter if you don’t have the means to replicate them in the real world in a scalable, cost-effective way.

As Rohatgi has been guiding Suniva to produce better solar cells, Suniva has been teaching him about running a successful business. The importance of building a solid team was an early lesson.

“You can have the world’s greatest technology, but if you don’t know how to run the business, it would not go anywhere,” he says. “[You need] the full package, from the scientist to the entrepreneur.”

John Baumstark was the first addition to the Suniva team, but the employee roster has since grown to almost 30,

including a number of Rohatgi’s former students and other Tech alumni.

Like Rohatgi, Vijay Yelundur, MSE 97, PhD MSE 03, was impressed by the potential of solar energy at a young age. “When I was around 6 years old, we took a trip to Yellowstone National Park, and I saw someone using a solar cooker. And I became fascinated with the idea of using sunlight to cook food or to produce power,” he remembers.

After wrapping up his undergraduate degree, Yelundur was eyeing grad school and picked the one subject he thought could hold his interest: solar energy. His father ran across an article about Rohatgi’s program in a trade journal and mentioned it to his son, who had no idea there was a solar research group in the basement of Tech’s double-E building. Rohatgi became his thesis adviser, and Yelundur was one of Suniva’s earliest hires, joining the company as a senior engineer. He now serves as manager of the Manufacturing Innovation Center.

Before founding Suniva, Rohatgi says, he was largely divorced from the business side of the solar industry. His education had prepared him for a career in research, sealed off in a lab wrangling samples and hypotheses, so he’s had to play some catch-up. Increasingly, though, his students are suffering no such gap, thanks in part to Institute initiatives like the InVenture Prize, the University-Industry Demonstration Partnership and Enterprise to Empower, all of which foster entrepreneurship as a component of academic research.

“When you don’t know about these things it looks so difficult, but once you know [more, it’s] not that difficult. In fact, once I found out about [the process of starting a business], I was like, ‘Oh, seeing how it’s done, it’s not that complicated,’” Rohatgi says. “There’s a lot of talk about this on campus—that you should train the students from the very start, that it is not very difficult to learn things about business, but that you just have to have a different aptitude. It’s a great thing.”

And, unlike in Yelundur’s day when the PV lab was out of sight and out of mind, the center now occupies a more visible space on campus: the ground floor of the Van Leer building, facing the Tech Green. Rohatgi can take a few steps out of his office and see the 86-kilowatt array of Suniva panels installed on the roof of the state-of-the-art Clough Undergraduate Learning Commons. The panels are set to produce up to 120,000 kWh per year, offsetting more than 80 tons of carbon dioxide. In 1996, just before the Olympic games, Rohatgi and his crew installed what was then the world’s largest solar array on the roof of the Olympic natatorium (now the CRC), but that was different—they were someone else’s panels. He becomes giddy describing what it’s like to see his own work out in the world.

“If you get an opportunity to take something you built ... out in the real world, there’s nothing more exciting,” he says. “It was a thrill for me to see the panels, the cells from my factory being installed ... because if I am doing it [in the lab], that’s nice, but nobody knows. But now when they’re out in the field, it’s a different sense of pride and satisfaction. It’s really, really nice to even have this opportunity that is right in front of my office. It’s very satisfying.” ▲



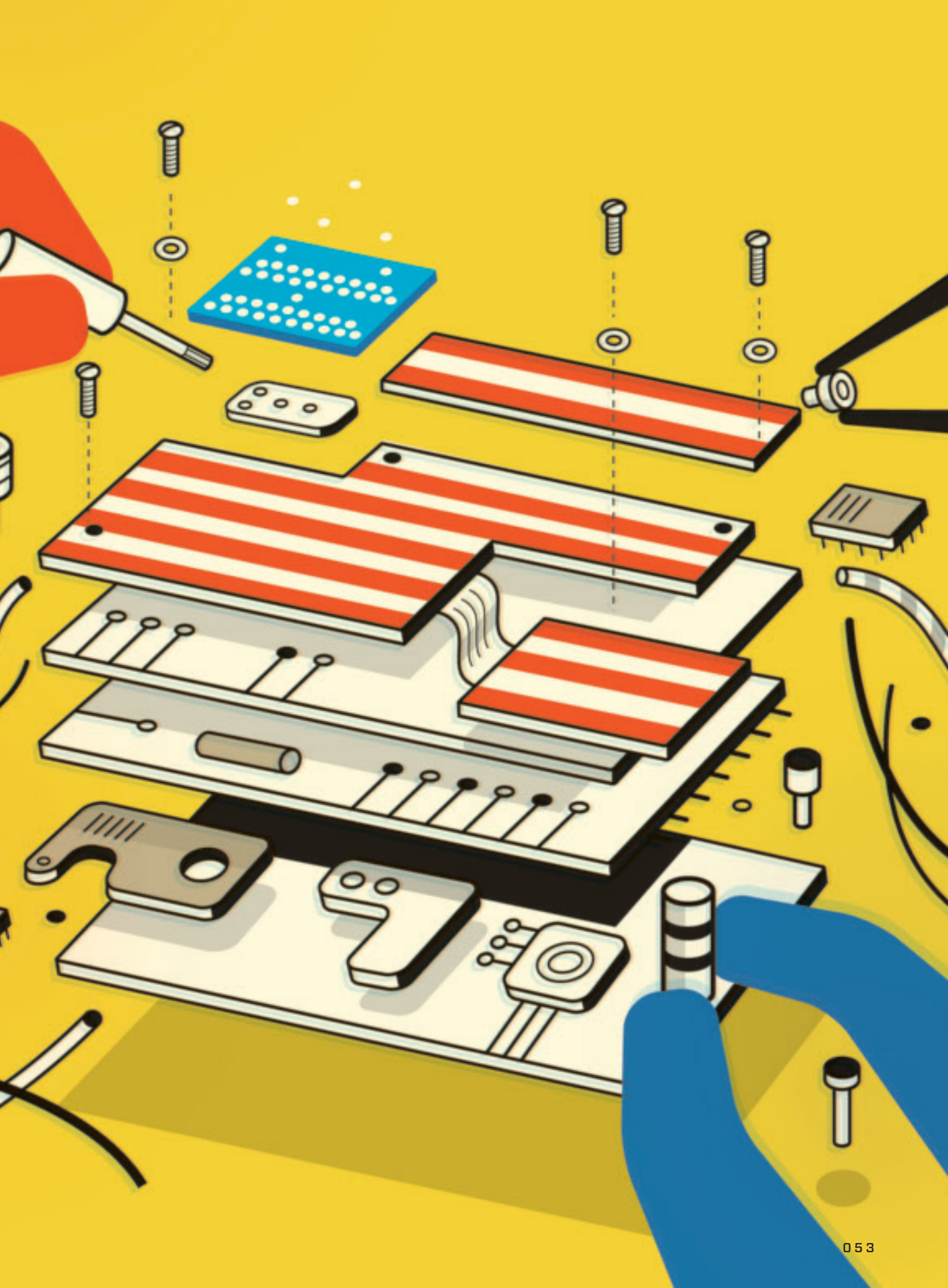
• Ajeet Rohatgi stands among the Suniva solar array atop Clough Commons.



Industrial★ Evolution

**How Georgia Tech
and its Alumni are
Rebuilding American
Manufacturing**

by Ann Hardie ★ illustration by Harry Campbell



IN RECENT YEARS, the future of American manufacturing has seemed as if it was falling apart at the seams. Perhaps it's fitting, then, that the industry's recovery might hinge on such products as **TacTiles**, 3-by-3 inch adhesives that connect modular carpet tiles. These sticky little squares are exactly the kind of high-concept, high-tech innovation that must ramp up dramatically if United States manufacturing—and the country's economy—is truly going to make a comeback.

TacTiles eliminate the need for messy, stinky glue and reduce the impact of carpet installation on the environment. They also move their innovator—Atlanta-based Interface Global, the world's largest modular carpet tile manufacturer—closer to its audacious goal of making zero impact on the environment by 2020.

Interface's founder, Ray Anderson, a 1956 industrial engineering graduate of Georgia Tech who died in August 2011, often was called the "greenest CEO in America." Anderson wore the label proudly and worked with his alma mater throughout his career to build an environmentally friendly and financially successful company. In the 1990s, Anderson became convinced that a "Take-Make-Waste" industrial system simply was not sustainable, especially in a carpet industry that relies heavily on petroleum products.

Today, Interface's commitment to recycled materials and renewable energy has revolutionized the carpet industry.

"Ray's vision for Interface was that we could be successful as a business but do it the right way," said John Wells, IM 84, president and CEO of Interface Americas. "People thought

Ray was crazy—even I thought he was nuts. Turns out he was right."

It's that kind of out-of-the-box thinking that will be needed to restore American manufacturing to its former glory. Factories added 470,000 jobs in the past two years, according to the U.S. Labor Department, the first period of sustained growth since the 1990s. But despite claims that manufacturing is back on its feet, the country lost more than five million manufacturing jobs between 2000 and 2010. Those devastating losses followed decades of decline: Manufacturing employment, which peaked in 1979 at 19.6 million workers, now stands at 11.8 million, a 40 percent plunge.

But more hopeful numbers tell the story of why manufacturing continues to garner so much attention and elicit so much hand-wringing from policymakers, industry and union leaders and institutions like Georgia Tech. Manufacturing jobs pay on average 21 percent more than jobs in private-sector service industries. Every job on the factory floor creates an average of five more jobs along the supply chain—even more when you consider the employees of the restaurants,

gas stations, banks and grocery stores that serve those factory workers and their families. "When Georgia loses a factory that has 100 workers, it loses a lot more than 100 jobs," said Georgia Tech President G. P. "Bud" Peterson.

Although China now vies with the United States as the world's top manufacturer, America still produced \$1.7 trillion worth of goods in 2010. The lion's share of American exports are from the manufacturing sector; aerospace, chemicals, machinery and medical equipment are key areas. Manufacturing employs two-thirds of the country's scientists and engineers, and 90 percent of U.S. patents are awarded to manufacturing companies.

At Georgia Tech, which was founded in 1885 to build an industrial base in the South and always has had a symbiotic relationship with manufacturing, no one is ready to cede the country's dominance in the industry. Over the past 127 years, Tech and its alumni have driven innovation in areas such as telecommunications, biotechnology, robotics and, of course, carpeting.

Now the Institute is focused squarely on the future and building the manufacturing sector of tomorrow. How will they do it?



President G. P. "Bud" Peterson has focused the Institute on advanced manufacturing.

design and build wind-turbine blades, mobile robots and electric car bodies.

IMPROVE MANUFACTURING'S IMAGE

In June 2011, President Barack Obama named President Peterson to the steering committee of his new Advanced Manufacturing Partnership, a coalition of industry, university and federal government leaders tasked with focusing on key emerging technologies—including biotechnology and nanotechnology—as well as helping U.S. manufacturers reduce costs, improve quality and accelerate product development.

The steering committee, which released its recommendations this spring, stressed the need to improve manufacturing's image. "Twenty-five years ago, people had an impression of manufacturing as dumb, dirty and declining," Peterson said. "That is certainly not an accurate description today."

Nevertheless, younger workers are avoiding careers in manufacturing, many because of concerns about job security. Although more than eight in 10 Americans believe that manufacturing is vital to the country's economic prosperity and that the United States should invest more in the sector, only one-third want their children to go into manufacturing, according to a new report by the Washington, D.C.-based Manufacturing Institute and Deloitte Consulting.

Manufacturing's image problem, combined with the aging baby boomer generation, is leading to a dearth of skilled workers needed to operate and maintain increasingly high-tech equipment. Manufacturers expect machinists, operators, craft workers, distributors and technicians to be hardest hit by retirements in the upcoming years, the Manufacturing

Institute reported. At the same time, companies expect the jobs that require the greatest skill to be the hardest to fill.

To boost the workforce, Tech is linking job openings with training programs at technical and community colleges. The Institute also is working to energize high school students about manufacturing. With a grant from the U.S. Defense Advanced Research Projects Agency, Tech is offering programs teaching students to use the latest technologies by having them

ZERO IN ON CUTTING-EDGE TECHNOLOGY

"We are not spending a lot of time on manufacturing traditional products using traditional methods," Peterson said. "The sweet spot for us is in manufacturing advanced products using advanced methodologies."

The center of that sweet spot could be the field of regenerative medicine and biomedical devices, said Barbara Boyan, the Price Gilbert Jr. Chair in Tissue Engineering in the Wallace H. Coulter Department of Biomedical Engineering at Tech and Emory University. A Georgia Research Alliance Eminent Scholar, Boyan also serves as the College of Engineering's associate dean for research and innovation and executive director of the Translational Research Institute for Biomedical Engineering and Science. In February, she was elected to the prestigious National Academy of Engineering.

Regenerative medicine—which involves replacing or regrowing human cells, tissues or organs—holds great promise for advanced manufacturing. Boyan is probably best recognized for her work on how bone and cartilage cells respond to steroid hormones and interact with biomaterials found in medical devices. Her research could lead to important therapies, particularly for older women at risk for osteoporosis.

But as Boyan is quick to point out, getting a great idea to market in the regenerative medicine field can be a long-range proposition.

The cell business, for example, is not an assembly line that yields one product at a time using a supply chain approach. Though companies try to identify a cell type that can be grown in large quantities and processed in a batch, and the very nature of cells poses great challenges.

"They have to be stored in very specific ways, and there is a certain amount of loss that happens during the storage process that can't be avoided," she said. And then there's the complication of how people feel about genetic tissue. "Many people want cells from themselves or from the umbilical cord when they were first born."

These collective challenges make the manufacturing of biomedical products difficult. "We don't yet have a cadre of people who know how to manufacture in this particular sphere—we are creating them from scratch," Boyan said.

In 2010, the National Science Foundation's Integrative Graduate Education and Research Traineeship program awarded Tech \$3 million to educate and train what would be

the first generation of PhD students in engineering and science to develop stem cell technologies for diagnostic and therapeutic commercial applications.

"In our field, advanced technologies are really interesting in a scientific sense," Boyan said. "But transferring the knowledge to usable products is very, very difficult to do. We feel very strongly that these processes need to be developed in an engineering/academic context to have a real business in the next 10 years."



• The MaRC is Tech's manufacturing hub.

PARTNER WITH INDUSTRY

Georgia Tech's multi-disciplinary Manufacturing Research Center (MaRC) long has been a leader in traditional manufacturing, the realm of industries like automobiles and metal cutting. The center is funded primarily by the industry it supports. A key sponsor is Boeing, which selected Tech in 2008 as a strategic university partner and soon began collaborating on new manufacturing technologies for the next generation of aerospace products, including aircraft that is more energy efficient, safe and comfortable.

On any given day, MaRC's 120,000-square-foot red brick building on Ferst Drive buzzes with activity. Researchers at the Photovoltaic Manufacturing Lab study ways to reduce the cost of solar-cell manufacturing while those at the Direct Digital Manufacturing Laboratory look for new technologies to

process titanium and composites for use in biotechnology and aerospace.

Ben Wang, MaRC's new executive director and Tech's chief manufacturing officer, envisions MaRC as the focal point for what he calls the "Big M" community—a national consortium of researchers, students, industry leaders and policymakers who address manufacturing processes, supply chain integration, workforce development, industrial policy and everything in between.

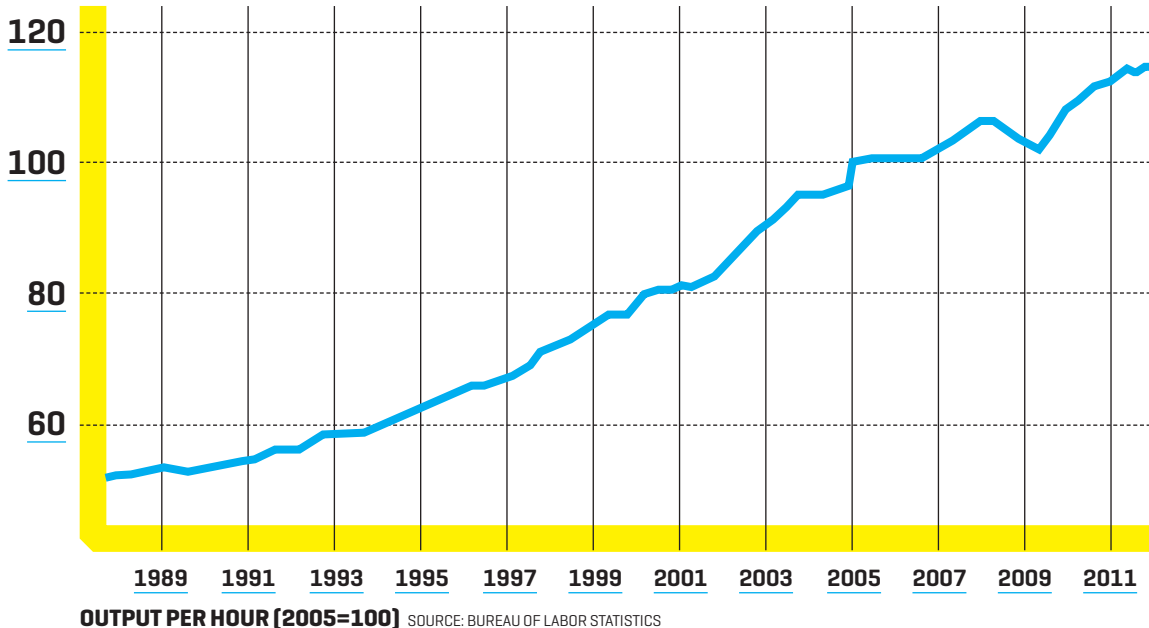
"We want MaRC to be the thought leader in innovation-driven manufacturing," said Wang, who arrived at Georgia Tech in January after serving as director of the High-Performance Materials Institute at Florida State University.

The Big M community will bridge what Wang calls the "valley of death" of product development: the area between scientific research, which universities are good at, and the marketplace, where companies thrive. MaRC will establish a series of unique collaborative laboratories and scale-up to a level where companies can introduce new products quickly.

The success of Big M manufacturing may hinge upon nanomaterials. They're so small you have to use a high-powered, electron microscope to see them, but they have exceptional strength and high electrical conductivity. Nanomaterials hold the key to building ultra-lightweight cars, planes and sporting goods. "The lighter a product, the more energy efficient," Wang said. "We know that energy is going to be the chokepoint for the economy in the future."

One of Wang's current research projects employs nanomaterials to create a better, more comfortable socket to hold a prosthetic limb. "In terms of predicting tangible products in the future, we really need to use technology to help people improve the quality of life," he said. "The whole country is getting older and older."

WHILE U.S. MANUFACTURING PRODUCTIVITY HAS RISEN...



