THESE IMPENETRABLE HALLS

Nothing can shake Larry Hall or his survivalist condos.
In November, Florida Tech hosted a symposium, "JFK’s Moonshot Mandate: Then, Now and Destiny," honoring the 50th anniversary of the Apollo 11 moon mission. Moderated by former CNN correspondent John Zarrella and featuring Apollo 15 command module pilot Al Worden, the event drew nearly 400 people to campus while more than 500 watched it online.

ALUMNI NEWS

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On the cover: This unobtrusive, fortress-like entrance welcomes Survival Condo owners to their apocalyptic home away from home. Plunging 201 feet underground, the 54,000-square-foot missile-silo-turned-condo-complex designed to sustain 75 people for more than five years in the event of an emergency offers state-of-the-art technology, comfortable luxury and, most important, peace of mind.
Dear Alumni and Friends,

Florida Tech may be a small university, but we believe in big moves and major plays. This is evidenced by the recent announcement of our new $18 million health sciences facility, the Mertens Marine Science Center’s upcoming groundbreaking at our anchorage property and the near completion of our new eco-friendly Alumni Center. Likewise, dormitory renovations are underway, as are updates to the Gleason Performing Arts Center, outfitted with new LED lighting technologies that have made it one of the most high-tech auditorium spaces in the region.

The spirit of innovation and discovery that has characterized this university for more than 60 years has recently led to:

• NASA Administrator Jim Bridenstine’s visit during Space Technology Day
• The International Organization for Standardization’s annual professional conference coming to the U.S. for the first time
• Becoming a stop on AOL co-founder Steve Case’s famous Rise of the Rest community investment tour
• Lectures by leaders representing CarMax, United Launch Alliance and Walmart
• A 50th anniversary Apollo 11 symposium, featuring experts from NASA, the John F. Kennedy Library Foundation, Universities Space Research Association and Blue Origin
• Becoming the official STEM education partner of the New York Jets and the Jacksonville Jaguars

Moves like these have helped bring Florida Tech into the national spotlight. The College Gazette’s recent naming of Florida Tech as the best of 10 engineering universities that are “as good as the Ivies” is just one example of how the university’s reputation may be taking greater root.

Enjoy this edition of Florida Tech Magazine, and please keep in touch.

Sincerely,

Dwayne McCay, Ph.D.
President

ESPORTS LAUNCH

The university has hired its first director of esports in the Division of Student Life and Alumni Affairs, Kenneth Lam. His role is to build, develop and mentor a team of students who wish to participate in the exciting world of competitive gaming, a worldwide phenomenon.

HONORING JULIUS

In January, I had the privilege of bestowing an honorary doctorate upon JULIUS MONTGOMERY ’64, one of our most treasured alumni and friends, who sadly passed away just days after. The university will pay proper tribute to Julius’ legacy in this magazine’s next issue.

DIAMOND ANNIVERSARIES

Please join me in celebrating the 10-year anniversaries of the Ruth Funk Center for Textile Arts and The Scott Center for Autism Treatment, which have enriched our campus and provided immeasurable value to the greater Melbourne community and beyond.
Cue Lights: LED In, Retro-Bulb Out

Among the first places new Florida Tech students visit for orientation and the last place they see before the commencement procession to the Clemente Center, Gleason Performing Arts Center has spent its nearly 52 years as an unobtrusive but essential facet of campus life.

When it officially opened Oct. 14, 1967, Gleason was described in publicity materials as “one of the finest and most fully equipped private auditoriums in Brevard County.” Yet over the years, that distinction dimmed.

But dim no more is our beloved theater, now ablaze with light following a summerlong project that replaced the 1960s-era lighting system from lobby to stage with cutting-edge LED lights.

With 129 new fixtures, the enhanced production capabilities and operational cost savings are a technological triumph.

The new lights—including the house lights—are multicolor, allowing operators to produce a near-infinite spectrum by blending the red, green, blue, amber, white and lime LEDs within each individual fixture. Plus, a fleet of movable lights now complements the traditional stationary fixtures, creating vast flexibility for focal points, scene-setting and immersive theater.

The new lighting system is expected to cut the center’s electrical use in half while positioning it among the area’s most versatile venues and offering unique student experiences. From contributing to the development of the computer network infrastructure that links all the LEDs to digitally choreographing custom light displays to performing within a state-of-the-art stage environment, Florida Tech students get a front-row seat to stagecraft.

Warm and dramatic, red lighting can be used to emit overtones of anger, jealousy or fear during a play.

Lighting is a helpful tool for expressing the time of day. Considered the nighttime hue, blue can also represent water or calmness.

The new lights accommodate multiple colors and patterns simultaneously.
The pace of everyday life can be challenging at best and totally overwhelming at worst. While many of us find that planning and structure help to manage the everyday pressures of keeping up in modern society, in a world of volatile emotion, we sometimes need to take a different approach.

I study individuals who have survived serious trauma, such as relationship violence or military combat. However, the lessons I have learned also apply to people facing more typical stressors, like job change, relationship loss, illness or even severe weather. The key to coping with and overcoming such burdens? It may be psychological flexibility.

Psychological flexibility is a clinical term for one’s ability to “stay in the moment,” and I have found that the more psychological flexibility you have, the less you’re destined to suffer. One useful approach to activate psychological flexibility among people who may feel paralyzed by stress or trauma is Acceptance and Commitment Therapy (ACT).

ACT provides an effective framework for fostering the primary elements of psychological flexibility—mindfulness, acceptance and self-compassion—and has proven to be highly effective in helping individuals to process life's difficulties. It is not, however, necessary to think of ACT as a therapy only. Employing the tenets of ACT to everyday life—and building one's own psychological flexibility—can make a positive difference right now and in the future.

The first, and often most difficult, step is to accept or move toward the feelings you are experiencing. Science has made it clear that suppression or avoidance of painful thoughts, emotions and memories actually makes things worse. This does not mean learning to tolerate negative situations. Rather, the focus is on mindfulness. While being aware of what you are experiencing right now can be painful, research shows it can open the door to considering a new, more flexible way forward.

