

FLORIDA TECH

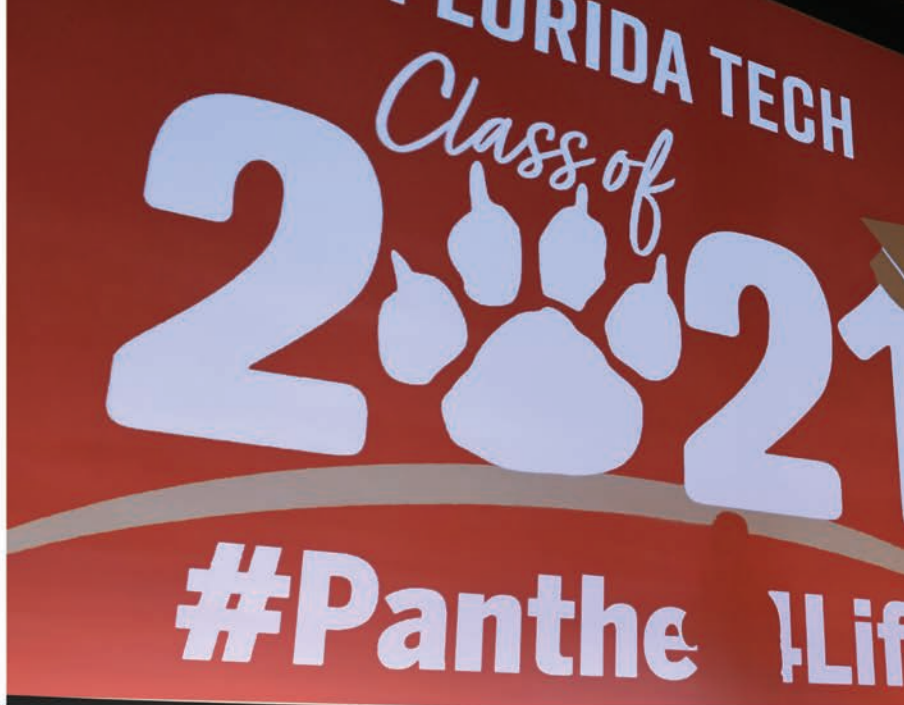
M A G A Z I N E

SPRING 2021



Setting the Bar

Folliard Alumni Center creates a standard for sustainability, collaboration and future alumni events



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Help us continue to improve *Florida Tech Magazine*. We welcome your feedback to the 2021 readership survey at:

floridatech.edu/ftm-survey-2021



PANTHERS FOR LIFE

The Class of 2021 was recognized in a spring ceremony, hosted by SGA and the Florida Tech Alumni Association. The small-scale event saw the Alumni Affairs staff and the president of the Alumni Association welcome the graduates to the FTAA, presenting them with alumni pins and certificates of membership.

FLORIDA TECH MAGAZINE

floridatech.edu/magazine
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VICE PRESIDENT FOR COMMUNICATIONS AND CHIEF OF STAFF Wes Sumner '18 DBA

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PRESIDENT'S PERSPECTIVE

Dear Alumni and Friends,

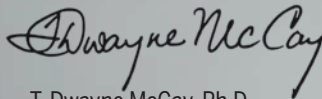
I'm pleased to report that your university successfully navigated the 2020–21 academic year, COVID-19 challenges and all. The tenacity, dedication and hard work demonstrated by all members of the Florida Tech family made that possible. I could not be prouder of them all.

Further, as you may have heard, we are planning a return to full in-person instruction and operations when the fall 2021 semester begins Monday, Aug. 23. Our plans do not assume that the pandemic is over, and as such, everyone in our campus community must be prepared for these plans to be adjusted if the conditions upon which they are based change. However, it is incredibly encouraging that significant progress continues to be made both locally and nationally with the COVID-19 vaccination effort.

In the coming months, you will hear more about our fall preparations, and we will publicize our fall guidelines, including finalized requirements concerning face coverings and social distancing. We want the new academic year to be as safe as we can reasonably make it.

We look forward to seeing everyone back in class this fall. I think the upcoming academic year holds the promise to be our best yet. Thank you for your continued support, and I hope to see you at a university event in the near future.

Sincerely,



T. Dwayne McCay, Ph.D.
President and CEO



3 FINAL THOUGHTS

IN-PERSON COMMENCEMENT

I'm looking forward to our in-person summer commencement on Saturday, July 31. Details are being finalized, but in keeping with the latest health guidance, we believe we can safely conduct ceremonies inside the Clemente Center. We anticipate each graduate will be permitted to bring two guests, and of course, the in-person ceremony will be video streamed. For more information, visit floridatech.edu.

VACCINE POLICY

This spring, we announced our COVID-19 vaccine policy—that all employees and students are recommended to receive the vaccination. While not required, we urge all members of the campus community to carefully consider their options and speak with their health care provider, as needed. More information is here: floridatech.edu/coronavirus/vaccine-policy.

BIOMED DOLLARS

In early June, Gov. DeSantis signed the state's new budget that includes \$2 million for our Biomedical Aerospace Manufacturing specialized equipment project. This will fund cutting-edge items for our new Health Sciences Research Center and our Center for Advanced Manufacturing and Innovative Design. Equipment such as bio tissue testing machines, specialized 3D printers and imaging devices are on the list.



Jacksonville Jaguars and Florida Tech Partner for High School STEM Lab

In partnership with the Jacksonville Jaguars, Florida Tech helped celebrate the grand opening of the new STEM Lab at Andrew Jackson High School in Jacksonville.

Since 2019, Florida Tech has been the official STEM education sponsor of the Jaguars.

Florida Tech fully funded 24 new laptops and furniture to provide an enhanced, virtual reality-based learning environment for the 930-student high school located just north of downtown Jacksonville.

“As Florida’s STEM university, Florida Tech understands the power and potential of a technology-rich, student-driven education,” said President Dwayne McCay. “We are pleased to join the Jaguars in strengthening the opportunities for students at Andrew Jackson and look forward to the success and innovation this new facility will foster.”

Jaguars offensive lineman Ben Barch knows what it takes to get into college and the importance of academics in

a child’s journey. He visited with the students virtually and touched on why he is a great example of what can happen with some hard work.

“Bottom line is you just have to work your butt off,” Barch said. “It’s on you and yourself, it’s you and the man in the mirror. If it’s a goal that is worth pursuing, people will doubt you. That’s how you know it’s a good goal.”

In addition to providing an outlet for science, technology, engineering and math, the new lab will supercharge student efforts to apply to college. That’s critical to AJHS Principal Truitte Moreland.

“I don’t believe in no,” Moreland said at the grand opening ceremony. “There are no excuses. If a kid does not have the money and they can’t do the basics, then it’s our job to do that for them. This partnership with Florida Tech and the Jaguars helps us do that.”



President Dwayne McCay addresses students via Zoom during the ribbon-cutting ceremony.

“

As Florida’s STEM university, Florida Tech understands the power and potential of a technology-rich, student-driven education.

—President Dwayne McCay

BRIAN KISH

On setting the airways for urban air mobility

Flying drones are doing great things today, from powerline inspection, to security surveillance, to precision agriculture (fertilizer and pesticide application). These drones have evolved from remotely piloted to fully autonomous, where the user programs waypoints and hits the “go” button. So far, operating drones over populated areas has been limited. But that’s about to get tested.

On the immediate horizon is drone package delivery. We have Florida Tech alumni at Amazon today running the flight test certification program for their drone package delivery system. If fielded, this will determine the public’s appetite (in terms of privacy, noise, visual disruption of the sky, security and safety) for drones flying over populated areas. Just like delivery trucks sometimes break down or crash, it’s only a matter of time until a package-delivery drone crashes into a house or flies into a crowd of people. Assuming the public accepts this (on rare occasion), the technology will grow to enable bigger and bigger packages to be delivered. If the payload grows to hundreds of pounds, why can’t the payload be a human? This question spawned the renewal of the quest for “flying cars,” which have been a feature in many sci-fi movies and television series like “The Jetsons.” This new quest has been promoted under the name “urban air mobility.”

The latest FAA-funded program has aerospace, physics and space sciences assistant professor Markus Wilde and I helping the FAA develop means of compliance for the urban air mobility market, which includes electric vertical takeoff and landing aircraft. These future concepts are neither traditional fixed-wing aircraft nor helicopters. Just like the automotive industry had to figure out certification of electric cars, the FAA will need to do the same for electric

aircraft. The FAA flight and pilot training rules will also need to be redefined. For example, having 45 minutes of reserve fuel in case an aircraft needs to divert for poor weather was easy to define in terms of gallons of fuel. Translating flight time to battery charge remaining is not as straightforward. This especially gets tricky for vertical landing or vertical missed approach, where the aircraft requires an additional burst of power rather than a power reduction as seen by fixed-wing aircraft on final glideslope.

The key technologies required to make urban air mobility vehicles possible are the same requirements for package-delivery drones: low emissions, low noise, vertical takeoff and landing, and precise trajectory control. Helicopters have been providing urban air mobility for years, but they require pilots and don’t meet the emissions or noise requirements. They also are quite expensive and thus used mainly by wealthy people. The prototype urban air mobility vehicles of the future vary from multi-copters (similar to package-delivery drones), to tilt-rotor aircraft (similar to the military’s V-22), to other vehicles that incorporate distributed propulsion and vectored thrust. The variety of these designs has challenged government regulators to produce certification and operation rules. Florida Tech has FAA contracts to help them define new rules. Autonomous cars and Amazon drones are blazing the technology and regulatory paths. Neither will see widespread use in the near future. But as the public gains confidence, the use of both will grow. And the dream of Jetsons-like urban air mobility might just be here sooner than you think.

“

The key technologies required to make urban air mobility vehicles possible are the same requirements for package-delivery drones: low emissions, low noise, vertical takeoff and landing, and precise trajectory control.

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Brian Kish

Brian Kish is an associate professor and flight test engineering program chair in the department of aerospace, physics and space sciences. His research and project interests include urban air mobility, electric and hybrid vertical takeoff and landing, pilot workload, and human factors and image-based navigation systems.



Florida Tech Spotlited in Amazon Prime Video Series

Florida Tech's academics and research, hands-on experiences, campus diversity and Sunshine State benefits are the focus of episode two of "The College Tour," a new series now streaming on Amazon Prime Video.

"The College Tour's" Florida Tech episode features authentic stories from 10 Florida Tech students: Alyssa Carson, Maria Sagastume, Giulio Cristello, Gennaro Zappariello, Tanner Crampton, Tij Vishwakarma, Delaney Lisco, Emily Almodovar Warner, Greg Dunn and Loghan Ashline.

Guided by host Alex Boylan, the 30-minute episode tells the Florida Tech story—from our founding and ties to the space program to our unique educational environment featuring undergraduate research opportunities, small classes and senior design projects. Faculty mentorship, athletics programs, flight training and our diverse cultural community are also featured. There's even a trip to the beach.

"The show highlights many great features of Florida Tech as a university, but what we really love is how it puts our amazing students front-and-center," said Marco Carvalho, Florida Tech's executive vice president and provost. "We're so proud of their passion, determination and enthusiasm—and the Florida Tech episode of 'The College Tour' gives us the opportunity to share their stories with the world."



Watch at thecolleetour.com or by searching "The College Tour" on Amazon Prime Video



ZONTA INTERNATIONAL OFFERING AEROSPACE-RELATED FELLOWSHIPS

Zonta International, an international service organization with the mission of advancing the status of women, is offering 30 \$10,000 fellowships for women pursuing Ph.D./doctoral degrees in aerospace-related sciences and aerospace-related engineering.

The Amelia Earhart Fellowship was established in 1938 in honor of famed pilot and Zontian, Amelia Earhart. Awarded annually, the fellowship may be used at any university or college offering accredited post-graduate courses and degrees in aerospace engineering and space sciences. Since the program's inception, Zonta has awarded 1,638 Amelia Earhart Fellowships, totaling more than \$10.6 million, to 1,209 women representing 73 countries.

Earhart fellows have gone on to become astronauts, aerospace engineers, astronomers, professors, geologists, business owners, heads of companies and even secretary of the U.S. Air Force.

Florida Tech applicants can apply through the Melbourne club or directly through the Zonta International website at zonta.org. Direct questions to Doris Larson at redskinsam@gmail.com.

SPOTLIGHT ON COOL TOOLS:

Atomic Force Microscope

Florida Tech recently invested in an atomic force microscope for Linxia Gu's biomechanics laboratory, where her research is primarily centered on biomechanics and biomaterials, both computational and experimental methods.

"My group is particularly interested in developing multiscale, multiphysics models to study and exploit tissue responses and cellular mechanotransduction, and to gain new mechanistic insights into the interplay of mechanics and biology," says Gu, a professor of biomedical and chemical engineering.

So, what is an atomic force microscope (AFM)? Simply put, an AFM is a type of microscope that provides images of almost any type of surface on an atomic level to measure many different forces and mechanical properties, like stiffness, hardness, adhesion strength and magnetic forces.

In the context of biomedical engineering, it can support research spanning surgical interventions, rehabilitation strategies, prosthetic development and more, says Gu.

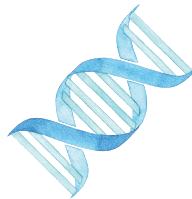
Here's a brief roundup of its application in other research areas:



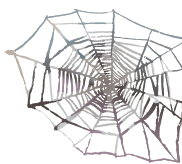
Three Uses for the University's New Atomic Force Microscope



1: Understanding surface chemistry to improve many things in our daily lives, from nonstick cookware to rain-resistant car windshields, to computer chips for cellphones to sweat-resistant/wicking clothing and more.



2: Identifying the elasticity of DNA and protein at nanoscale, which opens up new ways to study the micromachines that read, replicate and repair the double helix and allows biologists and physicists to dig deeper into the fundamental machinery of life.



3: Evaluating protein elasticity, which is essential to the function of biological machinery as diverse as the human arterial wall, the capture spiral of spider webs and the jumping mechanism of fleas.



Learn more at bit.ly/fltech-afm

A Top Florida School

Florida Tech is among the top four universities in Florida and home to multiple degree programs that rank among the nation's best, according to a range of new 2021 data from Intelligent.com, the Seattle-based resource for student higher education planning. Editorially independent and declining to accept advertising, Intelligent.com uses aggregated, publicly available data and multiple criteria to determine its rankings.

Jones Named SVP/CFO

Michael Jones has joined Florida Tech as senior vice president and chief financial officer. His previous experience includes financial leadership positions at the Keck Graduate Institute in California, a part of the \$5+ billion Claremont University Consortium, and at California State University, Long Beach, as well as other valuable business world experience. Jones holds a bachelor's in public administration from California State University, Long Beach, and an MBA from Pepperdine University.

Board Transitions Proctor Elected Chairman of the Board, New Members Named



TRAVIS PROCTOR '98, a member since 2012, has been elected chairman of the Florida Tech board of trustees. He was most recently serving as vice chairman.

Proctor succeeds outgoing chairman **ROBERT PHEBUS** '74, a board member since 2011 who was elected chairman in 2017.

Board member **KENNETH REVAY** '82, currently secretary, will succeed Proctor as vice chairman. Revay has served on the board since 2003. **BRIAN CRANE** '91 will succeed Revay as secretary.