DON'T FEAR THE ROBOTS

At Tech's Center for Robotics and Intelligent Machines, director Henrik Christensen also is thinking about America's aging population, but he's focusing on older factory workers and how robots—often villified as job eaters—can help them.

Though the United States gave birth to the robotics industry, it lags behind a number of countries in fully embracing its importance.

An element of President Obama's Advanced Manufacturing Partnership is the National Robotics Initiative. Christensen, Georgia Tech's KUKA chair of robotics, serves as an academic and research leader of the initiative, which is geared toward developing robots that could create jobs for the American workforce.

"Unless the technology makes sense from a societal point of view, which is also making sure we keep jobs, then it is not technology we should be investing in," Christensen said.

At the Center for Robotics, researchers are looking for ways that robots can help autoworkers combat the atrophy of strength that comes with age. The idea is that human beings do the more complex tasks while robots provide the brawn. Robots also can be used in dangerous jobs that otherwise might lead to injuries, or monotonous ones that usually lead to high employee turnover.

"You have a dumb robot that can do the heavy lifting and the smart [human] worker who can install the wiring," Christensen said. "The future of American manufacturing is going to be about how we empower the factory worker in their daily life."

The future of American manufacturing also is about boosting productivity, as dictated by simple math. For

manufacturing jobs to make a comeback in the United States, American workers who earn five times as much as those in China or India have to produce five times as much, Christensen said.

"There is no way we can compete with low-salary countries unless we use technology to empower our workers to be [equally] productive," he said. "There are some jobs that are going to be eliminated. But they are going to be replaced by other jobs that hopefully will give workers a higher degree of job satisfaction."

The Center for Robotics partners with companies, including automakers BMW, General Motors and Toyota, to increase productivity. The center also is working with Boeing to cut the time it takes to manufacture the 737 aircraft.

"If you order a 737 today, you are going to get it in 2018," Christensen said. "Let's assume there's a revolution in fuel technology [between now and then]. Boeing wouldn't be able to accommodate their customers."

Boeing wants to cut the wait time in half, doubling the number of airplanes it can make. To help, the center is automating some time-consuming and tedious inspection tasks, such as ensuring all screws are in place. And that doesn't steal a job from a human inspector—it makes his job better.

"Before, you had a guy who was doing something really boring," Christensen explains, "and we gave him an instrument that made it less boring and helped him do it faster."



• Henrik Christensen's robots aim to aid workers, not displace them.

BRING JOBS BACK

TacTiles have made laying carpet tile so easy that "floating floors" are expanding from corporate boardrooms to do-it-yourself playrooms as Interface opens their FLOR stores in trendy neighborhoods across the country to capture the residential market.

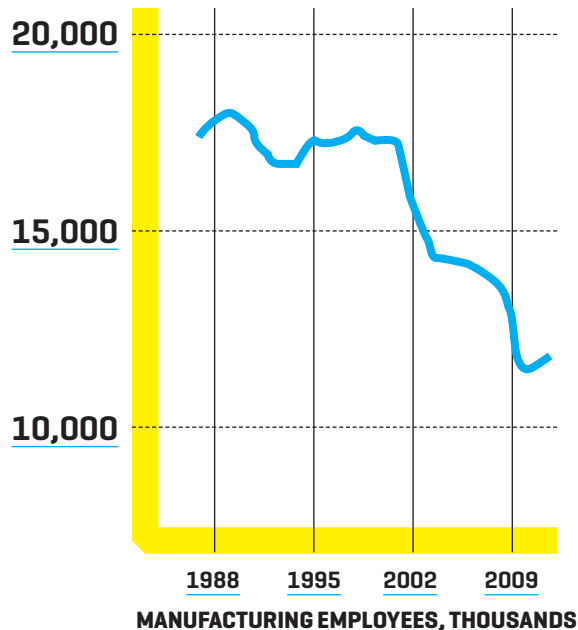
Working with Tech's Center for Robotics and Intelligent Machines, the company is now experimenting with installing a radio-frequency identification device, or RFID, on TacTiles. The adhesive squares could be applied in a number of settings, like keeping track of equipment or patients in hospitals, revealing product preferences of retail shoppers or regulating HVAC and computer systems in office buildings.

Interface may prove to be ahead of the curve in another way, too: Its carpet tiles are all manufactured right here in the United States. While many corporations have gone offshore, rising costs of oil and overseas labor have affirmed Interface's choice to remain stateside.

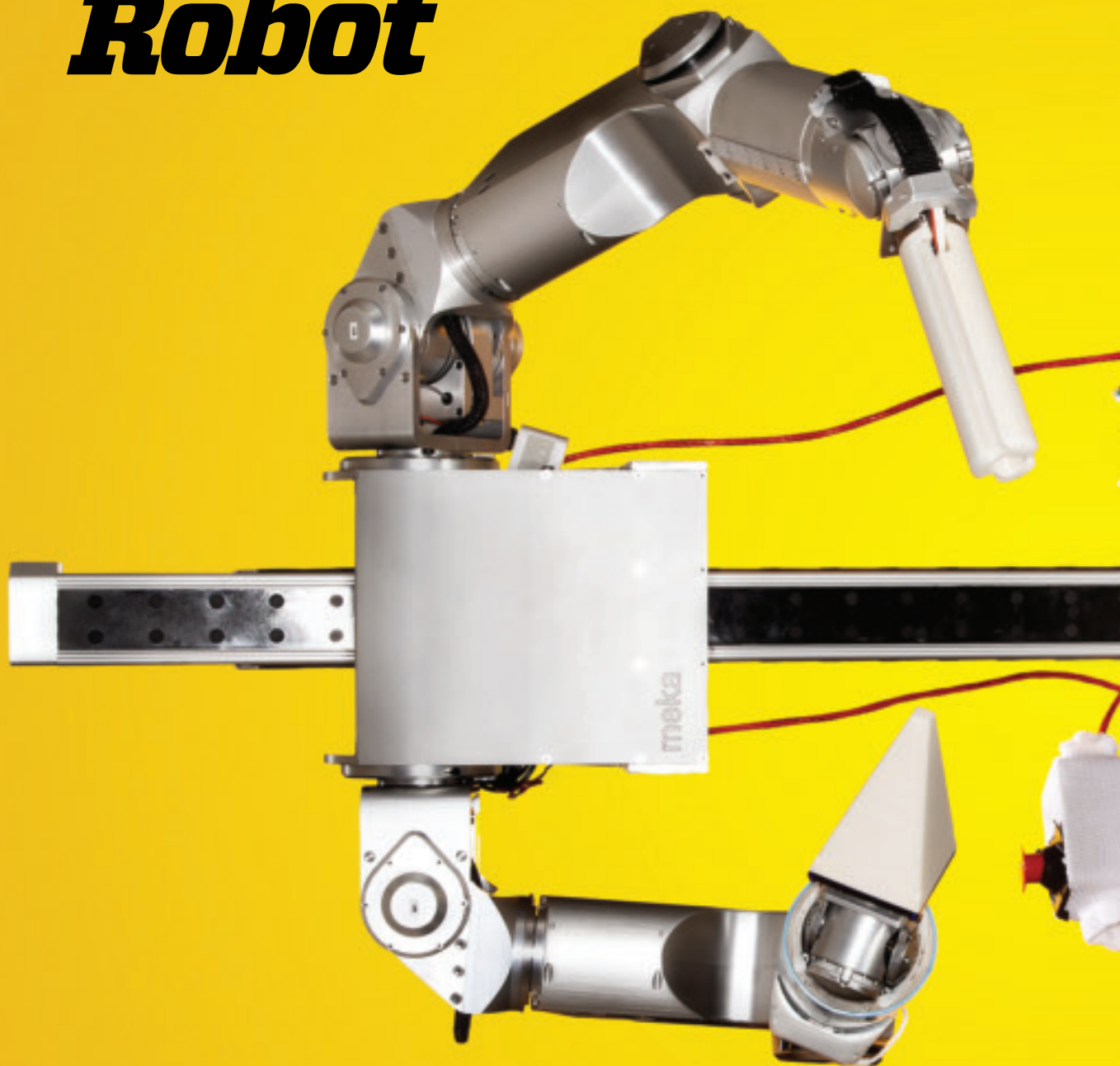
"A lot of companies and industries sent their manufacturing overseas chasing cheap labor," Wells said. "I think that is also highly unsustainable."

The big wager placed by Georgia Tech is that other companies will soon become convinced that a new dawn is rising on American manufacturing. With the resources of the Institute trained on that goal, we wouldn't bet against it. ▲

...EMPLOYMENT HAS PLUMMETED



Hi, Robot

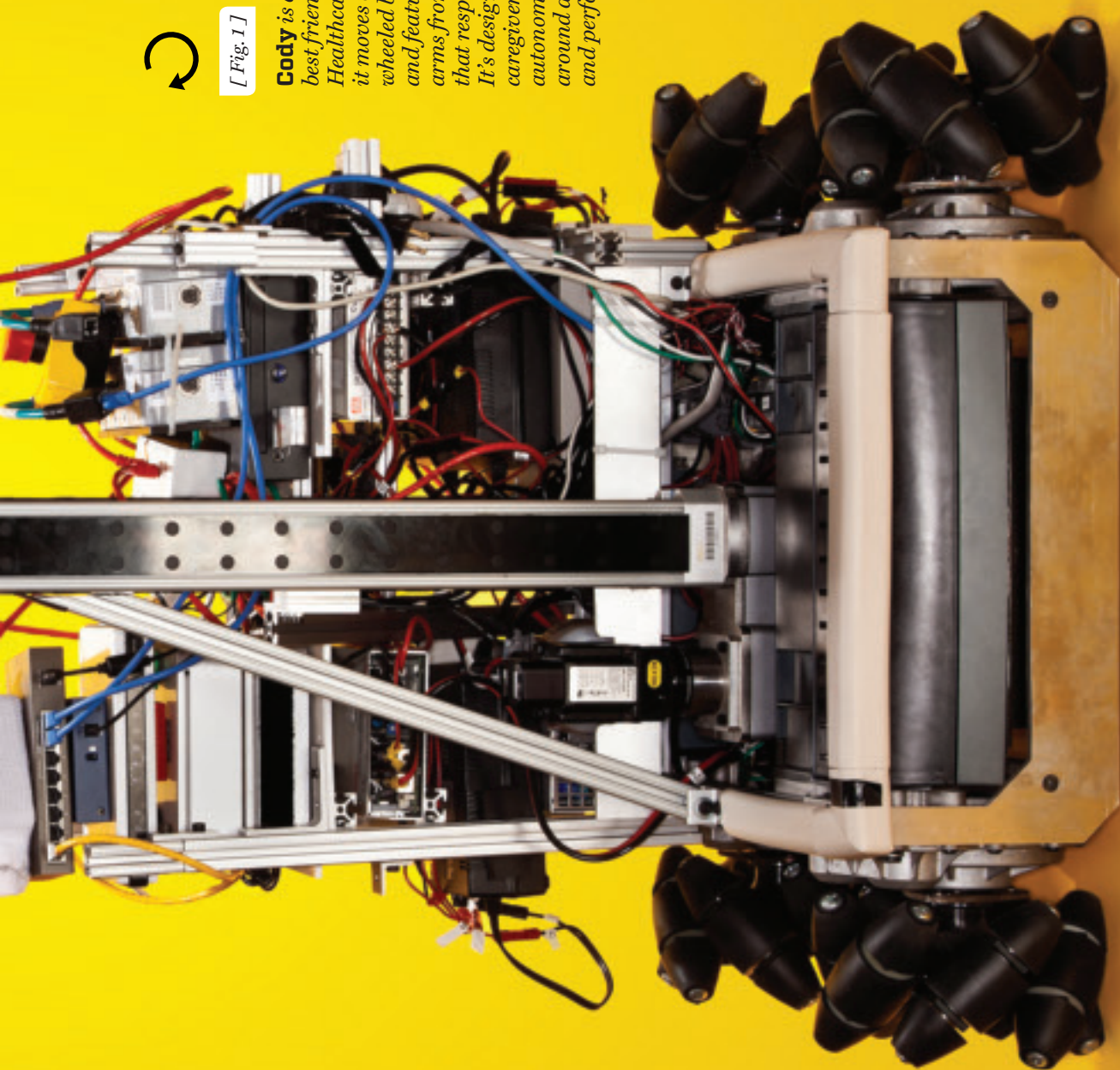


Spend much time around the Georgia Tech campus and you'll realize the place is a robot haven. Autonomous drones whirl through the air, robotic arms dance around labs, humanoid creations trundle through offices. When computational media major Eric Hamilton, one of our student assistants, heard we were featuring robots in this issue, he shrugged. He kept a robot in his dorm room for a while. No big deal.



[Fig. 1]

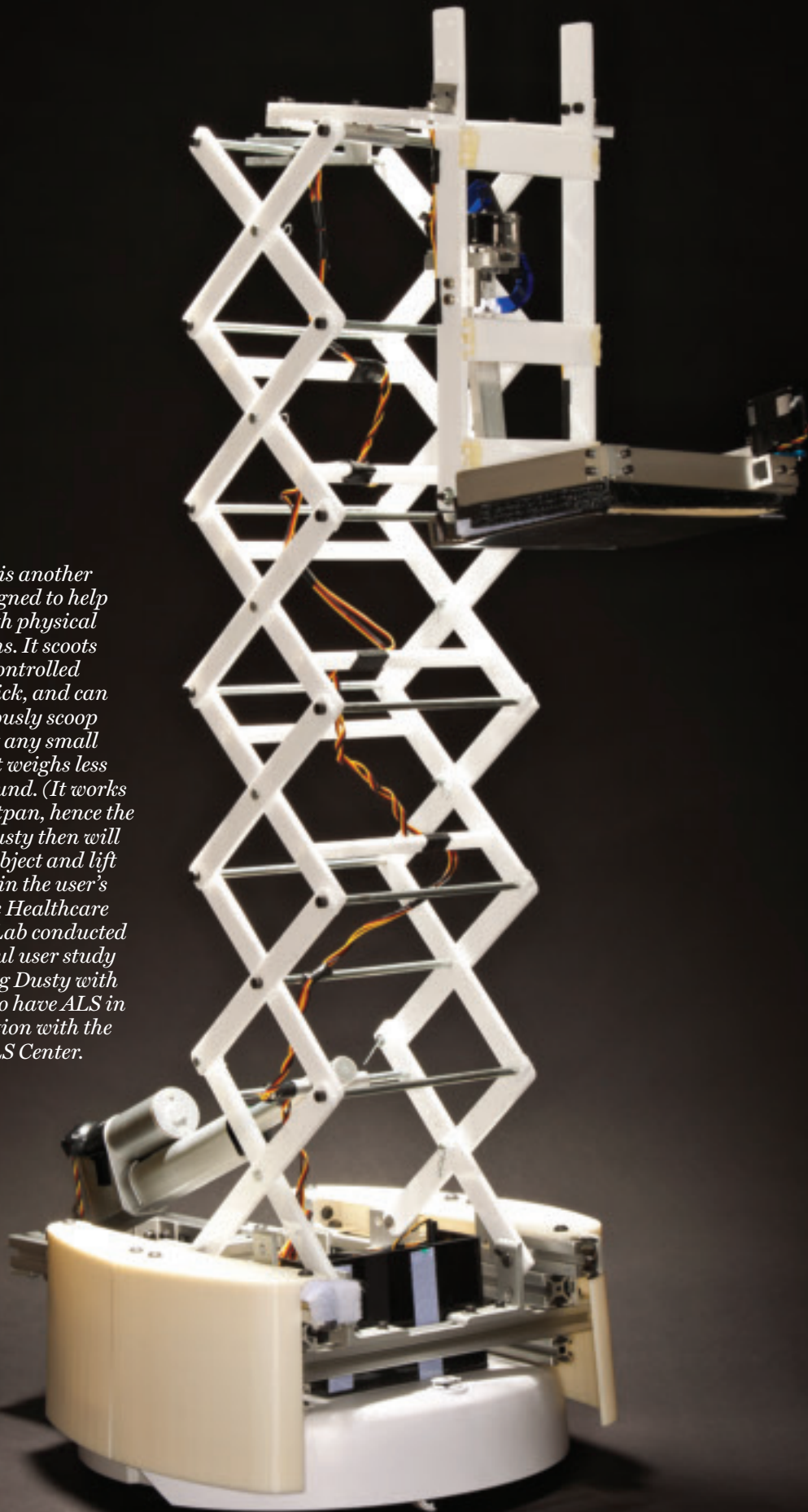
Cody is a human's best friend. Built in the Healthcare Robotics Lab, it moves around on a small, wheeled base from Segway and features human-like arms from Meka Robotics that respond to the touch. It's designed to work with caregivers, or other humans, autonomously navigating around a hospital or home and performing helpful tasks.