Another step in the process is letting go of the beliefs you’ve locked in—often about yourself. People tend to view themselves and their actions through a harsh, judgmental and critical lens. Instead, learn to speak to yourself like a compassionate friend, offering the care, support and compassion that allow you to let go of the past and consider your next step more openly.

The final, most important step: Identify your values. The very things that make your life worth living, your values are stronger than your plans and bigger than your goals. While your goal may be to earn a bachelor’s degree, the desire to be a lifelong learner or to make a contribution to the world is the underlying value that moves you forward and gives dignity to the steps you are taking to achieve it. Take some time to do an inventory of the different domains in your life—work, family, leisure—and define not just what matters most, but why.

Living a life centered around those values gives us courage, hope, meaning and, often, a flexible roadmap for where we should go from here.
The Breakdown:
3 Steps Toward Psychological Flexibility

When life leaves you feeling lost, get back on track through Acceptance and Commitment Therapy.

1. MOVE TOWARD AND ACCEPT YOUR FEELINGS.

You may be able to avoid or ignore negative emotions like sadness, fear or anger, but “relief” is always temporary. Instead, embrace them—not by learning to tolerate them but by being aware of their existence and the reasons you are experiencing them. Mindfulness leads to acceptance and the ability to move on.

2. LET GO OF LONG-HELD BELIEFS.

Whether you think you are perfect or an irreparable failure, you’re wrong. Holding yourself to unrealistic standards isn’t just unfair, it can be detrimental to your psychological and physical health. Mistakes, errors and setbacks are inevitable, and recognizing that is key to overcoming them.

3. IDENTIFY YOUR VALUES.

Your life has purpose, and you get to decide what it is. What do you want out of life? What can’t you live without? Why? When you feel lost in pain, grief and disappointment, the answers to these questions can be the compass that redirects you where you want to go.

Distinguished Lecture Series: CarMax Pioneer Tom Folliard

TOM FOLLIARD ’89, a Florida Tech board of trustees member who led CarMax Inc. to become one of the most influential and disruptive businesses in the U.S. marketplace, shared his business insights and experiences with a packed Hartley Room audience in October for the university’s fall F. Alan Smith Distinguished Lecture Series installment.

Folliard’s presentation, “How a Florida Tech Graduate in Melbourne Helped CarMax Transform an Industry,” spoke about how CarMax grew so quickly and discussed the company’s journey to the top. After the presentation, he answered questions from the audience.

When he graduated from Florida Tech, Folliard began working at a local used-car wholesaler. After a visit from the founders of what would become CarMax in 1993, he was named senior buyer.

A year later, the promotions began. Folliard became director of purchasing in 1994. He was promoted to vice president of merchandising in 1996, senior vice president of store operations in 2000 and executive vice president of store operations in 2001. In 2006, he became president and CEO, which he remained for the next decade.

Folliard and the CarMax team learned through focus groups that customers dislike negotiation, which is why the brand stays true to its promise not to haggle or negotiate. The result: Today, CarMax is the largest used-car retailer in the world and occupies the 174th spot on the Fortune 500 list.

Folliard retired in August 2016 and serves as the nonexecutive chair of the board at CarMax.

50 YEARS AND COUNTING

Since September 1969, Groundskeeper Hank Hughes has devoted his professional career to the maintenance and improvement of the Florida Tech campus. Hired by Florida Tech founder Jerome P. Keuper himself, Hughes is one of few university employees who can recall the days that quail and hogs roamed the campus, which consisted of little more than a couple of classroom buildings, the president’s office and some woods. From pulling weeds to driving the school’s bus to placing the bronze Keuper statue in the Academic Quad courtyard, Hughes has done it all in his 50 years. But he’s not done yet. What keeps him around?

“There’s a lot of wonderful people here,” Hughes says. “Dr. Keuper would be pleased.”
Melbourne Hosts Congress on Innovation

In September, the International Organization for Standardization (ISO) 56000 Innovation Management World Congress kicked off on Florida Tech’s campus, its first meeting on U.S. soil. Elected U.S. delegate to the gathering and Florida Tech Professor Abram Walton welcomed more than 50 renowned innovation experts from around the world to the Space Coast to develop international innovation management system standards that aim to make innovation predictable, measurable and repeatable.

“...What we are writing at this working event will become the gold standard of what firms and government will need to achieve in order to be internationally competitive.”

—Abram Walton, Nathan M. Bisk College of Business professor and U.S. delegate for ISO 56000 Innovation Management World Congress, pictured third from left

Cross-Cultural Experts Help Internationalize Orlando Airport

In its quest to become the first internationally recognized culturally competent airport, the Orlando International Airport (MCO) has enlisted Florida Tech’s expertise.

The university’s Institute for Cross Cultural Management (ICCM), in conjunction with IOS Partners, is consulting on all international and cultural matters throughout the design, construction, operations and development of the airport’s new $1.8 billion South Terminal Complex.

Expected to open in spring 2021, the complex will accommodate the increasing number of passengers traveling through MCO.

The main focus: Make the airport’s branded “Orlando Experience” culturally competent and customer-centric.

The ICCM’s approach is multidisciplinary, led by a diverse team of airport management experts, organizational effectiveness consultants and data scientists.

To identify the gaps, members launched the project by collecting stakeholder perspectives and customer input via targeted focus group interviews and social media, analyzing airport metrics and establishing creative benchmarks.

Industrial/organizational psychology graduate students are also participating in the project, gaining real-world professional experience, conducting literature research to enhance the airport design and physical space, disseminating applied research in talent management and organizational assessment, developing training materials and interactive workshop activities and applying new analytical methods to customer analysis and brand analytics.

To ICCM Executive Director Richard Griffith, the partnership just makes sense.