The new leadership will welcome four new board members: Kirsten Dreggors, Dana S. Kilborne, Kendall T. Moore and Dave Weldon.

Dreggors is vice president of engineering and leader for the Manned Aircraft Design (MAD) Center of Excellence (CoE) at Northrop Grumman Aeronautics Systems.

Kilborne is president and CEO of Cypress Trust Company. Her distinguished 30-year career in banking includes her role as founder, president and CEO of Prime Bank.

Moore, a Brevard County native, is the managing partner of The Moore Law Group PLLC and the principal of Space Coast Strategy Inc., a lobbying, governmental relations and political consulting firm.

Weldon is a physician, U.S. Army veteran and former member of the U.S. House of Representatives, where from 1995 to 2008 he represented Brevard, Indian River, Osceola and portions of Polk counties. He also taught physiology and pathophysiology in Florida Tech's biomedical engineering department.

Esports Program Welcomes New Director, Facility

Dana Hustedt, who as director of esports at Grand View University helped propel that program to nationwide prominence and national rankings, has been hired to lead Florida Tech's esports program.

At least 10 universities in Florida have esports programs, according to the National Association of Collegiate Esports, including Central Florida institutions Full Sail University, Rollins College and Florida Polytechnic University.

Hustedt was hired in May 2018 as director of esports at Grand View, a university of about 2,000 students in Des Moines, Iowa, about 160 miles southeast of her hometown of Galva, Iowa. An alumna of Grand View, where she earned a bachelor's degree in management and marketing, Hustedt was the first woman to lead a collegiate esports program. That distinction and her early success helped generate a lengthy profile in a leading ESPN publication.

“We want to create a really inclusive community on campus that has competitive and leisure players.

—Dana Hustedt

During her time at Grand View, Hustedt was named to the advisory committee of the National Association of Esports Coaches and Directors (NAECAD), a group founded by Grand View University esports leaders that is now the primary professional organization for competitive esports coaches and directors at all levels of competitive play.



A dedicated esports facility, housed in the Ruth Funk Center, will open on Florida Tech's campus in August. The conversion of the two-story building will add the power necessary to run 36 advanced gaming stations and offer a variety of entry points for campus engagement, including a competitive area for the esports team, a recreation area for all students and a console area where students can bring their own devices to play with friends on large TV screens.

With the program's home set, Hustedt will focus on building Florida Tech esports, starting with a try-out phase to help determine where interested students

fit into competitive rankings. Those evaluations will in turn help determine the games the program offers.

Potential options include League of Legends and Rocket League, with Super Smash Bros., Counter-Strike: Global Offensive and Overwatch as possible choices, as well.



Follow the program's development and learn more at floridatech.edu/esports

#ThanksFloridaTech!

Spring Grads Get Jobs Before Diplomas

 Read more Panther successes at bit.ly/thanksfltech

Job-ready. That's the ultimate goal upon earning a college degree. And Florida Tech is renowned for setting our students up for success. Just ask some of our most recent graduates who had full-time job offers secured before commencement and credit their Florida Tech experience for the boost.

MEET ETHAN

ETHAN KENNEDY '21 started his new job at Raytheon Technologies in June, after years as an intern there. Throughout that time, Ethan took what he learned in the classroom and lab and applied it to his internships—a practice, he says, that persuaded the company to extend the job offer.



“Showing initiative, curiosity and enthusiasm for every project I worked on at Raytheon while also coming up with ideas and proposals that would benefit the company sealed the deal on the organization wanting to hire me. All of these skills I learned from watching the daily example set by the chemical engineering staff at Florida Tech.”



MEET SAM

SAM HARTLE '21 earned a bachelor's degree in computer science with a cyber operations concentration and a computational mathematics minor and began working as a cyber reverse engineer with ICR Inc. in May. He interned with ICR last summer after learning about the opportunity through Handshake, Florida Tech's job and internship resource database.

“At the end of the internship, one of my mentors told me that the main reason they decided to extend a full-time offer to me was because of my ability to take a vague description of a problem, break it down into one or more simpler problems and come up with an effective solution. I feel I developed this skill by being curious in assignments and projects both in and out of the classroom during my time at Florida Tech.”

MEET STEPHEN

For **STEPHEN CHANG** '21, the next chapter includes exploring the field of dredging and marine construction while working as an engineer on Manson Construction Co.'s Gulf & East Coast Dredging Team to help build the nation's waterways and marine infrastructure.



“For a small school, Florida Tech had a huge impact on my life and did a great job in helping me reach my potential. Between joining Greek Life, Student Government and doing research with my department, possibilities were limitless.”

Panther Power

From volunteerism to research to social commentary, you can find Florida Tech students making an impact far beyond campus. Here are a few examples:

Outreach and Aquatics on DIVE IN

Oceanography student Anesti Vega, founding president of the Florida Tech Scuba Club, appeared on an episode of "DIVE IN with Liz and Sylvia," a webinar hosted by legendary marine biologist Sylvia Earle and her daughter and marine engineer Liz Taylor. During the show, Vega discussed his passion for scuba diving and his work with Diversity in Aquatics, a program providing educational programming in underrepresented communities, focused on the skills needed to safely participate in aquatic physical activities and environments.



Find the episode at anestivega.com/speaking

VersaTILE Looking to be an Alternative to Chemicals

Julieta Cruz Chang, a mechanobiology undergraduate researcher, is developing cutting-edge ultraviolet LED technology to provide eco-friendly tools healthier than chemical-based cleaning solutions. Through Chem-Free Solutions, Chang is working on the VersaTILE, a UV LED disinfection device that will help to reduce the spread of infections. Multiple tiles can be added to cover more surface area, and the tiles utilize UV LEDs, which are an eco-friendly choice to UV lamps and chemical-based cleaning solutions.

Documentary Showcases Student's Journey

Roberto Vicente, civil engineering doctoral student, created the documentary "From a Slum to a Ph.D.," chronicling his life story from living in poverty in Brazil to making it to Florida Tech. Vicente wanted to tell his story as a way of saying thank you to those who helped him get to where he is today and shine a light on the challenges faced by people in underserved communities. Vicente also hopes the movie will serve as motivation for others.



Watch on YouTube at bit.ly/Slum2PhD

Drive with Panther Pride

It's been 18 years since Florida Tech introduced the Panther license plate, and now a revised design displaying the university logo is launching. Find it later this summer at your local Florida tag office. Proceeds from sales will continue to benefit the university.





Members of the Maple Leaf Five pictured here with the 1989–1990 men's basketball team include Astley Smith, third from left; Mike Smith, fifth from left; Dwight Walton, fifth from right; and Robert Sewell, third from right; not pictured: Peter Walcott.

The Maple Leaf Five

A Canadian Quintet Leaves an Impact on Florida Tech Basketball

By Jerry Durney and Daniel Supraner

There have been many players who have captured the imagination of Florida Tech men's basketball fans over the decades, whether at the old Percy Hedgecock Gymnasium or, these days, at the Clemente Center. Few, however, have been talked about in such regard to this day as the Canadian quintet of **ROBERT SEWELL** '92, **ASTLEY SMITH** '91, **MIKE SMITH** '91, '11 M.S., **PETER WALCOTT** '95 and **DWIGHT WALTON** '91.

Together, the “Maple Leaf Five” sparked the most successful era in program history between 1988–1995: three 20-win seasons, two NCAA Tournament appearances (the first in program history, along with a first-ever tournament win), and a first-ever Sunshine State Conference regular season championship.

Prior to their arrival in Melbourne in the fall of 1987, the Panthers had gone eight consecutive seasons without a winning record and had never won more than four games in conference play since joining the SSC in 1981.

Walton, a future Olympian with the Canadian national team, transferred to

Florida Tech after one season at Siena College. By rule he had to sit out the 1987–88 season before he began his three seasons in the Crimson and Gray. However, then-Panther head coach Tom Folliard Sr. figured that there had to be more talent where Dwight came from, so he went to his prized transfer for confirmation.

“Coach Folliard asked me if there were any other players from Montreal like me,” said Walton. “The funny story is he came to Montreal, and he was the only coach there with about 20 guys in the gym. We placed a chair for him on the sideline, and he watched 20 players go at it. He asked me to come over and he said ‘Dwight, I like him, him and him,’ and those guys were the Smith brothers and Garfield Glasgow.”

As Walton redshirted, the Panthers' ascent began during the 1987–88 campaign. The team, led by future Florida Tech Hall of Famers **TOM FOLLIARD JR.** '89 and **DAVON KELLY** '90, won 18 games, their most in over a decade, and recorded a winning conference record for the first time. Astley

Smith's 13 points per game were good enough to earn SSC All-Freshman team and All-SSC Honorable Mention honors.

During that season, Folliard Sr. had been recruiting Astley's younger brother, Mike. His first experience with Florida Tech and the environment it provided came in February 1988 during his recruiting visit as he watched the Panthers defeat Tampa for the first time in program history, 68-63.

“The game I went to, just to see how packed the gym was and with all the fraternities and everybody that was there, I was sold right away,” said Mike Smith. “Not just because my brother and Dwight were there, but also the atmosphere at the school at the time, I thought, ‘Yeah, this is where I want to be.’”

Walton joined the team in the 1988–89 season and made an immediate impact, averaging 19.1 points and 10.3 rebounds a game, earning First Team All-SSC honors and becoming the program's first All-American by earning NABC Third Team All-America honors. Together with Kelly, the Smith brothers, Robert Sewell and point guard Ray Paprocky, the rest of



Left: Dwight Walton

Above: Peter Walcott

the SSC found out that Florida Tech was now very much for real.

The peak of the program's history may have come on Dec. 29 and 30, 1988, when Hedgecock Gym hosted the Florida Today/McDonell Douglas Holiday Classic, an event that featured three Division I schools.

The first evening's action saw the Panthers cruise to a 106-87 victory over a John Calipari-led Massachusetts team. After 742 career wins, six Final Four trips and a national championship at the collegiate level along with a head coaching stint in the NBA, that Thursday night in Melbourne is still firmly entrenched in the legendary coach's memory.

"Years later, I'm at an NABC Foundation event and I'm one table over from where Calipari is," Folliard Jr. recalls. "I went over to his table, I said 'Hey coach, nice to meet you, I don't know if you remember me, but I went to Florida Tech and you guys came here and I don't know if you remember but we beat you.' He said, 'Do I remember? You guys had all those Canadians!'"

One night later, the Panthers took on Boston College from the Big East

Conference, a team that featured Dana Barros, an All-Big East sharpshooter who went on to be an All-Star during a 14-year career in the NBA.

"He put his son Kevin, who's not the fastest guy or the tallest guy, on him," recalls Mike Smith, "He basically said, 'No matter who we put on Dana Barros, he's going to drop 30 points on us, right?' and the goal is for nobody else to score in double digits."

Barros was successful, but the Eagles needed his prolific scoring just to keep them in the game against the Panthers at a frenzied Hedgecock Gym. The game was decided in the final seconds when Kelly sunk a pair of free throws to clinch the 77-75 victory for Florida Tech.

The Panthers went on to finish the regular season at 22-6 and reached the NCAA Tournament for the first time in program history. Mike Smith earned SSC Freshman of the Year honors, while Sewell joined him on the All-Freshman Team.

The following year, in 1989-90, the Panthers went 25-2 during the regular season, including 11-1 in conference

play, which gave them a share of the SSC regular season championship for the first time in program history.

Walton and Astley Smith were named First Team All-SSC, while Kelly was named to the Second Team and Folliard Sr. was named SSC Co-Coach of the Year. Walton also earned a second consecutive NABC Third Team All-American honor.

The Panthers again returned to the NCAA Tournament, earning their first win by defeating Norfolk State, 73-63, in the South Atlantic regional semifinal. Florida Tech then fell in the Sweet 16 to Morehouse, 81-77.

In the 1990-91 season, the Panthers amassed a 20-5 regular season, led by Walton's 15.8 points and 8.7 rebounds per game, which earned him a third consecutive First Team All-SSC honor and a third consecutive NABC All-American honor, this time to the Second Team. He remains the only Panther to have multiple All-American awards. Astley Smith made the All-SSC Second Team, earning him All-Conference honors all four seasons in Melbourne,

continued on page 14



Astley Smith

continued from page 13

while his brother Mike garnered Honorable Mention.

The Panthers reached the SSC Tournament Final for the first time but were ultimately denied another return trip to the Big Dance as they fell to Florida Southern in the championship game.

Plenty of changes came after the 1990–91 season. Walton and the Smith brothers graduated while Tom Folliard Sr. retired from coaching. Taking over for him was Andy Russo, who experienced success coaching at the Division I level with Louisiana Tech and Washington. He also got some help from the North in Peter Walcott, a guard from Montreal. From his first day in Melbourne, Peter knew he had a reputation to uphold.

“When I got down there, it was like, ‘Oh, you’re the new Canadian? Are you as good as Dwight, Mikey and Astley?’” said Walcott.

During a four-year career in which he never missed a game, Walcott averaged 15.6 points, 2.8 rebounds, 3.3 assists and 2.0 steals per game. He won SSC Freshman of the Year following the 1991–92 season and was named First Team All-SSC in each of the next three seasons. Walcott and Walton remain the



Don’t fight the inevitable; recognize what you can control, and take care of that.

—Mike Smith, pictured right, recalling lessons he learned from Coach Tom Folliard Sr. as a member of the men’s basketball team



Mike Smith

only Panthers to have earned First Team honors three times.

As the years moved on, the Maple Leaf Five’s legacy became more recognized. Walton got inducted into the Florida Tech Sports Hall of Fame in 2001 and the SSC Hall of Fame in 2011. The 1989–90 team was inducted into the Florida Tech Sports Hall of Fame in 2015, and Walcott joined them in February 2020.

Three decades later, the lessons that the players learned during their time at Florida Tech still resonate with them today in different lines of work.

“I’m managing a health center, coordinating everybody from our nurses, security to transportation,” said Mike Smith. “One of the things Coach Folliard really taught us to do was adapt to situations. I look back at when we played Boston College and his philosophy that allowed us to beat them: Don’t fight the inevitable; recognize what you can control, and take care of that. I look at that a lot in life and focus on that.”

“It’s all about the defensive intensity, the raw passion, the love of the game that Coach Folliard brought to us,” said Walton, who today serves as an assistant coach at Concordia University in Montreal. “He was strict, but he was also

a player’s coach at the same time. The overall attention to detail, he allowed his players to play but also wanted certain things from you.”

“What my time at Florida Tech strengthened in me was that the work you put in on your own is what’s going to push you forward,” said Walcott, now a data processor for the Lester B. Pearson School Board in Quebec. “I knew at some point I had to be my own driving force. Our program enabled me to grow that inner strength.”

It wasn’t just the lessons on the court that stuck with the players—life on campus helped them expand their world as well.

“The biggest thing anyone can learn playing a team sport and going to a university outside of your city is bridging the gap,” said Astley Smith, who currently works in the housekeeping department at Lakeshore General Hospital just outside Montreal. “We had guys from Africa and Yugoslavia on our team. So, I got to meet and experience a lot of people at Florida Tech from all over the world. Depending on the job, you’re going to meet people from all walks of life, so Florida Tech helped give me a head start with that.”



