ONE BIG QUESTION

"IS MY SMART TV SPYING ON ME?"

FLORIDA TECH'S INTERNATIONAL DIVERSITY DEVELOPS GLOBAL CITIZENS

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Showcasing the innovative designs and research insights of Florida Tech students.

GO GREEN, GET ONLINE!
Find expanded coverage, photos and videos at:
today.fit.edu
OYSTER MATS
Florida Tech’s Indian River Lagoon Research Institute invited community volunteers to make oyster mats on campus for an Earth Day project. The mats will be deployed in the Indian River Lagoon as part of the Living Docks program to promote the growth of filter-feeding organisms such as oysters, sponges, barnacles and tunicates along boat docks and sea walls.

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Cover Photo: Lakshmi Narasimhon Athinarayana Venkatarasimhan, known as Simhon, is the coordinator of the Florida Tech Diplomat Program, a 12-year-old initiative of the Office of International Student and Scholar Services (ISSS). See story on page 18.

Photo by Mike Brown
PRESIDENT’S MESSAGE

Dear Alumni and Friends,

On May 6, Florida Tech conferred more than 1,400 degrees on undergraduate and graduate students. I had the honor of leading the ceremonies and seeing the results of the hard work and unflagging commitment these students put forth to achieve their goals.

I was reminded of those qualities on another occasion on that special Saturday, too, and it also involved degrees. Though these recipients were not there in person, the results of their hard work, intelligence and passion are spread across our campus, and our community, to the benefit of us all.

Five years after he arrived from his native Norway with his family in 1984, Bjørnar Hermansen joined our board of trustees. By then he had already helped start a cruise line that would go on to reshape Port Canaveral and the cruise industry itself. As you might expect, his impact on our board, on which he served until his passing in December 2015, was deep and long-lasting. He was a steadfast advocate for Florida Tech’s commitment to global education, and that critical area of our programming grew during his tenure, nurtured in part by his attention and counsel. He and his lovely wife Bjørg, who passed away last October, also funded two scholarship programs here, in addition to supporting our Foosaner Art Museum.

And in January, Mary Helen and I were honored to establish the Bjørnar K. Hermansen Ocean Engineering Professorship. On May 6, Florida Tech took another step toward highlighting Bjørnar’s significance to our university by conferring on him an honorary doctorate.

Like Mr. Hermansen, the second recipient we honored made contributions that were wide ranging and substantial, both on campus and beyond. Nathan Bisk was a visionary man and an innovator. Already an accomplished accountant, he was attending law school at the University of Florida in 1971 when he took, and passed, his Certified Public Accountant exam. But he found that access to good test preparation materials was lacking.

So what did he do? Create Bisk Education to offer seminars for folks preparing for the CPA exam. Today, Bisk is the leading online program management company in the country. With over 800 employees, Bisk has facilitated more than one million enrollments for university partners including Florida Tech.

Mr. Bisk’s connection to Florida Tech, however, ran far deeper than the contract to develop and support the university’s online learning programs. He served for nearly eight years as a member of our board of trustees before stepping down in January. And in 2009 and again in 2014, he provided substantial gifts to support what we now know as the Nathan Bisk College of Business. Mr. Bisk passed away at his Tampa home on March 6, but his legacy at Florida Tech, across cyberspace, and throughout the education spectrum, is secure.

Sincerely,

T. Dwayne McCay, Ph.D.
President

BIMDA, the Space Coast’s not-for-profit medical and dental association, has pledged $15,000 to Florida Tech in support of STEM education. The grant is one of six the association recently awarded to select Central Florida organizations in support of STEM, medicine and nursing and in celebration of 15 successful years of hosting its signature Medical Expo. Pictured, left to right: Glad Kurian, Dr. Aparna Kopuri, President McCay, Dr. Ashok Shah.

President McCay was recently honored with the Samuel Ginn College of Engineering Outstanding Aerospace Engineering Alumnus Award from Auburn University. McCay is one of the few three-time graduates of Auburn. In 1968, he earned his bachelor’s degree in physics; in 1969 he graduated with his master’s degree in aerospace engineering; and in 1974 he was the first doctoral graduate from aerospace engineering at Auburn. Pictured with McCay and representing Auburn, left to right: Jane DiFolco Parker, vice president, Office of Development; and Dan Bush, associate director of development.

Florida Tech was featured as the cover story for the May edition of Space Coast Business magazine. In addition to acknowledging the university’s important role in helping to fill the high-tech talent pipeline, the Pillars of Excellence program was highlighted.

Left: Bjørnar Hermansen’s son, John, accepts an honorary doctorate awarded posthumously to his father. Right: Nathan Bisk’s children, Alison and Mike, receive the honorary doctorate in their father’s memory, presented at the Spring 2017 Commencement Ceremony.
International Festival by the Numbers

From Brazil to India, Saudi Arabia to China, the world’s cultures, foods and traditions were celebrated at Florida Institute of Technology’s 11th Annual International Festival on Feb. 18 on the university’s Panther Plaza.

- **1,500** attendees
- **17** booths
- **14** performances
- **500** passports/treat boxes distributed
- **17** volunteers
- **9** vendors
- **60** flags used
- **250** student participants
- **20** countries/geographic regions participating in passport program
Enriching Research

SUPERMASSIVE DISCOVERY
Astronomers recently uncovered a supermassive black hole that was pushed away from its home in the center of a distant galaxy by what is believed to be powerful gravitational waves. The waves spawned from the collision of two black holes that then merged to form the off-center massive object. Astrophysics professor ERIC PEARLMAN was part of the team that analyzed the data from the Hubble Telescope to help make the discovery.

A RISING TIDE ON CORALS
Biology professor ROBERT VAN WOESIK recently won a $586,000 National Science Foundation grant to find out if corals in the Pacific Ocean can thrive in the face of rising sea levels. The study will look at the geographic differences of healthy coral and at those that are struggling. Van Woesik hypothesizes that rates of coral growth depend on water temperatures, local water-flow rates and land use. Data gathered from this study could possibly help predict where reefs will be able to keep up with sea-level rise.

A Garden Rooted in Sustainability
A COMMON SUSTAINABILITY ETHOS AMONG A GROUP OF RESIDENCE LIFE STUDENTS HELPED SEED THE BEGINNINGS OF A LIVING-LEARNING COMMUNITY IN EVANS HALL.

"I’m a student who doesn’t just do homework, I make a difference."
Lexi Miller

Over a year ago, interdisciplinary science master’s students, ZACHARY EICHHOLZ and LEXI MILLER, along with 15 other Residence Life students formed a sustainability committee to propose sustainable changes at Florida Tech residence halls. “We wanted to bring about sustainable changes to the housing areas. We figured a garden was a good start for that. We wanted something that the entire campus could be involved in,” said Eichholz, president of the Residence Life Sustainability Committee.
Partnering with the university’s sustainability officer, DANIEL SUTTON, the committee secured funding through the Florida Sustainability Initiatives grant, worked with Facilities Operations to design the plot, gathered input from campus stakeholders, and realized their vision this spring.
Today, the garden is brimming with tomatoes, peppers, carrots, basil and cilantro as well as beautiful flowering plants ushering in the start of spring. Eventually, the flowering plants will find new homes around campus to make room for more edibles. The garden also features a composter and reused pallets, serving as a proof of concept to support more sustainable initiatives on campus. “There are plans right now for a possible living-learning community—an area for students who are environmentally minded or studying environmental programs,” said Miller.
What was once a plot of underutilized grass is now a physical representation of the spirit of students who want to live a more eco-conscious lifestyle.
“It feels like something that will make a change and will be worth all the hard work and late nights,” said Miller. “I’m a student who doesn’t just do homework, I make a difference.”
The Ethos Community Garden is a legacy and beacon for those who feel the same.

Erin Fox

I’m a student who doesn’t just do homework, I make a difference.
Lexi Miller
Trustee Transitions

Four new members have joined the Florida Tech board of trustees, now under the chairmanship of ROB PHEBUS. Phebus ’74, retired CFO of Ford Motor Company of Southern Africa, assumes the position of board chairman from Phillip Farmer, retired chairman, president and CEO of Harris Corp.

The new trustees include:

MICHAEL BISK, a 24-year veteran of higher education, who is CEO of the Tampa-based company Bisk, one of the nation’s leading providers of online program management services.

BRIAN CRANE ’91, who leads the Melbourne-based Crane Private Wealth Management of Raymond James, where he serves as senior vice president, investments, and managing director.

SVAFA GRONFELDT ’90 M.S., who is executive vice president at Alvogen Inc., a global life science company. She is also a founder and advisory board member of the DesignX entrepreneurial accelerator at Massachusetts Institute of Technology.

JAMES SING WAI WONG JR. ’07 M.S., a Hong Kong resident, has roles with three family-owned engineering companies in Hong Kong. At Chinney Alliance Group Ltd., he is executive director; he is director at both Chinney Kin Wing Holdings Ltd., and Chinney Investments Ltd.