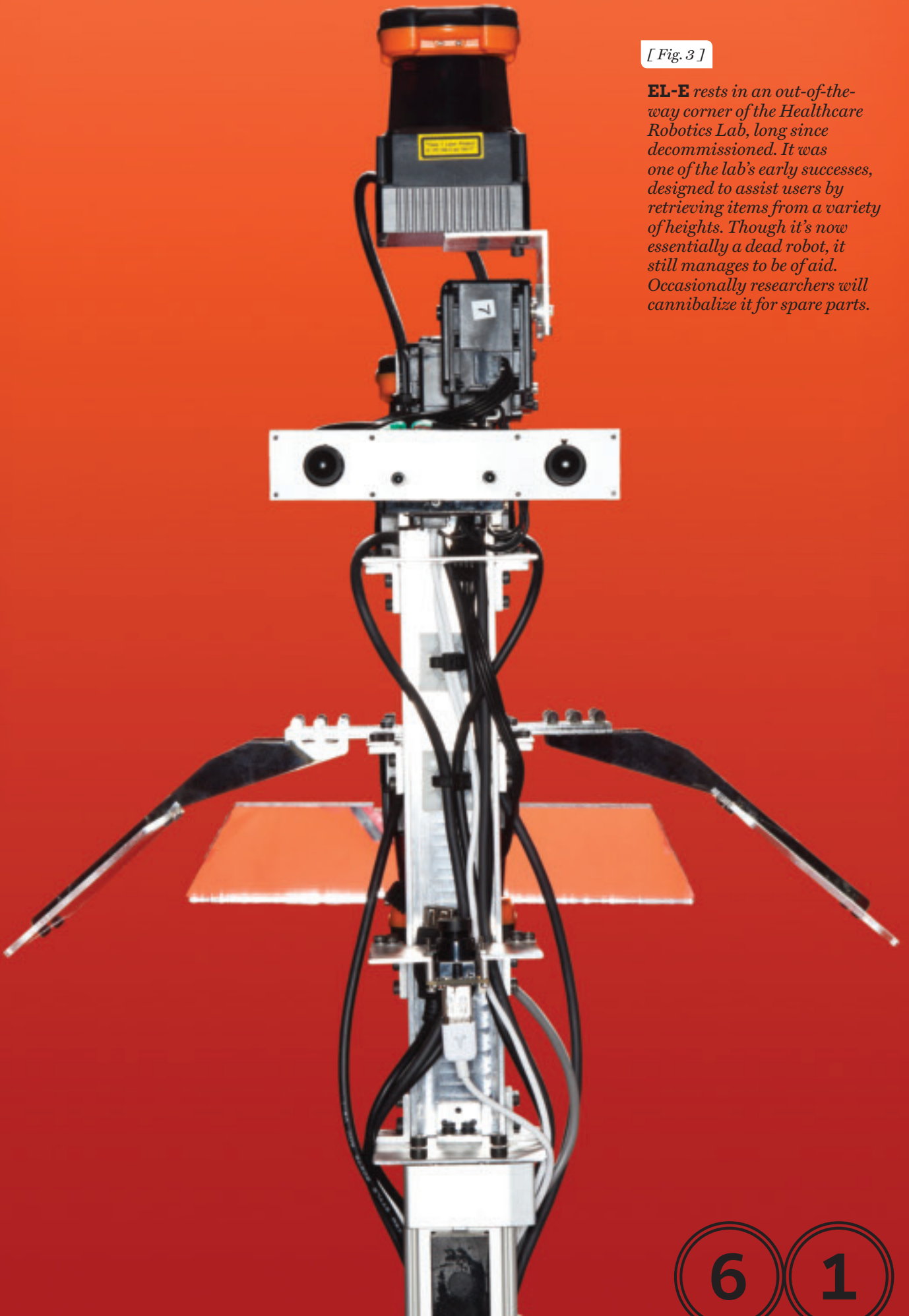


When the Online Universities website recently published a list of “20 Colleges with Really Cool Robots,” Tech was prominent on the list. “We may one day look back on Georgia Tech as the place our war with robots started,” the listing joked. But Tech’s many robots aren’t threatening. They’re playing a critical role in helping the Institute’s researchers and students create the health care, manufacturing and defense technologies of the future. Here, we introduce you to just a few of the robots that are building the world of tomorrow. Find yourself smiling at these guys’ oddly human faces? Just go with it. ***Resistance is futile.***

[Fig. 2]

Dusty II is another robot designed to help people with physical limitations. It scoots around, controlled by a joystick, and can autonomously scoop up almost any small object that weighs less than a pound. (It works like a dustpan, hence the name.) Dusty then will ferry the object and lift it up within the user's reach. The Healthcare Robotics Lab conducted a successful user study partnering Dusty with people who have ALS in collaboration with the Emory ALS Center.





[Fig. 3]

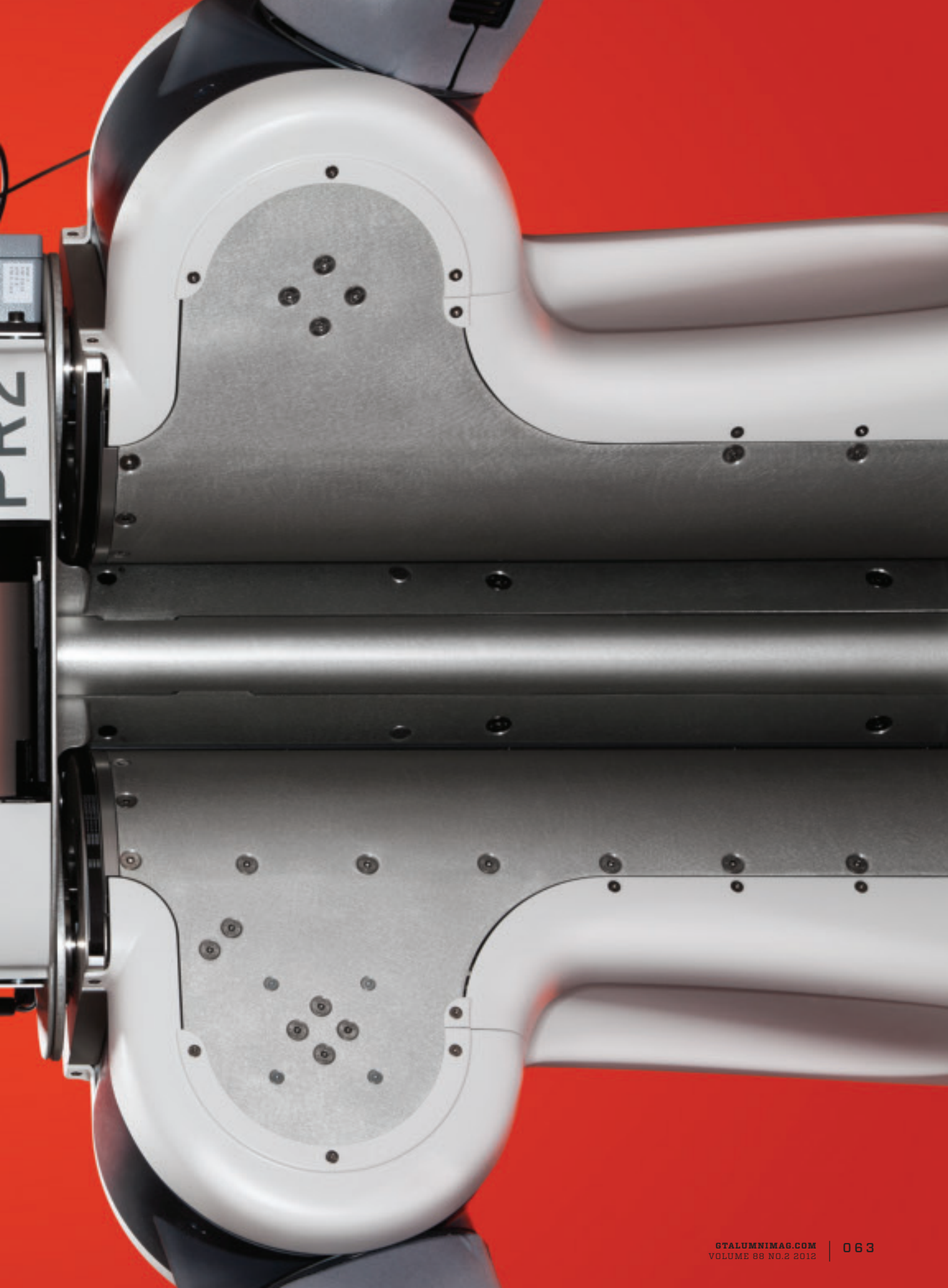
EL-E rests in an out-of-the-way corner of the Healthcare Robotics Lab, long since decommissioned. It was one of the lab's early successes, designed to assist users by retrieving items from a variety of heights. Though it's now essentially a dead robot, it still manages to be of aid. Occasionally researchers will cannibalize it for spare parts.



[Fig. 4]

MONTY might look like a futuristic mini-fridge, but it's one of the most advanced robots at Tech. It's a PR2 robot designed by the private builder Willow Garage and modified by the Healthcare Robotics Lab (that's an Xbox Kinect mounted to its head). Researchers have taught PR2 robots to care for a quadriplegic man, even shaving his cheek.





PR2

[Fig. 5]

Travis might be the world's most compact DJ. It plugs into an Android phone and uses the device's sensing and music-generation abilities to listen to rhythms and respond with similar music pulled from the phone's music library. It also dances and shines lights to the tempo. Unfortunately, Travis' creators in the Center for Music Technology aren't making it available for wedding receptions.

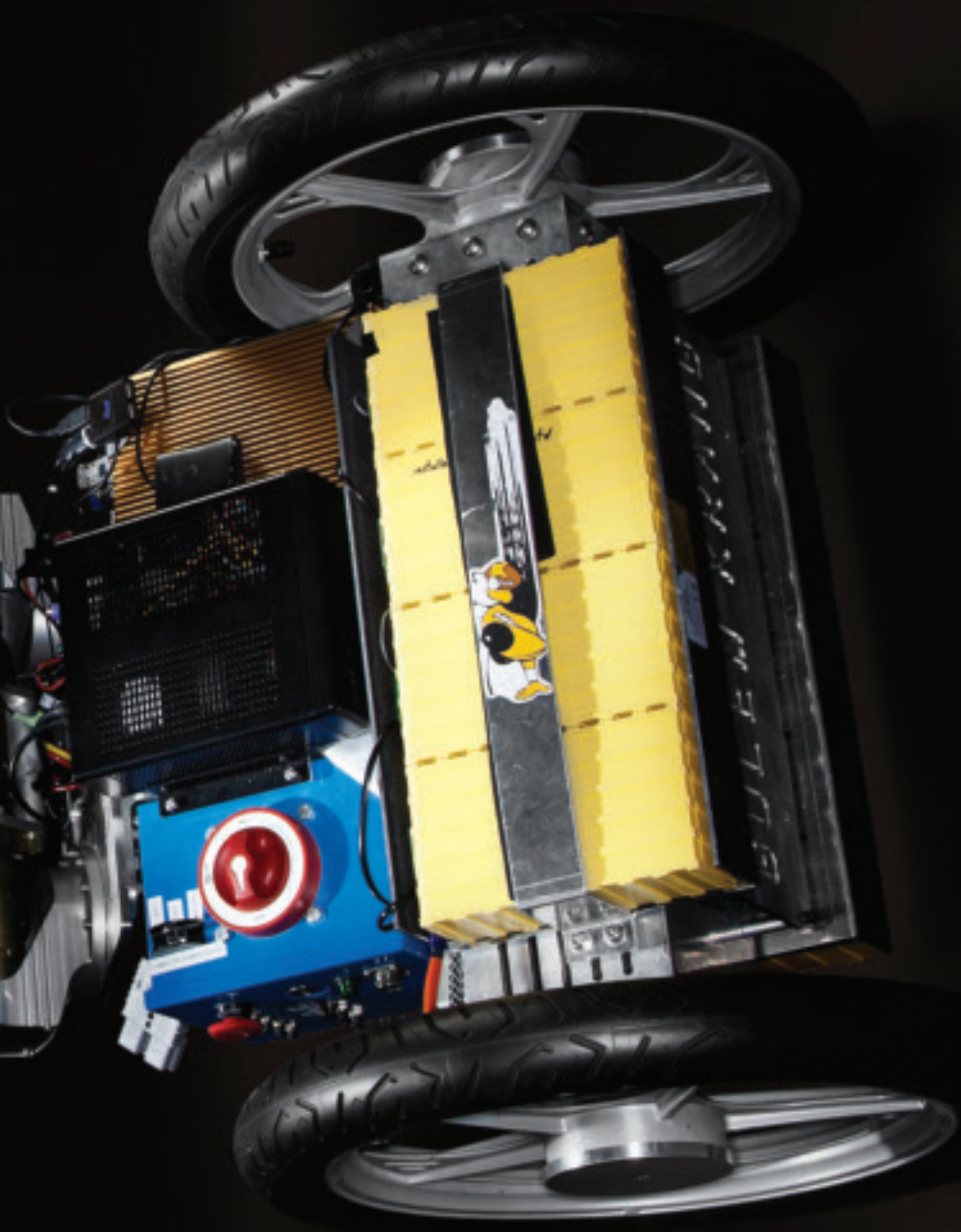




[Fig. 6]

Haile isn't remarkable just because it plays drums. It's remarkable because it can listen to human players, analyze their performance in real time and then launch into improvisational drumming right along with the humans. Designed in the Center for Music Technology, Haile has performed pieces composed specifically for it with drummers from around the world.





[Fig. 7]

Golem Krang might be the most intimidating of Tech's robots, tall as a grown man and with a large two-wheeled base and massive arms that, its creators in the Humanoid Robotics Lab boast, weigh more than 100 pounds. It features a unique joint that replicates the human waist, making it essentially an android affixed to a Segway. That thought could fill you with awe or fear, depending on how much time has passed since you last watched Terminator.



[Fig. 8]

VIC-E is a modified Turtle-Bot (also created by Willow Garage) that can build a 3-D map of a home and whir about, carrying water and medication. It's currently housed at Tech's Aware Home, where a smart-phone app is being tested to control it. We're told the name stands for Very Intelligent Computer-based Entity, though we think it's secretly a reference to V.I.C.I. from Small Wonder.



[Fig. 9]

Shimon might be the most famous of Tech's robots. It starred in the public service announcement that appeared during Tech's televised sporting events during the past couple of years and has given performances in Munich, Washington, D.C., San Francisco and Seattle. The marimba virtuoso (created in the Center for Music Technology) uses computational models of human perception to generate unique algorithmic responses, which is the fancy way of saying it's a heck of a lot of fun to jam with.



alumni house



Buzz lunges for a photo finish at Pi Mile 2012. A record 1,400 people ran the race on its 40th Anniversary.



Alumni Pay it Forward With Scholarships

Van Jensen

As a student at Georgia Tech, Jimmy Loyd, CE 63, MS CE 66, relied on summer jobs and funds from his family to pay for tuition. And when he returned to Tech for a master's degree, Loyd scraped through financially with a work scholarship and help from his wife, Fannie Mae, who worked as a teacher.

Loyd knew that his education was thanks in large part to the benevolence of others. In the decades after his time at the Institute, Loyd joined the Chattanooga, Tenn., Alumni Network and started an annual golf tournament that greatly increased fundraising for scholarships allowing local students to attend Tech.

Loyd, who enjoyed a successful career in construction, died in 2006. His family worked with the Chattanooga Network to raise an endowment that, starting this year, will annually award a Tech scholarship to a student from the Chattanooga area.

"Jimmy had so many friends, work colleagues and subcontractors, and he involved them all in our scholarship golf tournament," said Earl Burton, the current president of the Chattanooga Network. "Jimmy had a special personality and could instill enthusiasm and passion into people."

The Loyd endowment is just one of the many efforts Georgia Tech networks and affinity groups have made to aid Tech students with scholarships. This academic year, students at Tech received \$237,585 from 68 networks and groups.

The Black Alumni Organization has raised significant funding through an endowment commemorating the 50th anniversary of the desegregation of Tech.

GTBAO also has begun working with the Office of Undergraduate Admission to deliver 18 provost scholarship letters to top out-of-state students to encourage them to enroll at Tech.

In March, the West Lanier, Ga.,

Alumni Network presented a check for \$26,700 to the Alumni Association to use for student scholarships.

The network holds an annual golf tournament and sells signed photos of former Braves manager Bobby Cox to raise funds for scholarships.

Efforts are underway among several networks and groups to establish endowments that will allow them to offer scholarships every year, similar to the model established with the Jimmy Loyd endowment.

"The Chattanooga Network is a model for what can be accomplished when a network works together toward establishing an endowed scholarship," said Jane Stoner, the Alumni Association's senior manager of networks.

"Jimmy would be so proud of this endowment. He was one of our most dedicated alums."

For Loyd, raising money for



scholarships wasn't simply something he wanted to do. It was necessary.

"He would be thrilled to know that many others' educational dreams will be accomplished in his name," Burton said. ▲

Interested in contributing to a scholarship? Contact Jane Stoner, senior manager of networks, at (404) 385-2216 or jane.stoner@alumni.gatech.edu, or Debra Thompson, senior manager of affinity groups, at (404) 894-0779 or debra.thompson@alumni.gatech.edu. To find out more about networks and affinity groups, visit gtalumni.org/networksandgroups.



Yellow Jackets Swarm to LinkedIn

📞 Len Contardo

The official Alumni Association LinkedIn group recently surpassed 20,000 members. It has become a vibrant web-based alumni community. And with so many alumni involved, it's easier than ever to connect with other Tech grads living or working around the world.



• An alumnus networks with an employer at the 2012 alumni career fair.

The group includes alumni who are employed with multinational corporations, domestic companies, startup entrepreneurial ventures and sole-proprietorships. Whether you want to network with an architect or work as a zoologist, our LinkedIn group is a great resource.

How to use it?

All alumni can join in three quick steps. First, create a LinkedIn profile at linkedin.com. Second, join the official GTAA group at <http://bit.ly/zlgrQ6>.

Finally, use the search function to find former classmates and colleagues as well as alumni working with companies and industries of interest.

Here are a few tips to make LinkedIn more effective:

- *Be professional in all communications. Even if career advancement is your goal, don't just ask for a job. Focus on building rapport online and offline.*
- *Post an appropriate photo in your profile.*
- *Update your profile often with your latest training, skills, achievements and more.*
- *Join other LinkedIn groups to share your expertise with others.*
- *Post a topic to the discussion board, keeping in mind that discussions are public and should be focused on career development.*
- *Poll members to find their opinion about career ideas, job search techniques and more.*
- *Follow blog.linkedin.com to learn about new features*

Why does joining the official Georgia Tech group matter? All participants have been verified as Tech alumni, students or current faculty and administration members. Rest assured, you are among friends. ▲

Made a great networking contact via our LinkedIn group? Found a new job? Identified an industry expert? Share your story with us at publications@gtalumni.org. Find more career advice at gtalumni.org/career.



SAVE THE DATE FOR HOMECOMING 2012

Make sure to update your calendar: Homecoming will be Oct. 25-27 and will feature a full slate of fun for Tech alumni and friends.

The classes of 1987, 1972 and 1962 will celebrate their 25th, 40th and 50th reunions with parties on Friday, Oct. 26, offering a perfect opportunity to reconnect with classmates.

There will also be an Old Gold Society reunion, an update from President G. P. "Bud" Peterson and a Ramblin' Wreck Rally Tailgate on Tech Tower Lawn. And there's the football game, of course, as the Yellow Jackets look to swarm the Cougars of BYU.

Want to know more about Homecoming? A complete schedule is online at gthomecoming.gatech.edu. Registration opens this summer.

Second Greek Challenge Revving Up

Thousands of dollars are up for grabs in the second annual Roll Call Greek Alumni Challenge, which pits fraternity and sorority chapters against each other in a contest to raise funds for Roll Call, Tech's annual fund.

The three fraternities and three sororities in each league with the highest percentage of alumni participation in this year's 65th Roll Call will earn cash awards from the Alumni Association. In each league, the first-place finisher receives \$3,000, the second-place finisher gets \$2,000 and the third-place finisher gets \$1,000.

The awards go to support each Greek organization's on-campus chapter. Roll Call gifts provide unrestricted funding to support Tech's academic mission.

Because the contest is based on participation, every gift counts, regardless of the amount. If you've already given, spread the word to your fellow alumni to help your chapter win.