Find more coverage on the history and accomplishments of the Maple Leaf Five at FloridaTechSports.com.

Women's Rowing Rewrites Record Book with Fourth Consecutive SSC Championship




FOR THE RECORD BOOKS

4
CONSECUTIVE CONFERENCE TITLES

9
TOTAL CONFERENCE CHAMPIONSHIPS

Florida Tech women's rowing made history twice at the 2021 Sunshine State Conference Rowing Championship when the program became the first in the SSC to win four straight conference titles, which also brought to nine the team's total number of conference championships. Both are records.

The women tallied a first-place finish in the V8 and a second-place nod in the V4, which was good for first place overall.

"I'm real proud of the ladies for the effort that they have given this year," said head coach Adam Thorstad. "They have performed well under pressure all year, and I was happy to see them keep showing that resilience and coming back and doing some good stuff."

Back at the familiar grounds of Nathan Benderson Park, the Panthers opened their championship with the V4. The shell of Savannah Wilson (bow), Gabby Rodezno Wilson, Julia Seibold, Sophia Ferrizzi (stroke) and Alice Pennings (coxswain) had a solid outing as they finished second with a time of 8:09.4, 4.2 seconds behind Embry-Riddle Aeronautical University (ERAU).

However, the V8 of the Crimson and Gray found itself on the top step of the podium as the boat of Graysen Pensch (bow), Simona Vileniskyte, Sydney Spicer, Hannah Schilcher, Maclain Zajicek, Liza Lutter, Ismini Noni, Anna Kayser Gallego (stroke) and Abbigale Smith (coxswain) crossed the line in 7:03.6. This clear water victory was almost nine seconds faster than the Embry-Riddle Eagle's shell that crossed in 7:12.3.

These efforts combined gave Florida Tech 23 total points, one more than second-place ERAU. The next closest in overall titles is Barry University with seven.

Jamie Joss Named Director of Athletics



Jamie Joss has been named the next director of athletics, the sixth in program history. Joss will bring to Florida Tech a substantial background and experience in athletics marketing, fundraising and program development.

"I'm committed to delivering an outstanding scholar-athlete experience by cultivating a family atmosphere within our department through integrity in all facets of our athletic program," he said. "We will be aligned with the mission of the university, with coaches and staff focused on education, service to our community, transformative development of our scholar-athletes, and athletic success."

Joss previously served as the director of athletics at Davis & Elkins College in Elkins, West Virginia, where he oversaw the addition of 10 intercollegiate sports as well as growth in student-athlete enrollment, academic excellence and fundraising.

He has accumulated a wealth of administrative experience that he brings to the Panthers, having also served at schools including Rochester Institute of Technology, Embry-Riddle Aeronautical University and Warner Pacific College. His skills in administration and sports program management, gender equity/diversity/inclusion and community engagement are particular strengths.

A native of Ontario, New York, Joss holds a Bachelor of Science in Sport Management, Administration and Marketing from Bowling Green State University, a Master of Sports Science from the United States Sports Academy and is currently completing a doctorate in strategic leadership from Liberty University.

Joss and his wife, Jodi, have three sons, Jansen, Jace and Jade.



Bangladesh, one of the fastest-growing countries in South Asia, is expected to experience a rise in energy demand. This photo shows a recently constructed high-rise building in Dhaka, Bangladesh.

Researcher Looks to Home Country for Latest Project

Toufiq Reza has conducted plenty of research in his role as assistant professor of chemical engineering, but a recent grant is allowing him to potentially improve the lives of millions of residents in his native country of Bangladesh.

Reza and researchers from Bangladesh University of Engineering and Technology, Bangladesh Agriculture University and Dhaka University recently received a three-year international grant worth \$174,000 from the National Academy of Sciences and the United States Agency for International Development (USAID) that will allow them to examine the use of biogenic residue in Bangladesh to create clean energy, such as hydrogen production.

As one of the fastest-growing countries in South Asia, Bangladesh is expected to experience a rise in energy demand.

However, fossil fuel reserves in the country of 180 million people have already been depleted. Researchers may be able to find a silver lining to that energy consumption: a byproduct called biogenic waste, which is an organic material that degrades with time, polluting the environment.

The team is researching how to convert biogenic waste into energy that could then be distributed inexpensively across the country via low-risk, accessible, modular hydrogen generation systems. The project proposes an innovative process that uses biogenic residues for renewable hydrogen generation on the modular scale. Anaerobic co-digestion, biogas cleaning and management of digestate, which is the material remaining after the anaerobic digestion of a biodegradable

feedstock, will address current operations and maintenance issues and waste management limitations of ongoing biogas programs in the country.

For Reza, helping Bangladesh with future energy demands is an exciting and personal opportunity.

“This USAID project is a very timely project, as it allows me to utilize my knowledge to resolve waste-to-energy challenge of Bangladesh,” he said. “This project also allows me to collaborate with academia, industries, regulatory agencies and governmental sectors of Bangladesh. It would be amazing and satisfying to see that our technology has been adopted and used in Bangladesh. I could then truly believe that I have finally given something back to my country.”

UNIVERSITY STUDY EXAMINES CRITICAL LIGHTNING ATTACHMENT PROCESSES

Aerospace, physics and space sciences associate professor Amitabh Nag, along with research professor Kenneth Cummins, graduate student Mathieu Plaisir, Distinguished University Professor Hamid Rassoul and researchers from Kennedy Space Center, published the paper “Inferences on Upward Leader Characteristics from Measured Currents” in *Atmospheric Research*.

Improved understanding of these processes and the detailed nature of natural lightning currents and electromagnetic fields is the key goal of this project, which is funded by the National Science Foundation and the U.S Air Force.

RESEARCH SHOWS GEOTHERMAL HEATING MAY HAVE LIMITED LONGEVITY

Florida Tech astrobiology assistant professor Manasvi Lingam was part of a team of researchers that explored how practical it is to use geothermal heating in northern, colder latitudes.

The team tested for options that can power districts, including commercial and residential properties, not small-scale systems. By examining the average amount of power required per unit area for a city, the team will have a more accurate gauge for the demands of a region, thus helping guide their geothermal extraction research.



Oyster mats, such as the ones pictured, are attached to docks, where the mollusks on the mats will help filter the water. The research of graduate student Morgan Gilligan, pictured left, examines the growth on the mats, as well as the oysters' ability to filter the water.

Wanted Weeds: Early Signs Positive for Living Docks Program

Oceanography assistant professor Kelli Hunsucker, alongside ocean engineering associate professor Robert Weaver and Florida Tech's Indian River Lagoon research team, continues to work with the local community through the Living Docks program. The program involves wrapping dock pilings with oyster mats. The idea is that the mats facilitate the growth of oysters, barnacles and sponges, all of which are filter feeders that help remove excess nitrogen from waters by incorporating it into their shells and tissue as they grow.

Initial findings on the Living Docks deployed around the IRL have shown every dock has some level of organism growth, with the quantity and type of growth depending on its location. Over the fall, graduate student Morgan Gilligan and volunteers examined 10 of the docks, looking at the mats' effectiveness at promoting growth. Gilligan also examined organisms from four of the locations in a 48-hour lab experiment, looking at the science behind the oysters and other organisms' ability to filter algae and suspended particles from the water. This spring, Gilligan and graduate student Sandra Rech looked at how the organisms react to colder temperatures, and they will do similar analysis this summer when the waters are warmest.

A Study on College Athletes Leads to New Moral Foundation Discovery

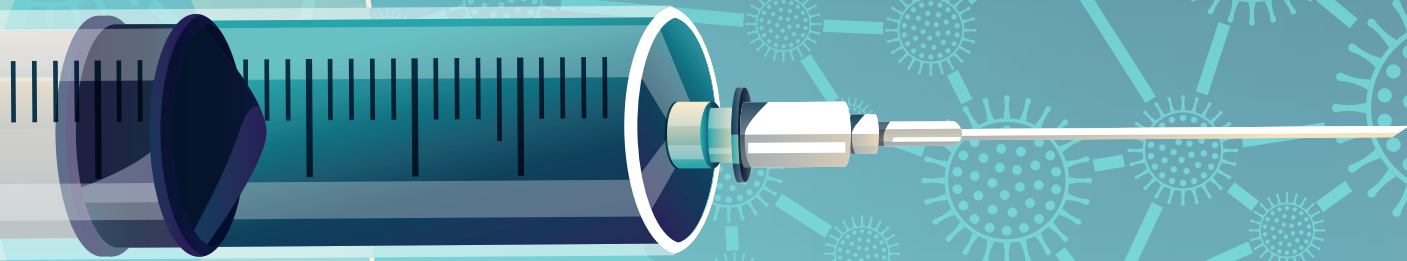
Florida Tech industrial/organizational psychology professor Gary Burns, alongside lead author and University of Cincinnati Ph.D. student Danielle Graham worked on the paper, "Athletic Identity and Moral Development: An Examination of Collegiate Athletes and Their Moral Foundations."

The findings of the research indicated athletic identity was not significantly correlated with harm/care or fairness/reciprocity as initially hypothesized, but a significant, positive relationship was found between athletic identity and the ingroup/loyalty, authority/respect and purity/sanctity foundations. The findings indicated that the stronger an individual identified with their athletic role, the greater the value they placed on those three foundations. Additional analyses indicated that gender and years of collegiate sporting experience also moderated some of these relationships.

The positive correlation between athletic identity and purity/sanctity values was a surprising discovery. Although more research is needed, the high scores in this foundation could be a result of participants interpreting 'purity' as an indication of high levels of self-restraint or self-discipline associated with their strict regimen of exercise and nutrition, this being something competitive athletes are generally recognized for.

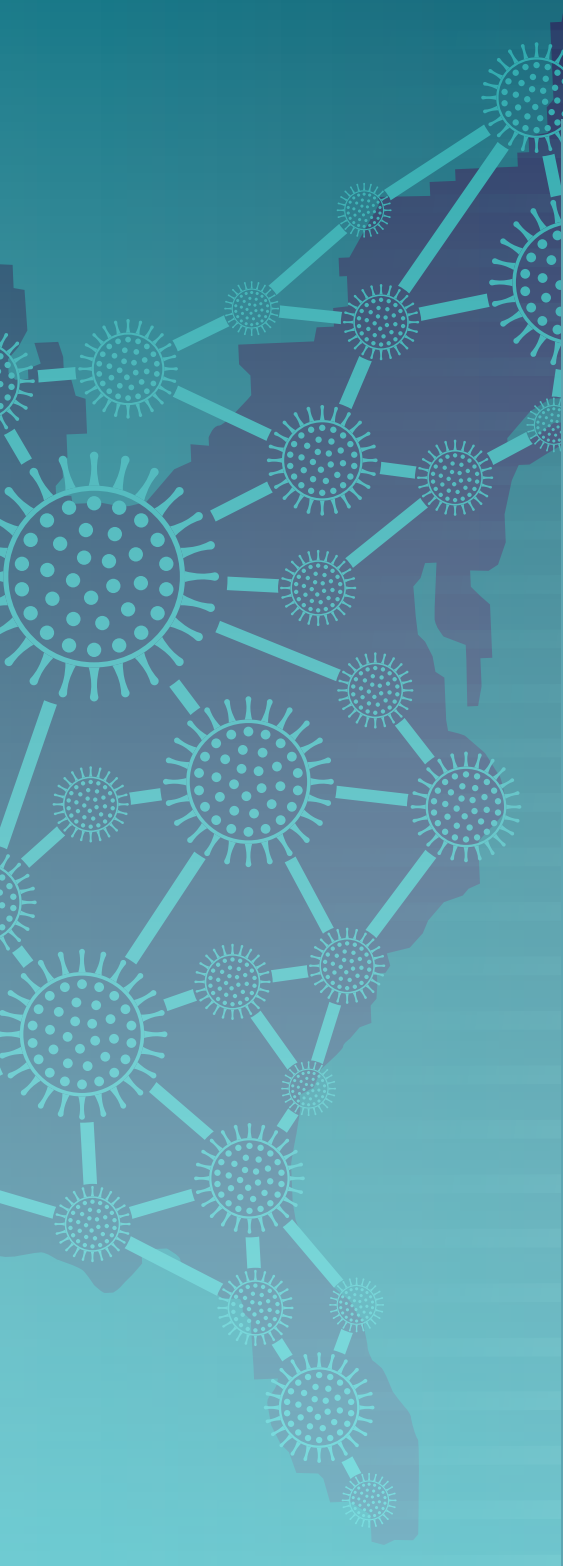


MOVING AT WARP SPEED



“ By mid-February, these efforts—and so many more—led to more than 70 million doses of vaccine and 800,000 courses of treatments delivered at the right time, to the right location, in the right quantities and condition, through six winter storms, with a 99% success rate. ”

—Gen. Gustave Perna '92 M.S., chief operating officer for the COVID-19 Vaccine and Therapeutics Operation



Florida Tech alumni are playing key roles in the United States' COVID-19 vaccine rollout.

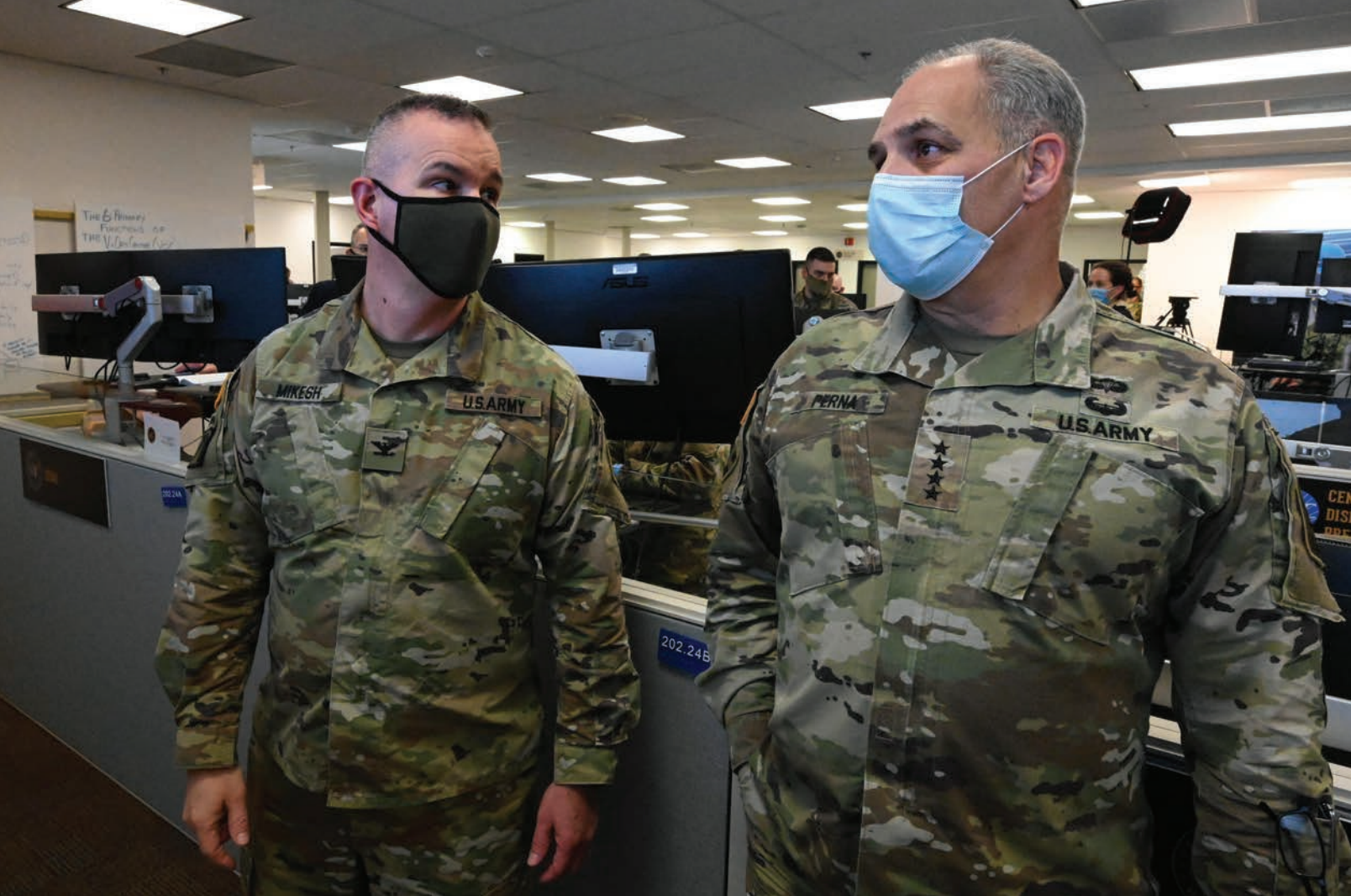
By Ryan Randall

America started to feel the impact of the COVID-19 pandemic in March 2020. As the country worked to figure out how to deal with the virus and its implications, the Trump administration launched Operation Warp Speed (OWS) in May. The mission of this critical national program was to accelerate the development, manufacturing and distribution of COVID-19 vaccines, therapeutics and medical countermeasures. At the end of February 2021, Operation Warp Speed was transferred into the responsibilities of the White House COVID-19 Response Team.