“With their range of experience and expertise, our new trustees will enhance the board’s ability to elevate Florida Tech to even greater success in the years to come. We thank them for their commitment to ensuring our university continues to produce global citizens who will make their mark on their communities and the world.”

President T. Dwayne McCay

MCCAYS ESTABLISH ENDOWED PROFESSORSHIPS

President T. Dwayne McCay and first lady Mary Helen McCay have established endowed professorships in science and engineering in honor of two influential members of the university community who passed away within the last year.

The Bjornar K. Hermansen Ocean Engineering Professorship is named for the businessman, philanthropist and 26-year Florida Tech trustee who died Dec. 30, 2015.

In recognition of Hermansen’s generosity toward the university, the professorship is a testament to his unwavering commitment to the mission and values of Florida Tech while also acknowledging the formative impact he had on the development of Port Canaveral and the cruise industry.

Junda Lin, a professor of biological sciences at Florida Tech and director of the Institute for Marine Research, died March 2, 2016. The Junda Lin Marine Biology Professorship will honor Lin’s passion for teaching and the quality and importance of his research in the field of marine science as well as his key role in advancing both the institute and the Vero Beach Marine Lab.

“From the boardroom to the classroom and beyond, these two men made a huge, positive impact not just on Florida Tech, our students, staff and faculty, but on citizens and businesses across Central Florida,” McCay said. “Mary Helen and I are honored to establish these professorships that will keep these special men in our thoughts and making a difference for years to come.”

EVALUATING CULTURALLY COMPETENT SOLDIERS

RICH GRIFFITH, professor of industrial/organizational psychology and executive director of the Institute for Cross Cultural Management, is working with the Army on ways to test members of the Green Berets on cross-cultural competence. Soldiers who are cross-culturally competent are likely to be more effective on missions because they have the skills to absorb local customs and take behavioral cues from a population to avoid committing taboo behavior.

ALGAE EFFECTS ON DOLPHINS

SPENCER FIRE, an assistant professor of biological sciences, is working with researchers at Harbor Branch Oceanographic Institute on how toxic algae in the Indian River Lagoon may affect dolphins and their prey in the estuary. Fire will be testing for harmful algal bloom (HAB) toxins in the water, sediment and in animal tissue during non-bloom times to establish a baseline and test again when an algal bloom is in effect. Ultimately, the scientists want to determine if there are correlations between toxin concentration and dolphin pathology.
Campus Highlights

**BEDOUIN EXHIBIT INSPIRES LITERARY EXPRESSION**

“A culture ever drifting. With art ever shifting.”

**EAGLE RICHTER**, a freshman studying biomedical science, wrote this Ghinnawa, a Bedouin two-line lyric poem, after visiting the exhibit “Traditional Arts of the Bedouin” at the Ruth Funk Center for Textile Arts as part of a COM 1101 assignment. Instructor **JULIANNE MALLAK** coordinated the trip to the campus textile arts center to give her students an opportunity to experience the essence of Bedouin culture and draw from its examples of folk art to describe the traditions of a nomadic people.

Now through Aug. 26 at the Funk Center is “Flora and Fiber.” Curated from the center’s permanent collection, the exhibit explores the use and depiction of flowers and foliage in fiber art.

**Florida Tech’s ISRU Class Visits NASA’s Swamp Works**

Last fall, **DANIEL BATCHELDOR**’s ISRU class, or “Living Off the Land in Space” class, took advantage of Florida Tech’s NASA connection for a behind-the-scenes tour of NASA’s Swamp Works.

The purpose of the ISRU class is to address the problem of sustainability on other planets, particularly Mars. It’s impossible to take everything humans need to live, so researchers must find ways to use as much of the planet’s resources as possible.

“For example, a team of six people for two years on the surface of Mars would need over 60 tons of stuff to keep them alive,” Batcheldor said. “Both NASA’s and Space X’s current vehicles would be able to deliver 20 tons to the surface of Mars.”

NASA scientists acknowledged this problem and started Swamp Works as a grassroots movement after the end of the shuttle program. They saw a need for research in sustainability on Mars and wanted to get back to basics with a more hands-on approach.

During the tour, students had the opportunity to hold charred regolith simulant—or simulated Mars soil. They also witnessed solar panels embedded with electrodes clearing dust for more efficient power generation, as well as a host of different robots.

Robots called “Swarmies” are programmed to act like ants to search for minerals and water and bring it back to home base. “RASSOR II,” a lightweight mining robot, was also on display.

From labs holding instruments capable of detecting hydrogen and water in Martian soil, to the Mars Atmospheric Processing Module that takes carbon dioxide and hydrogen and turns it into methane to use as propellant, these future physicists saw all the ways NASA is working to be as resourceful as possible for the largest, most complex missions they’ve ever tackled.

“It’s been more than I thought it would be,” **DENNIS PICKETT**, astrobiology junior, said. “They talked about RASSOR. They talked about the test bin, but it looks a lot more intense than what I expected. NASA knows what they’re doing.”

Jessica Taylor

Florida Tech students visit NASA’s Swamp Works and got to peer into the Regolith Test Bin, holding over 120 tons of Martian regolith simulant.

Sakhee Bhure, astronomy and astrophysics major, and Victoria Jenne, astrobiology major, hold regolith simulant tested for heat shield use at NASA’s Swamp Works.
ON CAMPUS

Campus Tour Ignites Passion for STEM Studies

Seventy sixth-graders from University Park Elementary School converged on Florida Tech in December, where they were greeted and guided by students in the School of Arts and Communication (SAC) on a tour of the campus.

“Many of these kids walk by our campus every day on their way to school. This tour provided them with a chance to peek inside Florida Tech and really see what our university is all about,” said ROLANDA HATCHER-GALLOP, a communication instructor who organized the visit.

“This also was our way of encouraging them to continue their own academic journey, and to realize that they, too, could one day attend Florida Tech as students,” she added.

The tour, which included members of the campus chapter of the Florida Public Relations Association serving as guides, featured a science demonstration by JOEL OLSON, associate professor of chemistry, a tour of Evans Library that included a demonstration in the Digital Scholarship Lab, and an exercise activity with Florida Tech student-athletes in the Clemente Center. The trip ended with lunch in Panther Dining Hall.

“This was so exciting for these students,” said Sheri L. McCrary, a science lab teacher at University Park who worked with Hatcher-Gallop to make the visit happen. “I think it is getting many of them to think about their futures and possibly careers in the STEM/STEAM fields.”

OUTSTANDING ONLINE EDUCATION

Several of Florida Tech’s online degree programs are among the best in the country, according to U.S. News & World Report’s 2017 Best Online Programs rankings. The rankings assess schools based on four categories: student engagement; faculty credentials and training; peer reputation; and student services and technology.

AMBIANCE AND ACADEMICS

The Library Journal’s Year of Architecture 2016 recognized Evans Library’s Digital Scholarship Lab, noting its use of commissioned artwork, bright colors and unique furnishings. Shared themes among the selection of featured spaces included attention to sight lines, maneuverability, accessibility and natural light.

GRAND PRIZE GOLF BALL

CHRIS GIBSON ’10 of Houston, Texas, won the $50,000 top prize at the 14th Annual Chopper Dropper fundraiser on March 24 at Suntree Country Club. The marquee event is the university’s biggest fundraiser for athletic scholarships.

Ask the Archivist

The Harry P. Weber University Archive documents the essential functions and history of Florida Tech and its impact on the community by collecting, preserving and making available records of intrinsic value. But do we still need an archival repository in the age of the internet? University archivist ERIN MAHANEY weighs in.

Is any of this really still relevant with everything going digital?

Even more so! The reasons we choose to keep records do not necessarily change when an item is digital instead of physical. Digital archiving represents a new set of challenges, especially for preservation, but the ethics and standards we apply to collecting, preserving and providing access still apply. With digitized or born-digital content, it is more important than ever to think about archiving both content and functionality, and of implementing strategies at the point of creation.
Innovators of Distinction

President T. DWAYNE MCCAY, a renowned engineer and research scientist who was awarded numerous patents during his academic career, has been named a Fellow of the National Academy of Inventors (NAI).

Election to NAI Fellow status is a high professional distinction accorded to academic inventors who have demonstrated a prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development and the welfare of society.

“I am deeply honored to join the other outstanding members of the 2016 class of NAI Fellows and to carry on the tradition of academic excellence and scientific curiosity these distinguished men and women represent,” McCay said.