Want to help your organization win the challenge? Make a gift to Roll Call at gtalumni.org/rollcall. The 65th Roll Call ends June 30. For more information on the Greek Alumni Challenge, visit gtalumni.org/greekchallenge.



*Something New
Something Old
Something Borrowed
Something Gold*

Celebrate the day you'll always remember in the place you'll never forget






Georgia Tech Hotel and Conference Center

404-838-2060
800 Spring Street NW,
Atlanta, GA 30308
gatechhotel.com



The Alumni travel program takes Yellow Jackets to exciting locales around the globe. Here, we explore a recent trip and several on tap.

Safari Offers Peace (And a Few Eye-bulging Sights)



A recent trip to Africa offered some Tech alumni and friends an up-close look at lions, zebras, elephants and other exotic animals, as well as a chance to relax in the continent's "subtle heartbeat." Two tour members offer their reflections on a trip that won't be forgotten.

Africa

TRIP ITINERARY

- 1 NGORONGORO CONSERVATION AREA, SERENGETI NATIONAL PARK AND TARANGIRE NATIONAL PARK:** Wildlife tour.
- 2 AMBOSELI NATIONAL PARK, KENYA:** Wildlife tour and viewing of nearby Mt. Kilimanjaro.
- 3 LAKE NAIVASHA:** Wildlife tour.
- 4 MASAI MARA GAME RESERVE:** Wildlife tour and stay at Grand Sopa Lodge.
- 5 NAIROBI, KENYA:** Tour of city and return flight.



Bob Hart, ME 61

We came to the Masai Mara Game Reserve and the affiliated Grand Sopa Lodge on the 10th day of our trip



and went the next morning on our daily game safari. We drove about 10 miles on very rough roads and were headed east on a fairly straight section when we slowed. A large herd of elephants was coming

toward us diagonally on our left at a fairly high-speed ramble.

Our guide, Ken, sped up and about 85 elephants crossed the road 20 yards behind us as we stood up through the observation opening of the Land Cruiser to watch them slow down and begin to graze. Then we heard the trumpeting of about 15 elephants in front of us. As we turned to the front, we saw they were running very fast directly toward us with their ears flared out, trunks up high and eyes bulged out (yes, we were that close), knocking down small trees.

Brigitte Beard was the only calm one who remembered that we were there to take pictures, which she did as the rest of us dove down to our seats. We awaited the impact, but Ken made a violent right turn up a small hill to get behind a group of large trees for safety. He knew we were directly in their path to the main herd, and they wanted us out of the way.

After the brief but terrifying charge, we collected ourselves and began laughing, pulled some Cokes from the coolers and continued our late afternoon safari to see what was around the next turn.

Brigitte Beard

The sights and sounds of Africa brought me to a place of peace that had eluded me since the death of my husband [Hugh Beard Jr., IM 73]. As I



stepped off the plane in Kilimanjaro, Kenya, the warm rain began to wash my senses. The scent of the frangipani and the beauty of the jacaranda trees brought back memories of my childhood spent in West Africa.

There is a rhythm to the continent of Africa like no other. It has a subtle heartbeat that draws you in and calms your spirit. From the daytime song of the people with their welcoming smiles to the nighttime lullaby of the cicadas, I felt at home again.

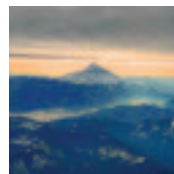
The incredible sunrise brushed across the Serengeti morning sky emphasized the beauty of the earth. It was and still is a magical place that reminds me to slow down and enjoy the simple things in life. Thanks for the memories. It was the trip of a lifetime. ▲



If you're itching to travel the world, who better to globe-hop with than your fellow

Yellow Jackets? The Georgia Tech Alumni Association has a bevy of trips planned for 2012 that will lead alumni everywhere from the footsteps of Lewis and Clark to the streets of Saigon.

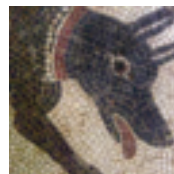
For more information or to register for any of these trips, visit gtalumni.org/travel.

**Columbia and Snake Rivers, Oct. 21-27**

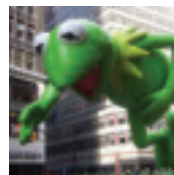
Retrace Lewis and Clark's path, discover lush landscapes and experience the region's culinary treasures. Sights include the Columbia River Gorge, Mt. Hood, the world's largest basalt flow and a tour of a winery.

**Vietnam, Oct. 28-Nov. 12**

Discover Vietnam's captivating beauty and hospitality. Highlights include Hanoi, scenic Ha Long Bay, a resort on China Beach, the Mekong River Delta and a cruise on the Perfume River to a Buddhist monastery.

**Italian Reflections cruise, Nov. 7-15**

Set sail from Athens and cruise the Mediterranean to Italy, stopping at revered cities such as Pompeii, Rome and Pisa. The voyage concludes in Barcelona after stops in the French port of Marseille or the medieval village of Provence.

**Thanksgiving in New York, Nov. 21-25**

Stay at a deluxe hotel along the Macy's Thanksgiving Day Parade route in Midtown Manhattan and enjoy the best of New York's theater and restaurant scenes. The trip includes tickets to the Radio City Christmas Spectacular starring the Rockettes.

**Antarctica, Jan. 17-30, 2013**

Cruise to Earth's last frontier and enjoy volcanic topography, whale watching and outposts of intrepid explorers, all while guided by expert naturalists. The trip includes two nights in cosmopolitan Buenos Aires and has an option for Iguazu Falls.

**Asian Wonders cruise, Feb. 2-21, 2013**

Experience East Asia on the elegant Oceania Cruises Nautica, with stops in Thailand, Cambodia, Vietnam and China. Marvel at the Buddhas in Bangkok, stroll the beaches of Sihanoukville, discover the heritage of Saigon and see the temples of Da Nang.



ramblin' roll



Dean Alford, EE 76, was appointed to the University System of Georgia Board of Regents by Governor Nathan Deal.

1940s

Alfred Ritter, AE 43, was invited to China to lecture on hypersonic ground testing at the Hypervelocity Aerodynamics Institute of the China Aerodynamic Research & Development Center in Mianyang, Sichuan.

Harry B. Urey Jr., ME 49, served as an Air Force pilot for 32 years and now lives in Dallas, Texas.

1950s

Robert Broward, Arch 51, was inducted into the Florida Artists Hall of Fame in February. He is a practicing architect in Jacksonville, Fla., and once worked for Frank Lloyd Wright.

Edward A. Munns, MS CE 50, scored a hole-in-one on the seventh par three hole Palmetto Course of Myrtlewood Golf Club one week before his 93rd birthday. He lives in Myrtle Beach, S.C., and is retired from the Air Force.

Bob Nichols, IM 59, retired after a long career at Young Harris College. He was an All-American tennis player at Tech and went on to teach math and coach. A new Young Harris College tennis complex will be dedicated to Nichols and his wife, Gayle.

Don Richardson, AE 51, was awarded the 2012 Distinguished Service Award from the American Institute of Aeronautics and Astronautics. He serves as chair of the School of Aerospace Engineering's advisory council.

Nelson Spoto, Arch 52, was knighted

by France's Legion of Honor for his efforts during the invasion of Normandy on D-Day. Spoto, who was 19 years old at the time of the invasion, served in the Navy as a quartermaster, sweeping for mines.

Flavio Villaca, M CRP 58, was awarded the title of professor emeritus in the School of Architecture and Urban Planning at the University of São Paulo, Brazil. The school has given such a title only once before. Villaca taught city planning courses there for 25 years.

1960s

Thomas F. Christian Jr., AE 68, MS AE 69, PhD AE 74, was elected a fellow of the Ohio Academy of Science in May 2011. He is a senior executive with the Air Force.

Bob Dawson, EE 69, retired as president of SouthernLINC Wireless, a part of Southern Company, after 47 years. In 2011, he was honored with the RCA Outstanding Achievement Award.

William "Bill" George, IE 64, was elected to the National Academy of Engineering. He is a professor of management practice at Harvard Business School.

James M. McClelland, IE 66, was awarded the 2012 Matthews Entrepreneurial Award from Goodwill Industries International. He is the president and CEO of Goodwill Industries of Central Indiana.

James E. Negro, EE 68, retired from Boeing after 39 years in the aerospace industry.

Oscar N. Persons, IE 60, was recognized as a 2012 Georgia Super Lawyer. He is a counsel with Burr & Forman.

John W. Shipley, EM 65, MS EM 66, PhD ESM 71, was honored by the National Reconnaissance Office for his pioneering effort in the development of NRO collection assets. A permanent plaque honoring Shipley was unveiled in the NRO headquarters.

Bill Thau, IM 62, and his wife, Jane, visited Tech campus in the fall to meet Steve Salbu, dean of the College of Management, and attend a Bridge to Business class hosted by the college.

Joseph Turner Jr., AM 61, MS AM 66, received the Linton E. Grinter Distinguished Service Award from the Accreditation Board for Engineering and Technology, its highest honor. He was inducted as a fellow of ABET in 2007.

1970s

Dean Alford, EE 76, was appointed to the University System of Georgia Board of Regents by Gov. Nathan Deal. Alford will represent district four. Alford is chair of the Georgia Tech Alumni Association Board of Trustees and CEO of Allied Energy Services. A former five-term state representative, Alford was instrumental in creating the Miracle League, an organization that builds playing fields for children with physical and mental disabilities. He previously served on the State Board of Education and chaired the Governor's Education Finance Task Force.

NEST LABS HEAT UP

📞 Eric Hamilton



On average, half of your home power usage—and half of your power bill—is dedicated to regulating temperature, usually thanks to an inaccurate thermostat.

But Nest Laboratories, which features three Tech graduates, aims to change that. The Nest Learning Thermostat is a sensor-driven, programmable device that learns about its user's habits to better regulate temperatures.

Tech grads' involvement with the startup has been somewhat of a family affair: **Shige Honjo, EE 91**, his wife **Amy Honjo, MBA 04**, and brother **Hiro Honjo, EE 92**, all work at the company. Amy handles program management, Hiro is a hardware engineer and Shige is the vice president of program management and manufacturing operations.

"Georgia Tech taught me ... how to prioritize—much like what is needed in a consumer product development cycle," says Shige, who began his career in the cellular phone industry and worked on the iPhone at Apple.

The Nest Learning Thermostat applies the principals and usability of mobile technology to the task of regulating home temperatures, which will lead to smaller energy bills for users and less of an impact on the environment. After 20 years in the cellphone industry, Shige says he has finally found something that he is "honestly more proud of working on."

Out & About



1. L-R: Ed English, ME 68, and Ben Lilly, IM 61, enjoy the *Alumni Magazine* during a safari in Tanzania and Kenya. **2.** Mike Hopkins, ESM 90, sent in this photo taken from Coca-Cola headquarters of a rainbow over Tech's campus. **3.** Members of the San Antonio Alumni Network take part in TEAM Buzz Day community service. **4.** Members of the West Lanier Network present a check for \$26,700 to Len Contardo, vice president of outreach at the Alumni Association. The gift will fund student scholarships. **5.** L-R: Gary May, EE 85, and C. Meade Sutterfield, EE 72, chat at the Alumni Association's Gold & White Honors. **6.** President G. P. "Bud" Peterson and his wife, Val, join alumni at the Gold & White Honors. **7.** L-R: Candy Houston, IE 98, MS IE 99, and Linda Brownlee, ChE 81, attend a horse show to benefit the Tech Equestrian Club. **8.** Scott Radeker, ME 92, center, host the first-ever accepted student meet and greet held in China. **9.** Richard Beard, IM 67, received the Dean Griffin Community Service Award at the Gold & White Honors. **10.** A member of the Student Ambassadors goes wild for the cars on display at the ninth annual Georgia Tech Auto Show. **11.** L-R: Bryan Parker, HPhys 88, and Wendell Allen Turner Jr., HTS 04, visit Klis Fortress in Croatia.



Keith Golden, CE 86, MS CE 89, was appointed commissioner of the Georgia Department of Transportation.

Janet Campbell, Arch 75, M Arch 77, was appointed to the board of the California League of Bond Oversight Committees.

Barry Flink, BM 73, was an honorary inductee of Beta Gamma Sigma, the international honor society. Flink is executive vice president and partner of Flex HR.

Tom Gambino, CE 79, has been named Engineer of the Year by the Georgia Engineering Alliance. He is the founder and president of Prime Engineering, Inc., and lives in Atlanta. His wife, Amelia, is assistant vice president and director of Campus Communications Services at Tech.

Laura Gimpelson, ChE 79, was elected to the rank of fellow of the American Institute of Chemical Engineers. She is secretary of the Virtual Local Section and a past president of the South Texas Section. She lives in Orlando with her husband, **John Norris, Text 67, MS IM 79**.

Jack Kilgore, GenE 72, was named as co-leader of the newly formed U.S./Canada region of the Rich Products Corporation's consumer brands division, of which he is president.

Stanley C. Kimer, MgtSci 77, who retired from IBM after a 31-year career in 2010, has opened Total Engagement Consulting by Kimer. He also is serving a two-year term as president of the North Carolina Council of Churches.

Alan Lowe, IM 70, started The Angel Advisors in 2011. He currently works as an adviser to entrepreneurs and business owners.

Andres E. "Andy" Nunez Jr., CE 75, MS CE 77, was elected to the subject officer position with the Tampa Bay

Regional Planning Council. Next year he will serve as the vice-chair and then as chair the year after that. He is a senior associate at Tindale Oliver & Associates Inc.

Amit Roy, MS ChE 71, PhD ChE 76, received the 2011 Distinguished Alumnus Award from the Indian Institute of Technology. Roy is president and CEO of the International Fertilizer Development Center in Muscle Shoals, Ala., and has spent more than 30 years fighting the global war on hunger.

George F. Smith, MS ME 73, was initiated into the Sigma Nu fraternity in April. Smith, a retired U.S. Army colonel, was an undergraduate at Tech and left the Institute to serve in the military before he was initiated into the fraternity. Sigma Nu alumnus **Gary Jones, Mgt 71**, met Smith and pushed to have him initiated. Smith graduated from West Point, served two tours in Vietnam and received the Bronze Star, the Army Medal of Valor, the Bronze Star for Meritorious Service and the Purple Heart.

Rod Westmoreland, IM 74, was named on *Barron's* "America's Top 100 Advisors" list, and for the third consecutive year was ranked third in Georgia. He is a private wealth adviser at Merrill Lynch in Atlanta.

1980s

Constantinos A. Balaras, MS ME 85, PhD ME 88, was installed as vice president of the American Society of Heating, Refrigerating and Air-Conditioning Engineers. He is research director at the Institute for Environmental Research and Sustainable Development at the National Observatory of Athens.

Basil Barimo, AE 87, was promoted to executive vice president of repair divisions at NORDAM.

Mike Crane, IM 87, won a special election to fill a vacated seat in the Georgia Senate. A Republican, he represents the Newnan area.

Keith Golden, CE 86, MS CE 89, was appointed commissioner of the Georgia Department of Transportation. A veteran engineer and administrator, Golden had been serving as interim commissioner. Another Yellow Jacket, **Todd Long, CE 89, MS CE 90**, was appointed deputy commissioner.

Cliff Hanna, ChE 88, came out of retirement this past summer to play in the World Flying Disc Federation World Championship in Italy. His team, the Grand Masters, took home gold.

Steve Hopper, IE 86, co-founded StoneCross Group, a supply chain management consulting firm based in Atlanta.

Kyle Kleinhans, HPhys 85, became director of the American Academy of Healthy Physics in February. In 2011, he was awarded the organization's Academy Service Award.

Wayne LaBar, AE 86, launched ALCHEMY studio, an independent design and consulting studio that partners with museums, government agencies and other organizations.

Jeff Merback, BC 89, celebrated the 20th anniversary of The Highlander, his tavern and music venue in Atlanta.

William A. "Bill" Miller, CE 87, deployed to Kabul, Afghanistan, with the U.S. Army Corps of Engineers as deputy chief of engineering in the northern district.

Valerie Montgomery, Chem 83, was named one of *Ebony* magazine's 100 most powerful people in America.

Howard S. Wertheimer, Arch 81, M Arch 85, was elected as a fellow in the American Institute of Architects. He is the director of capital planning and space management at the Institute.

Marty Williams, CE 84, president of Sahlman Seafoods, accepted the Secretary of State's Award for Corporate Excellence from Hillary Clinton in January.

1990s

Kelli Booth, ChE 93, cofounded SciGenesis, a biotechnology company that has developed camouflage face paint that delays the onset of third-degree burns. The prototype has been approved by the Department of Defense.

Angel Cabrera, MS Psych 93, PhD Psych 96, was appointed president of George Mason University. He previously served as president of the Thunderbird School of Global Management. His wife, **Beth Cabrera, MS Psych 93, PhD Psych 95**, is an organizational psychologist.

J.B. Colletta, ME 99, is vice president of product management for Gryphex, named Grand Winner at the 20th Annual Marketing Awards for Excellence.

Suparna Datta, MS EE 97, PhD ECE 00, joined the Pepper Hamilton law firm's intellectual property group in Boston as an associate.

Ryan Gravel, Arch 95, M CP 99, M Arch 99, was listed in the top 25 newsmakers of 2011 by the *Engineering News Record*.

Bill Harber, IE 90, was named vice president of corporate marketing for Carnival Corporation.

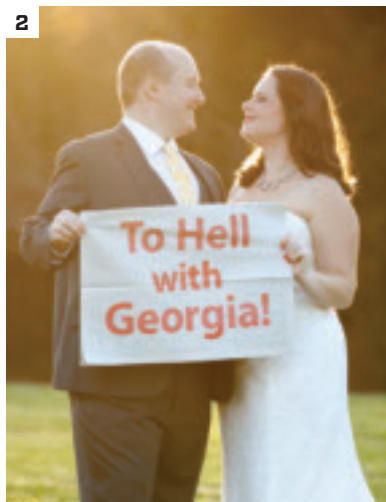
Glynn Harden, ME 96, earned master's degrees in systems engineering and

WEDDINGS

1



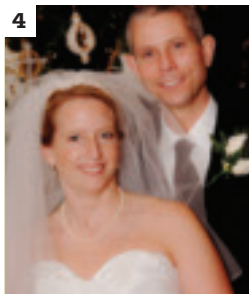
2



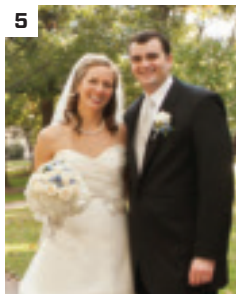
3



4



5



1. Staci Phillips Bisher, Mgt 93, married Eric Bisher on Nov. 26. She is a senior manager with Deloitte Consulting.

2. Scott Dinerman, STAC 03, married Liz Yeakle on Thanksgiving Day, Nov. 24, in Adairsville, Ga. Dinerman is video producer/editor for the Georgia Tech Alumni Association's Living History department.