Among its leaders, and in additional key roles, were three Florida Tech Panthers.

Gen. **GUSTAVE PERNA** '92 M.S., the chief operating officer for the COVID-19 Vaccine and Therapeutics Operation; Col. **ROBERT MIKESH** '07 M.S., information technology lead of the mission; and **DARRELL RAWLINGS** '05 M.S., vice president of pharmaceuticals for McKesson, the leading distributor of vaccines and project leader for the company's COVID-19 vaccine program. *Florida Tech Magazine* spoke with the alumni via email in March about the program and their work within it.

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What are some of the daily tasks you are involved in?

Perna: As chief operating officer, I co-lead the partnership between the Department of Health and Human Services and Department of Defense to accelerate the development, manufacturing and distribution of COVID-19 vaccines and therapeutics to the American people. I am responsible for providing unity of effort between the various federal and U.S. government agencies, industry and academia, and focusing the collective whole-of-America team on the ultimate goal of saving lives and moving our nation past this pandemic.

Mikesh: My daily role is focused on coordinating across our government and industry partners to develop an interconnected information technology (IT) architecture that supports our mission to deliver safe and effective COVID-19 vaccines and therapeutics to 64 jurisdictions across the country. This level of IT architecture to support public health and immunization campaigns has been a complex challenge that has never been done before,

involving over 100 disconnected information systems that need to connect to other systems or exchange data. This myriad of systems tracks everything from vaccine allocations to order processing, transportation, in-transit visibility and inventory to the administration data, which record the vaccination events.

This interconnected architecture allows us to “see ourselves” and track the vaccine from the manufacturing line to the point of vaccine administration with a shared goal: to get shots in arms as quickly and safely as possible. We first had to develop the architecture, and now that distribution has begun, we’re focused on maintenance and enhancements.

Rawlings: As the vice president and enterprise program lead for McKesson’s COVID-19 vaccine program, I’m responsible for the overall program effectiveness related to our efforts to support the distribution of COVID-19 vaccines and related ancillary supplies in partnership with the U.S. government. In order to manage these duties, I’m fully embedded with the U.S. government’s COVID-19 operations team in Washington, D.C., to coordinate our company’s efforts in real time and enable better efficiency and collaboration between private and public partners.

Above: Operation Warp Speed information technology lead Col. Robert Mikesh, left, speaks with chief operating officer Gen. Gustave Perna in the Vaccine Operations Center.

Right: Operation Warp Speed co-leaders Dr. Moncef Slaoui and Gen. Gustave Perna visit a UPS Freezer Farm in Louisville, Kentucky. The visit was among several industry visits solidifying distribution solutions and the mission’s whole-of-America approach.

(Photo by Ryan Davis/UPS)

Far right: Gen. Gustave Perna tours the Operation Warp Speed vaccination clinic at Walter Reed National Military Center.

(U.S. Navy photo by Kurtis A. Hatcher)



GEN. GUSTAVE PERNA

Chief operating officer for the COVID-19 Vaccine and Therapeutics Operation



COL. ROBERT MIKESH

Information technology lead of the mission



DARRELL RAWLINGS

McKesson vice president of pharmaceuticals

Are there aspects of this work, or across your career in general, for which Florida Tech helped you prepare?

Perna: I firmly believe in building from a foundation set from three key components: formal education, training and experience. All three are important to personal and professional development, and all three have contributed to any success I have had. The education I received as part of the master's in logistics management program at Florida Institute of Technology expanded my knowledge and complemented my military training and experience. Formal education is an additional tool in your kit.

Mikesh: Absolutely. My degree is in acquisition and contract management, and I apply those skills in this job and what I've done during my time in the U.S. Army. Since graduating in 2007, every job I've had has

dealt with acquisition projects across the IT and contracting fields and is directly linked to what I learned at Florida Tech. In my current job with the COVID-19 Vaccine and Therapeutics Operation, I've been able to contribute a unique skill set in acquisition and contracting management that only about five of us on the team have.

Rawlings: Yes. My master's degree in logistics management has played an instrumental role in all the work I've accomplished while at McKesson and for this endeavor. More specifically, the COVID-19 vaccine program is a significant logistics challenge utilizing the resources of both industry and multiple branches of the government. The courses from Florida Tech prepared me to analyze, adapt and partner to find the best solutions possible. Additionally, I've also relied on the [vaccine] program, which allowed me to coordinate with military team members. That experience has helped me today better understand the discipline and approach often shared among those in the U.S. military that are deeply involved this effort. Ultimately, my time at Florida Tech, coupled with my years of experience at McKesson, have given me the opportunity to bring value to this effort to vaccinate all Americans.

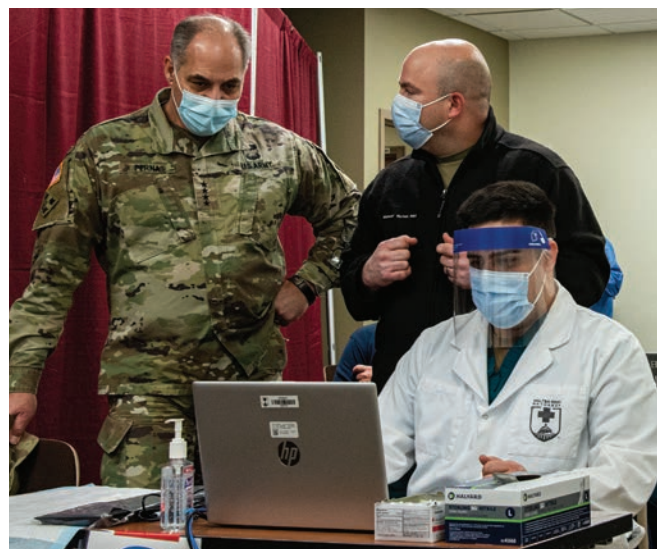
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The COVID-19 vaccine program is a significant logistics challenge utilizing the resources of both industry and multiple branches of the government.

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—Darrell Rawlings

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The COVID-19 vaccine record card is part of the Operation Warp Speed vaccination kit. (DoD photo by EJ Hersom)

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What have been some of the successes you've seen during Operation Warp Speed?

Perna: While we have much work to do to ensure every American who wants a vaccine has access to one, I am incredibly proud of what this team has accomplished in less than a year.

Our research and development efforts led to the authorization of two safe and effective vaccines and three safe and effective therapeutics, with more likely to follow soon. We expanded the pharmaceutical manufacturing capacity in the U.S., in some cases, building new facilities from ground up, to be able to produce and fill/finish vaccines at a significantly higher rate than what previously existed. The team developed a new platform that draws data from hundreds of separate systems to provide full visibility of the vaccine operation—from supply and allocations through delivery to administration; no one federal data system existed a year ago. We organized, managed and staffed an inter- and intra-agency Vaccine Operations Center, with liaisons from multiple industry and government

“ The team developed a new platform that draws data from hundreds of separate systems to provide full visibility of the vaccine operation—from supply and allocations through delivery to administration. ”

—Gen. Gustave Perna

agencies, that coordinated and tracked the movement vaccines—facilitating all cold-chain requirements, including dry ice refills, when needed—from the manufacturer to distribution centers and finally to more than 30,000 administration sites.

By mid-February, these efforts—and so many more—led to more than 70 million doses of vaccine and 800,000 courses of treatments delivered at the right time, to the right location, in the right quantities and condition, through six winter storms, with a 99% success rate.

Rawlings: The distribution of COVID-19 vaccines and ancillary supply kits needed to administer them has been meeting or exceeding expectations. Yet, we understand that Americans want more access to vaccines. As more doses become available, we are committed to getting them out as fast as possible. It is hard to claim true success until all those who want to receive a vaccine can get one—and that time is coming.

How has information technology factored into this mission?

Mikesh: IT is absolutely critical to success of the campaign from an operations and leadership perspective. It's through IT that we're able to establish allocations, process orders, track shipments and monitor vaccine administration, or “shots in arms.” All of that amounts to a tremendous volume of data that our leaders use to make informed decisions with the help of data visualization tools. We're dealing with nearly hundreds of millions of records every day that track the current average of 1.4 million daily vaccinations—and that number will only increase, especially as we approach 10 million doses shipped

each week. It's through cloud technology and the latest data platform innovations that we can to enable these capabilities, connect numerous interagency and partner business systems, and process massive amounts of data that result in data-driven insights and decisions.

Could you talk about something you've learned as well as major challenges overcome during this rollout?

Perna: Our nation has simply never done this before. We had never developed and brought to market a vaccine in less than a year. We had never manufactured hundreds of millions of doses in less than a year. And we had never distributed vaccines, with the added complexity of a two-dose regimen and with ultra-cold storage and handling requirements, at the scale and speed required during the pandemic.

We overcame these challenges through two key methods. First, we applied a whole-of-America approach, leveraging the unparalleled expertise of scientists and the healthcare community, Defense Department planning and logistics capability, American industrial ingenuity, and academic innovation. Essentially, we combined the world's best scientists and doctors, working beside the world's best military, with the support of American industry, and aligned them to a common goal. Second, we built from the existing healthcare expertise at the Centers for Disease Control and Prevention and capitalized on the existing healthcare infrastructure within industry. This allowed us to take tried-and-true processes and structures and adapt them to meet the needs of these new challenges.

Rawlings: This project has been a good reminder to build the right team to get the job done. Experience, reliability and agility are all great qualities to have on your team. It was those traits that helped us navigate one of the worst winter storms in modern history that crippled the supply chain across the country. During severe winter weather in February 2021, McKesson held shipments to protect COVID-19 vaccines. Following

the storm, McKesson shipped more than 7 million COVID-19 vaccine doses in a 48-hour time period to recover from the hold of shipments and meet new orders.

What are some of the things you've learned during this process as COO?

Perna: I have learned an incredible amount about our nation's healthcare infrastructure and pharmaceutical industrial base, and I have developed a deep respect for the scientists and researchers who have paved the way for modern medicine. Having the opportunity to co-lead Operation Warp Speed

with Dr. Moncef Slaoui, our chief science advisor, was one of the highlights of my career. He and his colleagues have some of the most brilliant minds in immunology, and without a doubt, without them, we would not have a vaccine today.

Also, while I have always appreciated the co-dependent relationship between the U.S. military and the defense-industrial base, I witnessed the power of public-private partnerships at a much larger scale through this operation. I am convinced that the successes we have had to date—developing and delivering tens of millions of safe and effective vaccines at a record pace—was only possible by bringing together the strengths of the U.S. government and private industry. Inter- and intra-agency coordination and collaboration can be incredibly powerful when we do not care who gets the credit and instead collectively focus on one common mission.

What is it like to work on Operation

Warp Speed with fellow Florida Tech alumni?

Mikesh: It's an absolute honor to serve with Gen. Perna, and I'm fortunate that this is the second time I've worked with him. He inspires the entire team—and not just the military—across all of our government and industry partners. A fully honest and transparent leader, he's a consummate professional who sets the example for all to follow through his word and deed. He listens to everyone's opinions and input, and everyone on the team knows that he has your back. To date, nearly 70 million doses of vaccine and 800,000 courses of treatments have been delivered at the right time, to the right location, in the right quantities

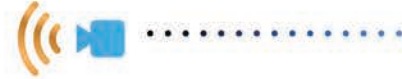
“ It's pretty incredible to have three Panthers working on this herculean mission ... one that I will never forget. ”

—Col. Robert Mikesh

and condition with a 99% success rate. None of this would have been possible if it weren't for his leadership.

Being able to work side-by-side with Darrell Rawlings is a testament and example of why this experience has been so unique. For background, the operation organized, managed and staffed a Vaccine Operations Center with liaisons from multiple industry and government agencies.

Darrell is our McKesson representative in the operation center working and coordinating alongside military, government and industry partners from the beginning. He's been our central contact for McKesson, the heart of our distribution network and always an exceptional professional who gets the job done. It says a lot about industry that they're willing to 'deploy' one of their own with the military and government for the better part of a year, working the long hours, seven days a week, to support this mission on behalf of the American people. I think it's pretty incredible to have three Panthers working on this herculean mission ... one that I will never forget.



SECURING THE INTERNET OF THINGS

By Ryan Randall

Florida Tech's IoT lab is helping better safeguard users with latest research.

On the second floor of the L3Harris Center for Science and Engineering is a lab that is making a difference in the world of cybersecurity. Among the computers, servers, multicolored background lights and rows of doorbell cameras, research is underway that is changing how companies secure their hardware—and consumer awareness, as well.

The Florida Tech Internet of Things (IoT) Security and Privacy Lab is a state-of-the-art facility that is on the cutting edge of analyzing IoT security. The lab is part of the L3Harris Institute for Assured information and has been around for less than two years but has already made two key security findings, and future work will continue the research pathway created by university cybersecurity program chair TJ O'Connor, computer engineering and sciences associate professor William Allen and the many students that utilize, and learn from, the lab.