Furthermore, McCay and first lady MARY HELEN MCCAY will be inducted into the Florida Inventors Hall of Fame in the fall, becoming the first scientific couple to be enshrined in the Tampa-based institution that recognizes Florida inventors whose achievements have advanced the quality of life for Floridians, the state and the nation. The McCays hold 15 joint U.S. patents in the area of metallurgical engineering.
Chemistry research projects demand a vast array of shapes and sizes of high-quality glassware that is used to measure volume, to store materials, to mix and prepare solutions or even to contain a chemical reaction. Here’s a closer look at just a few of these items:

1. **Volumetric Pipette** (25 mL) allows extremely accurate measurement (to four significant figures) of a volume of solution
2. **Burette** (50 mL) a device used in analytical chemistry for dispensing variable, measured amounts of a chemical solution
3. **Erlenmeyer Flask** (4000 mL) has a flat bottom, a conical body and a cylindrical neck used for titrations and boiling liquids
4. **Volumetric Flask** (2000 mL) calibrated to contain a precise volume at a specific temperature; used for precise dilutions and preparation of standard solutions
5. **Volumetric Flask** (250 mL) calibrated to contain a precise volume at a specific temperature; used for precise dilutions and preparation of standard solutions
6. **Round Bottom Flask, Triple-Neck** (500 mL) used for more uniform heating and/or boiling of liquids
7. **Ground Glass Stopper** used because of its nonreactivity, unlike cork or rubber
8. **Büchner Funnel with a Sintered Glass Disc** used to filter out solid particles, precipitate or residue from a fluid
9. **Erlenmeyer Flask** (250 mL) has a flat bottom, a conical body and a cylindrical neck used for titrations and boiling liquids
10. **Büchner Flask** (25 mL) used with a Büchner funnel, filter paper and a vacuum source to separate solids from a fluid
11. **(GRIFFIN) Beaker** (2000 mL) used for preparing solutions, decanting supernatant fluids or holding waste fluids
12. **Graduated Cylinder** (10 mL) used to measure the volume of a liquid; are generally more accurate and precise than laboratory flasks and beakers, but they should not be used to perform volumetric analysis
13. **Graduated Cylinder** (4000 mL) used to measure the volume of a liquid; are generally more accurate and precise than laboratory flasks and beakers, but they should not be used to perform volumetric analysis
Horse Whispering at Forever Florida

Working in the field takes on a whole new meaning for Florida Tech psychology students.

Through Sandra Wise’s “Eye of a Horse” program at Forever Florida in St. Cloud, doctoral students have the opportunity to work with a variety of individuals, from humans to horses. This experiential approach to psychology not only gets these students outside, but it teaches them a lot about communication, trust and themselves.

Wise ’95 Psy.D., a licensed psychologist, started the “Eye of a Horse” program in 2002 with the help of Dean Van Camp, an experienced horse trainer.

“He’s a horse trainer who worked with horses having difficulty living in the world with humans,” Wise said. “I was working in the prisons trying to help folks who were having problems living in society with others. Dean taught me everything he knew about horses, and I taught him a lot about psychology.”

Their relationship with Florida Tech began with workshops for doctoral students in the clinical psychology program who wanted to hone their skills by working with the nonverbal side of therapy using horses. Then Wise invited veterans struggling with PTSD, at-risk youth, young adults on the autism spectrum, those with spinal cord injuries and clients struggling with substance abuse.

Florida Tech students could volunteer their time to work with these clients, until the program became a practicum site in which they could earn credit toward their degree.

That’s how Caroline Witek and Emily Burch, both third-year students in the clinical psychology doctoral program, got involved.

“Experiential therapy by nature is experience,” Witek said. “It’s therapy by doing, which is so different from traditional thought therapies. I think that’s why it’s a little bit of a secret because it’s hard to explain and talk about. You need to experience it for yourself.”

Psychology students accompany their clients throughout the property on the Crescent J Ranch at Forever Florida. They walk through the Boneyard, where they discuss the importance of the cycle of life and death. They head out into the fields, where they sit quietly and build trust with wild horses and their colts. They also work with horses in the corrals and training ring. All along the way, they build their situational awareness by observing the wildlife around them.

“You learn something about yourself by the response you get from the animal,” Wise said. “So many times in our culture, we talk about looking at animals. We go whale watching, bird watching, we go to the zoo to look at animals. We rarely take into account the fact that they are looking back at us, and that’s a very important piece. You can think of it this way—you really don’t know yourself until you’ve seen your reflection in an eye other than human.”

Jessica Taylor

—Sandra Wise ’95 Psy.D.
Free Speech, Free Press, Free Cookies

Florida Tech’s sixth annual free speech celebration, hosted by the staff of The Crimson, encouraged the university community to freely express themselves on the free speech wall.

Other events included a keynote lecture by Pulitzer Prize-winning journalist Leonora LaPeter Anton, of the Tampa Bay Times; a roundtable discussion about fake news; a panel discussion with reporters and editors from Florida Today; and the No-Free-Lunch free lunch, where participants give up their First Amendment rights for a free meal.

What Frog?

Become a pocket herpetologist!

Frogs and toads are excellent indicators of habitat quality, but these creatures are experiencing an unprecedented collapse in populations due to habitat loss, pollution and novel diseases.

Researchers need the support of citizen scientist as they work to document where frog and toad populations are most affected.

So Florida Tech researchers have developed the Whatfrog app, with grant support from the National Science Foundation. Available in the iTunes store, users can identify and log the calls of frogs and toads using voice recognition technology.

Super Hero with Speed

Fast-paced fun, women in STEM, art and engineering—Larsen Motorsports’ new project, Blaze, the comic book, has it all.

Written and illustrated by Florida Tech students interning at Larsen Motorsports, the comic is designed to spark interest in STEM studies among high school students.

The idea came to Elaine Larsen while blazing down the race track at 280 mph. A young fan had approached her after a race and asked whether her fire suit was her “Super Suit.” And so, Blaze, the super hero, was born.

Find it, along with STEM-themed lesson plans, online: www.adventuresofblaze.com
No. 1 nationally ranked Florida Tech took home the V8 and Team Championship in the Sunshine State Conference Rowing Championship during this morning’s contest at Nathan Benderson Park. The Panthers completed the day with an accumulation of 16 points, besting their closest competitor by four. With the victory, the Panthers marked their sixth SSC Championship and their first since the last time they won in 2005.

Men’s basketball junior Sam Daniel set a new school record with 93 three-pointer field goals, smashing the old mark of 84 from the 2005–06 season. He also eclipsed the 1,000-point milestone and garnered First Team All-Sunshine State Conference honors. He led FIT, and ranked second in the SSC, in scoring at 20.4 points per game, while shooting .461 from the field, .403 from beyond the arc and .829 at the charity stripe. Daniel also finished fifth in the league in rebounding with 7.4 per game.

Women’s lacrosse found itself ranked in the Top 10 of the Intercollegiate Women’s Lacrosse Coaches Association Division II Poll for the first time in program history. The Panthers, who were ranked No. 9 in the nation on April 3, rattled off a school record eight straight victories at one point in the season. At the time, the Crimson & Gray were the only team ranked in the top 5 in DII in scoring offense, scoring margin and caused turnovers per game.

Florida Tech head coach Justin Andrade has been voted the Sunshine State Conference’s Coach of the Year for men’s swimming after leading Florida Tech to its best season and first national title in program history. Andrade becomes the first Panther to garner an individual award in men’s or women’s swimming.
Florida Tech freshman Joshua Norville has posted the best freshman campaign in track & field history. The Lehigh Acres, Fla. native is one of the top athletes in the nation in the triple jump, posting a new Peach Belt Conference record of 15.10 meters in the event, which snapped the old mark of 15.02m set in 2013. He has already provisionally qualified for NCAA Championships this spring and has garnered conference-wide attention as the rookie was named the PBC’s Track & Field Athlete of the Week on March 27.

The Florida Tech women’s basketball team won five of their last six games and reached their second consecutive SSC championship game by defeating two teams that swept the Crimson & Gray during the regular season—No. 3 seed Rollins (73-70 in the quarterfinal round) and No. 2 seed Florida Southern (58-52 in the semifinals). In the championship game, despite a strong start by the Panthers, the No. 1 seed Eckerd pulled away in the end to earn the league crown.

Florida Tech men’s lacrosse pulled off the biggest victory in program history on March 11, knocking off No. 5 Seton Hill 5-3 in Fort Mill, SC. The victory was the Panthers’ first ever against a Top 5 opponent. Senior Nick Wynne led FIT with a hat trick in the win, while sophomore goalie Daniel Flock made a season-high 19 saves against the Griffins.

The Florida Tech men’s swimming team experienced its best season in program history in 2016–17. The relay team of Nir Barnea, Victor Rocha Furtado, Matthew Gallene and Filip Dujmic secured the program’s first national title, with a school record time of 1:19.46. It was the fourth NCAA National Championship in Florida Tech history. FIT took 13th overall among 32 teams at the Division II Championships with 127 total points.
Florida Tech is proud to congratulate the first-ever Doctor of Business Administration graduates in the history of the university!

DOCTOR of BUSINESS ADMINISTRATION

The Ultimate Business Degree: Enhance Your Skills in Research, Entrepreneurship, Strategic Management and Critical Thinking

Florida Tech’s Doctor of Business Administration (DBA) is a three-year program designed for experienced professionals who are interested in becoming leaders in business, government, education, healthcare and nonprofit industries. The DBA program prepares students with the knowledge necessary to deal with modern challenges and manage complex corporate environments. Students apply theory, advanced research and an understanding of the challenges facing the public and private business sectors to develop their skills.