“Given the global demographic trends, the significant current number of international travelers to the Orlando Airport and the increase in international travel that will follow the South Terminal project, the inclusion of a cultural lens is a savvy, strategic decision.”
Know Your Worth

In today’s society, not only are women giving their 2 cents’ worth—they’re realizing it is worth a lot more than 2 cents.

Such was the sentiment at weVENTURE’s 2019 Impact Summit: Know Your Worth. During the August event, five speakers reflected on their personal experiences and shared lessons learned regarding the importance of perspective, strategically approaching long-term goals and both becoming and thriving as female leaders in male-dominated industries.

In her presentation, keynote speaker Katica Roy, CEO and founder of Pipeline, an artificial intelligence platform that helps organizations identify and address gender inequity in the workplace, delved into the underlying reasons, statistical evidence and economic impacts of workplace inequity.

“We can close the gender equity gap,” Roy said, “but only if we work together.”

Erica Lemp, L3Harris Technologies community affairs director and former weVENTURE executive director, summed it up best in her opening remarks welcoming the about 260 attendees to the summit.

“Knowing your worth is about so much more than compensation,” Lemp said. “It’s about self-reliance; it’s about self-confidence; it’s about identifying and articulating your unique capabilities and your unique place in this world and in society; and it is about making the choice—always making the choice to own your own path and your own destiny.”

During their presentations, Impact Summit presenters broke it down even further.>>

SELF-RELIANCE

“Our role as women is to not shy away from these kinds of opportunities. … That means own it. Have your responsibility. Have an opinion. This style doesn't always come naturally to women; it’s a little bit more of a push for us, but we need to be stronger for ourselves and for others.”

—KELLE WENDLING ’93, ’97 MBA, president, mission networks aviation systems, L3Harris Technologies Inc.

IDENTIFY AND ARTICULATE YOUR UNIQUE CAPABILITIES

“One of the biggest mistakes I made early in my career was trying to be like other people. I would see other people at the top level and think, ‘Oh, I need to dress like them. I need to speak like them.’ And that actually caused my light to dim more. So, be authentically you. No one can be you.”

—Laura Gallaher, CEO, Gallaher Edge LLC

SELF-CONFIDENCE

“I am good enough right now because I choose to be. You can make the choice, as well, to believe that you are good enough right now. It’s a choice that you get to make every single day, multiple times a day—and you can start right now.”

—KELLE WENDLING ’93, ’97 MBA, president, mission networks aviation systems, L3Harris Technologies Inc.

MAKE THE CHOICE TO OWN YOUR OWN PATH AND YOUR OWN DESTINY

“I decided I would rather risk failure than give up on my dream. … I developed a strategic framework for planning—a plan that could get me to that dream life. It equipped me with a strong purpose, a vivid vision, a cohesive strategy and an action plan, as well as a process for reflection.”

—CARMEN NATSCHKE ’99 M.S., digital media and marketing entrepreneur, Parvezza

—Latria Graham, president and CEO, Graham Leak Branding
10 Years, Countless Milestones

Last fall marked The Scott Center for Autism Treatment’s 10th anniversary offering specialized treatment to children with autism spectrum disorder (ASD) or related disabilities and support for their families.

From providing unparalleled real-world experience to hundreds of Florida Tech School of Psychology graduates to ranking among the best in the world for its behavior analysis research contributions, in its 10 years, The Scott Center has seen many great accomplishments. But none is as rewarding as those achieved by the families it serves.

“One of the most difficult things I have ever heard was that my son might never learn to speak. I will never forget that moment. It hit me like a ton of bricks and was hard to cope with,” says Scott Center parent AMANDA WISE ’16 M.S. “Since attending The Scott Center for the past year, [my son] Shawn has started speaking. Even better than speaking, Shawn has started requesting things and communicating his needs. His eye contact has improved, and he now often responds to his name. Shawn is potty trained and is able to help brush his own teeth. … The Scott Center gave me back my hope and has filled my heart with joy. In fact, I feel like they gave me back my son.”

In celebration of the countless success stories achieved and, more important, the lives changed by The Scott Center and its team of dedicated professionals, we’re looking back on its many years of commitment to the community, unwavering progress and zealous vision for the future.

1992
REECE SCOTT, AGE 3, IS DIAGNOSED WITH AUTISM.

Through his own perseverance and the support of his parents, teachers and therapists, Reece went on to earn two degrees and overcome many of the challenges the disorder presents. Inspired by their son’s journey, Edward and Cheryl Scott decided to fund the creation of The Scott Center for Autism Treatment.

April 2008
GROUND BREAKS.

Construction on the $5.2 million, 22,000-square-foot Scott Center building began.

April 2009
SCHOOL OF PSYCHOLOGY HOSTS INAUGURAL AN EVENING OF HOPE EVENT.

The first of The Scott Center’s now-annual fundraising galas was hosted at the Pumpkin Center, Al Neuharth’s home in Cocoa Beach. The event raises awareness and much-needed scholarship and subsidy money, totaling more than $2 million for deserving families to date.

October 2009
SCOTT CENTER OPENS ITS DOORS.

“Autism has evoked confusion, fear and misunderstanding for years. … This new center is committed to unraveling the mysteries of autism.”

April 2010

TRIPLE DIGITS!
The Scott Center began serving its 100th client.

April 2011

WISH SPONSORSHIP IS ESTABLISHED.
The entirely donation-based fund provides financial assistance to families who could not otherwise afford Scott Center services. Since its inception, WISH has benefited more than 100 families.

August 2012

FLORIDA TECH FACULTY HOST BEHAVIOR BASICS BOOTCAMP.
The one-day workshop provided Brevard County teachers guidance on managing challenging behaviors in their classrooms through lectures, small-group exercises and hands-on training.

September 2012

SOCIAL SKILLS GROUP EXPANDS TO INCLUDE ATHLETICS.
Through structured games and sports activities, like swimming, basketball, volleyball, softball, yoga and football, The Scott Center’s Social Skills Group helps young people with ASD improve their social skills.