In May 2020, the lab announced a major discovery, as computer science student Blake Janes found “systemic design flaws” in internet-connected doorbell and security cameras from Ring, Nest, SimpliSafe and eight other manufacturers. The flaw allowed a shared account that appears to have been removed to remain in place with continued access to the video feed. Janes discovered that the mechanism for removing user accounts does not work as intended on many camera systems because it does not remove active user accounts. This could allow potential “malicious actors” to exploit the flaw to retain access to the camera system indefinitely, covertly recording audio and video in a substantial invasion of privacy or instances of electronic stalking.

The findings were presented in the paper “Never Ending Story: Authentication and Access Control Design Flaws in Shared IoT Devices” by Janes, O'Connor and then-computer engineering and sciences assistant professor Heather Crawford.

Camera Flaws

Janes' work informed vendors about the vulnerabilities and offered several strategies to remediate the underlying problem, which led to contact from Google, Samsung and other vendors regarding solutions.

“Because we don't just find problems, but we fix them, I had the students contact the vendors and let them know there are issues that made their cameras vulnerable,” O'Connor said. “In the

process of that, this student contacted Google, and they awarded him a ‘bug bounty’ of \$3,133 and brought him in on the process of actually fixing the vulnerability. It's really sweet to be recognized by a company like Google and identified that we did find a vulnerability in their product, and they wanted the student to be part of the process to fix it.”

The flaw is concerning in cases where, for example, two partners are sharing a residence and then break up. Each has smartphone apps that access the same camera. Person A removes Person B's access to the camera, but that is never relayed to Person B's device. So, Person B still has access even though it has been revoked on the camera and Person A's smartphone and the account password has been changed.

The Florida Tech team found that this happens largely because the decisions about whether to grant access are done in the cloud and not locally on either the camera or the smartphones involved. This approach is preferred by manufacturers because it allows for the cameras to transmit data in a way that every camera does not need to connect to every smartphone directly.

Multidisciplinary Research

Another set of research, conducted November 2020, saw graduate student Daniel Campos and O'Connor, examine three doorbell cameras and four in-home security cameras from Mercurry Innovations' Geeni line purchased at national retailers. They found key vulnerabilities, such as hard-coded accounts installed by developers that provide full access, hidden backdoors that when accessed do not appear in the device's audit log and the ability for the vendor to remotely access sessions to capture audio and video despite the presence of firewalls or other security measures put in place by the purchaser. The research also found a “denial of service” attack capability that would allow vendors to contact the doorbell and tell it to shut down.

The research was conducted as part of an ongoing, multifaceted effort at Florida Tech involving faculty across disciplines. O'Connor is focused on the device-side; Meredith Carroll, associate professor of aviation human factors, is researching “user interface” elements—how to best provide information for users to encourage safe behavior—and Siddhartha Bhattacharyya, assistant professor in computer engineering

FLORIDA TECH INTERNET OF THINGS (IOT) RESEARCH AT A GLANCE

HOW IT STARTED:

According to cybersecurity program chair TJ O'Connor, most consumer IoT devices on the market today lack the ability to protect the device from cyber misuse or abuse.

HOW IT'S GOING:

Florida Tech's IoT Security and Privacy Lab, now entering its third year of research, has already made two key security findings and partnered with Google and other vendors to fix software vulnerabilities.

KEY ISSUES:

Slim cost margins on inexpensive devices and a lack of consumer demand have hampered in-depth software security development.

LONG-TERM GOAL:

To build a certification solution, similar to that of Underwriters Laboratories (UL), that can offer consumer confidence regarding a device's security and privacy features.



and sciences, is exploring strategy and policy related to what O'Connor and Carroll are doing.

O'Connor and Campos used the Binwalk Enterprise IoT security tool from ReFirm Labs to reverse engineer the firmware and find the vulnerabilities. The Maryland-based company, which automates the process of finding security vulnerabilities in IoT devices, granted the school access for free as part of its IoT Cybersecurity Education Program.

Future Security Work

When asked about why IoT devices have so many security issues, O'Connor noted the slim cost margins on a lot of the inexpensive devices that may not allow for the proper time to be spent on secure software development. He also said strong security is not a high-profile consumer demand because many don't know they should be expecting that, and any explanation of the security levels is rarely included on the label on the device.

While IoT devices continue to grow in popularity, the security issues they present will remain, leaving researchers at Florida Tech with new solutions for new problems.

"I like to say the level of security in consumer IoT devices right now is somewhere on par with the level of security that was on the PC back in 1999," he said. "They have really a lack of the ability to kind of do anything to protect the device, and unfortunately it's led to widespread abuse of a lot of these devices."

The IoT Security and Privacy Lab will look to build upon these and other findings, as it plans to delve into a host of devices in the home, ranging from cameras to locks to voice assistants to the environmental sensors around the house.

O'Connor noted they would like to build a model akin to Underwriters Laboratories, the global safety certification company behind those ubiquitous "UL" stickers that does testing on many electronics.

"Most consumer electronics go through pretty rigorous testing before they get released to the public," O'Connor said. "I think what we'd like to build here at Florida Tech is a similar model for IoT devices and be able to look at the devices and put them through rigorous testing to provide some insight as to whether or not people should take those things into their homes."

For more information, visit research.fit.edu/iot.





Setting the Bar

Folliard Alumni Center creates the standard for sustainability, collaboration and future alumni events

By **Stephanie R. Herndon '07**

Far left: Alumni board members gather in the Shirley Cui Tarantino Conference Room.

Left, top: Interior glass walls contribute to the spacious and airy aesthetic of the building.

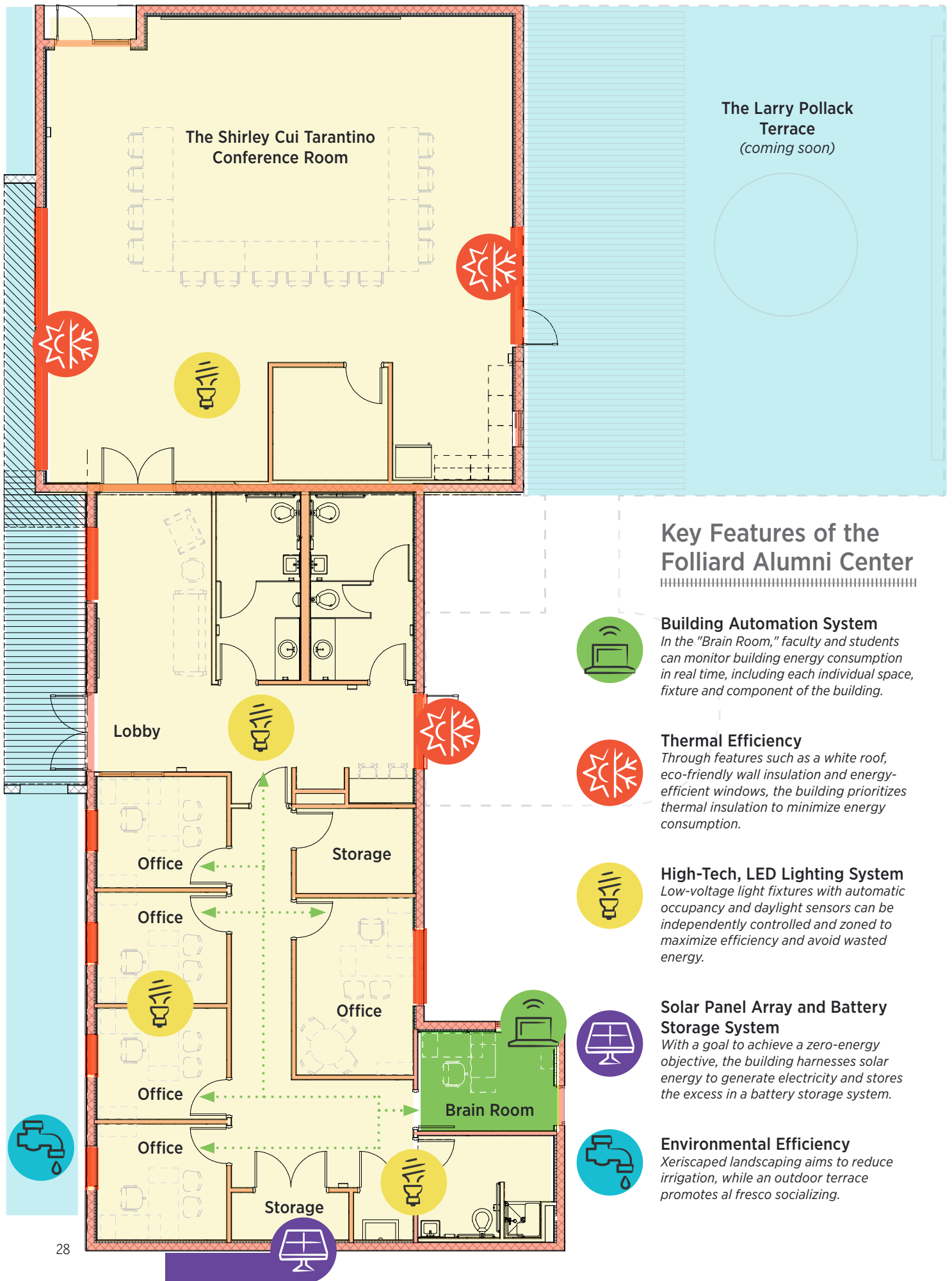
Left, bottom: An artist's rendering of The Larry Pollack Terrace coming soon to the Folliard Alumni Center.

Quiz time! What is the newest, most modern and eco-friendly building on Florida Tech's main campus? The answer is the Folliard Alumni Center, the new home base for Panthers.

The sleek new building is the first sight to greet campus visitors entering from the north end of campus, and the view is quite a treat for the eyes. Contemporary architectural lines, modern lighting and the latest design aesthetics give a first impression that's sure to impress.

But there's so much more going on with this building than meets the eye.

What visitors won't immediately see is the center's green roots—the eco-friendly sustainability features at the core of the building's design and goals. Nobody is more familiar with these features than Troy Nguyen, Ph.D., Florida Tech associate professor of mechanical and civil engineering, an expert in energy and power systems. Nguyen served as principal investigator for the Folliard Alumni Center project.



Key Features of the Folliard Alumni Center

Building Automation System
In the "Brain Room," faculty and students can monitor building energy consumption in real time, including each individual space, fixture and component of the building.

Thermal Efficiency
Through features such as a white roof, eco-friendly wall insulation and energy-efficient windows, the building prioritizes thermal insulation to minimize energy consumption.

High-Tech, LED Lighting System
Low-voltage light fixtures with automatic occupancy and daylight sensors can be independently controlled and zoned to maximize efficiency and avoid wasted energy.

Solar Panel Array and Battery Storage System
With a goal to achieve a zero-energy objective, the building harnesses solar energy to generate electricity and stores the excess in a battery storage system.

Environmental Efficiency
Xeriscaped landscaping aims to reduce irrigation, while an outdoor terrace promotes al fresco socializing.

REDUCE, REUSE, RECYCLE & RENEW

“Our goal is to achieve a zero-energy objective. This means the building needs to produce, over a year’s time, enough electricity to offset 100% of the electricity consumed by the building,” says Nguyen. “We used a two-prong approach. One is to use solar energy to generate electricity. The other is to build a facility that is highly thermally insulating, minimizing the amount of energy consumed.”

Not only are the lights throughout the building LEDs—which use less energy and create less heat, requiring less energy to cool the air—but there’s much more technology at play with the lighting system.

Independently controlled, zoned LED light fixtures allow building occupants to light only a portion of the conference room, for example. If a small group is in the corner, there is no need to waste energy to light the entire room.

If the occupancy sensors detect that a person is no longer in the room, it shuts off the lights automatically. Gone are the days of consuming energy to light a room all night if the occupant forgets to turn off the lights when they leave.

Although beautiful, the large amount of glass throughout the building is not just an aesthetic choice; it allows sunlight to flow through the building, reducing the need for electric light. Florida is the Sunshine State, after all. Daylight sensors detect the amount of natural sunlight coming into the building and adjust the intensity of the electrical lighting accordingly, using an optimal mix of electricity and sunlight to balance energy efficiency and visibility.

Those windows letting in the sunlight? They’re energy-efficient, so they’re letting in the light without the Florida heat. Also keeping those heat-waves at bay are supremely efficient insulation and a roof painted white to reflect the heat away from the building.

Further taking advantage of the Florida sunshine, a solar array stands in the parking lot next to the center. The solar panels fuel the electric car charging station in the parking lot and help power the building itself,



The research team includes, from left, graduate student Mariana Migliori '18, '21 M.S.; faculty members Troy Nguyen, Aldo Febregas and Hamidreza Najafi; and graduate student Benjamin Kubwimana '21.

routing power to the battery storage system, which stores extra energy in case of a power failure event.

This solar power, coupled with reduced energy consumption, makes Folliard Alumni Center a net-zero energy building. Florida Tech recently received a silver rating in the Sustainability Tracking, Assessment & Rating System from the Association for the Advancement of Sustainability in Higher Education for projects including the alumni center. Nguyen and his team are currently working on raising funds to apply for LEEDS gold certification.

CONTINUAL LEARNING

Sensors throughout the building monitor and control the energy usage of every office, every light, the water heater, the air conditioning system and all other electric equipment. These data feed into the building automation system—the “brain room,” as some refer to it—to minimize energy consumption, maximize occupant comfort and continually learn how to be more efficient.

“This is the most interesting space in the building,” says Nguyen. “Since the beginning, we intended this project to be a teaching platform and a research platform.” Since 2017, 10 graduate students have been able to work on this project. In the future, once more data is collected from the building, the data coming from the brain room will be utilized by

even more students to study classroom principles applied in the real world.

This data is also being shared outside the campus to help inform future green building projects. “I sit on the City of Melbourne’s Energy Efficiency and Beautification Board,” says Nguyen. “The city is building a new police station. There’s strong interest from the city to visit our facility to gain some perspective from this research. The pandemic has delayed that, but hopefully, soon we can bring board members and city council over to tour the building, and they can use some of what we’ve learned in the future development of the police department and other city facilities.”

Nguyen’s team has committed to doing outreach in the community post-pandemic to teach local K–12 children about renewable technologies and local industry partners, contractors and technicians about green building construction.

Part of the funding for the building came from a grant from the state of Florida Office of Energy’s Renewable Energy and Energy Efficient Technology grant program. The goal of this program is to demonstrate and research the performance of zero-energy commercial building practices. The metrics collected from the building will go back to the state to illustrate how zero-energy commercial building design can be cost-effective and scalable.

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“The realization of the new Folliard Alumni Center would not have happened if not for the tremendous support of our alumni.”

BINO CAMPANINI '90, '92 MBA

DONOR CORNER

At a nonprofit institution like Florida Tech, funding a new, state-of-the-art building requires not only grant funding but the benevolence of donors. Knowing the importance of having a new home base for our alumni, several Panthers stepped up to the plate to make the dream a reality.

“The realization of the new Folliard Alumni Center would not have happened if not for the tremendous support of our alumni,” says **BINO CAMPANINI** '90, '92 MBA, Florida Tech's senior vice president of student life and alumni affairs and the Florida Tech Alumni Association's (FTAA) executive director.

“I'm especially grateful to our donors who generously donated for named spaces at the center, in addition to FTAA board members **ANDY KIRBACH** '90 and **MIKE KALAJIAN** '95, who provided all the site engineering, permitting and structural engineering for the project at no charge. These generous contributions enabled us to leverage the support of the university and the state of Florida grant to build a facility of which our alumni can take pride.”