Learn More about Earning Your DBA: fit.edu/dba
Not that long ago, things were just things. Lamps lit up dark spaces, refrigerators kept food from spoiling, and TVs provided entertainment. With the advent and subsequent explosion of the internet, things have stopped being mere things. Now, lamps can be connected to the internet, your refrigerator can tell you when your milk has soured, and your TV may become a source of information about your habits and preferences.

Recently, several smart TV manufacturers have been accused of tracking customers’ TV preferences and selling this information to other companies. This practice, a form of digital “spying,” is unsettling, but is not a clear-cut case of privacy violation. We have often agreed (implicitly or explicitly) to having our data used in this way, either via hastily clicked agreements when setting up our new toy or through default settings buried in hard-to-navigate menus.

By allowing these devices internet access, we’re setting the stage for potential privacy violation. These devices can measure our preferences, as evidenced by the smart TV manufacturers, as well as our movements (via GPS and Location Services), our faces and private moments via integrated cameras, and our conversations via “always on” voice-controlled devices like Amazon Echo. This level of tracking is unprecedented, and comes from devices we may not suspect, like a smart lightbulb, TV or refrigerator.

What can we do to protect ourselves and our privacy? The answer is simple but unsatisfying: not much, unless we want to give up the very functionality that first drew us to purchase the smart device. We can remove the device’s links to the internet, and turn off tracking services on smart TVs. The upshot of this is that our smart TV (or lamp, or refrigerator) reverts to being dumb.

There’s hope, though. The missing pieces to this puzzle lay in two places: standards bodies must provide privacy and security guidance such as whether opt-in or opt-out policies must be in place, and the device manufacturers build conformance to the guidance into their devices. As a consumer, knowledge is the best form of defense. Know what data your devices can gather, and read dialog boxes and settings carefully when adding new devices to your home to ensure you know what’s being done with your personal information. Knowledge is power when it comes to privacy.

Heather Crawford is an assistant professor in the Harris Institute for Assured Information and the College of Engineering and Computing. Her research interests include privacy, security and trust for the Internet of Things, behavioral modeling, alternative authentication and usable security.
I love the diversity!

You hear it all the time in response to questions like ‘What makes Florida Tech unique?’ or ‘What’s your favorite thing about the campus community?’

People are constantly surprised, and then delighted, by the cultural diversity of Florida Tech’s student body.

In a class of 12 students, it’s no surprise to find two students from Oman, one from Estonia, another from Brazil, and a handful from the Northeast, Midwest and, of course, Florida.

And our cultural character is gaining acclaim. U.S. News & World Report ranks Florida Tech first in the nation for fostering international student experiences. We boast the most internationally diverse undergraduate student body in the nation and proudly proclaim our commitment to developing global citizens.

So how do we weave this cultural tapestry? Florida Tech’s international experience is ubiquitous—benefiting our international population and domestic students alike—through cross-cultural programs and events and that small-town, close-knit feel that means you can’t help but develop a shared sense of Panther pride.
Coming to America

Imagine the challenge of being a stranger in a strange land.

Fresh off his first airplane flight, LAKSHMI NARASIMHON ATHINARAYANA VENKATANARASIMHAN, known as Simhon, arrived in the United States from India with just three suitcases to his name.

He had rarely traveled outside of his home state of Tamil Nadu, yet he wanted to pursue undergraduate studies in mechanical engineering in the United States.

He made that leap of faith—with his parents’ blessing and his sister’s support. She was already studying abroad in the U.S., so during his first two weeks in the country, she helped him establish all the basics, like a bank account and a cell phone. She accompanied him to move-in, and then she left.

“I was all alone,” recalls Simhon. “I was like, ‘what do I do now?’ I was very shy, so I didn’t approach anyone.”

It took him a while to break out of his comfort zone—to proactively meet new people, experience new things and take advantage of the opportunities on campus, he says.

Today, he is the coordinator of the Florida Tech Diplomat Program, a 12-year-old initiative of the Office of International Student and Scholar Services (ISSS), designed to help increase outreach, overcome culture shock and welcome international students to Florida Tech.

The program is a component of Florida Tech’s orientation experience, facilitated through the First Year Experience Office, which includes 15 dedicated international diplomats among a larger team of approximately 60 Panther Prep Leaders who run Orientation.

Simhon works with incoming students from his native India as well as neighboring areas like Pakistan or Sri Lanka. Over the summer, he will email these students to welcome them to the university and answer any questions.

AARON MARTES, of Aruba, served as the previous diplomat coordinator. He often worked with incoming students from the Caribbean and South America as well as The Netherlands because of their shared use of Dutch.

“We encourage diplomats to speak English with their incoming students, so the students develop their language skills, but say there’s a question that they don’t know how to say in English or it pertains directly to culture, that’s when a shared language is important,” he says.

For Martes, who also felt some isolation arriving to campus for the first time during spring orientation—a more minimal program than the elaborate fall experience—joining the Diplomat Program was important.

“I decided I wanted to participate in Orientation because I was fortunate enough to make lots of great friends when I arrived, and I wanted to help ensure that future students would be able to have the same incredible Florida Tech experience I did,” he says.

His favorite part is meeting new students when they’ve just left home, watching them adapt and flourish on campus, and then seeing those same students pay it forward by interacting with new incoming students the following year.

“I like to see how much they’ve grown and how much they can help new students because they remember what their own experience was like,” says Martes.

Continued on page 22
Top 10 Countries of Origin

India
China
Saudi Arabia
Oman
United Arab Emirates
Nigeria
Libya
Venezuela
Iraq
Brazil

# = Number of Students (Fall 2016)
Enriching International Experiences

When ISSS was first established in the ’70s, its primary role was managing immigration and international documentation requirements. And while that is still a significant portion of its work, its programming has expanded in recent years to include social and cultural enrichment for international students and the university as a whole.

“International students are hugely important to this institution,” explains JUDITH BROOKE, ISSS director. “They constitute a large percentage of the student body, and they contribute enormously to the diversity of this institution and to the overall experience of the student body.”

In short, they add value to every student.

So ISSS programs do the same. They cover the spectrum from acclimation to integration to education.

Helping international students feel comfortable in their home away from home is essential.

For example, the annual Welcome BBQ and Football 101 event, hosted by ISSS and the International Student Service Organization (ISSO), introduces international students to a traditional American cookout and the basics of American football.

“One thing that differentiates us,” says Martes, “is how close we are because everyone is pretty far from home. We look out for each other.”

This camaraderie extends to faculty and staff as well.

“A great example is MR. FREDDIE at the SUB in the morning,” says Martes. “He knows almost every single student by name, and he knows what their order is.”

At the library, JIM BAUCOM, user experience specialist, makes an effort to greet students in their native language, says Martes.

“We’re really good at making sure someone, no matter which corner of the globe they are from, feels at home here,” he says.
Building a Global Campus

While outreach to international students is vital, developing cultural competence among the entire student body is a priority as well. At monthly International Coffee Hours, international student groups share their cuisine and customs in a casual setting where the entire campus community is invited to broaden their horizons. One of Simhon’s favorite parts of the coffee hours is learning directly from the native people about their homeland—the best places to visit, the languages spoken, native song and dance.

“If I were to visit, I would have all the information,” he says. “It’s not something you get to learn every day.”

Florida Tech’s signature event for celebrating diversity and broadening cultural awareness is the annual International Festival.

In its 11th year, the event showcases a variety of international student groups as well as local cultural organizations that host country and diversity-themed booths displaying a variety of traditional clothing, literature, maps, flags and artifacts. Dance and vocal groups, bands and other performers fill the afternoon with live entertainment on Florida Tech’s outdoor stage, the Panthereum, while local eateries sell delicious ethnic foods.

“Experience first-year student seminar to state this exchange—from the University of the best places to visit, the languages spoken, native song and dance.

“Building a Global Campus”

At the heart of our university is a vision to facilitate successful careers for our students, conduct applied research for the benefit of mankind and produce a global citizenry that fully understands global issues, both culturally and environmentally.

Part of that commitment depends on the cultural exchange of our student body—peers collaborating to reach new heights.

Many programs on campus facilitate this exchange—from the University Experience first-year student seminar to our vast array of clubs and organizations and, very directly, to the work of ISSS.

“We developed many innovative initiatives that helped international students overcome cultural shock, adjust and have a wonderful experience at Florida Tech!” explains Khloud Shuqair ’15, past president of ISSO and former university diplomat.

Florida Tech’s international activities and diverse student population, in turn, helps broaden the cultural landscape of the community.

“The university itself makes an important cultural contribution to the Melbourne community. Restaurants are opening that maybe didn’t open before, music, it all rolls into the community,” explains Brooke.

Martes concurs. “That’s something that a lot of people don’t know about Melbourne. We have a lot of restaurants with really authentic food from all around the globe.”

Fostering Global Citizens

At the heart of our university is a vision to facilitate successful careers for our students, conduct applied research for the benefit of mankind and produce a global citizenry that fully understands global issues, both culturally and environmentally.

Part of that commitment depends on the cultural exchange of our student body—peers collaborating to reach new heights.

Many programs on campus facilitate this exchange—from the University Experience first-year student seminar to our vast array of clubs and organizations and, very directly, to the work of ISSS.