3. Grant Duke, Mgt 99, married Alison Wolfgram on August 13 in Ephraim, Wisc. They live in their hometown of Barrington, Ill., where Grant is an enterprise mobility specialist with Microsoft.

4. Holly Anne Hoenes, IE 00, married Kevin Wayne Larrick on Dec. 10. She recently completed her pediatric neurology training and will be practicing in Forsyth, Ga.

Kira Kuck, ChE 04, married Rory Hersch on Nov. 5 in Santa Barbara, Calif. The couple lives in Manhattan, where Kira works for Pfizer.

5. Brian Oxford, PubPol 03, married Jennifer Lewis on Oct. 22. He is the senior new markets manager at the Community Affordable Housing Equity Corporation in Raleigh, N.C.

Claire Watson, Arch 06, and **Robert Smith, Arch 06**, married on Feb. 18. The two recently graduated from Notre Dame's classical architecture program, finishing first and second in their class, respectively.



Jessica Luza, STC 07, booked her first network television role on an episode of FOX's House.

engineering administration from Virginia Tech in December. A Navy lieutenant commander, he is an engineering duty officer serving on the staff of the Commander Naval Surface Force Atlantic.

David LaBorde, CE 97, is the founder of Iconic Data, selected as part of the Healthbox business incubator funded by Blue Cross Blue Shield.

Bruce Marshall, IE 91, is the owner of Irvine, Calif., bike shop A Road Bike 4U, which was named best bike shop in the Best of Orange County Critic's Choice awards.

Zach McCarley, AE 98, will graduate June 11 from the Air Force Test Pilot School with a master's of science in flight test engineering. Major McCarley will be an F-18 Super Hornet test pilot at the Naval Air Weapons Station in China Lake, Calif.

Meredith Moore, IE 98, received a Womenetics 2012 POW! award, which are given to the 12 most innovative female leaders in Atlanta. She is a financial planner.

Rodney Parker, Mgt 92, earned his certified business analysis professional designation. He is an SAP business analyst with Catlin in Atlanta.

Jocelyn Pritchett, MS CE 99, M CP 99, founded Pritchett Engineering & Planning, a firm specializing in environmental services, cultural resource management and roadway design.

W. Scott Radeker IV, ME 92, received a Rising Stars award from *Waste & Recycling News*. He is vice president of operations at CRS Reprocessing Services.

Bayne E. Smith Jr., CE 90, was appointed as district engineer by the Georgia

Department of Transportation. He is responsible for 2,300 miles of state routes and interstates in the 21 counties of North Georgia.

Nzinga Temple Tull, ME 98, a systems engineer with Jackson and Tull, was featured in *Women of Goddard*, a book that highlights the achievements of women at the NASA Goddard Spaceflight Center. She was also featured for her work on the Hubble Space Telescope in an exhibit at the Maryland Women's Heritage Center and Museum, which coproduced the book.

Lynn Tully, Arch 94, M CP 95, has been named planning and community development director for the city of Kingsport, Tenn. She is a certified professional planner.

Matthew Zenus, IE 96, has joined SAP as a director of data warehousing and business intelligence technologies. He currently lives near Palo Alto, Calif., with his wife and daughter.

2000s

Sourjo Basu, EE 06, an MBA student at Tech, was one of three selected for the International Electrochemical Commission's Young Professionals Workshop.

Frank "Chip" Brown, Mgt 01, was promoted from senior manager to principal at Willamette Management Associates in Atlanta. He is a certified public accountant and holds the chartered financial analyst credential.

Lynn Capadona, PhD Chem 04, received a Silver Snoopy award from astronaut Mike Foreman in appreciation of Capadona's work in developing the Orion system requirements.

Keedick Coulter, IE 01, opened Bob-white Lunch & Supper Counter in East Village, N.Y. He left his job in health care consulting in Virginia to open the restaurant, which features Southern fare.

Kristin Goin, HS 08, a management engineer with Children's Healthcare of Atlanta, was selected as IIE's representative for the New Faces of Engineering 2012 and was featured in an ad in *USA Today*.

Shannon Harlow, Mgt 02, MBA 10, created the Belle Curves sports bra, which won the Most Commercializable award in Tech's 2012 business plan competition.

Jennifer A. Howard, IE 01, was elected to the board of the Dunwoody, Ga., Chamber of Commerce. She is a financial adviser with Edward Jones.

Stephen Kendig, ME 00, was named to the board of Prevent Blindness Georgia, where he serves on the marketing committee. He is chief operating officer of SoloHealth.

Kimm Lincoln, Mgt 07, was promoted to senior editor of digital marketing at Nebo Agency. She has been a finalist for TAG's search marketer of the year award for the past two years.

Jessica Luza, STC 07, booked her first network television role on an episode of FOX's *House*, which aired on Feb. 13. She is pursuing an acting career and lives in Los Angeles.

Christopher Maston, AE 04, earned a master of science in flight test engineering from the Air Force Test Pilot School. He now serves as an experimental test navigator.

Matt Miller, Mgt 01, a former linebacker for the Yellow Jackets, now offers

his insurance expertise as a regular columnist for the *Atlanta Journal-Constitution*. He is head of the personal lines division of Sterling Risk Advisors.

Bobby O'Keefe, IntA 00, graduated from the Naval Postgraduate School with a master's degree in security studies. He is assigned to U.S. Southern Command as the special assistant to the commander. He and his wife, **Jill, ME 99, MS ME 00**, live in Pembroke Pines, Fla., with their four children, Nathan, Sean, Emily and Adam.

Burton, Cls 01, and **Rebecca Posey, PubPol 05, MS PubPol 06, MBA 07**, launched Addo Games, based in Atlanta. Their first project, *Robots Love Ice Cream*, is in development after being funded successfully through Kickstarter.

Edward Sheehan, Mgt 09, joined Morgan Keegan's Augusta, Ga., branch as a financial adviser.

Clint Stancil, Mgt 01, MS BC 02, was named to the *Charlotte Business Journal* "40 Under 40" list. He is a senior director at CBRE Group.

2010s

Kevin Cone, ME 10, a former Yellow Jacket's wide receiver, has been added to the Atlanta Falcons roster.

Michael Flanigan, ChBE 10, and **William Mehserle Jr., ChBE 10**, launched The Expressionary, a company that helps people find personal gifts for their loved ones using a word recommendation engine. Ten percent of corporate profits are donated to partner charities.



Pindrop Security Secures Funding

With help from the Tech community, Pindrop Security is making waves in the world of telecom security, most recently securing funding from the likes of venture capital firm Andreessen Horowitz, which has also lent support to Facebook, Twitter and Groupon.

Pindrop uses "acoustic fingerprint" detection techniques to more precisely identify the device and location of a call's origin. The technology was developed at the Georgia Tech Information Security Center by **Vijay Balasubramaniyan, MS IS 08, PhD CS 11**, GTISC director Mustaque Ahmad, and School of Computer Science assistant professor Patrick Traynor. The Georgia Tech Research Corporation helped secure patents to protect the startup's intellectual property, and the Pindrop team has been able to connect with local Atlanta resources and supporters with the help of Tech's VentureLab program.

In addition to the funding from Andreessen Horowitz, the young company has also received \$150,000 from the National Science Foundation's Small Business Innovation Research program in partnership with Tech's Enterprise Innovation Institute. Early funding also came from the Georgia Research Alliance.

Pindrop recently snagged office space at the Advanced Technology Development Center at Technology Square and last spring joined the inaugural class for Flashpoint, an Institute-sponsored, mentorship-based technology incubator. Flashpoint connected Pindrop to entrepreneur **Paul Judge, MS CS 01, PhD CS 02**, who brings his experience with security companies to the table as the startup's new chairman.

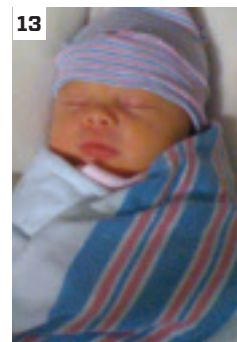


ramblin'
roll



*Welcomed a future Yellow Jacket
into your family? Send a photo and
note to ramblinroll@gtalumni.org.*

BIRTHS



Alison Sedgwick Alhadeff, IE 00, and her husband, Seth, welcomed son William on Sept. 4. He joins brother Solomon, 2, at the family's home in Dahlonega, Ga.

1. Benjamin Balogh, ChE 03, and **Catherine Balogh, PFE 05**, welcomed daughter Julianne Janine on Jan. 19. The family resides in Florence, Ky.

2. Eva Brodbeck, MS IntA 08, and her husband, Daniel, welcomed daughter Nina Olive to their home in Fayetteville, N.C., on Dec. 8.

Jason Brownlie, IE 98, and his wife, Jennifer, welcomed son Jack Robert on Jan. 26. He joins sister Alexa at their home in Roswell, Ga. Jason is an account manager at Manhattan Associates.

3. Andrew Burton, BC 10, and his wife, Leah, welcomed son Reid Danger on Sept. 23. The family lives in Loganville, Ga.

David A. Foley Jr., EE 04, and **Erin M. Foley, EE 04**, welcomed son David Allen Foley III on Dec. 13. The family lives in the Washington, D.C., area.

4. Samuel Wren Fowler, NRE 05, and **Suzanne Fulcher Fowler, Mgt 03**, welcomed daughter Hagen Victoria on Jan. 24. The family lives in Alpharetta, Ga. Samuel is a current Tech MBA student and a licensing engineer at NAC International and Suzanne is an account manager for Tekla Inc.

5. Amy Fairchild Haer, IAML 03, and **Graham Haer, Econ 04**, welcomed son Henry Payson to their Atlanta home on July 30,

2011. Amy is an attorney with Catholic Charities Atlanta and Graham works full time while studying to be a CPA.

6. Jamie Hamilton, Mgt 93, and his wife, Amy, welcomed twin sons Jackson Hughes and John Thomas in November. They join brother James, 3, at their home in Suwanee, Ga. Jamie is managing partner of Hamilton Ventures.

7. Kelly Briggs Jackson, Mgt 99, and **Scott Jackson, Mgt 00**, welcomed daughter Morgan Avery on Feb. 21.

8. Erin Kennedy, IE 03, MS IE 04, gave birth to son James Franklin on Jan. 26.

9. Andrew Farid Kokabi, Biol 00, and his wife, Stephanie, welcomed son Benjamin on Nov. 26. Andrew is a dentist in Brookhaven, Ga.

10. Andrew Milburn, MSE 07, and his wife, Amy, welcomed daughter Savannah Rosalee to their home in Virginia Beach, Va., on Nov. 21.

11. Whitney Owen, IntA 03, and **Jay Owen, HTS 03**, welcomed son James Dickerson on Jan. 1.

12. Alex Ruderman, ME 07, MS ME 09, and his wife, Jessica, welcomed daughter Aubrey Michele on Nov. 14. Alex is a ventilation engineer for Savannah River Nuclear Solutions.

13. Brandon Sherstad, IE 99, and **Christina Sewall Sherstad, Mgt 01**, welcomed daughter Carmina Faith on Dec. 14. She joins sisters Autumn and Harmony at the family home in Fayetteville, Ga.

Brandon is a senior manager for Ernst & Young and Christina is a full-time mother.

14. Barreus Sims, CmpE 01, MS ECE 02, and his wife, Chrishon, welcomed son Beau Alexander on Jan. 3.

15. Melissa Jenkins Snipes, Mgt 94, and her husband, Kyle, welcomed daughter Molly Elizabeth on Dec. 20. Molly joins sister Megan, 2, at the family's home in Mableton, Ga.

16. Kim Tate Swenson, EE 00, MS ECE 02, and **Chris Swenson, IE 01**, welcomed daughter Katelyn Ashley on March 20. She joins them at home in Austell, Ga. Kim is associate director of systems integration at AT&T and Chris is a project manager at AMDOCS.

17. Chris Ware, ME 97, and wife, Kimberly, welcomed

daughter Katie Trula on Jan. 4.

Jim Watson, EE 99, and wife, Katie, welcomed son Hunter James on Oct. 2. The family lives in Seattle where Jim works at Microsoft as a product manager.

18. Kristine Lawrie Williams, CE 99, MS CE 00, and her husband, Kristian, welcomed son Wyatt Joseph on Dec. 16. He joins sister Samantha, 2, at the family's home in Fort Worth, Texas.

19. Jennifer Stoudt Woodson, ChE 99, and her husband, Damon, welcomed son Achilles Tobias on Feb. 3. He joins sister Persephone Kathleen, 6, and brother Nicholas Perry, 4, at the family's home in Macon, Ga. Jennifer is an adjunct business professor at Gordon College.

Is a Roth IRA right for you?

WELLS FARGO ADVISORS

Due to recent regulatory changes you are now eligible to convert a traditional IRA to a tax-free* Roth IRA, no matter what your income or filing status. There may be real benefits to paying taxes on converted funds now in order to enjoy tax-free withdrawals in retirement.

Call today to learn more about the advantages of converting to a Roth IRA.

*Traditional IRA distributions are taxed as ordinary income. Qualified Roth IRA distributions are not subject to state and local taxation in most states. Qualified Roth IRA distributions are also federally tax-free provided a Roth IRA has been open for at least five years and the owner has reached age 59 ½ or meets other requirements. Both may be subject to a 10% federal tax penalty if distributions are taken prior to age 59 ½.

Wells Fargo Advisors does not provide legal or tax advice. Be sure to consult with your own tax and legal advisors before taking any action that may have tax or legal consequences.

David O'Brien

Senior Vice President - Investment Officer

The O'Brien Consulting Group of Wells Fargo Advisors

950 East Paces Ferry Road, Suite 1600

Atlanta, GA 30326

404-760-7615

<http://www.wfadvisors.com/obrieninvestmentconsulting>

Investment and Insurance Products: ► NOT FDIC Insured ► NO Bank Guarantee ► MAY Lose Value

Wells Fargo Advisors, LLC, Member SIPC, is a registered broker-dealer and a separate non-bank affiliate of Wells Fargo & Company. ©2011 Wells Fargo Advisors, LLC. All rights reserved. 0811-0144 [82715-v2] A1477



Tubing Brings Quick Relief to Disaster Zones

Many survivors of the earthquake that devastated Haiti in early 2010 died in the aftermath because of a lack of



running water. It's a problem that has long bedeviled disaster aid. Enter Apoorv Sinha, ChBE 10, who has developed a cheap and easy solution to the problem.

Sinha worked with Georgia Tech chemical engineering professor Matthew Realff to develop coiled tubing that can be unspooled within 48 hours across 30 kilometers of disaster-stricken terrain using a helicopter or other vehicle.

Through just a 1-inch tube, water can be provided for up to 20,000 people per

day at a third of the cost of alternative sources.

The invention has developed into a venture called T.O.H.L. (Tubing Operations for Humanitarian Logistics), and Sinha has brought other members of the Tech community on board. Benjamin Cohen, a structural engineering major; Melissa McCoy, a chemical engineering major; and Travis Horsley, PubPol and IAML 10, have prepared the company for a commercial launch.

In December, T.O.H.L. was chosen by the Start Up Chile program for a \$40,000 grant. The company set up shop in Chile this spring and plans to carry out a pilot run in September.

"We believe the country provides an excellent blend of attributes to initiate the launch of a humanitarian business venture like T.O.H.L.," Sinha said. ▲

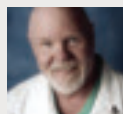
KUDOS!

The Alumni Association's Networks and Affinity Groups depend on volunteer leadership to organize gatherings, fundraisers and community service projects. Here, a few leaders who deserve thanks for all of their hard work.

Wade Barnes, Bio 71

Since Barnes took over the Jacksonville, Fla., Alumni Network's scholarship committee in 1985, it has awarded more than \$420,000 to Tech students

and funded two endowments worth about \$130,000. Barnes is a past president of the network



and a past member of the Alumni Association

Board of Trustees. He serves on the College of Sciences and the School of Biology advisory boards.

Kathryn Folk, IE 99

The Band Alumni Affinity Group has grown and become more involved on campus under Folk's leadership. As president, she organized the group's

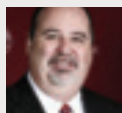


presence at Homecoming and performances at

Yellow Jackets basketball and volleyball games. Folk also is active in community service.

Keith Hollingsworth, IE 90, MS IE 92, PhD IE 95

Hollingsworth, president of the Co-op Affinity Group, has been a champion for the program, helping to honor past participants and



raise scholarship funds for students. He helped

organize the Co-op Alumni Centennial Award.

Whitney Owen, IA 03

A leader of the Washington, D.C., Alumni Network, Owen instituted an auction of



Tech items and organizes the Accepted Student

Reception. She once convinced a student wearing a Virginia Tech T-shirt to enroll at Georgia Tech instead. She co-founded Caroline Can!, a scholarship for therapists studying the treatment of traumatic brain injury.

Tell us what you've been up to

Have you changed jobs? Earned a degree? Won an award? Gotten hitched?
We'd love to share the news with your fellow alumni.

NAME	
NEWS TO SHARE	
WHEN IT HAPPENED	
TECH DEGREE(S)	
CLASS YEAR	
OCCUPATION	
PHONE	
EMAIL	
STREET ADDRESS	
CITY	
STATE	
ZIP	

Clip the form above and send it to Ramblin' Roll, 190 North Ave. N.W., Atlanta, GA, 30313, or email it to ramblinroll@gtalumni.org. If available, please include a high resolution photograph for publication.



**Recognized in
Modern Healthcare's
Top 25 Places to Work
in Healthcare**

Flexible schedule,
work-from-home environment,
100% paid healthcare benefits,
...and the list goes on.

Contact us to see why Iatric Systems
is the place to be in healthcare IT

info@iatric.com
978-805-4100





in memoriam



*John Overstreet Jr., ME 47.
A fighter pilot, one of the first
to break the sound barrier.*

1930s

Herman Barnett, GS 36, of Savannah, Ga., on Dec. 30. Army Infantry (captain), World War II. Founder, Barnett Educational Supplies.

Leo J. Drum Jr., ME 35, of Montgomery, Ala., on Jan. 6. Army Corps of Engineers (Bronze Star for Meritorious Service). Founder, Capital Refrigeration Company, Georgia Tech Engineering Hall of Fame.

William "Bill" Jeff Greene Jr., CE 36, of Atlanta, on Feb. 1. Army, World War II and reserves. Vice president, Wiedeman and Singleton Engineers. American Water Works Association Hall of Fame.