Tom '89 and Mary '92 Folliard

Benefactors of the Folliard Alumni Center

Both Florida Tech athletes during their undergraduate years, Tom and Mary met on Florida Tech's basketball courts. In fact, Panther basketball seems to be part of the Folliard DNA. Tom's father, Tom Folliard Sr., was a Florida Tech basketball coach from 1984 to 1991, and Tom's brother, Kevin, was a fellow teammate. Soon Tom and Mary's courtside courtship turned into marriage and parenthood, and their four children—you guessed it—played or are playing basketball at their respective institutions as well.

The basketball team and the support of the university's staff—and one coach in particular—during some trying times forged an affinity for Florida Tech that the Folliards have not forgotten.

“I played women's basketball, and my coach, Coach John [Reynolds], is still coaching there. He was like my father when I was at school,” Mary says.

“John was very good to us,” adds Tom. “He prioritized our lives and our child over everything else, and we've never forgotten that. We feel a big allegiance to the school because when we really needed it, we had support.”



Tom and Mary Folliard



Shirley Cui Tarantino



Larry Pollack



Jack Pruitt

The Folliards were looking for a way to give back to their alma mater, and they say the timing could not have been more perfect. When Campanini, who was friends with the couple during college, brought the idea of the new alumni center to the Folliards, they were on board to help make it happen.

“We liked the idea of alumni having a place to go and continue to be involved with the school. The old alumni house was someone's house that Florida Tech bought and retrofitted into offices. This new center is more appealing for alumni to have a place to go, a place to come back to, a place to gather.”

Shirley Cui Tarantino '01 M.S.

Benefactor of the Shirley Cui Tarantino Conference Room

A nontraditional student, Tarantino came to the U.S. from China to attend Florida Tech as an adult to pursue a master's degree and the prospects a career in the U.S. held. She expected the challenges of cultural change; what surprised her was the positive impact that her Florida Tech experience would have on her.

“Everything I learned about America started from Florida Tech. This school was a changing point of my life,” Tarantino said. “I was struggling through school at times, not only with the language but also working through four jobs, but I was finally able to graduate.”

When reflecting on these experiences, Tarantino knew she wanted to give back to the university—not just in thanks but also as a message to other international students that, despite the challenges, it can be done.

She explains, “I realize other students could be just like me. I want to inspire them, show them there's a possibility if you work hard and take every opportunity, you're going to make it. My married name, Tarantino, sounds Italian, but I am Chinese. I wanted to keep my Chinese name, Cui, in the middle of the conference room's name. I would like students to find a connection—to show other international students the possibility of what students can do in this school.”

Larry Pollack '85 M.S.

Benefactor of The Larry Pollack Terrace

Soon after beginning his career in environmental chemistry, Pollack wanted to pursue an advanced degree. He found Florida Tech to have everything he was looking for, primarily research



The Alumni Affairs team, from left, Stephanie Bacon, Bino Campanini, Cindy Berger and Jillian Leclerc.

opportunities and faculty who build a rapport with their students.

While he searched for a way to pay for graduate school, Florida Tech offered Pollack a teaching assistant position within the departmental labs that produced a small but very helpful stipend.

“It was great to get a paycheck while doing fun things. I have not forgotten that \$1,500 per quarter and want to pay it back many, many times over.”

When he made a campus visit and learned about the planning of the new alumni center, he knew he wanted to give back to the university by providing a gift toward the new building.

“The patio seemed most appropriate, as a large portion of my time while attending Florida Tech was spent enjoying the outdoor environment—everything from taking scuba lessons at Hatt’s dive shop (where scuba became a lifelong passion) to running my first 10K race, to catching my first fish!”

Jack Pruitt '92

Benefactor of the Jack Pruitt Office Spaces

Trustee emeritus **JACK PRUITT '92** established the Jack and Pat Pruitt Endowment in 2007 to supply funds to be used where the need is greatest, as deemed by the university’s president. While identifying funding sources for the Folliard Alumni Center, Campanini realized that the endowment was roughly equal to the cost of building out the office spaces. He proposed the idea of using

the funds for the center to Florida Tech President Dwayne McCay, who agreed that the building was important to our campus community and an appropriate use of the funds.

A NEW HOME FOR ALUMNI

Campanini says working with several people to make this project a reality has been a gratifying experience. “All parties—the alumni office, academic departments, the facilities team, corporate partners and our amazing alumni donors—worked toward the same goal of creating a unique facility that would stand as a model of energy efficiency as well as a dedicated space for our alumni.”

Kirbach echoes those thoughts as well. “I’m so proud of the collaboration of the entire team and the support from Dr. McCay, trustees, Tom and Mary Folliard, alumni and the community to make the project a reality.”

Seeing other alumni giving their time, support and resources to Florida Tech compels Kirbach to continue doing the same through this project and others. He and Kalajian are both offering their professional engineering services to the Health Sciences Research Center and Mertens Marine Center projects, both currently under construction.

Campanini and his Alumni Affairs team, having worked in the building for

several months, say the office space has been a beautiful and comfortable environment. The conference room has served as a classroom since fall to help the university meet its classroom COVID-19 protocols, with positive feedback from the students and faculty. Once standard protocols resume, the campus will be open for visitors to see the building for themselves.

“This dedicated meeting space will allow for a myriad of opportunities for our alumni, including networking, mentoring and social gatherings,” Campanini says. “From alumni checking in to learn about activities to hosting receptions for our outstanding alumni award winners, it will be a central touchpoint for our Homecoming festivities.”

Not only will the conference room serve as a gathering place, so will the outdoor terrace behind the center. Campanini says, “This is actually my favorite feature of the building, which we hope will be completed this fall. It will include a covered canopy area, a fire pit and other cool features. This will allow us to take advantage of the fantastic weather we enjoy here in late fall and in the spring to host outdoor events.”

The FTAA has hosted two board meetings in the new center. FTAA president **FIN BONSET '96, '99 MSA**, says, “As soon as you walk in, you feel like you’re in a happy and professional gathering place, perfect for alumni to reconnect with their alma mater. This building represents the new face of Florida Tech, always forward-thinking and welcoming to students, staff and alumni alike.”

FTAA vice president **SHERRY ACANFORA-RUOHOMAKI '93, '00, '05 M.S.**, says, “Having this beautiful building will give current students a better idea of what it means to continue a relationship with the university after graduation.”



News from the desk of
**Fin Bonset '96,
'99 MSA**

Florida Tech
Alumni Association President

Wow, what a start to 2021! We are experiencing excitement and movement on many fronts, from the advent of effective COVID-19 vaccinations to a very active calendar of virtual Florida Tech alumni events. However, THE most exciting thing I have seen this spring is the new Florida Tech Connect platform. If you do not know about this, you are missing out! Think of it as networking, mentoring, event notifications and fun—all wrapped into one easy-to-navigate portal for alumni. Thanks to the massive efforts of the Alumni Affairs team, the platform debuted in January and has been growing in users every day. I invite you to check out this innovative way to connect with your alma mater at floridatechconnect.com.

Florida Tech celebrated Black History Month and the diversity of our campus by spotlighting great athletes, such as men's basketball player **PETER WALCOTT '95**. Peter is known for never having missed a game in his four seasons. He graduated as Florida Tech's all-time leader in steals and assists and had the second-most career points with 1,688. I witnessed his prowess in person as a student on campus, and he was incredible!

An exclusive lunch and learn lecture on "The History and Evolution of African American Music Culture" by professor Don Harrell was an opportunity for alumni, students and the broader Florida Tech community to understand the cultural and existential struggles of African Americans expressed through musical genres.

The willingness of our alumni across the globe to be part of virtual events in the past few months has been exemplary. Each session—from aerobatic flight lessons to tours of London and Capri to the state of our coral reefs—has been highly attended. I would like to thank all who were involved in creating these sessions. Your motivation during these crazy times has really kept the fire alive for all of us, alumni and students alike. This is what makes us each a #Panther4Life.

Fingers crossed that we will be able to gather in person on campus later this year.

YOUR ALUMNI ASSOCIATION OFFICERS

Fin Bonset '96, '99 MSA | President | Indialantic, FL | fbonset@vhb.com
Sherry Acanfora-Ruohomaki '93, '00, '05 M.S. | Vice President | Melbourne, FL | sherry@k9kampus.com
Chad Shoultz '96 | Treasurer | Indialantic, FL | cshoultz@icloud.com
Warren Pittorie '15, '18 M.S. | Secretary | Melbourne, FL | wpittorie2012@fit.edu
Jody Palmer '07 | Member-at-Large | Melbourne, FL | jodybpalmer@yahoo.com
Chris Fernando '02 | Member-at-Large | Raleigh, NC | cfernando@gmail.com
Kim Bozik '87 | Past President | Chandler, AZ | kim.bozik@regan.com
Bino Campanini '90, '92 | Executive Director | Satellite Beach, FL | bcampanini@fit.edu



Save the Date

Florida Tech Legacy Celebration: A Toast to Bill Jurgens

Presented by the Florida Tech Alumni Association

Saturday, Oct. 9

For more information,
[floridatech.edu/alumni/
events/a-toast-to-bill-jurgens](http://floridatech.edu/alumni/events/a-toast-to-bill-jurgens)

SUBMIT YOUR NEWS TO alumnotes@fit.edu

1970s

MARK SIVIK '71 A.S., retired biologist and Palm Beach County Schools science and Spanish teacher, is now working in and developing the town of Ccotcco, Peru.



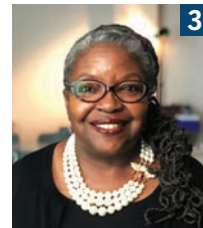
1

RUSS LAWTON '74 A.S., '76, was promoted to vice president of operations with Air Charter Safety Foundation.



2

DAN LETTE '76 A.S. recently retired as a captain after a 32-year career with United Airlines. Dan flew B757/767s and was based at Washington Dulles International Airport.



3

W. MICHAEL MCDAVIT '77 A.S. retired after 38 years of federal service at the headquarters of the U.S. Environmental Protection Agency. He teaches environmental science at Montgomery College and at George Mason University's annual Washington Youth Summit on the Environment.



4

MICHAEL MENGEL '78 retired as a principal environmental specialist for the California's Orange County Sanitation District.

STEVE LUZKOW '79 M.S. joined Partner Engineering & Science as technical director.



5

1980s

EDWARD DONOVAN '82 Ph.D. entered his 51st year in teaching as an adjunct professor of science in the natural sciences and engineering department with University of South Carolina Upstate.

1 JOHN HULL '82 MBA, deputy director of the Tennessee department of general services and head of the state of Tennessee real estate asset management division, was honored with the Distinguished Deputy Award from the National Association of State Chief Administrators.



7

MARK WISE '84 recently retired after 36 years in the aerospace and defense industry and works



6

as a technical advisor on a U.S. government defense program in Huntsville, Alabama.

CAROLYN FITZPATRICK '86 returned to the classroom as a first-grade teacher after working in the education department at the Thomas Jefferson Foundation.

ALLEN MURPHY '86 MBA, after retiring from corporate positions, began working as a part-time professor for Valencia College in Orlando, Florida, teaching business administration and management.

CHOUDHARY YARLAGADDA '86 M.S. was appointed president of Chimera Investment Corporation and will continue as the company's chief operating officer, a position he had held since 2015.

2 ANAS ALKASSEM '87 was recently hired by Stantec, a leading global design firm, to serve as its regional managing director for the Middle East region.

MARY MALNAR BARRY '87, a senior research technician at the Mayo Clinic in Rochester, Minnesota, is involved in vaccine technology with the Mayo Clinic's Vector and Vaccine Engineering Laboratory.

1990s

LEMUEL AGUAYO '83, '92 M.S., was recognized with Lockheed Martin's Luminary Award, which recognizes an individual with a long history of community service and a passion for mentoring students and professionals in STEM.

3 DEBORA JOHNSON-ROSS '90 M.S., Ph.D., is vice president of academic affairs and dean of the faculty at Wartburg College. She was previously director of the Mayor's Scholars Program at Baltimore City Community College and senior vice president of academic innovation at BridgeEdU.



8

4 EDDIE ENDERS '93 has relocated from Melbourne, Florida, to *continued on page 34*

There's a world undiscovered here on our own planet—in the depths of our massive oceans. Underwater crews have explored Earth's waters for generations, but, like anything else, as technology improves, so does our capability for exploring deeper, darker oceanic destinations as well as discovering and documenting new marine life and behaviors.

Enter Arctic Rays, a company founded and led by **DIRK FIEBERG** '01, '03 M.S., and **LEE FREY** '99, '02 M.S., which manufactures advanced underwater cameras and lighting equipment. Fieberg and Frey are raising the bar for underwater tech by applying a fresh approach to the design of underwater systems.

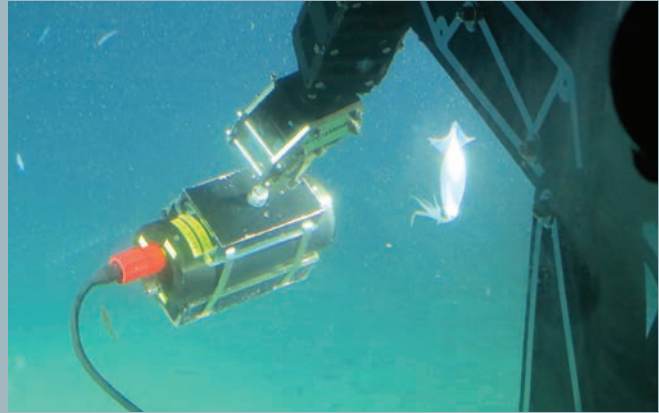
“Underwater technology has always been very expensive and has taken a long time to develop and bring to market. In the past, only big companies and research institutes had the resources to design and manufacture for such a challenging environment,” says Frey. “Today, advancements in robotics, LED lighting, high-resolution imaging and rapid prototyping are revolutionizing what is possible.”

Arctic Rays equipment has been used by BBC and OceanX for the making of the documentary series “Blue Planet II,” as well as Netflix, The Woods Hole Oceanographic Institute (WHOI), the U.S. Navy, NOAA and several others.

“We recently developed a novel system with **BRIAN LAJOIE** '99, '01 M.S., who works for L3Harris Technologies. It uses a suite of high-definition cameras, motion controllers and fiber-optic networking technology to provide real-time monitoring of deep-sea dive operations.”

The company was created when Fieberg, with over a decade of experience working with high-tech lighting for Tempo LED Lighting and Philips Lighting, and Frey, an ocean engineer who has spent 19 years building and piloting underwater vehicles for companies like OceanX, WHOI and Harbor Branch Oceanographic Institution, decided to combine their skills to improve upon the tools available to marine scientists, explorers and documentary filmmakers.

“We are excited to be building something new, right here in the Melbourne area. Our time at Florida Tech gave us both the solid education and lasting friendships that have made this new venture possible,” says Fieberg.



▲ DIRK FIEBERG

QUARANTINE ACTIVITY?: DIY home remodeling.

ALTERNATE CAREER?: Running an electrical, HVAC and plumbing business.