“We developed many innovative initiatives that helped international students overcome cultural shock, adjust and have a wonderful experience at Florida Tech!” explains Khloud Shuqair ’15, past president of ISSO and former university diplomat.

According to Florida Tech’s strategic plan, while international students and faculty are a significant percentage of the Florida Tech family, our core commitment to developing global citizens is much more than a count of countries.

“It is about ingraining in the curriculum, in the extracurricular activities and in the culture of Florida Tech that we all (faculty, staff and students) must be good stewards of the globe’s resources and, indeed, good citizens of this world in which we live,” reads the plan. “It is imperative that we take advantage of the opportunities afforded us by living and working with such a multitalented, culturally, ethically, religiously and socially diverse group of individuals. When someone spends time at Florida Tech, they must leave with an understanding of and, hopefully, a full appreciation for these components of today’s world and economy—that is, they become true citizens of the world.”

For Shuqair, that sentiment is proving true. After graduation, she returned to her native Saudi Arabia where she works as a management consultant helping governmental agencies achieve Saudi Arabia’s 2030 Vision socially and economically.

“My experience at Florida Tech was great. Not only did it improve my leadership, cross-cultural competency and time management skills, but it also gave me the chance make friends from all over the world and make an impact,” she says.

—Christena Callahan

Florida Tech Today | 23
February 23, 2017. Milan, Italy.
Fall Fashion Shows + meetings.

9 a.m.
Meeting with Jill Sander
@ the Grand Hotel et de Milan

10:30 a.m.
Meeting with Fratelli Rossetti

Noon
Meeting with Prada

1:30 p.m.
Lunch with Armani at Bamboo Bar
@ Armani Hotel

3 p.m.
Coffee with Ferragamo

4:15 p.m.
Meeting with Valentino

5:30 p.m.
Meeting with Furla

6:15 p.m.
Cocktails with Diesel

7:30 p.m.
Tod’s Timeless Icons Cocktail Event

8:30 p.m.
Gucci’s Eyewear Event

9:15 p.m.
La Perla Event
(celebrating a boutique opening)

10 p.m.
Dinner with my team @ Bice

11:30 p.m.
Conference call with NYC
(status with my NYC team)
AS VICE PRESIDENT OF STYLE FOR The New York Times, ELIZABETH WEBBE LUNNY ’93 IS AT THE HELM OF AN INDUSTRY WITH REVENUE IN EXCESS OF A FEW HUNDRED MILLION DOLLARS.

Not only does Lunny oversee all luxury advertising revenue for the Times—she also facilitates campaigns for clients like Louis Vuitton, Christian Dior and Fendi by infusing traditional branding, video and digital with state-of-the-art techniques including augmented and virtual reality. In addition, she organizes and attends events like “New York Times Talks” where a reading of Good Will Hunting might end with a surprise pop in from Ben Affleck and Matt Damon. And the annual Luxury Summit—which took place last year in Washington, D.C.—and included 50 CEOs from luxury companies including Calvin Klein and the Ritz Carlton—as well as Al Gore—and several members of President Obama’s cabinet.

But that’s not her only job. In fact—it’s only half of it.

Lunny is also the publisher of T Magazine—the New York Times fashion brand, which regularly features celebrities like Lady Gaga, Kayne West and Nicole Kidman. Published eleven times each year, it focuses on fashion, style, art, literature, design, interior and travel.

So between jetting off to fashion shows in London, Paris and Milan, attending meetings with staff, design teams and financial officers and hosting business lunches with clients from Christian Dior and Rolex—how does she do it all?

Well, the fact that she’s married to the nicest guy in the world doesn’t hurt.

His name is BJ and together they have two children—Ben, 13 and Michael, 11. He works as an IT manager for the insurance company, Chubb.

“He is my rock, ever calm, ever positive,” Lunny said. “He is the nicest guy in the whole world, and he makes me a better person.”

This busy life is a team effort. The power couple has been married since 1999—ever supportive of each other’s careers—while also keeping their family life a priority.

NEw DAY, NEw CHALLENGE

Lunny’s dual role at The New York Times is always comprised of something new and exciting, but most recently her favorite moment was being part of the hiring process of T’s new editor-in-chief, Hanya Yanagihara.

“She is not your typical fashion editor; she’s very in line with what makes sense from an intellectual perspective,” Lunny said. “To sit at the table and watch this happen was so impressive.” Yanagihara served as editor-at-large at Condé Nast Traveler and deputy editor of T Magazine. She is also the author of A Little Life—published in 2015, the book was named to the short-list for the Man Booker Prize for fiction and the National Book Award for fiction.

Lunny previously held high-profile positions at Women’s Health, Harper’s Bazaar, Teen Vogue, Vogue, Women’s Wear Daily, Three Lions Entertainment and Condé Nast.

“I’ve spent my entire career in the fashion and luxury world,” Lunny said. “It’s a fantastic world.”

Working at the epicenter of the fashion industry gives her tremendous insight on what the next big deal in style could be—and she has a few predictions for the upcoming fashion season.

“I think what you’re going to see in fashion is a trend toward lightness and the celebration of life just because tensions are high in the political landscape,” Lunny said. “What you see during these times is designers embracing escapism and that could be demonstrated with a lightness and airiness, it’s how they channel that escapism and do their part to lighten the seriousness in the world.”

The Fit Difference

But her vision, her passion and her determination actually all started to form on the campus of Florida Tech where her father, FRANK WEBBE, is a professor and the former dean of the School of Psychology.

The family moved to Melbourne when she was young, and the campus became her playground. She knew the

Continued on page 26
The Big Apple

Elizabeth Webbe Lunny didn’t know a soul in the city. In Connecticut, a friend’s sister let her stay with their family for a month to get her bearings.

She spent her days looking for work and eventually found a temp job as a receptionist for a barter finance company in the city. Lunny then found an apartment where she could afford one—in New Jersey. She signed a lease to share it with a roommate she had just met.

Then she got to work—literally working as hard as she could, never complaining or shuffling work on someone else—and was rewarded with a permanent position and three promotions in three years—doubling her salary each time—allowing her to move into the city.

A Little Advice

Her advice for people trying to move up at work is simple, work hard and smile because those who succeed have similar characteristics.

“You didn’t complain, you pulled the long hours, you did the work and you developed really thick skin,” Lunny said. “I never complained. If I wanted to complain or I didn’t want to do something, I went home and dealt with it privately.”

Elizabeth Webbe Lunny: Hometown Hero

Bino Campanini, vice president of Florida Tech’s Office of Alumni Affairs, recently honored Lunny with an Outstanding Alumnus Award.

“Florida Tech is extremely proud of Elizabeth Webbe Lunny and her achievements in the world of publishing,” Campanini said. “She was a worthy recipient of COPLA’s 2016 Outstanding Alumnus Award.”

Lunny is often asked for her advice on achieving dreams and finding success in life. She’s always happy to share her “secrets.”

“Take constructive criticism and turn it into something really positive. It’s the only way you’re going to excel and show that you have the ability to grow in the position you currently have and in something that you want at the next step,” Lunny said. “And at that next step, you really have to become the type of leader where people follow you and believe they can achieve anything.”

—Jennifer Torres
“What I’ve seen at this year’s showcase is nothing short of incredible.”
— Jeff Reed, who led the team of Northrop Grumman judges

“Nature provides a whole bunch of solutions that we haven’t looked into yet.”
— Benjamin Orris

“With the levels of melanoma diagnosis set to increase in the coming years, I felt compelled to pursue this project in an attempt to possibly find an alternative treatment option.”
— Nicardo Cameron, Team Member

“This allows a safer, faster and less painful way of getting a patient’s glucose.”
— Trevor Schmitt, Team Member

“Lab space is very confined, so having a stand-alone 3D bioprinter will clear up some space and allow more work to be done.”
— Cameron Hume, Team Member
SHOWCASING THE INNOVATIVE DESIGNS AND RESEARCH INSIGHTS OF FLORIDA TECH STUDENTS

College of Science President’s Cup

Fishing for Alzheimer’s Answers

Team Member: Benjamin Orris; Discipline: Molecular Biology

Just like your teeth, gel-like plaque can build up on the brain and cause healthy neurons to lose connections with each other, killing cells and eventually leading to neurodegenerative conditions like Alzheimer’s and Parkinson’s disease.

Brain plaque is the result of the accumulation of proteins that don’t align correctly, known as protein misfolding. It’s not completely known why the proteins misfold, but when they accumulate, they can have dire effects.

“It’s intrinsically disordered, the proteins start mismatching, tumbling around, looking for a structure they’re satisfied with, but never quite get there,” said molecular biology major Benjamin Orris, who is researching this phenomena with a little help from some fish.

What do fish have to do with Alzheimer’s?

Researchers have found that fish have a parallel to plaque known as urea.

“When fish make deep dives, urea builds up in their tissue, which can cause proteins to misfold much like what happens in the human brain,” said Orris.