September 2015

AUTISMAVISOR.ORG LAUNCHES.
The site offers more than 100 highly focused videos, featuring experts from The Scott Center and Florida Tech’s applied behavior analysis program, as well as parents discussing their challenges, experiences and successes with ASD family members.

January 2017

TELEHEALTH/TELEMEDICINE INITIATIVE BEGINS.
Complemented by The Scott Center’s free online resources, like AutismAdvisor.org and ScreenOurKids.org, the initiative eliminates common hindrances, like geographic location, by providing virtual, real-time services to clients across the country.

July 2018

AUTISM TRAINING PROGRAM LAUNCHES IN PARANÁ, BRAZIL.
Paraná native and, at the time, Florida Tech graduate student AMANDA BUENO ’19 M.A. helped to establish a two-year partnership that ultimately aims to improve autism treatment across all Brazilian municipalities.

February 2019

TRANSITIONAL CLASSROOM COMMENCES.
The program prepares 4- and 5-years-olds to transition into kindergarten in the fall.

March 2019

SIX BENEFACTORS ESTABLISH $600,000 ENDOWMENT—THE SCOTT CENTER’S FIRST.
“The amazing generosity displayed with these gifts illustrates not just a recognition of the caliber of care and service The Scott Center provides, but also that our university community is comprised of visionary, selfless people who want to make the world around them a better place.”
—Dwayne McCay, Florida Tech president

February 2020

AN EVENING OF HOPE XII TAKES PLACE.
Feb. 15—Mark your calendars!

2020

... AND BEYOND.
“The future is bright for The Scott Center! Our faculty, staff and community partners are mission-focused and passionately committed to ensuring that the center continues to offer an unparalleled level of highly specialized clinical care.”
—Tina Goldsmith, executive director, The Scott Center
“Go Panthers!” For most, it’s the gameday cheer you’ll hear ringing through the stands at any Florida Tech sporting event. For Athletics Director Bill Jurgens, it’s a daily mantra that can be used in greeting, in farewell, in passing or in general conversation. But with 50 years’ worth of steadfast dedication, proud achievements and irreplaceable memories, it’s no surprise that Jurgens’ Panther pride is brimming over.

“From day one, when Bill Jurgens first came to Florida Tech, his passion for the sport he coached, as well as his desire to grow the athletics department, was evident,” says women’s basketball Head Coach John Reynolds, who has been at the university for 32 years. “I do not think anyone can mention Florida Tech athletics and not mention Bill Jurgens in the same sentence. His ability to communicate with coaches, student-athletes, the general student body, faculty and staff effectively is impeccable because of how much he cares about this university.”

In May, Jurgens will transition to a new role as vice president of university relations. As he looks forward to this new chapter in his career, we’re honoring his golden anniversary in the athletics department with more gold.

For what better way is there to tell the story of a man who has lived and breathed athletics for more than half a century than through his trophies? Or rather, the hard work, accomplishments and history they represent. Because to Jurgens, athletics have always been about more than winning.

Integrity. Discipline. Persistence. Teamwork. Compassion. It is on these values that Jurgens has built a career, a life and a close-knit family that has inspired many.

“I have no greater satisfaction than seeing our student-athletes and coaches succeed, whether it is on the field, in the classroom or in life,” Jurgens says. “I am proud of everything I have been a part of during my time at this university.”
at the Florida State Rowing Championships for which he was the official, he offered Jurgens his first head coaching job. Jurgens, who had never considered coaching, accepted the position in 1969. Having gone on to coach for 17 Florida Tech rowing national championships—not to mention a fourth-place World Lightweight Rowing Championship win outside of Florida Tech—it’s safe to say, he made the right choice.

Jurgens is one of few—including facilities technician Hank Hughes; see page 7—who have worked at Florida Tech under all five of its presidents, including university founder Jerome P. Keuper. When Jurgens and the rowing team won the 1974 Florida State Championship, Keuper was so thrilled by the program’s first state title in the varsity eight that he awarded each team member a small trophy.

When Jurgens transitioned from coach to athletic director in 1976, the university had only nine varsity sports programs. Under his leadership, Florida Tech has added programs like football, swimming, lacrosse and women’s soccer to the roster, today numbering 19 varsity teams and serving more than 520 student-athletes.

When Jurgens became athletics director, there was no women’s basketball team. In fact, rowing was the only women’s athletic program at Florida Tech. One of Jurgens’ key values from the beginning has been the growth and success of the university’s women’s sports. He has helped create nine women’s varsity sports programs, today totaling 10 programs that have accounted for 24 of Florida Tech’s 38 Sunshine State Conference Championships.

Jurgens was awarded this hourglass specifically for his service on the NCAA Division II Women’s Rowing Committee. But the sand could have passed through it a couple thousand times for the amount of time Jurgens has donated to various community boards and committees throughout his career. The organizations ranged from athletics-related—USRowing Board of Directors, U.S. Olympic Rowing Committee, Dad Vail Rowing Association Board of Directors, Melbourne Chamber of Commerce Sports Committee, Sunshine State Conference Athletics Directors Council (of which he was chair)—to community-building—Boy Scouts of the Riverside District of the Central Florida Council and the Melbourne Area Chamber of Commerce Board of Directors.
UPWARD LIGHTNING FINDINGS PROVE VITAL IN STRUCTURE PROTECTION

New findings from a study on upward lightning are providing Florida Tech researchers critical knowledge that is expected to lead to improved lightning protection of tall buildings and other structures.

The study was the result of an international collaboration led by Amitabh Nag, assistant professor of aerospace, physics and space sciences, along with two others from the university: doctoral candidate Naomi Watanabe and Hamid Rassoul, distinguished university professor of physics. The results were published in the paper “Characteristics of Currents in Upward Lightning Flashes Initiated from the Gaisberg Tower” in the journal IEEE Transactions on Electromagnetic Compatibility, on which Watanabe served as first author.