Stanley Noott Holditch, IM 38, of Hilton Head Island, S.C., on Feb. 8. Golf. Vice president, Illinois Bell Telephone Company.

Albert J. Roesel, EE 38, of Statesboro, Ga., on Feb. 6. Army (captain), World War II. H.A. Sack Company. Son: Gregory Roesel, EE 81, MS 82 EE. Granddaughter: Renee Roesel, ChBE 11.

James H. Tipton, Com 31, of Cambridge, Mass., on Dec. 2. Assistant treasurer, Georgia Tech. Professor, Eastern Connecticut State College.

Albert Overall Waldon, IM 38, of Ocala, Fla., on Jan. 24. Army (Distinguished Flying Cross), World War II and reserves. Teacher, Marion County School System.

1940s

Robert Jackson Athey, Chem 48, MS Chem 50, of Salisbury, Md., on Jan. 20. Army Signal Corps, World War II. Senior technical specialist, DuPont Company. Sons: Robert E. Athey, CE 78, David J. Athey, CE 82.

Edgar "Jack" G. Baugh, CE 49, of Darien, Conn., on Dec. 6. Army, World War II. ExxonMobil.

Thomas Ulic Burke, ME 45, of Charlotte, N.C., on March 6. Army, World War II. IBM.

Maywood W. Chesson Jr., ChE 48, of Lakeland, Fla., on Dec. 24. Navy (lieutenant). American Cyanamid. Jacobs Engineering.

James Nicholas Day, IE 49, of Flower Mound, Texas, on Jan. 27. Army, World War II. The Murray Company.

Edward Houstoun Demere, IM 43, of Soquel, Calif., on Nov. 7. Navy. Lockheed Martin. Co-founder, The Healing Connection.

Edwin Ball Etheredge, Cls 43, of Saluda, S.C., on Dec. 19. Soil Conservation Service.

James Albert Feagle Jr., CE 43, of Villa Rica, Ga., on Nov. 6. Navy. Engineer, Carr and Wright Construction.

Palmer LeRoy Ferguson, Cls 46, of Sandy Springs, Ga., on Dec. 16. Owner, construction and interiors company. Senior executive VP, Abrams Fixture Corp.

Hugh W. Fisher, ME 49, of Cumming, Ga., on Feb. 12. Army, World War II. Atlanta Gas Light Company.

Alan Sutherland Fogg Sr., Cls 49, of Gainesville, Fla., on Dec. 17. Navy, World War II. Proprietor, Farm Stores Inc. Son: Alan S. Fogg Jr., IM 72.

William G. S. Fort, EE 40, of Oak Ridge, Tenn., on Sept. 25.

Ralph Darwin Frey Sr., ME 40, of Marietta, Ga., on Dec. 16, 2010. Army (first lieutenant; three Battle Stars, two Purple Hearts), World War II. Engineer.

James Lovick Gammell, EE 48, of Atlanta, on Jan. 20. Navy, World War II. Southern Bell Telephone and Telegraph. Grandson: Michael Allen Iconis, Mgt 02.

David B. Gray Sr., IE 64, of Atlanta, on Dec. 8. Butler Properties.

Jim Griffeth, IM 42, of Winder, Ga., on Jan. 20. Air Force (major), World War II. Partner, Outz Chevrolet Company. Owner, Barrow 5-10-25 Store. President and Founder, Flowers by Jim.

Roland F. Griner, AE 48, of Winchester, Tenn., on Feb. 17. Navy, World War II. NASA.

Wilfred E. "Bubber" Gross Jr., IM 49, of Columbus, Ga., on Jan. 25. Air Force (lieutenant). CEO, Harvey Lumber Company.

Raymond Milton Hansen, ME 42, of Harpers Ferry, W. Va., on Dec. 20. Aeronautical engineer, NASA.

Samuel G. Hardy Jr., ME 49, of New Durham, N.H., on Feb. 13. Manager of engineering, GE Meter Department, General Electric.

Arthur Henderson Jr., ME 48, MS ME 49, of Alexandria, Va., on Nov. 19. Army, World War II. NASA.

Gordon C. Hicks, ChE 42, of Sheffield, Ala., on Dec. 20. Tennessee Valley Authority.

Joseph Gray Hollis Jr., CIs 44, of Newnan, Ga., on Feb. 27. Navy. President, Johnson Hardware Company.

Samuel Marvin Hunter Jr., CE 49, MS CE 50, of Sumter, S.C., on Feb. 18. Army (captain), World War II. Engineer, consultant.

Joel Chapman Lane Jr., EE 49, IM 49, of Eatonton, Ga., on Dec. 20. Navy, World War II. Westinghouse.

Thomas Smith Lucas, ME 47, of St. Simons Island, Ga., on Dec. 12. Navy, World War II. Marketing manager (South Africa), Coca-Cola.

Kenneth C. Melvin, IE 49, of Butler, Ala., on Aug. 23.

John H. Olden Jr., IE 47, of Atlanta, on Nov. 20. Navy, World War II. Real estate developer.

John Franklin Overstreet Jr., ME 47, of Atlanta, on Dec. 2. Air Force (lieutenant colonel; fighter pilot, one of the first to break the sound barrier). State of Georgia.

Arthur Prince, Arch 49, of Mobile, Ala., on Jan. 13. Army. Founding partner, DPF Architects.

Jack F. Proctor, EE 49, of Jacksonville Fla., on Nov. 20. Army. Proctor Ace Hardware. President, Georgia-Florida Hardware Association.

Robert David Rahm Sr., IM 47, of Decatur, Ala., on Jan. 29. Noland Company. Granddaughter: Wendi Rahm Miller, M Arch 07.

Robert L. Rod, EE 42, of Boynton Beach, Fla., on Dec. 13. Army. Military researcher, engineer, inventor and entrepreneur.

William Taylor Sams, EE 41, of Jacksonville, Fla., on Oct. 8.

Robert Hayes Sherman Jr., CIs 49, of Augusta, Ga., on Dec. 19.

Wallace Beverly Shiver Jr., IM 46, of Atlanta, on Dec. 5. Navy, World War II and Korea. Owner and CEO, E.D. Lacey Mills.

Philip Solomons, IM 41, of Savannah, Ga., on Nov. 26. Army Air Corp., World War II and Korea. President and CEO, Solomons Company.

William F. Stevens, CIs 49, of Kennebunk, Me., on Nov. 22. Gillette Safety Razor Company. Shape Corp.

George Howard Stewart, GE 41, of Carlisle, Pa., on March 1.

Nelson August Stumpe Jr., ChE 49, MS ChE 50, of Borger, Texas, on Feb. 1. Army Air Force, World War II. Phillips Petroleum Co.

Robert L. Thomison, CIs 47, of Atlanta, on Nov. 13. Navy (lieutenant), World War II. Massachusetts Mutual Life Insurance Company.

HAL MILLER ➤➤➤ TECH FOOTBALL HALL-OF-FAMER

Hal Miller, IM 54, of Kingsport, Tenn., on Nov. 21. He was an All-American high school football player, and in 1947, the year not a single point was scored against his team during regular-season gridiron play, he also set the state record in shot put.



• Hal Miller (56) and Tech teammates.

At Tech, Mr. Miller lettered for three seasons, twice was an All-SEC player and, during his senior year, the offensive tackle was a consensus All-American. In 1952, he co-captained the Yellow Jackets all the way to the national championship. In 1953, he was selected to play in the College All-Star Game.

Following graduation, Mr. Miller was drafted by the San Francisco 49ers, for which he played one season before entering the Army. When his service was completed, the 49ers tried to woo him back. But he chose to take a job in his hometown of Kingsport at Tennessee Eastman Co. Later he would work as a materials handling supervisor at Holston Defense and then as a personnel representative, retiring in 1993. Among many community activities, he officiated high school football games.

In 1992, Mr. Miller was inducted into the Georgia Tech Athletic Hall of Fame and, in 1993, into the Georgia Sports Hall of Fame. In 2001, he was inducted into the Tennessee Sports Hall of Fame and the NEC Sports Hall of Fame. In early 2011, he was honored with an induction into the Dobyns-Bennett High School Alumni Hall of Fame.



in memoriam



*William “Bill” R. Gilliam, IE 58.
Organizer, first U.S. delegation
to China.*

Duncan McCallum Veal Jr., TE 49, of Panama City Beach, Fla., on Feb. 8. Anchor Glass Container Corporation.

Ivan M. Viest, MS CE 48, of Bethlehem, Pa., on Feb. 11. Bridge engineer, American Association of State Highway Officials. Structural engineer, Bethlehem Steel.

John Bresnahan Weigle, Cls 48, of Augusta, Ga., on March 9. Football, All-American. Air Force, Korea. Philadelphia Eagles.

Edgar R. Wengenroth, Arch 43, of Vero Beach, Fla., on Dec. 11. Navy (lieutenant, junior grade), World War II. Product designer, Flintkote.

Carl Johnston Winstead Sr., CE 49, of Pleasant Valley, Conn., on Jan. 14. Navy, World War II American Bridge Company. Topper & Griggs, 37 years. Brother: Hubert Winstead, Cls 44.

Clinton S. Winter Jr., IE 49, of Snellville, Ga., on Jan. 26. Navy (pilot), World War II. Founding partner, Ardd & Winter, Inc.

1950s

Ralph K. Baber, IE 54, of Huntington, W. Va., on Dec. 11. Air Force (lieutenant colonel). Director, Riverwalk Theater Group.

Oscar Bayne “O.B.” Barker III, ME 59, of Birmingham, Ala., on Dec. 20. Sigma Chi. Air Force.

Carroll Hines Bennett, EE 51, of Lithia, Fla., on Dec. 29. Army Air Corp (B-24 nose gunner), World War II. Robins Air Force Base. Tampa Electric Co.

Robert Sydney Burns, IM 57, of Bastrop, La., on Dec. 30. Army (tank mechanic), Korea. Inventor, first industrial hanger for permanent-press pants. Plant manager, Hygiene Industries.

Alva Robertson Byrom, CE 58, of Alpharetta, Ga., on March 5. ROTC. Army (second lieutenant). Department of Transportation. Vice president of engineering, Moreland-Altabelli.

Jay Francis Caldwell, EE 58, of San Diego, on Jan. 22. BAE Systems. Germania Enterprises.

Robert Alexander Cartwright, IM 57, of Boca Raton, Fla., on Jan. 8.

Neil A. Clanton, AE 50, MS AE 53, of Fort Worth, Texas, on Jan. 25. Track and Field. Navy (pilot), World War II, General Dynamics.

Joseph R. Clarke Jr., IM 59, of Spanish Fort, Ala., on Nov. 26. Army (captain). Board of directors, Bank of Forest.

Raymon Lenne Clayton, ME 50, of Lynchburg, Va., on Feb. 29. Army Air Force, World War II. Engineer and supervisor, Lockheed, Swift & Company, Hunt Wesson, Rubatex and Citadel.

William F. Cummins III, Phys 54, of Fort Bragg, Calif., on Feb. 29. San Francisco Bay Area Coast Guard Auxiliary. Nuclear fusion researcher, Lawrence Livermore National Laboratory.

ROBERT E. “BOB” ESKEW ➤➤➤ FORMER ALUMNI TRUSTEE



Robert E. “Bob” Eskew, IE 49, MS IE 55, of Austell, Ga., on Feb. 11. Business manager and treasurer, Georgia Tech Athletic Association. Former trustee, Georgia Tech Alumni Association Board of Trustees. Vice president, Heery International. Developer, Atlanta Sports Council. President and director, Braves “400” Club. Life Member, State of Georgia Athletic Hall of Fame. Director, Atlanta Tipoff Club, which annually gives the Bob Eskew Sportsmanship Award to a Georgia High School.

Benjamin Troy Daugherty, IM 55, of Monroe, Ga., on Jan. 6. Football, 1952 national championship team and All-American. Air Force (pilot). Tax assessor, Walton and Gwinnett counties.

James C. Derington, EE 50, of Huntsville, Ala., on Dec. 14. Navy, World War II. NASA.

William "Bill" R. Gilliam, IE 58, of Lake Toxaway, N.C., on March 11. Organizer, first U.S. delegation to China. Recipient, Ramblin' Wreck Award.

Thomas Alonza Gurr, CE 50, of LaGrange, Ga., on Dec. 22. Civil engineer, Wright Contracting.

Howard G. Hamilton, CerE 57, of Clearwater, Fla., on Feb. 24. Owner, Palm Pavilion. Son: Hoyt Hamilton, IM 80. Grandchildren: Andrew Hamilton, Mgt 08, and Bradley Hamilton, Mgt 10.

Roger E. Henderson, CE 58, of Anchorage, Ak., on Nov. 17. Army Corps of Engineers. Alaska Army National Guard, Juneau unit (commander). Alaska Department of Highways.

Thomas D. James Jr., EE 50, of Johns Creek, Ga., on March 7. Navy, World War II. Director of engineering, Delta Air Lines.

Jack J. Johnson, IM 52, of Brevard, N.C., on Oct. 19.

Larry Buford Jones, IE 58, of Fort Valley, Ga., on Dec. 10. Air Force (industrial engineer, statistician), Robins Air Force Base. Minister of senior adults, Bellevue Baptist Church.

James Booth Kalmbach Sr., ME 51, MS ME 54, of Louisville, Ky., on Jan. 5. Navy (lieutenant junior grade), Korea. Engineer. Small business owner.

Thomas Donald "Don" Kenady, TE 56, of Hazlehurst, Ga., on March 9. Air Force, Georgia Air National Guard, Korea. Tire engineer, B.F. Goodrich. Manager, Americord.

Don Dean King, ME 51, IE 51, of Oakwood, Ga., on Dec. 27. Army, World War II. Westinghouse Electric. Leece-Neville. Emerson Electric.

Keith D. Laube, IM 59, of Winter Haven, Fla., on Dec. 9. Navy, Korea. Computer programmer, U.S. government.

Thomas Marpun Lightcap II, CIs 51, on Dec. 6. Sigma Nu. Army Corps of Engineers (master sergeant), World War II. Founder, Tom Lightcap, Incorporated.

William Youmans McLean, Arch 50, of Evans, Ga., on Jan. 27. Navy (lieutenant). Founder, architecture firm. Chief architect, Medical College of Georgia.

William "Bill" Jackson Metzger Jr., IM 51, of Savannah, Ga., on Dec. 3. Army, World War II. Manager, purchasing department, Savannah Electric and Power Company.

Jack E. Morgan Sr., ME 54, of Stone Mountain, Ga., on Dec. 6. , World War II. Engine design engineer, Detroit Diesel. Vice president and chief engineer, Our-Way.

Thomas "Tom" William Moss, IM 59, of Jasper, Ga., on Feb. 17. Army, Korea. Atlanta Gas Light Company. Sons: Kevin Moss, ME 87, and Randy Moss, CIs 79.

William Lee Moss, ME 54, of Virginia Beach, Va., on Jan. 5. Marine Corps (navigator). Tidewater Construction.

William "Bill" W. Orth, CE 56, of Warner Robins, Ga., on Feb. 12. Engineering department, city of Warner Robins. Brother: Robert L. Orth, CE 56.

Roy Cornelius Peek Jr., Chem 53, of Conyers, Ga., on Jan. 20. Chemist, Spring Industries.

Lloyd Charles Prontaut Sr., ME 50, of Greensboro, N.C., on Feb. 14. Navy (gunners mate), World War II. Founder and owner, Computer Process Services.

Clifford Nicholes Roberds III, IE 54, of Savannah, Ga., on Jan. 21. Roberds Dairy.

Donald L. Roberts, IE 58, of Huntsville, Ala., on Oct. 16. FMC Corporation.

Burwell B. Salmond III, IM 53, of Marietta, Ga., on Dec. 27. Merchant Marines. Industrial engineering and labor relations, Lockheed Georgia Company. Daughter: Kathleen A. Yarger, IM 81. Brother: Robert F. Salmond, IM 62.

Grady Inman Sewell, IM 57, of Thomasville, Ga., on Dec. 19. Engineer, Lockheed Martin and Boeing.

James Herman Shively, IM 54, of Ferum, Va., on Jan. 23. Marine Corps. IBM.

Edward Allen Shiver, IE 50, of Marietta, Ga., on Jan. 2. Army (B-29 senior gunner), World War II. Florida Medical Malpractice Joint Underwriting Association. Granddaughter: Margaret Burgess, Econ 08, PP 08.

John G. "Gerry" Simpson III, Arch 53, of Huntsville, Ala., on Nov. 29. Architect. NASA.

Stephen Skrivan, EE 55, of Chattanooga, Tenn., on March 8. World War II. Supervisor of switchboard and wiring, Tennessee Valley Authority.

John H. Smallwood, Text 56, of Tucker, Ga., on Oct. 25. Nationwide Life Insurance. Son: David Smallwood, MatE 93.

Bruce K. Smith Jr., CIs 58, of Atlanta, on Jan. 21. Navy (aviator and intelligence officer). Sunbrand.

James Ernest Smith, CE 50, of Decatur, Ga., on Feb. 2. Army (staff sergeant, D-Day), World War II. Designer and engineer, General Services Administration.

Wallace W. Smith, TE 55, of Pensacola, Fla., on Feb. 9. Chemstrand Textile Company. Monsanto.

Frank Storer Stapleton, CE 54, of Mobile, Ala., on March 5. Supervisor and construction manager, International Paper.



in memoriam



Thomas Davenport served on the National Advisory Board and the Alumni Association Board of Trustees. In 1997, he was named to the Georgia Tech Engineering Hall of Fame.

Robert Franklin Thompson, EE 58, of Acworth, Ga., on Feb. 20. Navy. Radio operations manager, Lockheed Martin.

Charles Wesley Tignor Sr., IM 54, of Hoschton, Ga., on Dec. 12. Army. Lockheed Martin. Son: Charles Wesley Tignor Jr., Psy 77.

Ricardo Louis Togna, ChE 53, of Chester, Va., on Jan. 14. Allied Chemical.

Zaven Sarkis Touloukian, MS Text 51, of Camden, S.C., on Feb. 22. DuPont.

Julian L. "Hootie" Wade Jr., Text 54, of Greenville, S.C., on Feb. 18. Tennis, college and professional.

William "Bill" Randall Walker, IE 57, of Gainesville, Ga., on Feb. 1. Southern Railway. Southern Iron and Equipment Company. Chief mechanical officer, Railcar Management and Railcar, Ltd.

Conrad Valentino Wynne Sr., IM 51, of Marietta, Ga., on Feb. 21. Navy, World War II. Lockheed-Georgia. Son: Conrad "Val" Wynne Jr., Bio 75.

1960s

Theodore "Ted" M. Albert, MS IS 66, of Chapel Hill, N.C., on March 12. Computer scientist, U.S. Geological Survey.