Fortunately for the fish, they have developed a solution to this build-up of urea—Trimethylamine N-Oxide. Trimethylamine N-Oxide works to stabilize the proteins and provide an environment where they are less likely to misfold and cause tissue damage.

“Nature provides a whole bunch of solutions that we haven’t looked into yet,” said Orris.

Protein misfolding is a pervasive issue that can affect anything from bacteria to the human brain, so the research has the potential to apply to a vast amount of similar or parallel conditions.

With Alzheimer’s ranked as the sixth leading cause of death in the U.S., protein misfolding research like Orris’s provides much needed insight in combating Alzheimer’s as well as other neurodegenerative conditions.

—Erin Fox

College of Engineering and Computing President’s Cup

CARACAL: 3-D Bioprinting

Team Members: Pamela Forero, Daniela Friere, Cameron Hume, Prabhuti Kharel, Rahmatul Mahmoud
Disciplines: Biomedical and Mechanical Engineering

Team Caracal built a 3-D bioprinter as a resource for future design students.

Bioprinters can be thought of as an amalgam between a traditional inkjet printer and a 3-D printer. Think of the cells as the ink and the hydrogel polymer, the structural support needed for tissue construction, as the plastic filament. Together, the cells and hydrogel form tissue, the building blocks of organs.

Building the printer is one thing, but building viable cells is quite another. Cell creation must be done in a sterile lab with large hoods that require large capital investments for universities. Many students are often vying for lab time to build their cells. For Team Caracal, the natural progression was to bring the sterile environment required for sensitive cell creation to the 3-D printer.

The team’s design allows for multiple 3-D bioprinters to be running side-by-side inside an encased sterile environment. This kind of all-in-one approach enables scientists to conduct more advanced experiments that require longer print times because the sterile environment wards off cell death.

“With our bioprinter, we can control variables like temperature, humidity and the carbon dioxide concentration, which is done through the use of a HEPA filter,” said team leader Cameron Hume.

—Erin Fox

296 students in programs with fabrication projects
31 projects in HSDC* full time
10 projects in HSDC* part time
88 COE projects at Showcase
58 COS projects at Showcase

* Harris Student Design Center
Thanks to our sunny skies and outdoor lifestyle, Floridians are keen on taking skin cancer seriously. Enter the need for melanoma research.

“Living in the sunshine state, melanoma skin cancer is a concern for us, especially since it accounts for about 75 percent of all skin cancer deaths,” said biological sciences student ALEXIA PEARAH.

Pearah and fellow biological sciences major, NICARDO CAMERON, focused their student design project on creating a melanoma gene analysis database and modeling application.

“With the levels of melanoma diagnosis set to increase in the coming years, I felt compelled to pursue this project in an attempt to possibly find an alternative treatment option,” said Cameron.

Their project known as, Pattern Recognition Applied to a Cancer Database and COPASI Modeling for Melanoma Gene Analysis, centered on the use of computation algorithms, or data mining, in an attempt to find better treatment options for melanoma.

Gathering data from the Cancer Cell Line Encyclopedia, the students identified the top 15 genes associated with melanoma progression. Armed with this information, they were able to identity clusters of melanoma tumor cells, analyze their drug sensitivity and model the molecules involved in melanoma progression.

“So essentially, we analyzed these genes to see how they drive melanoma progression as well as try to examine their responsiveness to various chemotherapy agents to find better treatment options for melanoma,” Cameron said.

—Jennifer Torres

Living with diabetes isn’t easy, but a team of biomedical engineering majors is trying to make life a bit more painless for sufferers.

“A patient with diabetes has to constantly prick their finger to get a drop of blood, and put it on an electrochemical strip to measure their glucose. However, we designed a method to alleviate this,” said TREvor SCHMITT, biomedical engineering major and project leader for Stellaris—a non-invasive glucose meter.

By shining light through the earlobe, known as near-infrared (NIR) technique, the different wavelengths interact with the blood constituents which absorb, refract or transmit the light. Based on these interactions, Stellaris is able to make glucose calculations.

Of all the possible sources of inspiration for a new glucose meter technique, it was a cat that inspired the research.

“As a certified veterinary technician, I can tell you by experience that an angry diabetic cat is not easy to get blood from!” said Schmitt.

He began thinking about a quick and simple alternative to measure glucose—something even a client at home could use.

“This easily translates into human medicine, where a large market is available and can further the development of this device.”

After graduation, the team plans to continue to work on their device and build out a business plan.

—Jessica Taylor
DEAR ALUMNI, PARENTS AND FRIENDS,

After receiving issues of *Florida Tech Today* magazine, do you contemplate about the university? While reading an article, do you pause to think in the marvel of the research, the excitement of the event or smile at pictures of friends?

The best universities create an atmosphere of continuous learning. We, the Alumni Association, are here for you. We are Panthers for life. We celebrate with students throughout their time at the university. Whether it is at Homecoming or Grad Bash. In fact, mark your calendars for this year’s Homecoming—starting with the Homecoming 5k in downtown Melbourne on Thursday, Nov. 4, 2017 in the evening.

It’s amazing to announce the band The Fratellis are rocking Melbourne Main Street for our FREE Homecoming Fest concert on Friday night, Nov. 5th. Listening to them on Youtube was incredible. It will be another amazing concert. Honestly I didn’t think we would find another great artist like Wyclef. This band is awesome. But this is just the start for Homecoming weekend—so much more to look forward to that weekend.

If you are looking for other ways to join in the university, consider being a mentor or helping to set up internships at your corporation. We are an email or phone call away. We are committed to creating the best Panther life!

Go Panthers!

Andy Kirbach ’90

YOUR ALUMNI ASSOCIATION OFFICERS

Andy Kirbach ’90 | President | Melbourne, FL | akirbach@gmail.com
Rhodie Humbert ’82 MBA | Secretary | Melbourne, FL | rhodiehumbert@mac.com
Brian Stahl ’86, ’88 M.S. | Treasurer | Satellite Beach, FL | brianmstahl@gmail.com
Kim Bozik ’87 | Member-at-Large | Chandler, AZ | kim.b.bozik@intel.com
David Murphy ’91, ’01 M.S. | Member-at-Large | Winter Garden, FL | davemurphyrr@hotmail.com

from Maryland may be in the near future. He is retired after working for 40 years in satellite operations. Many thanks to his FIT education.

DENNIS NOLAN ’79 is proud to share that the 3rd edition of his book, *Fire Pump Arrangements at Industrial Facilities*, is expected to be released early this summer.

BERNIE FUCHS ’70, president Boston Chapter, alumni board member, and Dave Moody engage high school students at the National College Fair at the Convention Center in Boston.

GARY LAGERLOEF ’71 is the principal investigator for the Aquarius/SAC-D satellite mission (esr.org/Aquarius) that launched in 2005 and is still working on the project 14 years later—in fact *Florida Tech Today* did an article about his project back then. The NEW news is he received the Luis Federico Leloir Award for International Cooperation in Science, Technology and Innovation. This is awarded by the Ministry of Science, Technology and Productive Innovation to foreign experts who have contributed to the strengthening of international cooperation with Argentina.

BALAGOPAL “BG” KUMAR ’89 is a mobile industry veteran and recognized leader in the telecommunications and software industry, with nearly 25 years of experience leading both start-up companies and large publicly traded companies. As president of Mitel’s Mobile Division, BG brings his leadership experience, extensive knowledge of the mobile industry, technical expertise and strong customer relationships. Prior to Mitel, BG was global head of R&D at Imagine Communications and held several executive-level positions at Genband, including EVP, chief product officer, and EVP and president of Genband’s Multimedia Business Unit.
VINCE PRESS ’91 has joined Clark Patterson Lee, a full-service design firm, as director of communications. He brings more than 20 years of PR/marketing experience, most recently serving as communications manager for Bergmann Associates. In his spare time, he writes a monthly food and drink review column for the Democrat and Chronicle and is involved in youth sports. He resides in Brighton, New York, with his wife Kim, and their children, Max and Ruby.

SUNITA WILLIAMS ’95 was recognized by Florida Today during Women’s History Month as one of Florida Tech’s many amazing women. She is one of our country’s most accomplished astronauts and is among the first group of astronauts to fly the next generation of commercial crew vehicles.

KOFFI AMEFIA ’98 of The MITRE Corporation was recognized for his professional accomplishments during the 2017 Becoming Everything You Are Awards Science, Technology, Engineering and Math Conference. He received Modern-Day Technology Leader Award. He leads the International Airspace Design and Modeling team within MITRE’s Airport/Airspace Analysis, Modeling and Design department. He oversees airspace design and environmental projects in the U.S., Middle East, Asia, Latin America and Europe. He is also a certified flight instructor.

KELLY (PIFER) FINEGAN ’99 welcomed her newest Panther, David Hunter Finegan. His nickname is Fin.

GLENN DUBE ’94 was promoted to battalion chief in the Southington (CT) Fire Department. He is in command of A Shift. SFD protects 45,000+ residents over 37 square miles in central Connecticut from four fire stations.

ON THE ROAD

North Carolina

To see more reception photos, visit alumni.fit.edu and click on Events>Photo Gallery.