Upward lightning usually starts with a long-duration, low-level electric current from a grounded object taller than 100 meters (about 328 feet), such as buildings, wind turbines and communication towers.

Researchers from the Austrian Lightning Detection and Information System and the University of Florida also made significant contributions to this study, which examined the characteristics of lightning observed at the 330-foot Gaisberg Tower in Salzburg, Austria, from 2000 to 2018.
Hurricane Sensor Research Aims for Stronger Buildings

As the world has seen in the Bahamas with Hurricane Dorian, the destructive power of these powerful storms is unquestionable. Florida Tech is taking part in research to better understand the damage that can be done by violent winds and how to better defend against it.

Florida Tech is one of 11 organizations that have received grants totaling $6.6 million from the U.S. Department of Commerce’s National Institute of Standards and Technology (NIST). Mechanical and civil engineering Professor Jean-Paul Pinelli, aerospace engineering Professor Chelakara Subramanian and ocean engineering and marine sciences Professor Steven Lazarus are the primary investigators for the project.

Florida Tech’s $421,000, three-year grant will go toward a project to develop a unique wireless sensor network system and wind-detecting lidar (light detection and ranging) measurements to characterize wind profiles near the ground and subsequent wind loads on buildings’ nonstructural components, such as architectural details or electrical systems.

The new network will replace a 10-year-old network, which is composed of three systems. Each system consists of an anemometer and 30 weatherproof pressure/temperature sensors that are deployed on various points of a structure’s roof. The sensors communicate to a base unit either directly or via routers, and the unit stores time series data, including pressure, temperature, wind speed and wind direction.

The older sensors were deployed for Hurricane Dorian, and the new system will be operational for the 2020 hurricane season.

“The building codes seem to underestimate these pressures, so we want to verify if that's the case and, if it is so, what will be a better estimate of these pressures, so that we can design stronger components that will not fail during a hurricane,” Pinelli says.

Lazarus has been using the 3-foot mobile lidar drum, which measures wind profiles as high as approximately 1,000 feet, since 2014.

Using an integrated approach across multiple disciplines, Florida Tech researchers are working to better understand wind-building interaction and develop a better characterization of the near-surface wind profile and turbulence.

Assistant Professor Developing Sustainable Solvent

Chemical engineering Assistant Professor M. Toufiq Reza was recently awarded an American Chemical Society Petroleum Research Fund grant to help his efforts to develop a solvent that is more environmentally friendly and cost-efficient. The $110,000, two-year grant is considered one of the most prestigious grants for early career faculties from chemistry, chemical and petroleum engineering and material sciences.

Grant to Prepare Students for Opioid Crisis Assistance

Florida Tech’s School of Psychology was recently awarded a $1.2 million, three-year grant from the U.S. Department of Health and Human Services to boost the current doctoral clinical psychology curriculum. It will provide more specialized training in opioid and substance use prevention and treatment as well as experience in providing these and other behavioral health services via a telebehavioral health platform. Florida Tech students’ training also involves working with different practitioners, from nurses to medical providers and medical assistants.
Once seen as a novelty pastime for kids and teens, video games have become ubiquitous. They’re everywhere, from our pockets to our living rooms, and for everyone. There are more than 2 billion gamers around the world, and experts forecast the video game industry will generate $196 billion in revenue by 2022. That means, if you aren’t keeping up with gaming culture, you may soon find yourself left out of the zeitgeist. Read on to bone up on your video game knowledge.

**AVATAR**
No, not the blockbuster movie with the blue people. In gaming, it’s the digital representation of you, the player. May be as simple as an icon or as complex as a fully customizable figure.

**BOSS**
Common to story-driven games, a boss is the computer-controlled enemy blocking your path to the next stage or standing between you and ultimate victory. It’s better you don’t engage in a boss battle unless you have the proper equipment and experience, along with some form of strategy.

**CONTROLLERS**
Quite simply, they’re the hand-held interfaces players use to interact with a game. From the simple, corded input devices of yesteryear (see joystick) to the wireless, motion-activated, multi-buttoned gamepads of today, everyone has a favorite.

**ESPORTS**
Combine competitive, multiplayer video gaming with the trappings of professional athletics, and you get esports, a global entertainment phenomenon that drove upward of $1 billion in revenue in 2019. Common esports franchises include Overwatch and League of Legends, which are played by professional, semipro and collegiate teams globally. Having recently hired its first director of esports, Kenneth Lam, even Florida Tech is getting in the game.

**FPS**
First-person shooter. A game in which you, the player, see the game world through your character’s eyes (first-person point of view).

**GAMERTAG**
Not to be confused with a character name, a gamertag is a pseudonym representing the actual player. Many well-known gamers are known only by their gamertags.

**HEALTH, HEARTS & HIT POINTS**
In pretty much any game in which characters or enemies engage in battle, you’ll find some representation of how much damage they can take before being defeated. Whether health, hearts or hit points, it doesn’t matter—just don’t let yours reach zero.

**INVENTORY**
The navigable database of items (see loot) your character has collected during the course of the game.

**JOYSTICK**
A maneuverable, pivoting stick control. If you’re over age 40 or enjoy flight simulators, you may be familiar with controllers with a single hand-sized joystick as their primary focus, but it’s more likely you’ve experienced joysticks as small, but vital, components of modern console controllers.

**KDR**
When the object of a game is to “off” other players’ avatars, you’re doing okay as long as you’re racking up more kills than deaths, yielding a higher KDR, or kill-to-death ratio.

**LOOT**
Loot refers to the in-game items players can find, steal, create or earn while they play. Think: currency, potions, weapons, ammunition, armor, food. Mostly used in reference to the stuff that is dropped by a player’s character when it’s killed.

**DOWNTIME**
Cue a cacophony of aggravated groans, frustrated sighs and, “Come on!” in all the world’s languages. In online gaming, server downtime means nobody gets to play.
From the jaunty 8-bit tunes accompanying vintage games like Super Mario Bros. to the popular commercial tracks featured in modern games like Grand Theft Auto, catchy and compelling background music is a quintessential part of the gaming experience.