GO-TO SNACK?: Pistachios.

FAVORITE FLORIDA TECH MEMORY?: Meeting my future wife in University Experience class.

▲ LEE FREY ▲

QUARANTINE ACTIVITY?: Kayaking, sailing, biking ... being outdoors.

ALTERNATE CAREER?: Evolutionary biologist.

GO-TO SNACK?: Soft Pretzels—I'm from Philly. It's genetic.

FAVORITE FLORIDA TECH MEMORY?: Late-night rehearsals with College Players.

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Brisbane, Australia, taking on a new assignment for L3Harris Technologies' Space and Airborne Systems Segment.

5 Maj. Gen. **TIMOTHY MCKEITHEN** '94 M.S., USARPAC deputy commanding general, recently retired from more than 34 years of service to the U.S. Army at Fort Shafter, Hawaii.

MATTHEW FILLINGIM '95, '97 M.S., Ph.D., a planetary scientist at the Space Sciences Laboratory at the University of

California, Berkeley, and his wife, **MICHELLE FILLINGIM** '97, a GIS/CAD specialist with Alan Kropp & Associates, will celebrate their 25th wedding anniversary.

THOMAS STIEHLE '96 M.S. was promoted to executive vice president and chief financial officer with Huntington Ingalls Industries.

6 **SAHM JAMJOOM** '97 M.S. began a new role working for the Economic Cities and Special Zones Authority as director of general special economic zones in Saudi Arabia.

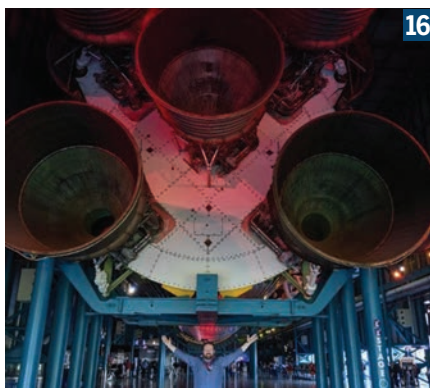
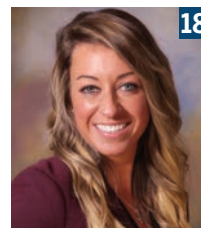
7 Capt. **DONALD SIMMONS III** '97 M.S. recently retired after 2,500 flight hours and 30 years of service with the U.S. Navy, most recently as principal military director of logistics for the Naval Air Systems Command.

2000s

MYA BREITBART '00, a USF professor, was featured in *National Geographic's* February 2021 cover story on how viruses look up close. She holds a Ph.D. from Scripps Institute of Oceanography (UCSD).

8 **CHRISTIN L. PERKINSON** '00, '02 M.S., Ph.D., joined Atkins, a global design, engineering and project management consultancy, as the coastal practice lead.

Col. **GAVIN GARDNER** '02 M.S. recently assumed the duties of commander of the Joint Munitions Command and Joint Munitions and Lethality Life Cycle Management Command, headquartered at Rock Island Arsenal, Illinois.



9 JOHNNY M. MOORE '02 Ph.D. has been selected as chancellor for Arkansas State University-Newport, overseeing three campus locations with over 2,000 students enrolled each year.

MARCIA ALVARADO '04 was recently hired as Tampa structural market leader with WGI Inc. She is a licensed professional engineer.

AGNIESZKA MARSHALL '04 M.S., '06 Psy.D., was appointed chief clinical officer by Tykes & Teens, a leading provider of evidence-based mental health services and programs for children and adolescents.

10 DAVID MEZENEN '04 joined Airbus Corporate Jets, a business unit of Airbus Group, as sales director for Asia. He will oversee new aircraft sales for the region out of Singapore.

11 CHERYL (FOSSANI) ZULICK '04, '06 M.S., recently welcomed twins and is proud to introduce Coraline (l) and Cole (r).

12 SHANITA ALLEN '05 M.S., a board-certified behavior analyst, released her new children's book, *What is a Dream?* This is the second book in her "Let's Go Dreaming" series.

13 JAMES LATMIER '05 joined the South Texas Blood & Tissue Center as director of systems integration.

14 MICHAEL COOPER '06 rejoined Neel-Schaffer as a hydraulics engineer. Cooper is a registered professional engineer in Tennessee, Florida, Georgia and North Carolina.

15 KARITA NEGANDHI '06, Ph.D., is a water planner in the water science team for the New South Wales government, working on ways to measure environmental outcomes for flood plain harvesting.

CHRIS BRENNAN '07 MBA was recently promoted to vice president of sales at Labcorp. He held prior roles in sales with Johnson & Johnson and Quest Diagnostics.

16 JEFF MEGIVERN '07, a mechanical systems engineer with NASA Jet Propulsion Laboratory, along with his team, celebrated his first public Mars project milestone, landing the Perseverance Rover (Percy) on the red planet.

17 SEAN BARNES '08 M.S. joined MAWD Pathology as a senior IT analyst and IT manager to tackle the growing demand for lab testing. His firm performs over 20K tests and reports results weekly in addition to other laboratory services.

RANDI C. MACKINTOSH '08 M.S., '11 Psy.D., was appointed to the Florida Board of Psychology by Gov. Ron DeSantis.

18 TINA MCCARTHY '09 began a new role as regional sales manager for CAE, supporting business aviation and helicopter training.

WENDY WILLIAMSON '11 M.S. was promoted to senior director of engagement with Pharicode.

She is certified by the Project Management Institute and as ITIL Foundation Level v4.

2010s

19 HUSSAM ALGHAMDI '11 joined the First National Operation & Maintenance Company (NOMAC) as a regional health, safety, security and environment manager.

20 FARIS ALMUKATI '11, a certified energy manager, began a new role as an operation and maintenance oversight specialist with the National Water Company in Saudi Arabia.

21 JULIA CROUSE REGAN '11 MBA is co-founder and CEO of RxLightning, which recently announced a partnership with IllumiCare to put its automated prescribing process technology in the hands of 150 hospitals across the country.

continued from page 35

22 KIMBERLY TOWNSEND '11 and her husband, Phillip, welcomed their son Hatton Tulloch Martinez in November. Kimberly works for the U.S. Army Corps of Engineers as a water resources planner.

23 JUSTIN LOBB '12 was named deputy director of aviation for the Naples Airport Authority, overseeing the fixed base operation, airport operations, security, maintenance, planning and development activities at Naples Airport.

LYNN SCHEINMAN '12 M.S. was recently promoted to a project expert intelligent enterprise role with SAP. His work with SAP follows a 10-year career with the U.S. Army culminating in Special Operations Command Europe.

24 LORIS CAGNACCI '13 became technical supervisor with the Institute of Research for Development in France, overseeing a biological and chemical analytical platform for the Institute of Biodiversity and Ecology.

25 HILARY LASSOFF '13 is a senior account executive for media and entertainment at VIZIO in Los Angeles, California.

KRISTEN LEANNE MAHADEO '13 M.S. was recently promoted to IT manager of productivity, collaboration and client services with Hamilton Beach Brands in Glen Allen, Virginia.

26 JOHN T. ROBERTSON '13, Ph.D., (I) and **JAMES HAVU '13 (r)** recently launched a new podcast together called "Interviews with Technical People," a platform for discussions around STEM topics and career paths. Check out their podcast library on Buzzsprout.

HUSSAIN ALSALEM '14 took on a new role as cost control manager with ROSHN I, a leading real estate development firm in Saudi Arabia.

27 YANGLONG LU '14 was promoted to project manager with Carl Zeiss Shanghai in China.

28 RACHEL MILLER '14 M.S., Ph.D., is senior project officer for the wetlands team of the Queensland Department of Environment and Science and recently assisted with aerial survey work of dugong and marine turtle populations in the northern Great Barrier Reef.

29 MARCO SABIA '14 assumed a new role as senior spacecraft subsystem engineer with OneWeb Spacecraft Operations, leading the team that ensures every satellite in the OneWeb constellation is healthy and safe throughout its lifecycle.

KATHERINE SCHEA '14, J.D., joined the Ward Law Group. She interned at the Florida Partners in Crisis Mental Health Advocacy Group and earned her Juris Doctor in 2017.

MARK TANNER '14, '17 M.S., was recently promoted to global environmental leader at Amazon Air with Amazon.

30 RASHAD AL-BUSAIDI '15 began a new position as aerodrome flight information service specialist (AFISO) at Oman Airports Management Company, serving as a form of air traffic service available to any aircraft within the flight information region.

AHMED ALSAEED '15 currently serves as the water quality and public health engineer for the National Water Company in Saudi Arabia, establishing international standards for water provision and wastewater treatment.

31 ARMANDO ALVAREZ ROLINS '15, '17 M.S., changed industries and landed a new role as a data scientist at Capgemini in Brazil. Previously, he worked as a

manufacturing engineer with Embraer in Melbourne, Florida.

32 ABDUALZIZ BINJABAAN '15 had his sophomore year interrupted by cancer, but with a clean bill of health, he was able to return to Florida Tech and complete his bachelor's in mechanical engineering. He is currently an asset integrity management engineer with Aramco in Saudi Arabia.

33 BRITTANY SJAASTAD '15 recently joined Rutgers University Behavioral Health Center as a mental health clinician. Her new role involves providing therapy in an outpatient setting, specializing in gender-based violence, trauma, LGBTQA+, depression, anger and anxiety.

QIANYO (EMILY) ZHANG '15 joined Amazon as a software engineer. She previously worked as a software engineer for Goldman Sachs following a software engineering internship with Google.

LINDA MAIORANA '16 A.A., '18, was promoted to director of the project management office and continuous improvement with Aspire Technology Partners.

34 RACHEL MOORE '16, '18 MBA, assumed a new role as a program manager at L3Harris Technologies. She previously worked at NASA and served with the United States Marine Corps.

MICHAEL ROHDE '16 recently accepted a position as propulsion test engineer with Axiom Space in Houston, Texas. The knowledge he gained as a flight test engineer on F-35s will now be utilized to build the first commercial space station.

35 ANTHONY VOLLMER '16 began working as a senior site reliability engineer with OfficeSpace Software. He also consults as a certified enterprise Splunk architect.

FRANCIS DARIUS '17 was recently promoted to a principal associate software engineer with Capital One.

36 CASEY KEELER '17 and **MUHAMMAD BURHAN ALI SHAH '17** married in December 2020 and have relocated to Portland, Maine.

Keeler works for Abbott Laboratories as a technical manufacturing chemist, and Shah works as a testing and commissioning engineer with K&A Engineering Consulting.

37 MADELEINE KEEVY '17 M.S., Ph.D. started a new role as assistant professor of psychology at the University of Manitoba in Winnipeg, Canada.

ANDRE LEONE '17 was recently promoted to associate software engineer of portfolio optimization with AQR Capital Management.

38 RAVEN LOWERY '17 works as an IT systems analyst and has self-published two children's books available on Amazon. *The Girl and the Dragonfly* was released in summer 2020, and *Leo the Dragonfly* released in January.

JONATHAN POWELL '17 M.S. started a new role with Pactive Evergreen in supply chain operations after serving in the U.S. Army for over seven years and teaching as an assistant professor of military science with East Carolina University.

39 ALYSSA TOLLY '17 M.A. was recently promoted to team supervisor at Behavior Analysis Center for Autism in Fishers, Indiana.

40 JONATHAN ARDILA '18 was recently promoted to a technology support technician role with Lowe's Companies.

41 OSAMA ALHUMAIM '18 M.S. recently began working as document controller with Jacobs in Saudi Arabia.

42 HADEEL BINOMAR '18 M.S. became a research technician at King Faisal Specialist Hospital and Research Center in Riyadh, Saudi Arabia.

TRICIA GOSNEY '18 pursued her passion for higher education after a career in technical writing and raising a family. She is now working as a software engineer with Ultimate Medical Academy.

W. JACK S. HAYDEN '18 began work as a computer-based control systems engineer on the Habitation and Logistics Outpost module for the Lunar Gateway with Space Systems Integration.

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Contact us for a free infant T-shirt, bib or onesie. Then, send a photo of your cub in his/her Panther swag with an AlumNote about yourself to share in the magazine.

For details: alumni@fit.edu



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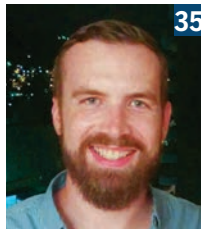
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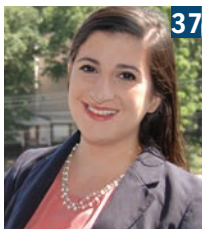
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Early detection of any illness is key to effective treatment, and that's what makes biomedical researchers around the world life-savers. **KRYSTLE AGANS '05** is a life-saving Panther who recently helped develop a new rapid test for the Ebola virus, using the D4 assay, that someday could make the difference in whether a patient is treated in time or not.

Agans is a biocontainment research associate III at the University of Texas Medical Branch (UTMB) in Galveston, Texas. Working alongside teams from UTMB, Duke University and the Galveston National Laboratory, Agans performed the testing of Ebola samples and the RT-PCR testing—the industry's current gold standard—used as a comparative method of detection. She also developed the experimental design for validation of the device.

“Currently used RT-PCR requires cold storage, excessive sample manipulation and up to six days for results. The D4 can give results in about 30 minutes and can detect the virus 24 hours earlier than RT-PCR,” which has a considerable impact on tracking, containing and treating possible infected contacts, Agans says. “The device is also small, easy to use and could be applied in the field with limited power and resources.”

Agans says she is passionate about her work because she has seen how emerging infectious diseases can tear a community apart, wreak havoc on medical professionals and terrorize the world. “The 2014 outbreak reinforced that we need more advanced methods of detection for an entity that clearly has the upper hand from an evolutionary standpoint.”

She began working at UTMB after years of experience under her belt working with monkeypox, avian influenza, anthrax, tularemia and plague at the Battle Memorial Institute in Columbus, Ohio, and the Lovelace Respiratory Research Institute in Albuquerque, New Mexico. But she credits her molecular biology degree from Florida Tech for influencing employers to hire her.

“The lab setting at Florida Tech taught skills that some never achieve through school or a professional setting, due to the intimacy of the smaller classes and professor involvement, which has directly impacted my ability to lead and understand complex experiments.”

.....
QUARANTINE ACTIVITY?: N/A; We did COVID-19 research during the pandemic.

PETS?: A dog named Roxy, a spunky Dalmatian/whippet mix.

YOUR HAPPY PLACE?: The pool or the beach.

ALTERNATE CAREER?: Chef.

FAVORITE FLORIDA TECH MEMORY?: Melbourne Beach volleyball.

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continued from page 36

43 RAJALAKSHMI KRISHNAMURTHY '18 M.S. recently assumed a new role as verification and validation designer with Alstom.

44 DAMIEN MERCER '18 M.S. was promoted to director of data analytics with UnitedHealth Group. His efforts involve driving internal costs down that will lead to savings for healthcare members.

KEVIN SCRIMA '18 M.S. began as an IT support technician with Eat'n Park Hospitality.

CHRISTOPHER SLOYAN '18 was recently promoted to director of customer success for business applications at Microsoft Corp., where he has worked for 21 years.