Arsema Assefa: Teaching for America

“One day, all children in this nation will have the opportunity to attain an excellent education.”

This simple statement is the motto of Teach for America, a national teaching corps of recent college graduates who commit two years to teach and to effect change in under-resourced urban and rural public schools. Arsema Assefa ’15 jumped at the chance to make such a difference.

“I joined the teaching corps because I knew I was passionate about education,” she says.

As part of TFA’s 2016 corps, Assefa was placed in Oklahoma City where she teaches kindergarten at Martin Luther King Elementary.

“Every day is a challenge because there is always something new to do and learn,” she says. “As you get so invested in these kids’ lives, their challenges/obstacles at home become your own. I hope they can escape the systemic injustices they grew up in and live better lives with great opportunities.”

The experience has been both a joy and an eye-opener for Assefa, who attributes her Florida Tech education with helping her develop independence, responsibility, eloquence and acceptance in her role as a social justice educator.

“I’ve learned to really talk about the issues in our society that most people shy away from—to really see the injustice in our community and appreciate the need for service in low-income community schools/neighborhoods.”

When her service in the teaching corps is complete, she is debating three options for the future: pursuing a master’s degree in human development and child psychology, continuing to teach for a few more years, or joining the Peace Corps to gain experience abroad in education.
VIRGINIA COOK TICKLES ‘99 is a cost analysis engineer in the Office of Strategic Analysis and Communications’ Engineering Cost Office at NASA Marshall Space Flight Center. She began her work with NASA in 1989. Her passion also lies with engaging and mentoring girls about the STEM field. In fact, her life is highlighted in the movie “Hidden Figures” about African-American women working in the space program in the ’60s. Recently, there was a movie showing in Nashville, as part of a local initiative that invited over 100 area underprivileged girls. This is just one example of the many teaching and training events she provides to the community.

2000s

LAURA GATZ ‘00 started working at the Congressional Research Services as an analyst in environmental policy.

STAN HIGHSMITH ‘00 M.S. serves as a senior vice president of Maritime and Combatant Command Solution for Fulcrum. Before becoming a member of Fulcrum, he served his country in the fields of Munitions, Cryptographic Communications, Intelligence and Acquisition. He and his wife Sharon reside in Tampa, Florida.

U.S. Army Col. FLETCHER WASHINGTON ’00 M.S. was promoted to brigadier general. He’s held a variety of command and staff positions domestically and overseas throughout his career, including stints in Virginia, Texas, Iraq and Afghanistan. He had been the deputy commanding general of the 80th Training Command in Richmond.

JOSHUA HORST ’03 and CAROLYN HORST ’10 M.S. welcomed their second Panther, Zander. They also have a 3-year old daughter, Makayla.

CARLOS LEONARDO CHINFONG ’03 and his wife Stephanie welcomed a new addition to their family. Alessandro Agustin ChinFong is sporting his new (well, used from his sister 16 months ago) Panther gear proudly.

AMANDA NOBLE ’03 M.S. proudly shares another photo of her son Shane holding Iris Noble, her 9-month-old daughter. She’s BILL JURGENS’ first granddaughter; everyone is hoping that she’ll be the first oarswoman in the family.

ADAM KLINE ’05 is the new EWR base chief pilot as it opens an Embraer 145 base in its growing Newark, New Jersey, operation for CommutAir. He was a pilot with CommutAir from 2006–2010 and most recently flew for DynCorp International as a DHC-8 standardized pilot.

PERCY JAMES ’05 appeared on the cover of the Public Works magazine February 2017 issue.

LAWRENCE DIFABIO ’06 and ASHLEY DIFABIO ’06 are proud Panther parents of twins, Sophia and Isabella, showing off their FIT apparel.

RYAN MAULTSBY ’06 and coach BILLY MIMS “bump” into each other at the NCAA Final Four.

ON THE ROAD

Boston

To see more reception photos, visit alumni.fit.edu and click on Events>Photo Gallery

Nicholas D’Agostino, Dorian Magee ‘14, Tiffany Branco, Matthew Garland ’12
Mary Helen McCay, Amir Sajjadi ‘07, ‘12, Aishwarya Subramanian ’15
Henry Gibbs ’88, Peter McCarthy ’81
To see more reception photos, visit alumni.fit.edu and click on Events>Photo Gallery

**LOCKHEED MARTIN: EMPLOYEES OF THE YEAR**

For the past three years, Florida Tech alumni have earned the distinction of being selected as Lockheed Martin’s Employee of the Year for the Eastern Range. The honor is bestowed in the fall to employees who have “displayed ownership and accountability in work assignments, helped transform the Eastern Range site into a more desirable place to work, demonstrated a commitment to diversity and inclusion, and served the local community.”

**MEET THE HONOREES**

**BARBARA KERSCHNER ’83 M.S.**
Employee of the Year 2016, Systems Engineer
Barbara was recognized for taking initiative on a project that required her to ensure the maturation of new technologies for key U.S. Missile Defense Agency programs. Barbara is also an active volunteer for science, technology, engineering and math (STEM) efforts.

**PAUL BLADOW ’12**
Employee of the Year 2015, Mechanical Engineer
Paul has become an expert for engineering processes and documentation for key U.S. Missile Defense Agency programs. He also serves as a mentor for other engineers within the organization and is the president of Next Generations Leaders, a resource group for employees.

**CARLY ROHRIG ’98**
Employee of the Year 2014, Systems Engineer
Carly was recognized for driving results on technical designs and documentation for key U.S. Missile Defense Agency programs. She served as a lead for other engineers on projects that resulted in additional cost savings for Lockheed Martin’s government customer. She holds a leadership position within the Women’s Intrinsic Network and Lockheed Martin’s Diversity and Inclusion Council.

**MATTHEW HILL ’07**
Matthew Hill ’07 beat the forward basketball star and legend Dirk Nowitzki of the Dallas Mavericks in a one-on-one basketball shooting game called Knockout! It was a proud Panther moment. He won the opportunity to play after entering a video contest to try and get publicity for his line of custom and handmade athletic shoes, known as MHILL. He was one of the Shoot It Like Dirk video contest’s four finalists, sponsored by German athletic apparel company Bauerfeind, and traveled to Dallas.

**AGNIESZKA MARSHALL ’06**
Psy.D. will serve as advisor to the Moms For Mental Health group dedicated to educating adults about the 10 Red Light Warning Behaviors that are the signs and signals of mental health issues in children and teens. She is a licensed clinical psychologist and the director of prevention services for Tykes & Teens, a nonprofit counseling and mental health services provider to children and teens.

**JOSEPH COTE ’07**
Joseph Cote ’07 is engaged to Juliana Carrazzo, daughter of Adriana Dominguez of McAllen, Texas. He now works for Stanley, Black & Decker in Fort Mill, South Carolina.

**From left: Carly Rohrig, Paul Bladow, Barbara Kerschner**

**WASHINGTON, D.C.**

**Lt. Col. Rufus Clanzy ’77, Peter Higginbotham ’01,’03**

**Michael Olsen ’17, David Junkin ’13, Jennifer Jones ’06,’07**

**David Atkinson ’00,’02, Bino Campanini**

**Andrew Ibbotson ’93, Carol Kennedy, J.L. Wilkinson ’95**
Nicholas Mitrani ‘07 and wife Jackie welcome their new baby boy Cesare, fondly called “Chet.” He loves his little stuffed Pete.

Andrea (Cross) Kreit ‘08 and Frederic Kreit ‘09 joyfully welcome their second son Roderik Jean Kreit. Andrea is a domestic engineer and volunteers at the Detroit Zoo. Frederic is a validation engineer at Fiat Chrysler Automotive. The family lives in Birmingham, Michigan.

2010s

Katherine Elise (Sachs) Henry ‘08 and her husband Noel along with Catherine (Thiele) McCarrell ‘10 and Ian McCarrell ’10 welcome Panther cub cousins Emily McCarrell (left) and Korra Henry (right).

Gael Le Bris ’11 joined WSP|Parsons Brinckerhoff as senior aviation planner. He previously served for more than six years as airside development manager at Paris Charles de Gaulle Airport, where he was responsible for management and coordination of large-scale, complex development projects, major runway and taxiway rehabilitations, airside/airspace planning projects and technical studies. In his new position based in Raleigh, N.C., he will supervise planning projects, provide technical expertise and contribute to the growth of the aviation planning services.

Jeanine Tanz ’14 M.S. serves as center director at Florida Autism Center’s new location in Viera. Previously employed at Florida Tech’s Scott Center for Autism Treatment, she is excited to bring the amazing education and training she received to the broader community of Brevard County. She is thrilled to be able to continue to serve the autism community while she completes her Ph.D. in Behavior Analysis at Florida Tech.

On the Road

Jensen Beach

To see more reception photos, visit alumni.fit.edu and click on Events>Photo Gallery

Doug Cooke ’79, Jane Cooke ’79
Tamara Mayer ’86, Angela Gilio
Nancy Perry, Mark Perry ’86, President McCay
Ixa Gutierrez, John Polley ’82, Leo Repetti ’83, Kristen Repetti
Calling All Panther Cubs!