“While video game music borrows many conventions from film music—to establish setting, mood and narrative—the interactive, adaptive and nonlinear experiences of gaming open up many additional possibilities for music.”

—Kevin Burke, associate professor and director of music programs, whose current research centers on classic video game music.

Frequently spelled with zeros (n00b), this is derogatory, yet somewhat playful, gamer slang meaning newbie, usually in reference to an inexperienced or uncultured gamer.

Overpowered, referring to equipment, weapons or abilities that give players a huge (and maybe unfair) advantage over others.

First, you need to know that in gaming, to “own” someone means to have defeated them, soundly. PWN is a misspelling of the word “own” so common in online chats (because P and O are adjacent on keyboards) that gamers adopted it as insider slang. So, “I totally owned you!” became “I totally pwned you!” Variations include “pwnage” and “pwning.” Pronounced “pone.”

A content streaming service primarily focused on video game livestreaming, including broadcasts of esports competitions. Twitch has more than 2.2 million monthly broadcasters and more than 15 million daily active users.

Game content created by gamers, particularly in open-source or sandbox-style games that enable and encourage player participation.

Enemies that arrive and must be defeated in groups are often called waves, particularly in tower defense games. As such games progress, waves arrive with more frequency and speed, featuring increasingly stronger foes.

The “experience points” a character earns by making progress and can spend to enhance attributes such as strength, speed and magic ability.

While Zergs are the weak but multitudinous alien enemies of the StarCraft series, the term is now used generically to mean the act of overcoming an opponent using sheer numbers instead of strategy or skill (typical Zerg tactic).
Picking Up Speed

As swiftly as a Mystic Powerboat, John and Robin Cosker’s luxury performance boat business is taking off.

By Karly Horn
JOHN COSKER ’91 was 8 years old when he saw it: a 38-foot Formula performance boat. Zipping across Cape Cod Bay, it was unlike any boat he had ever seen. As a Connecticut boy, who since age 5 had clocked countless hours fishing on the bay and on Long Island Sound in his father’s boat, Cosker had seen a lot of watercraft. But this was something special. Curiosity got the best of him. Before he knew it, young Cosker was trailing the foreign vessel across the bay to a dock in Provincetown, Massachusetts, asking the captain, “What is this?”

“"It was that day I became hooked on performance boats,” Cosker recalls. “From that time forward, I wanted to do exactly what I’m doing now.”

continued on page 20
Cosker is the president and designer at Mystic Powerboats, the high-performance luxury powerboat brand he founded nearly 25 years ago. Today, Mystic offers a varied line of V-hull, catamaran and center console performance and pleasure boats. Every boat it creates is unique, with options like color scheme, interior design and motor size customized to fit personal tastes.

It’s about comfort, class, luxury.

But in Mystic’s early days, it was about just one thing: speed. The Porsches and Ferraris of the water, performance boats are known for their light weights, narrow beams and sleek designs that enable them to reach fast speeds ideal for racing.

What’s fast? The average pleasure boat maxes out around 40 mph; 50 to 55 mph is very quick. “We’ve never built a boat that went under 70 mph,” Cosker says.

Most “go-fast” catamarans can reach speeds between 100 and 150 mph, with the world’s second-fastest offshore catamaran manufacturer’s craft topping out at about 213 mph. Around the time that Cosker made his industry debut, so did the step-bottom hull, which he helped develop into the increasingly popular design element it is today.

Essentially a notch in the bottom of the boat, a hull step creates a pocket of air that reduces the wetted surface and, thus, friction between the boat and the water, increasing its speed.

Mystic was also one of the first builders to implement the wet bag epoxy vacuum bagging technique for manufacturing boat parts with epoxy resin. Likewise, it was one of the first to realize there had to be a better way.

“Vacuum bagging epoxy resins that are curing is really labor intensive,” Cosker says. “I had to find a different way to get the same results but with a lot fewer man-hours to be able to go to market with a reproducible boat at a reasonable price.”

In 2014, Mystic began experimenting with vacuum resin infusion. While the bagging method places resin-coated laminate in the mold before a vacuum compacts it—restricting adjustment opportunity before the resin begins to cure—infusion injects resin into an already vacuum-compacted mold lined with dry materials. The result: a lighter boat with fewer mistakes in less time.
“It’s a lot cleaner. It’s a lot easier. And it’s a lot more trainable, because you’re not racing against the clock,” he says. “It’s even a more environmentally friendly process, so a lot of builders are going that way now.”

While the design and manufacturing complexities are vital, for the speed, agility and quality of his boats, Cosker chalks it up to experience.

**The Voyage**

When Cosker started exploring colleges at age 16, he considered a few places in Michigan, Rhode Island and Virginia that had either ocean engineering or naval architecture programs.

Florida Tech offered both, but it was its high-speed boat and hull design courses as well as its location in the heart of the performance boat industry that sealed the deal.

“I didn’t want to design ships. I didn’t want to design barges. I won’t say Florida Tech taught me everything I needed to know to sit down and design a boat, but it gave me the basics and the analytical mindset to be able to do it,” Cosker says. “It gave me a very good foot up to work in high-speed small craft design before I even graduated.”

In fact, he landed his first job out of college with Rolla Propellers, a Swiss marine propeller business with which he had interned while at Florida Tech.

“From Cigarette to Hatteras to yacht builders, I got to go into a lot of different boat builders with Rolla, and I learned a lot about what to do and what not to do.”

Equally important, Cosker says, were the contacts he made.

When Tom Gentry, a wealthy real estate developer with several powerboat racing world records, set out to reclaim his transatlantic record—the fastest to boat from New York to England—his project manager contacted Cosker, whom he’d been working with at Rolla, to design the craft.

Cosker moved to South Florida to join the team at Gentry Transatlantic, where he worked for about two years before Gentry passed away in a tragic boat-racing accident, and the project was canceled.