Robert Harold Ammerman Jr., MS EE 67, of Orlando, Fla., on March 6. Army (second lieutenant). Pentagon. Vice president of manufacturing, Martin Marietta.

William Alvin Bell, AE 66, MS AE 70, PhD AE 72, of Atlanta, on March 12. Aerospace engineer, Lockheed Martin. Georgia Tech Research Institute.

Jasper H. Boatright, IM 62, of Sylacauga, Ala., on Dec. 14. Air Force, Korea. Georgia Air National Guard. Director of community planning and development, Department of Housing and Urban Development.

Robert "Bob" Herbert Boerner Sr., MS IM 66, of Huntsville, Ala., on Jan. 9. Air Force (first lieutenant). NASA. Marshall Space Flight Center. Army Missile Defense Program. Boeing.

Robert Abraham Brechner, IM 65, on Dec. 13. Professor, Miami-Dade College (professor emeritus).

Champlin "Champ" Fletcher Buck III, MS EE 64, of McLean, Va., on Dec. 17. Army, Vietnam. Defense and security systems analysis, McLean Research Center and Wackenhut Applied Technology Center. Real estate.

Melvin K. Clay, IM 63, of Atlanta, on Nov. 27. Army (captain), Vietnam. Owner/operator, Western Atlanta Forms.

McCamie Franklin "Mack" Davis, Text 61, of Suwanee, Ga., on Jan. 15. Army. President/CEO, Davis Group.

Joseph Roy DePriest Jr., IE 61, of Savannah, Ga., on Feb. 22. Founding member, Delta Upsilon. Navy. Signal supervisor, CSX Railroad. Late father: Joseph R. DePriest Sr., EE 33.

Marvin James "Jim" Dunaway Jr., IM 61, of Pensacola, Fla., on March 8. Army (second lieutenant). Army Reserves (captain). Travelers Insurance. St. Paul Fire and Marine Insurance.

David Drew Gilpatrick, MS ME 63, of McLean, Va., on Dec. 19. Army. Scientific analyst, SAIC.

Howard Rutgers Grainger Jr., IE 69, of Arlington, Texas, on Jan. 22. Information director, Kinro.

David Duncan Hallock, Phys 60, of Bartow, Fla., on March 7. Army. Group head, ion laser section, Hughes Aircraft. Owner/operator, Badcock Home Furnishings.

David R. Hendrix, IE 60, of Whispering Pines, N.C., on July 21. Engineer, IBM.

John Parham "J.P." Holmes III, AM 66, of Auburn, Ala., on Feb. 11. Mathematics department faculty, Auburn University (professor emeritus).

Ruth Pressley "Edna" Hyers, AM 69, of Tucker, Ga., on March 1. Programmer. Husband: Bob Hyers, EE 65.

Thomas Roswell "TJ" Jones Jr., IM 64, of Blue Ridge, Ga., on Feb. 16. First National Bank of Atlanta. Trust officer, Southern Bank and BB&T.

David C. Katz, IE 63, MS IE 65, of Falmouth, Mass., on Nov. 6. Technology sales executive, Petrocycle.

John Harty Keating, IE 63, of Brandon, Miss., on Dec. 21. Army. Designer, Walker Electric.

Philip S. Kent, MS IM 69, of Argyle, N.Y., on Dec. 9. Navy. Instructor, Georgia Tech.

Jerry L. Kirk, EE 68, of Atlanta, on Dec. 19. Tennis. Lockheed. Georgia Power. Pittard Machine Company.

Douglas Bruce Langille, Phys 66, MS Phys 67, PhD Phys 74, of Huntsville, Ala., on Feb. 27. Research physicist, BAE systems. Math instructor, University of Alabama-Huntsville.

John Edward McCleary, MS ME 61, of Monterey, Calif., on Feb. 23. Army. Missiles and space division, Pentagon. Hughes Aircraft.

Charles W. McGuirt, AE 60, MS AE 62, of Camden, S.C., on Nov. 23. Instructor,

Georgia Tech Aerospace School. Memoirist.

Peter W. McMahon, AE 66, of Centerville, Ohio, on Dec. 23. Boeing. General Electric. Cincinnati Police Department. Director of data processing, NCR.

Jack E. Musgrove, ME 66, of Bristol, Va., on June 29. Air Force. Instructor, Virginia Highlands Community College.

Lewis "Buzz" A. Newman Jr., IM 67, of Denver, on Nov. 16. Army, Vietnam. IT Director, Arapahoe Community College.

Alma Joyce Rice Nickelson, AM 62, of Sterling, Va., on Jan. 28. President, Effective Software Solutions. Congressional fellow, American Institute of Aeronautics and Astronautics.

Roger W. Sudbury, EE 60, of Winchester, Mass., on Aug. 22. Army (captain). MIT Lincoln Laboratory.

Randell Croft Thomas, IM 65, of Atlanta, on Feb. 26. Consulting division, Arthur Andersen. Partner, Accenture.

Raymond "Ray" Thomas, AE 67, of Chesterfield, Va., on March 4. Business director of polyurethanes, Gulbrandsen Chemicals.

John Alvin Trask Jr., IM 67, of Carlsbad, Calif., on Nov. 19. Air Force (B-52 pilot), Vietnam. California Air National Guard. Insurance broker, Aon Corporation.

Bruce Calvin Vrieland, Cls 69, of Atlanta, on Feb. 23. Electrical engineer, Western Electric, AT&T, and Lucent Technology.

Joseph E. Watts Jr., ChE 66, of Round Lake, Ill., on May 8. District sales manager, Voith.

Warren L. Williams, ME 66, of Grayson, Ga., on June 20. Owner, Williams & Associates Engineering.

1970s

James H.D. "Don" Allen, MS Text 70, of Gadsden, Ala., on March 12. Army (lieutenant colonel). Instructor, Jacksonville State University. Avondale Mills.

Jeffery L. Baker, Mgt 72, of Lakeland, Fla., on Oct. 10. Vice president, Watkins Motor Lines.

Milton H. Bank II, MS AE 70, PhD AE 71, of Pebble Beach, Calif., on May 25, 2011. Navy. Professor, Naval Postgraduate School.

William "Bill" P. Boyd, Cls 77, of Phenix City, Ala., on Feb. 15. Army. Co-owner, B&H Steel Company.

William "Bill" D. Carlisle, MS ICS 71, of Memphis, Tenn., on Dec. 8. President, Applied Computer Technology.

Edith "Edie" Elizabeth Carlson, Psy 76, of Marietta, Ga., on Jan. 4. Associate dean, School of Continuing Studies, Rice University. Harry Norman Realtors. Nephew: Derek Carlson, ChBE 09. Nieces: Nikki Carlson, IAML 10, and Lisa Carlson, current student.

James R. Cothran, M Arch 78, of Atlanta, on Jan. 29. Vice president, Robert and Company.

Derward "Derry" Mitchell Hargett Jr., Arch 71, of Mobile, Ala., on Feb. 14. Architectural Review Board for Mobile. Mobile Historic Development Commission.

Charles William "Chuck" Kisabeth, EE 72, of Charleston, S.C., on March 4. Aerospace industry. Partner, Parkwood Pediatrics.

Kenneth Bruce Kite, MS Phys 76, MS IM 80, of Atlanta, on Feb. 1. Air Force. Research and development, Lockheed Martin.

Steve F. Lewallen, Cls 74, of Bristol, Tenn., on Feb. 21. Computer consultant.

THOMAS DAVENPORT



FORMER ALUMNI TRUSTEE

Thomas F. Davenport Jr., IE 56, of Cora, Wyo., on March 25. Mr. Davenport's many activities as a student at Tech earned him a spot on the *Who's Who Among Students in American Colleges and Universities* list, and he stayed closely involved with the Institute after graduating.

Mr. Davenport served on the National Advisory Board and the Alumni Association Board of Trustees. In 1997, he was named to the Georgia Tech Engineering Hall of Fame.

After serving four years in the Marines, Mr. Davenport spent a 30-year career with IBM, rising from a territory salesman to a senior manager. After retirement, he relocated to western Wyoming, where he started the Green River Valley Land Trust and became involved with mission trips to Africa through his church. Survivors include his son, Thomas F. Davenport III, IM 84.



in memoriam



Susan Niebur, Phys 95. Discovery program scientist, NASA. Owner, Niebur Consulting. Blogger, Women in Planetary Science and Toddler Planet.

Edward Nathaniel Lide, MS EE 70, of Atlanta, on Jan. 1. Air Force (captain), World War II. Lockheed. Consultant, Measurement Systems.

John Kenneth Marshall, CE 77, of Townsend, Ga., on Dec. 1. Private civil engineering practice. International mining and construction companies. Son: Blake R. Marshall, current student.

Ralph Edward Marshall Sr., IM 75, of Monroe, Ga., on March 3. Entrepreneur.

Ronald Harold Simpson, EE 77, of Conyers, Ga., on Feb. 22. Senior power systems engineer, GE. GE Field Service Engineers Hall of Fame (2005).

Michael Edward Smith, MgtSci 74, of Eudora, Kan., on Oct. 8. Marketing, IBM.

Harold B. Snyder Jr., MS AE 70, of Richmond, Va., on Feb. 14. Army (colonel). Aviator.

William George Stewart, CE 71, MS CE 73, of Absecon, N.J., on Feb. 17. Manager and co-owner, Continental Cleaners. Nephews: Glen Stewart, ME 09, and Alex Stewart, current student.

Robert A. "Bobby" Tillery Sr., IE 72, of Columbus, Ga., on Nov. 20. Vice president, Hardaway Company. Owner, J.A. Long.

James D. Wheeler, AM 71, of Atlantic Beach, Fla., on Dec. 1. Computer programmer, Coca-Cola. Norfolk Southern.

Michael William Bailey, Arch 86, MS Phys 88, of Savannah, Ga., on Dec. 18. Bailey & Bailey Associates.

Alexandra Y. Cleary, ChE 82, of Duluth, Ga., on Dec. 30. Georgia Environmental Protection Division. Husband: William Cleary, EE 82.

William "Bill" Albert Davis Jr., Arch 84, of Conyers, Ga., on Feb. 14. Army instructor, Southeastern Signal School. Georgia Power Company.

Mark Anthony Donihe, IE 86, of Roanoke, Va., on Jan. 4. President, Enviro-Dynamics. Sales engineer, Newbern Trane Associates.

Gabriel Ehrenstein, Cls 81, of Harrah, Okla., on Nov. 18. Biomedical engineer.

James R. "Randy" Gatton, EE 80, of Vienna, Va., on Feb. 23. ExxonMobil.

Cynthia Smith Hotchkiss, MgtSci 83, of Alpharetta, Ga., on Dec. 20. Production planning, corporate training and project management, Kraft, Georgia-Pacific and SAP.

Lydia Kedzierski, MgtSci 86, of Marietta, Ga., on Nov. 19. Route analyst, Delta Air Lines. Coach, First Lego League Robotics all-girl Georgia champion team. Brothers: Richard Musterer, IM 83, and John Musterer, IE 90, MS IE 92.

Joseph "Joe" B. Taylor, EE 83, of Ponte Vedra Beach, Fla., on Dec. 4. Owner, Camber Southeast. Memorial contributions: Georgia Tech Foundation Inc., 760 Spring Street N.W., Suite 400, Atlanta, Ga., 30308.

George J. Vargo Jr., MS HP 88, of Avondale, Penn., on Nov. 20. Radiology. Patent-holder, passive directional radiation probe. Editor, *Health Physics Journal*.

Michael T. Walker, Econ 89, of Jacksonville, Fla., on Jan. 2. Navy.

1990s

Sherry Ann Muhl, MS IE 93, of Kenmore, Wash., on Dec. 12. Developer, Stonger Every Day, a website of resources about gynecological cancers.

Susan Niebur, Phys 95, of Silver Spring, Md., on Feb. 6. Discovery program scientist, NASA. Owner, Niebur Consulting. Blogger, Women in Planetary Science and Toddler Planet. Husband: Curt Niebur, AE 96.

2000s

Blanton E. Black III, CS 06, of Martinez Branch, Ga., on Feb. 7. Principle Solutions.

Shannon Nicole Joiner, Mgt 06, of Atlanta, on Jan. 17. NCR Systems.

Friends

Robert B. Cassell, of Weeki Wachee, Fla., on Jan. 3. Army, World War II. Founder, Tech's Basic Economic Development Training Program. Chief research scientist, Georgia Tech.

Henry M. Neumann, of Decatur, Ga., on Feb. 3. Army, World War II. Chemistry professor, Georgia Tech (professor emeritus).

Charles Norman Ramsey, of Marietta, Ga., on March 6. Navy, Korea.

1980s

Assistant to the vice president, Georgia Tech. Wife: Elizabeth Ramsey, retired Tech staff member.

Myrna Steele Roberts, of Roswell, Ga., on Dec. 18. Project manager, Georgia Tech Research Institute. Husband: Matt Roberts, CS 01.

Charles "Chuck" E. Ryan Jr., of Atlanta, on Feb. 19. Principal research engineer, Georgia Tech Research

Institute. IEEE Life Fellow (1992).

Marakada "Mike" Chitharanjan Shetty, of Great Falls, Va., on Feb. 25. Professor, H. Milton Stewart School of Industrial and Systems Engineering, Georgia Tech.

William "Bill" Rodger Smythe Jr., of Norcross, Ga., on Feb. 14. Mathematics professor, Georgia Tech. Wife: Jackie Smythe, retired Tech staff

member. Daughter: Brenda Torri, M Arch 82. Son: William Smythe III, IE 88. Granddaughter: Christa Torri, BC 10. Grandson: Eric Thompson, IAC 11.

Frank W. Stallard, of Wilmington, N.C., on Nov. 21. Mathematics professor, Georgia Tech.

Julia W. Williamson, of Newnan, Ga., on Dec. 30. Bookkeeper, Georgia Tech bookstore.

RICHARD BELL ➤ WESLEY FOUNDATION CHAIR



Richard Bell, IM 61, of Atlanta, on March 26. He served as president of the Georgia Tech National Alumni Association and, for 17 years, as chairman of the board of the Tech Wesley Foundation.

In the 1960s he lived in Taiwan, where he served as assistant provost marshal and as lieutenant (junior grade) in Naval Intelligence.

Upon returning to the United States, he entered a career in commercial and industrial real estate at Atlanta's Pope and Carter Company. He later founded his own firms, Bell Cowart & Jackson and the Richard Bell Company. He was a member of the Atlanta Commercial Board of Realtors, the Georgia Chapter of the Society of Industrial and Office Realtors and the Atlanta Chamber of Commerce. He served as President of the Buckhead Business Association.

Donations may be made in his honor to the Tech Wesley Foundation at (404) 892-6317.



**Tech
100**



*Want to join the Tech 100 Business Club?
Contact Holly Green at (404) 894-0765
or holly.green@alumni.gatech.edu.*

Sean P. O'Hanlon, Esq., PLLC

An Intellectual Property Law Firm

Offering a full range of legal services to protect our clients' innovations and other intellectual property assets.

Located in Alexandria, Virginia - minutes from the U.S. Patent and Trademark Office.

info@seanpohanlon.com
www.seanpohanlon.com

703-829-7099
703-229-6491 fax



CJB AND ASSOCIATES

Carlos J Barroso

President

214.649.6640 direct

214.739.4786 fax

info@cjbassociates.com e-mail
cjbassociates.com

*R&D Consulting
Product Development
Innovation Assessment
Open Innovation*

6506 Norway Rd
Dallas, TX 75230



Breathe deep. Heal faster.

Specializing in hyperbaric oxygen therapy to heal wounds from infection, injury or disease.

Richard W. King, Jr. MD, FAHA, CWS, UHM
Medical Director
info@hyox.com

NW Atlanta

2550 Windy Hill Road
Suite 110
Marietta, Georgia 30067
Phone 678.303.3200
Fax 678.303.3205

Gwinnett

500 Medical Center Boulevard
Suite 170
Lawrenceville, Georgia 30046
Phone 678.672.1640
Fax 678.672.1647



Junk and Debris Removal

**Dorian E. Grant
Owner**

Phone: (404)550-9955
Fax: (404)795-0413
email: info@goodriddancejunkremoval.com
www.goodriddancejunkremoval.com

Mary Beth Lake

for all of your real estate needs.

www.marybethlake.com

404-495-8238

Industrial Design, 2004
Alpha Chi Omega
GT Ambassador



Atlantis Plumbing, Inc.



Michael Whitman

Master Plumber
GT CE Alumnus

Plumbing, Sewer and Drain Cleaning Service
Repiping and Trenchless Pipe Replacement
Water Heater Service and Leak Detection

Metro Atlanta Area • BBB Member
770-505-8570 • www.atlantisplumbing.com
mikewhitma@aol.com



Atlanta's preferred Technology staffing agency.
IT Staff Augmentation & Permanent Placement

Founded by Georgia Tech Alumni.
Please contact Clint Bailey - clint@htjjobs.com
www.htjjobs.com

**Atlanta Fine
Homes**

**Sotheby's
INTERNATIONAL REALTY**



To market or to find a distinctive home requires uncommon knowledge and resources.

Bill Ransom

FOUNDING PARTNER
404.974.4433
RansomTeam.com

AtlantaFineHomes.com

404.835.9580

Equal Housing Opportunity Equal Opportunity National Equal Housing Opportunity

EXIT
EXIT REAL ESTATE SOLUTIONS
www.JaeKimHomes.com

216 Eascott Place
Columbia, SC 29229
803-348-3052 (CELL)
JK4Homes@yahoo.com



Jae Kim, CRS
Owner/ Broker

Georgia Tech  **Research Institute**

Problem. Solved.

www.gttri.gatech.edu

AcuPay
solutions llc
Payroll services that power productivity.

Chris Pappadakis Principal & CEO
404.843.3819 chris@acupaysolutions.com

750 Hammond Drive • Building 10, Suite 200
Atlanta, GA 30328 • www.acupaysolutions.com

*Helping unleash passion and commitment
to improve your business results*

 **White Water**
consulting group

Sean Ryan Toll-Free: 877.890.6305
sryan@wwcg.biz
www.wwcg.biz

1639 Bradley Park Drive, Suite 500-222, Columbus, GA 31904

RAY SUTTON




REPLACEMENT METAL CASTINGS, INC.
904-225-5076
www.ReplacementMetalCastings.com

☒ **Increase Productivity**
☒ **Decrease Hiring Costs**
☒ **Invest In The Future**

Hire Georgia Tech Students Part Time!