Recently welcomed a Panther Cub to your family? Contact us for a free T-shirt, bib or onesie. Then send us a photo, plus an AlumNote about yourself. We will proudly display it in Florida Tech Today.

For details, email alumnotes@fit.edu

STEPHEN WADE ’14 is the president of The Augusta Chronicle and its Chronicle Media portfolio of businesses for Morris Communications. His career spans 26 years in the media industry, including roles as regional publisher for BH Media Group in Florence, S.C., the senior group publisher for Gatehouse Media in Independence, Mo., the editor and publisher of The Morning Sun in Pittsburg, Kansas, and the director of operations for the Topeka Capital-Journal in Topeka, Kansas. He and his wife, Paula, live in North Augusta and have four adult children, Jessica, Bryan, Laken and Kathleenia.

RYAN HAUGHEY ’15 studied flight testing and aerospace engineering. In his final year, he participated in an intern program in Northrop Grumman’s Stress Engineering Department. After graduation, he joined the company full time.

BENJAMIN SMITH ’15 is teaching English to students and teachers in Madagascar as part of the Lutheran Church’s Young Adults in Global Mission program. He lives in Farafangana, a coastal city on the southeast coast of Madagascar and capital of the Atsimo-Atsinanana region. He has enjoyed learning Malagasy, the native language of Madagascar, as well as using his skills in French, which is also widely spoken.

TIM MUTH, instructor of international business, shares a photo of his grandson Lucas in his Panther gear.
In Memoriam

JOSEPH MICHAEL GOLDIAN JR. ’84, ’88 M.S., passed away Feb. 21, 2017, doing what he loved: refereeing a high school game and inspiring young people’s sportsmanship. He proudly served with the Air Force Technical Applications Center at Patrick AFB for 23 years and as an elected officer with the AFTAC Alumni Association for more than 13 years. After retiring in 1991 as a Master Sergeant, he worked as a systems engineer and program manager with contractors SAIC and GSP. A celebrated Space Coast youth sports official, he also served as state registrar/district commissioner and vice president, District B with Florida Youth Soccer Association for many years.

ANGELIQUE T. BALLAUER ’87 M.S., of Indian Harbour Beach, passed away on Feb. 3, 2017. She taught chemistry for many years in both Palm Beach and Brevard counties.

CHARLES (CHUCK) BEACH, Ph.D., faculty member in the department of electrical and computing engineering from 1984 to 1998, passed away Friday, April 7, 2017.

VALLIE MAE WALL JOYNER, a retired library assistant at Florida Tech, passed away on April 21, 2017 in Melbourne.

WILLIAM F. SPENCER ’86, of Sanibel, Florida, died Dec. 20, 2016, at Healthpark Hospital in Fort Myers, from a massive heart attack, following a 10-year battle with cancer. Bill loved adventure, including sailing, skiing and mountain biking. For the past 15 years Bill and his wife have been owner/operators of Morning Glory Maintenance & Housekeeping on Sanibel/Captiva. He is survived by his wife of 25 years, Sandra Paonesa Spencer, his father, his daughters, his stepchildren and their families, as well as his sisters and stepsisters.

In Memoriam

NATHAN M. BISK, the online education pioneer, accomplished attorney and CPA, and former Florida Tech trustee who helped propel the growth and success of the university’s College of Business, died March 6 after a lengthy illness.

In 2009, he presented Florida Tech with a $5 million gift to support its College of Business. The funding would be used three ways: to establish an endowed chair, for marketing and branding of the college, and to generate growth of online business programs. In appreciation, the university renamed the college the Nathan M. Bisk College of Business.

In 2014, another gift helped make possible the university’s purchase of the two-story, 22,000-square-foot Babcock Oaks office building a mile north of campus, which soon became the new home of the business college and all business education programs and outreach.

“I’m not sure which was more impressive with Nathan: his peerless vision to enhance the power and reach of education through technology, or his significant generosity,” President T. Dwayne McCay said. “What I am sure about is that Florida Tech was fortunate to benefit from both of those amazing character traits, and that our entire university community is mourning his loss.”
All my life, I wanted to live in sunny Florida. Somewhere that I could see manatees often and spend time on a beach. I mean ... is that too much to ask for?! After beginning my college career in Texas (per my overprotective parents’ instruction), I realized a few things about myself. 1. Texas wasn’t for me and 2. I was stubborn and would only succeed by doing what I put my mind to. It wasn’t long before I found my way to the place I always dreamed of and officially started my life in Melbourne at Florida Tech. All was right with the world; my world anyway.

My years at Florida Tech taught me much about science but even more about hard work and building professional relationships with amazing people around me. Dr. Frank Webbe helped guide me in recognizing just ‘what I wanted to be when I grew up’ and my financial aid work-study position at Brevard Zoo began what later developed into my career. A career that I look forward to reporting to each day and a career where I am making a difference in the world.

Brevard Zoo is doing amazing things to help wildlife conservation both locally and internationally. Melbourne is so fortunate to have a private, nonprofit zoo right here in Brevard that is dedicated to educating and empowering the community to act for conservation. I feel so grateful to be a part of the solution, whether it be healing our Indian River Lagoon through the re-introduction to millions of native filter-feeding oysters or supporting the world’s leading field researchers on a variety of endangered and threatened species.

The role as director of conservation at Brevard Zoo has allowed me to create a position that allows me to be involved with a variety of projects that I could have only dreamed of. From sustainability planning to manatee rescue or working with the state legislature to raise awareness of conservation needs to mentoring the next generation of conservationists, I welcome a variety of challenges that raise awareness to accredited zoos and the work being done for conservation.

When approached by the FIT alumni association regarding joining the board, I willingly accepted. Joining this group of amazing individuals has allowed for me to give back to the university that helped establish my life’s course. Additionally, it’s such a fun way to connect and reconnect with like-minded people—almost like having a second chance at college life but this time I get to pay it forward.
I AM THE SPECIAL COLLECTIONS CURATOR IN A SMALL ACADEMIC LIBRARY. CALL ME A KEEPER OF THE PAST. Odd for one who eschewed antiquities as smelly old things best discarded. Like any born-again, I am passionate about the value of the history I am entrusted to preserve. The deeper I delve into the collections my library holds, the more I realize the importance of embracing authentic artifacts as reality that can never be recreated by looking back from a distant future. In that manner, primary sources provide a form of time travel.

Right before the winter school break, my graduate student worker Delroy Rebello and I stood facing each other on opposite sides of a high, wide table covered with original charts and maps from our prized Edwin A. Link Papers. Hour after hour, Delroy whisked a small soft bristle brush to guide tiny dust particles into the netted hose connected to a special HEPA vacuum loaned to us from our university textile museum.

At first, we figured out how to proceed. It was my job to open each long, rectangular box. Often, there were multiple charts, maps or blueprints that had been rolled separately or together in a series. I removed the rolled items and dusted the inside of the box with a swifter. Meanwhile, Delroy laid out the documents. I ran over to help him weigh down the four corners (we used our paper-wrapped cell phones, a Scotch tape dispenser and an old VCR as weights). We smoothed out the rolled paper, and I held it down as Delroy did his best to get inside its creases and dislodge tiny bits of trapped dirt. It was a delicate operation to lift the particles without harming the paper’s markings. Together, our arms akimbo, we carefully turned each sheet over to clean its back side. We continued this procedure until each item was done. Finally, Delroy rolled them up once again for another long slumber in their marked box.

As we processed each artifact, Delroy and I examined charts that depicted Central America, Canada and Africa going back in time. Some were treasure maps with colorful pictures. Others were exquisitely hand-drawn depictions. There were cut-outs of several maps pieced together to show the routes Ed Link took during his explorations. This experience drew Delroy and me into another time and place where we imagined being on a ship sailing to a site to uncover a lost civilization settled at the bottom of the water.

Edwin A. Link is attributed as the man who created the genesis of underwater exploration. Extensive blueprints of his research vessel, aptly named Sea Diver, detail each level and the innovative equipment he carried aboard enabling divers to decompress slowly in an onboard chamber. The charts show us where he navigated the Sea Diver from Florida to Port Royal, Jamaica, in 1956 to examine an underwater archeological site. Four years later, seeking to uncover the remains of an ancient city and harbor built under King Herod 22–10 BC, Ed Link sailed the Sea Diver to Caesarea, Israel, where he investigated a submerged harbor.

Interesting also were the maps depicting lakes in a region in Canada where Ed Link and his family took their summer vacations. On one map, the lakes seemed to be Indian names, and I recalled Link’s trusted guides were Indian.

After pouring over these magical documents for seven hours, Delroy put the last blueprint on the highest shelf. We looked at each other with newfound understanding from our shared experience. We went our separate ways, but I am certain some unique place we examined marked on a map fixed in time will creep into Delroy’s dreams, and he will be diving with Ed Link in search of antiquities deep below the blue surface.
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The Fall 2017 issue of *Florida Tech Today* will be a special Jensen Beach issue.