Cosker’s love for Melbourne—as well as for his then-girlfriend, now-wife and fellow Florida Tech alumna, **Robin Cosker**—brought him back to the Space Coast, where he worked on a few freelance boat design projects until another contact reached out to him about an engineering job opportunity in Wisconsin.

A brief conversation with the front desk clerk about the brutal Wisconsin winters was Cosker’s first clue that the job wasn’t for him. His second, though, was a tour of the factory, where he quickly realized that he wasn’t cut out to work for a large corporation.

From the interview, he drove to Michigan to visit Skater Powerboats, a pioneer in offshore catamaran construction.

“I kind of just looked around, and I said, ‘You know what? I could do this.’” Cosker says.

Three weeks later, Mystic was born.

**Treading Water**

Since then, Cosker and the Mystic team have designed and built an impressive array of powerboats ranging from a 55-foot, 120-mph V-hull with 7,500 horsepower worth of turbine engines, a glass cockpit, fighter jet-style seating and joystick controls to a custom 70-foot diesel boat that could reach more than 80 mph.

But like any business—especially those that specialize in luxury goods—Mystic has had its ups and downs.

“The big projects were great,” Cosker says. “They were home runs when we had them, but we had a lot of dips in between.”

Engines are expensive. And having bootstrapped Mystic without any outside funding, getting started was a challenge. The Great Recession took its toll on business, too.

During that time, Robin, who had left her previous job as an environmental engineer at the Kennedy Space Center to raise their two daughters, took on the bookkeeping role at Mystic, as it could no longer afford outside help.

“Robin has been by my side through it all,” Cosker says. “And there were plenty of times that we paid for our employees’ groceries when we could barely afford our own.”

So in 2014, when a dealer approached Cosker at the Miami Boat Show, suggesting that Mystic branch out of racing into center console pleasure boats, the idea of a broader market appealed to him.

**Full Speed Ahead**

Having previously designed center consoles for other major builders on a freelance basis, Cosker knew how to fine-tune the hull design to achieve the smooth, dry, comfortable ride important to pleasure boaters.

Robin, too, provided input on how to create comfort from a female and family perspective.

“These customers still have a need for speed, and we can certainly fulfill that. But with pleasure boats, that’s not the first thing on the list,” Cosker says. “It was a big transition for us, because on the race boats, the fit and finish weren’t super critical. As long as it went fast and won, that’s all that counted.”

By 2015, Mystic had introduced a 42-foot high-performance luxury center console. Two years later, it launched a similar 38-foot version, and business has taken off as swiftly as the boats themselves.

In years past, Mystic would complete two or three boats a year. In 2018, it delivered 16 boats. Last year, production almost doubled, delivering nearly 30 boats. In those few years, Mystic went from 20-something employees to 55, and in October, from a 38,000-square-foot facility to 58,000 square feet.

To match its growing production capabilities, Mystic is also expanding its dealer network, and Cosker is at work developing new designs for a more extensive model line.

“I think no matter how long you’ve been at it and how well you’re doing, there’s still that risk. But that risk gave me the opportunity to do what I absolutely love: create things,” Cosker says. “There’s no reward without risk, and I think I probably never would have taken as much as if I didn’t have such passion for this business and believe in it so much.”
The Ruth Funk Center for Textile Arts opened in August 2009. In the last 10 years, the museum has hosted over 30 exhibitions from artists and collections around the world. Here, we highlight a few of the center's most stunning works as we travel through the years and across the globe within the walls of this campus treasure.

Celebrating the Ruth Funk Center's first decade

2009

COAT COUTURE: INSPIRATION TO CREATION

The inaugural exhibition featured the coats of the museum's namesake, Ruth Funk. Her creations are characterized by a mixture of recycled fabric with contemporary cloth and found embellishments.


A Decade of Textile Crafts

Ruth E. Funk, a designer and collector of contemporary, ethnic and historic textiles, made the free-standing campus textiles center possible. The Ruth Funk Center for Textile Arts opened its doors 10 years ago and embraces a commitment to cultural exchange, education and connecting people to the communicative power of textiles. The center preserves a global collection and presents exhibitions and programs designed to offer experiential learning and discovery in a nontraditional environment.
2010

FABRIC OF LIFE: TEXTILES OF LATIN AMERICA

With examples from Mexico to Peru, this exhibition illustrated stunningly complex and colorful textile genres created throughout Latin America’s diverse historic and cultural landscape.

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2011

LITTLE BLACK DRESS: SELECTIONS FROM THE COSTUME MUSEUM OF CANADA

This popular exhibition was the museum’s first showcase of fashion history.

2012

TRADITIONAL TEXTILES OF INDIA

Co-curated with the NEA award-winning Asian Cultural Association of Central Florida, this exhibition featured vibrant textiles from regions across India.

Genres

As a familiar, yet dynamic medium, textiles reflect distinctive connections we share and express within society. Exhibitions fall within six categories:

- Cultural & Historic Textiles
- Fashion & Costume
- Contemporary Fiber Art
- Quilt & Quilt History
- Basketry
- Contemporary Fiber Art

Regions

As an academic museum, the center’s exhibitions are designed to foster inclusive dialogue of global significance. The map icon represents the origin of the artist, subject matter and/or materials on view.
2013

REDRESS: UPCYCLED STYLE
BY NANCY JUDD

An “anti-fashion, fashion” exhibition featuring garments made of recycled materials, this was the museum’s most popular exhibit to date.


2014

EMBELLISHED: A CELEBRATION OF WEARABLE ART

Art to wear, conceptual sculpture, accessories and jewelry were all included in this celebratory exhibition commemorating the center’s fifth anniversary.


2015

LIGHT AND SHADOW: CONTEMPORARY FIBER ART BY HYE SHIN

In this exhibition, the center presented contemporary wall hangings, embroidery and its first sculptural installations. Several of Shin’s works were purchased and are now installed in Evans Library’s Digital Scholarship Lab.