45 Capt. RUSTY VICKERS '18 M.S. was recently featured in five separate military professional journals and magazines that focus on innovative ideas and best practices for logistics professionals. Vickers is scheduled to be promoted to major in June 2021.

46 ALI ALFAGEEH '19 M.S. became an instructor with Umm Al-Aura University in Mecca, Saudi Arabia.

47 MATT BOMBERGER '19 joined Klinge Corporation as an electrical technician. His work involves the construction of control units for commercial refrigeration.

48 DEMARIO CALDWELL '19 MBA was recently promoted to sales engineer with Columbus McKinnon.

BECCA CANDELARIA '19 is working as a GAP licensing specialist with Brevard Family Partnership. Her case management work involves child welfare.

49 KRISSAN CEDENO '19 MBA was recently promoted to purchasing systems specialist with Huntsville Hospital Health System.

50 Capt. MICHAEL MERRING '19 M.S., with 13 years of service, is scheduled for

promotion to major in the U.S. Army. He currently serves as the 1st Sustainment Brigade DSCA/H&DR manager, involved in logistics responses to the COVID-19 pandemic.

ASHLEY MOSS '19 M.S. recently joined The Mentor Network as a board-certified behavior analyst.

51 ROBERT REW '19 was recently promoted and accepted into the Lockheed Martin Space Engineering Leadership Development Program, working with the structure engineering team on the design equipment for the crew module of the Orion Spacecraft.

ALEX RUHLMAN '19 was promoted to data operations specialist with Amazon Web Services.

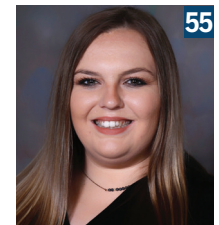
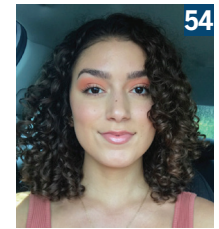
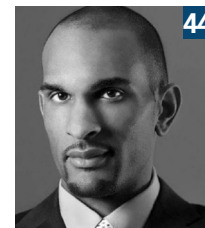
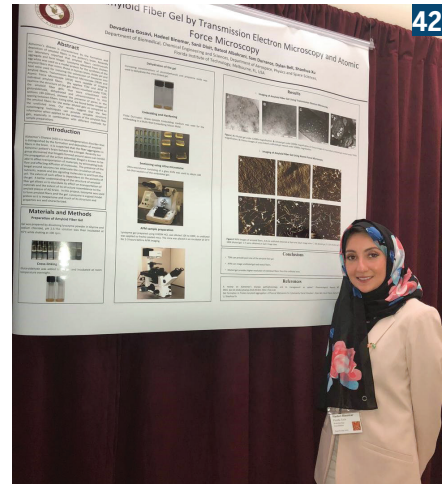
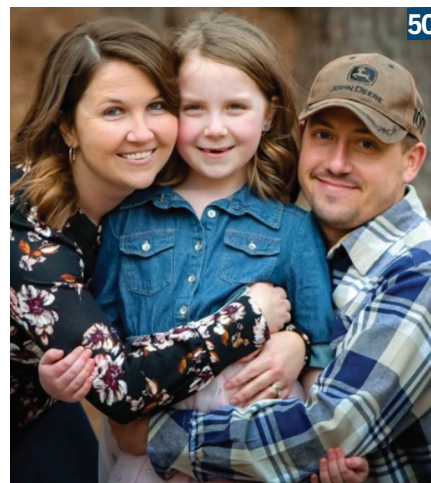
52 J.D. SMITH '19 MSA accepted a position as a product manager with ATP Flightdocs, based out of Bonita Springs, Florida.

2020s

53 CRAIG MCCALL '20, who played for the Panthers during the 2018 and 2019 seasons, has inked his first professional contract with the South Georgia Tormenta FC soccer club.

54 SABRINA PEREZ '20 is a research technician with The Scripps Research Institute, Florida campus. Her work involves diabetes research using *C. elegans*.

55 KILEE THOMAS '20 MBA landed a position with Northrop Grumman as a cost schedule analyst.



Winter/Spring Virtual Gatherings

Visit [FLORIDATECH.EDU/ALUMNI/EVENTS](https://floridatech.edu/alumni/events) to view recordings of past events and mark your calendar for new offerings.

Dark Milk Chocolate 60%

Want to try your hand at making your own chocolate? Check out this recipe for a high cocoa 60% dark milk chocolate, the perfect marriage of dark and milk chocolate.



Ingredients

- 50% roasted cocoa nibs
- 10% cocoa butter
- 7% whole milk powder
- 32.6% cane sugar
- 0.4% sunflower lecithin

Technical Information

- Roast: Standard (20 minutes @ 120°C)
- Grind/Conch time: Standard (24 hours for 3kg Premier grinders, 72 hours for 30kg CocoaTown melangers)

Method

1. Sort and roast beans.
2. After cooling, break and winnow.
3. Slowly add nibs to heated melanger.
4. Add premelted cocoa butter. This can be added in parallel with the cocoa nibs to help speed the process.
5. When nibs and cocoa butter are flowing freely, slowly add the sugar. For larger batches, this can be done on the second day of the 72-hour grind.
6. Once the sugar has been combined, slowly add the milk powder.
7. Allow to grind/conch for prescribed time.
8. One hour before the end of the cycle, add the lecithin.
9. Pour into containers and allow to set.
10. Temper as per the dark milk chocolate settings of your tempering machine or half way between dark and milk temperature curves.

Dark Milk Chocolate 60% by XTC Chocolate is licensed under a Creative Commons Attribution 4.0 International License. Based on a work at <https://xtc.tc/107>. Permissions beyond the scope of this license may be available at <https://xtcchocolate.com/licensing>.



9
events



660
attendees



Diversity, Inclusion, Equity and Allyship

62
attendees

Presented by Jackie Noto, graduate student assistant in the School of Behavior Analysis

DID YOU KNOW? Everyone can improve their understanding of different types of people within our families, workplaces and communities.

LUNCH & LEARN LECTURE



Tour of Ireland

130
attendees

Presented by Daniel Carey of Hidden Howth Experiences

Saint Valentine, the patron saint of love, is the only saint buried in Dublin. Because of this, some say Dublin should be regarded as the City of Love.

ALUMNI SOCIAL EVENT



Chocolate Tasting

77
attendees

Presented by Theo Chocolate

You taste more flavor from chocolate if you let it melt in your mouth rather than chewing it.

Become your own chocolatier with this recipe.

ALUMNI SOCIAL EVENT

Join us for the next **LUNCH AND LEARN** and learn something new.

DID YOU KNOW? You can see the Great Barrier Reef from the moon.



How Learning Aerobatic Flight Can Save Your Life

53
attendees

Presented by Warren Pittorie, instructor in the College of Aeronautics

DID YOU KNOW? All aerobatic maneuvers stem from a loop, a roll and a spin, and many maneuvers originated from combat in World War I and World War II.

LUNCH & LEARN LECTURE



Tour of Capri, Italy

76
attendees

Presented by Franco Assorgi, a Capri local

There are 921 steps, the Phoenician Steps, to the highest village, Anacapri. Until 1874, the steps were the only connection between the village and the rest of the world.



ALUMNI SOCIAL EVENT



Restoration of the Indian River Lagoon

103
attendees

Presented by Kelli Hunsucker, Ph.D., and Austin Fox, Ph.D., assistant professors in the Department of Ocean Engineering and Marine Sciences

DID YOU KNOW? Repurposed bottle caps can be used to improve water quality as “good bacteria” grow on them and remove excess nitrogen from the lagoon.

LUNCH & LEARN LECTURE



The Current State of Coral Reefs

74
attendees

Presented by Rob van Woesik, Ph.D., professor in the Department of Ocean Engineering and Marine Sciences

DID YOU KNOW? High water temperatures alone don’t always lead to coral bleaching, but that, combined with direct sunlight, leads to stress in coral reef systems.

LUNCH & LEARN LECTURE



Mixology Class

49
attendees

Presented by Shana Race of Talk Tales Entertainment

When mixing cocktails, stir spirits and shake citrus. Spirits have relatively the same density and mix together easily, while citrus has a different density, thus needing a shake to combine with spirits.



ALUMNI SOCIAL EVENT



The History and Evolution of African American Music Culture

36
attendees

Presented by Don Harrell, adjunct faculty member in the School of Arts and Communication

DID YOU KNOW? African American music genres developed out of the oppression they faced for centuries, working to counter the narrative of inequality and provide a source of hope.

LUNCH & LEARN LECTURE

IN MEMORIAM

LISA INNIS '86 succumbed to COVID-19 Jan. 8. Innis was captain of the women's rowing team from 1985 to 1986. She earned her bachelor's degree in finance and worked for Harris Corp., DRS Technologies and Rockwell Collins during her time in Melbourne. After relocating to Panama City, Florida, she worked with Alion Science & Technology and Serco.

ENO COMPTON III '68 passed away in February at his Vagabond Ranch in Colorado. He combined his computer software skills with his passion for flying to develop the code that transmitted messages from aircraft to ground stations.

DAVID KACZMARCZYK '72 died in February in Cape Cod, Massachusetts. He earned his bachelor's degree in mathematical sciences and computer science and worked in technology. His passions included sailing, woodworking and cooking.

Lt. Col. **DANIEL BENKA '76** M.S., retired, died in January in Mesa, Arizona. He received the Meritorious Service Medal with the Oak Leaf Cluster, the Defense Meritorious Service Medal and the Bronze Star.

GARY SUTHERLAND '79 M.S. passed away Dec. 12, 2020, in Austin, Texas. He retired as a full colonel after a 20-year U.S. Army career.

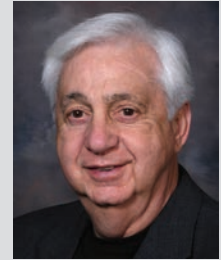
NEIL WEINBERGER '88 died September 2020. He earned his bachelor's degree in environmental engineering and held various roles in the construction science and commercial estimating fields.

ALEC "ED" FORSMAN '04 M.S. passed away in January. His can-do attitude helped him overcome the adversity of being paralyzed at age 18. He was awarded the Outstanding DoD Service Members and Civilians with a Disability Award.

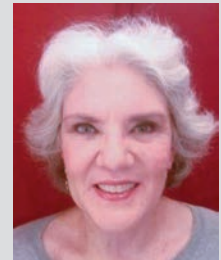
JOE WOODSON III '07 M.S. passed away in January. He spent most of his career with Boeing and contributed to many projects, including the Fiber Optic Guided Missile Program, the International Space Station Program, Unmanned Ground Vehicles and the Space Launch System.

KENT BOYSEN '11 MBA died Dec. 7, 2020. He earned his MBA in Healthcare Management and held roles in healthcare and financial management.

CHARLES CLEMENTE, a technology industry executive and longtime member of the Florida Tech board of trustees, passed away Feb. 14 at 85. His generosity helped reshape the university's Melbourne campus and enhance the student experience with the sports and recreational complex proudly known as the Clemente Center. He joined the board of trustees in 1999, bringing outstanding business acumen, leadership, vision and generosity. During the course of his service, Clemente gifted \$5 million in total to the university.



CECILIA KNOLL '80 M.S., '88 Ed.S., '90 Ph.D., longtime professor of mathematical sciences, passed away March 22 from non-COVID-19 medical complications at 64. She arrived at Florida Tech in 1977 as an adjunct instructor and ascended to full professor status and program chair. Described by students as a friendly, passionate, funny and exceedingly knowledgeable teacher, Knoll received the Kerry Bruce Clark Award for Excellence in Teaching and the Phi Eta Sigma Teaching Excellence Award.



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FLORIDA TECH

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Ryan Gellert '96 MBA

Hundreds of millions of companies exist globally, but relatively few are as impactful and well respected as Patagonia, known by most as the outdoor clothing retailer. Now, there is a Panther at the helm.

It has been less than a year since **RYAN GELLERT '96 MBA, J.D.**, became CEO of Patagonia Works—the holding company comprised of apparel company Patagonia Inc., food company Patagonia Provisions and multimedia company Patagonia Media—but already he is quietly and effectively igniting positive change in the world. While these industries may seem varied, Gellert thinks of them as tools to deliver against Patagonia's mission statement.

Through the example of Patagonia Provisions, he explains, “We didn't get in the food business because we saw a commercial opportunity in food; we got into the food business because we believe really seriously that the most broken supply chain in the world is the one for food.” Gellert sees past the problem to the opportunity: if his company can solve—or at least improve—this supply chain issue, it would be a solution to the climate/ecological crisis through regenerative organic agricultural practices. And finding a solution to that crisis is Patagonia's primary mission—“to save our home planet.”

“We're super invested in making great clothing for a purpose and with as small as a footprint as we can, but the reality is we're less of a clothing company than we are a big idea just masquerading as a clothing company. We're just trying to push forward the big idea. Food fits into that, media fits into that, and whatever comes next will have to fit into that.”

Gellert does not take the duty of continuing the brand's 48-year history and commitment to responsibility lightly and

has hit the ground running with some bold moves in recent months. He is unsurprised that the company's position is not universally well-received.

“We're dealing with a once-in-a-century pandemic and a really important moment of reckoning around racial injustice, among other topics, challenges and opportunities,” he says. “When you take these positions, it angers people. We live in a sound bite society now more than ever, and it's just talking past each other versus being willing to engage in more engaged and nuanced conversations. I just want people to participate in an honest dialogue.”

His advice for other business leaders? Surround yourself with the best people you can, trust them, provide inspiration and keep your finger on the pulse of what's most important to your people—employees and the communities you exist to serve.

“Often, it's ‘go with your instincts,’ constantly just thinking of what's next, really being relentless in pushing this thing forward and setting the tempo.”

An unapologetic love for business—complex and fascinating—lured Gellert to where he is today. “I love that business comes with a scorecard. The capitalist system doesn't care if you live or die, so you have to show up every day proving your place in the world. If you don't, if you slip, you cease to exist. This combination of being very mission-led but doing it from the boughs of business is a sweet spot for me personally.”

It's no surprise, then, that Gellert spent his Florida Tech days earning an MBA. His fellow MBA students' professionalism inspired him with how they balanced their pursuit of an advanced degree with other obligations.

“It really focused me on taking it seriously and learning as much as I could.”



Photo credit: Liz Seabrook/Patagonia Images



Hurricane Facts

Hurricane season begins in June, and for many in Florida, it's time to monitor the tropics. Last year, hurricane season produced 30 named storms, breaking the old record of 28 set in 2005. 14 of the storms became hurricanes, with six of those becoming major storms, a title given to storms that are Category 3 or higher.

Did you know the most hurricane-prone part of Florida is not the southeast coast but rather the Florida Panhandle?

Build upon your knowledge of this and other storm-related trivia, courtesy of ocean engineering and marine sciences professor Steven Lazarus, Ph.D.

Hurricanes do not form within approximately five degrees of the equator due to the absence of the Coriolis deflection, which is an important component in creating the circulation.



Why don't hurricanes cross the equator? The variation in Coriolis with latitude, referred to as the Beta effect, acts to move a hurricane to the NW in the northern hemisphere, even if there is no large-scale wind pushing the storm along!