HIRE INTUITION 


John R. Rosser
President
john.rosser@gatech.edu
Tel: 770.596.0508
www.HireInTuition.com

 **ARKE SYSTEMS** (404) 812.3123

Innovative and Flexible Online Solutions

- Enable Collaboration
- Optimize Productivity
- Market Brands Online
- Increase Value of Customer Interactions
- Leverage Social Media
- Automate Marketing Tasks
- Convert Browsers to Buyers More Quickly

PROUDLY STAFFED BY GA TECH GRADUATES
www.ArkeSystems.com | Info@ArkeSystems.com

 **Microsoft**
Gold & Silver Partner

King III Solutions, Inc.
"The Smarter Buying Solution"

King Harrison IV
Director of Marketing, IT

Marietta Office
P.O. Box 70488
Marietta, Ga 30007

king4@k3s.com
www.k3s.com
770-863-9578



**Tech
100**



*Want to join the Tech 100 Business Club?
Contact Holly Green at (404) 894-0765
or holly.green@alumni.gatech.edu.*

Georgia Health Coverage
Health Insurance from All Major Carriers
Apply Online www.pricepointthehealth.com

John Williams, Jr.
Authorized Agent



Service Center (770) 253.9283
direct (404) 663.8751
fax 404-795-0486
service@gahealthcoverage.com

PPO • HMO • POS • HSA

Financial Services

JERRY COX, CLU, ChFC
Atlanta Planning Group
3715 Northside Parkway, #200-490
Atlanta, GA 30327
Investments, Estate, and Life Insurance Planning
for Personal and Business Needs

(404) 816-1153 Ext. 304 Fax: (404) 814-1703
Securities offered through Investors Capital Corporation,
Member FINRA/SIPC

INSTANT IMPRINTS
The image people.
SCREEN PRINTING - EMBROIDERY - BANNERS & SIGNS
AD SPECIALITIES - TEAM UNIFORMS

K. Farrar Wood - MGT 1985
Georgia Area Developer
770-643-0200

SIX ATLANTA LOCATIONS
www.instantimprints.com imprintsga@yahoo.com

FRANCHISES AVAILABLE

RETIREMENT PLANNING SERVICES +
Al Culbreth, Jr., CFP®, CLU
Visit us online
www.RPS-GA.com • email: al@RPS-GA.com

100 Commercial Court, Suite B Savannah, GA 31406 TEL (912) 920-1914 FAX (912) 356-1000

2459 Heritage Village #12 Snellville, GA 30078 TEL (770) 979-1301 FAX (770) 979-6669

Wharton Certificate in Retirement Planning

**American
Settlement Corporation**

John H Stanford, Jr.
President
JStanford@AmerSettleCorp.com

6445 Powers Ferry Road | Suite 195 | Atlanta, Georgia 30339
770.951.0696 800.772.0677 770.951.8575 fax

 **Repex Investment
Management**

ERICH SOKOLOWER
Managing Director & Portfolio Manager
Registered Investment Advisor • Investment Management

888-795-6684
550 Durle Avenue, P.O. Box 577
Closter, New Jersey 07624

repexinvestments@cs.com
www.repexinvestments.com

THE BALDWIN GROUP
George Nathan
200 Brandon Place
Atlanta, GA 30328-1236
770.671.0300
www.baldwinscheduling.com
gnathan@baldwinscheduling.com
Construction Scheduling for projects up to \$1 Billion

**WAFFLE
HOUSE**

Looking for a great career?
Visit www.wafflehouse.com
<http://www.wafflehouse.com/>

MORI LUGGAGE & GIFTS

Georgia Tech Headquarters for luggage, briefcases, leather goods, travel accessories, pens and distinctive gifts.

**Atlanta, Augusta, Birmingham, Huntsville
Orlando, Naples, Jacksonville, Tampa
Nashville, Knoxville, Chattanooga
Charleston, Greenville, Spartanburg**

www.moriluggage.com

1-800-678-MORI



CHARLES W. HARRISON Real Estate Consultant

346 Candler Road SE
P.O. Box 170500
Atlanta, GA 30317
404-370-1820-office

404-556-1931-cell
404-370-1829-fax
CBR5x5@gmail.com

www.MeadowNook.com
www.PeachStateRealty.biz



Michael A. Masters, CFP®, CRPC®
Senior Financial Advisor

Tel: 404.264.6010 • Fax: 404.909.8710 • 800.937.0453
mike_masters@ml.com • www.fam.com/mike_masters
3455 Peachtree Road NE, Suite 1000, Atlanta, GA 30326
Merrill Lynch, Pierce, Fenner & Smith Incorporated

Frank Beacham
Attorney at Law
Georgia Tech Alumnus, BME 1985

Brinson, Askew, Berry Seigler, Richardson, & Davis, LLP

www.brinson-askew.com

P.O. Box 5513 Telephone: 706-291-8853
615 West First Street Atlanta Line: 404-521-0908
Rome, GA 30162-5513 Telefax: 706-234-3574
fbeacham@brinson-askew.com



Julie Carlock
Managing Partner
Integrity Business Group

Please contact Julie Sumerford Carlock
(MGMT 1984) for more information.

(770) 495-8366 — office
(770) 596-4311 — cell
www.IntegrityBusinessGroup.com



Engineering flow solutions,
affording you the ability to
operate at maximum efficiency.

Mike Higgins, P.E.

Southeastern Region Office
3709 Foster Hill Dr. North
St. Petersburg, FL 33704-1140
Tel. (727) 526-9805
mhiggins@airflowsciences.com
www.airflowsciences.com

- Fluid Flow
- Combustion
- Heat Transfer
- Particulate Control
- Thermal Processing

CFD Modeling, Physical Modeling
and Testing Since 1973

LOOKING FOR CAREER CHANGERS
TO TEACH MATH & SCIENCE
www.teachcobb.com



TEACH COBB

IT'S BETTER AT THE TOP!
www.teachcobb.com



Data Center
& Carpet Cleaning
Since 1990

DATA CENTER CLEANING • CARPET & UPHOLSTERY CARE

www.squarecare.com 1.800.200.9680

SPrice.IM70@GTAlumni.org

Superior Technology and Cleaning Processes



Mike “Taco” Lopez Lives on in Photos

Last summer, a group of Tech Lambda Chi Alpha alumni were discussing plans for their 30th anniversary reunion. Conversation turned to their time together in the late 1970s and early ’80s. And soon enough, those stories called up memories of Mike “Taco” Lopez, ME 80, a fraternity brother and avid photographer whose life was tragically cut short in a car accident in 1984.

“

Eric Fidler, ME 83, recalled the time Mike ran into Olivia Newton-John (1) in the Nashville airport. “Told me he walked up to her and asked her to marry him. When she told him no, he asked if he could take her picture.” A blown-up picture of the actress ended up on the wall of Mike’s room.

Mike arrived on campus in the fall of 1974 as a shy co-op student from Brentwood, Tenn. While at Tech, he matured into a big man on campus (2). A member of Lambda Chi Alpha (3) and the Ramblin’ Reck Club, Taco would become driver of the Ramblin’ Reck (4) in 1979.

Photography was Mike’s passion. He brought his camera to almost every party and sporting event. Mike developed his images on slides and put on elaborate slide shows at the fraternity. He also collected slides from older brothers.

Before a football game against Notre Dame, three brothers climbed Tech Tower (5) and hung a “Beat Irish” banner. Thinking back on that memory, one of the pranksters, Ken Kelly, IE 81, recalled that Mike had documented it with his camera.

The Lambda Chi brothers wondered, “Whatever happened to the slides from that night, as well as the hundreds of others?” Tim Regan, IM 80, had stayed in touch with Mike’s sister through the years. After Mike’s death, the family had packed away his 2,000-plus Kodachrome slides and had all but forgotten them. After Mike’s parents passed away, the carousel boxes of slides went to his sister, who kept them packed away.

Tim picked up the slides from the sister and passed them on to Tom Williams, ME 83, who cleaned the slides, then had them professionally digitized. At the reunion in October, the brothers sat through a slide show, images of their

time as students brought back to life.

There was the photo of Kelly, Taco and Ken Drake, ME 80, on top of Tech Tower. There were hilarious images from toga parties (6), bamboo parties, road trips, spring breaks and winter formals. Images from Homecoming (7) showed the gigantic front yard displays and the complicated mechanical contraptions from the Reck Parades. Greek Week’s Tug-O-War (8) was brought to life in muddy glory.

Kit Baker, IE 83, who drove the Reck in 1982, remembers Taco as one of the kindest people he met. “One Friday night before a game, the Reck would not start. I tried all the tricks I had learned on that 1929 engine, but nothing worked. I called Taco, and he was able to come over and get her running. I was so glad he was available, knowing he was quite the ladies man and would be out later.”

One of Mike’s close friends, Tony Zeigler, CE 78, shared this remembrance: “I still remember where I was when I got the news of Taco’s death. ... It was never about Mike, but always about Lambda Chi, friends, Georgia Tech, the Reck and helping where he was needed. And he always had a smile and that camera. ... Studying took a back seat, and I don’t recall Mike sleeping a lot. It was like he knew his time here was short, and he didn’t want to miss anything.” ▲

L. Mitchell Ginn, Arch 82, M Arch 85, is the owner of the residential design firm Ginn & Associates in Newnan, Ga.

”

Have a Tech memory to share? Send written pieces to Editor, Georgia Tech Alumni Magazine, 190 North Ave. N.W., Atlanta, GA 30313, or submit by email to publications@gtalumni.org. Entries will be selected for publication in the magazine and at gtalumnimag.com.



1



2



3



5



4



6



7



8



Do you know what's going on? Send an email to editor@alumni.gatech.edu with an explanation, and we'll print it in the next issue of the *Alumni Magazine*.
Have a Tech artifact to share? Send a photo to publications@gtalumni.org.

While sorting through our archives, we come across the occasional curiosity. Case in point, this photograph. The print isn't labeled, and we don't have the foggiest notion of when it was taken, who these men are or why they're holding their oars aloft.



Time Machine

5 years ago, in 2007, the Tech men's lightweight crew team won a second straight gold medal in the Dad Vail Regatta, college rowing's biggest event.



10 years ago, in 2002, President Jimmy Carter, CIs 46, received the Nobel Peace Prize and the Ivan Allen Jr. Prize for Progress and Service.



25 years ago, in 1987, John P. Crecine was named Tech's ninth president.



50 years ago in 1962, the RAT rules (which mandated that the cap had to be worn at all times, and that offenders had their heads shaved) were dropped on campus.



75 years ago, in 1937, the Industrial Development Council was formed to be the contractual agency of the Engineering Experiment Station. The council would become the Georgia Tech Research Corporation.



100 years ago, in 1912, the Rockefeller YMCA building was built on the corner of North Avenue and Fowler Street at a cost of \$75,000. Many renovations later, it now is the L.W. "Chip" Robert Jr. Alumni House, home of the Alumni Association.

ASK GEORGE P.

TECH'S MAN OF MYSTERY, GEORGE P. BURDELL,
WILL NOW TAKE YOUR QUESTIONS.

DEAR GEORGE, What did you do with the Centennial Wreck? Is it still drivable?

ALAN MITCHELL,
ECON 85, SAVANNAH, GA.

DEAR GEORGE, What was the first class you graduated with?

TOM HASKINS, IE 57
WARNER ROBINS, GA.

DEAR TOM, I picked up a bachelor's degree in 1930 and later added a master's degree. But I haven't let a little thing like graduation keep me from being a student. G.P.

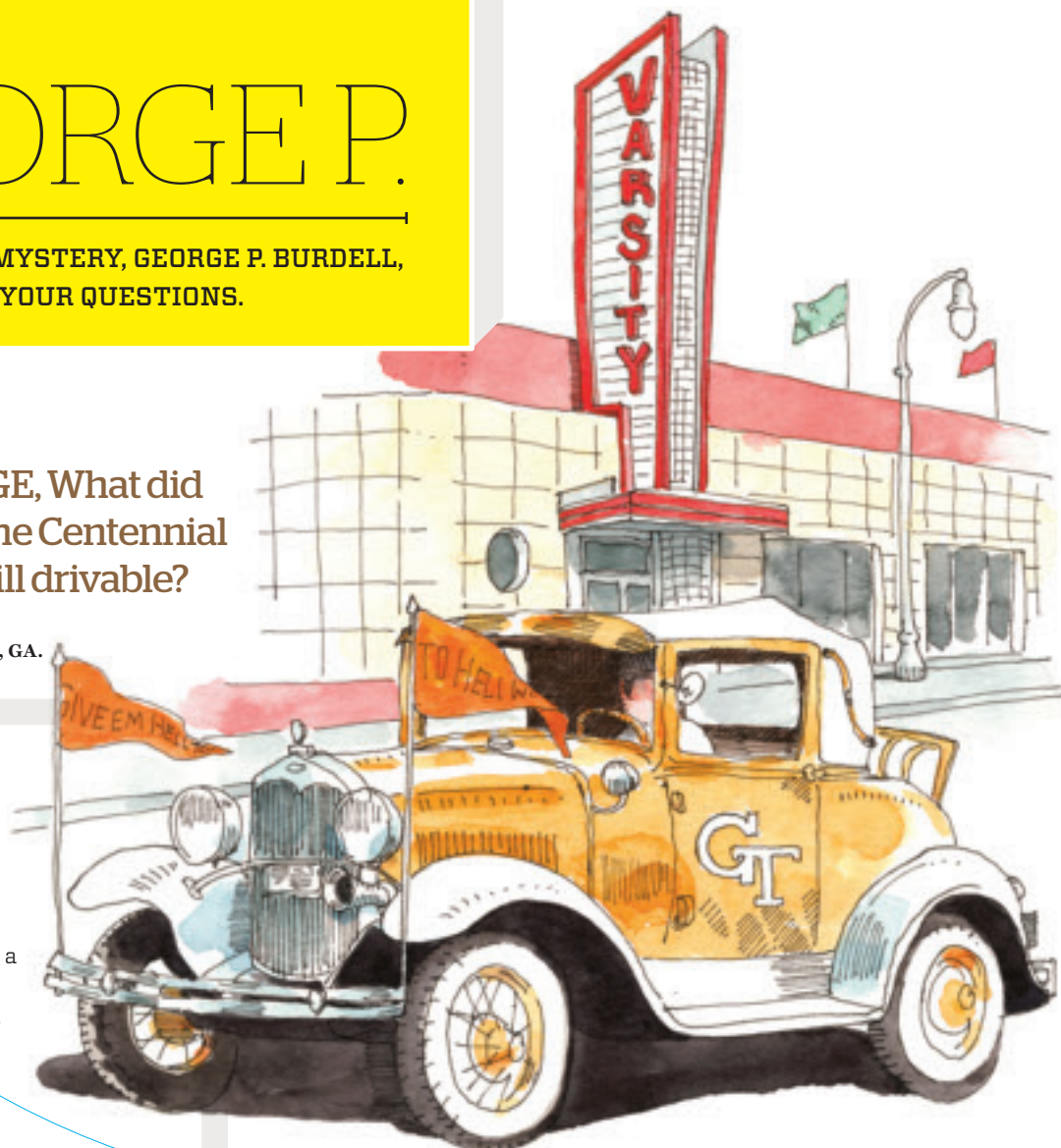
DEAR GEORGE, Just how many lecture notes have you been the scribe for?

AKASH KUMAR, MS CS 11 SANTA CLARA, CALIF.

DEAR AKASH, I haven't let a little thing like being a student keep me from not doing any schoolwork. G.P.

DEAR GEORGE, When will we win the finals in something? KEVON LUK, MGT 10, ATLANTA

DEAR KEVON, I'm going on the record right now: The Georgia Tech underwater hockey club team is winning the 2012 championship. Consider it set in stone. G.P.



Dear Alan, As you know, the Centennial Wreck is a 1931 Ford Model A Cabriolet that was refurbished in 1985 by Ford employee and longtime Ramblin Reck Club supporter **Pete George, IE 44**. That year, the car was given away in a raffle that raised \$250,000 for the Alexander-Tharpe Fund. Rumor has it that I now own the Centennial Wreck and can be seen on misty nights tooling along North Avenue in it, but actually the car ended up far from Atlanta. George repurchased the car in the late 1980s and sold it in 1991 to Robert F. Tasca Sr., a fellow Ford employee. Tasca used the car as a display item in his Tasca Automotive dealership in Cranston, R.I. Tasca died in 2010, but the Centennial Wreck remains in the showroom. Except for when I "borrow" it on misty nights. G.P.

Have a burning query for George P.? Email him at georgep@gtalumni.org, post it on Facebook ([facebook.com/GeorgiaTechAlumni](https://www.facebook.com/GeorgiaTechAlumni)) or Tweet it to [@gtalumni](https://twitter.com/gtalumni).

Groundbreaking research in the school of Biomedical Engineering that can save and improve lives



Scholarships for exceptional students

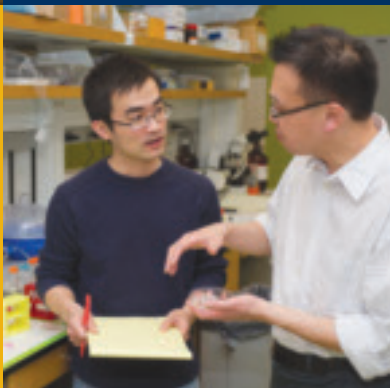


Hands-on experience for students, such as those in the school of Civil and Environmental Engineering.



Rewarding student life programs and initiatives

World-class instruction and curriculum



The purchase and development of Technology Square, which transformed Tech's campus



The most commonly asked question about Roll Call is

These are just a few examples of where Roll Call funds are utilized, and their significant impact at Georgia Tech. Gifts to Roll Call benefit virtually every one of Tech's academic programs.

Unrestricted Roll Call contributions provide a vital and necessary stream of annual support. Your gift goes directly to the bottom line to better serve students, address unexpected issues, and capitalize on breaking opportunities. It even enhances the value of your Tech degree. **Please Give Today!**

WHERE DOES THE
MONEY
GO?

ROLLCALL
Your Gift Enhances the Value of Every Tech Degree
65
GEORGIA TECH ALUMNI ASSOCIATION • 65th ANNUAL ROLL CALL

USE OUR NEW & IMPROVED ONLINE GIVING FORM AT
www.gtalumni.org/giving



MAKE YOUR GIFT TO THE 65TH ROLL CALL:

Roll Call, Georgia Tech Alumni Association | 190 North Ave. Atlanta, GA 30313-9806
or call **(800)GT-ALUMS**

EARN MILES AND GET BUZZING

www.gatechcard.com



Georgia Tech Alumni Association has partnered with Capital One® to offer you three credit card options to fit your needs. Choose a card that earns you great rewards, one with a low introductory APR or another to help build your credit. Plus, you can choose an image for your card that reflects your pride for GT. Apply today!