2017  
**TRADITIONAL ARTS OF THE BEDOUIN**
Focusing on the traditional designs and skills of Saudi Arabia’s Bedouin nomads, this exhibition featured an interactive tent constructed in the gallery. The center continues to use interactive experiences and activities to educate and engage.

Image: Choker; silver and blue glass beads; Courtesy of Nance Collection, McClure Archives and University Museum, University of Central Missouri and ExhibitUSA.

2018  
**WANDERING SPIRIT: AFRICAN WAX PRINTS**
For this showcase of West African culture, the center expanded a traveling exhibition to more than double its original content and uniquely designed its gallery space to showcase nearly 150 textiles.


2016  
**RADICAL ELEMENTS**
In this science-themed exhibition, organized by the international Studio Art Quilt Associates, artists were asked to create work inspired by an element from the periodic table.


2019  
**ROOTED, REVIVED, REINVENTED: BASKETRY IN AMERICA**
This exhibition visually chronicled the history of American basketry, displaying more than 90 baskets and contemporary sculptures.


**DID YOU KNOW?**
The center won the Silver Award in the Southeastern Museums Conference Under $25,000 category for its 2019 exhibition “Designed to Mobilize: Propaganda Kimono 1920–1945.”

Florida Tech Magazine | 25
Nothing can shake Larry Hall or his survivalist condos.
By Tom Kertscher

“Oh, a storm is threat'ning
My very life today …”

Fifty years after the Rolling Stones recorded the apocalyptic rock song, “Gimme Shelter,” which Mick Jagger called "a very moody piece about the world closing in on you a bit," across Kansas, it’s partly sunny and summer-like on the second day of autumn.

But should the Stones hit one day prove to be prophetic, Larry Hall ’79, ’80 MBA, ’83 M.S., will be ready.
Welcome to Hall’s Survival Condos, two former Atlas missile silos turned into condominiums.

Their incongruous motto: “Survival Bunker Security/Full Luxury Resort Living.”

“Something that I particularly feel great about is that we took a weapon of mass destruction, which was designed to kill people, and we turned it into the complete opposite,” Hall says.

“It’s now something that is designed to save lives and protect families.”

In recent years, doomsday preparation has become a multimillion-dollar business, a curve Hall was arguably ahead of when he launched his bunker-designing business in 2004. But the suburban Denver resident, a former scholarship-earning basketball player and magna cum laude student at Florida Tech, doesn’t always feel appreciated for his efforts.

**Florida Tech Advantage**

Hall says his three degrees from Florida Tech propelled him to high-level technology jobs before he started working on the condos. He worked for Northrop Grumman Corp. as a consultant for 10 years, was a project manager on the Tracking and Data Relay Satellite System with Harris Corp. (now L3Harris Technologies Inc.) and was head project manager for a fiber-optic guided missile training program for DBA Systems Inc. in Melbourne.

“Early in my career, I would run into people who had gone to Duke, MIT and other well-known engineering schools, and they would ask, ‘You seem to be a leg up on people; where did you get exposure to program management?’” Hall says.

“I attribute Florida Tech and its faculty,” he says. “The guy who taught me program management was in charge of future programs for NASA. And the guy who taught me production management was the guy who set up the machine shops for General Motors. The people who were teaching the courses at Florida Tech were people who were doing it for a living.”

**The Condos**

The idea for the condos emerged shortly after the 9/11 terrorist attacks in 2001.

“There were a lot of people who thought that because of 9/11, we were in for a new level of global terrorism,” Hall recalls. “If they could strike in the U.S. in New York City and take down landmark buildings, is this the sign of things to come?”

Hall initially thought about developing nuclear-resistant, underground data centers. But he changed course after a friend asked, “Why don’t you protect people instead of computers?”

One of the 12-unit Survival Condo developments has been completed, and the other, also in Kansas, is under construction. Units are advertised as ranging from 920 square feet for $1.5 million to 3,600-square-foot—ironically named—“penthouse” units for $4.5 million.

No banks generally won’t finance them.

“There are many bunker products less expensive than ours, and there are some that are more expensive than ours,” Hall says. “But in terms of value, I believe we have the best product.”

Some of the security features in Hall’s condos: redundant water supply with minimum 75,000-gallon reserve tanks; redundant air filtration, including nuclear, biological and chemical (NBC) filtration; organic, hydroponic and aquaculture food production; and a command and control center.

Some of the communal luxury features: an indoor pool and spa, a theater, an indoor shooting range and a dog park. Inside the units: high-end stainless steel appliances, Jacuzzi tubs in the master bathrooms and Kohler bath fixtures.

“This gave people the ability to maintain their lifestyle and still protect their family and not be dependent on the outside for their food, power, water, safety—and that struck a chord,” Hall says. “People really liked the concept.”

Despite—or perhaps due to—the highly limited availability of what the website calls “total ‘life assurance’ for you and your family in the event of just about any major crisis,” the Survival Condo gets serious attention.

In August 2019, Hall was featured in a New York Times story (the dateline was “201 FEET UNDERGROUND, Kan.”) that declared “A Boom Time for the Bunker Business and Doomsday Capitalists.”

Hall has also been in similar stories in the Wall Street Journal, the New Yorker and “60 Minutes Australia.”

Luxury was the route to go, Hall says, because the condo prices have to be high to pay for the infrastructure, such as 200-foot elevators and NBC filtration systems.

“Everything goes in chunks of half a million dollars,” he says.

All the residents, according to Hall, are self-made millionaires, including doctors, engineers and international business executives.

“There are some famous people,” he adds, “but we can’t get into names because of nondisclosure agreements.”

**Sticking to It**

Hall says he’s been able to ride out the backlash he gets.

“I’ve had the criticism, ‘Well, aren’t you really just marketing fear?’” he says. “I say, ‘Wow, isn’t that the opposite of the truth here?’ I don’t print the headlines; the media does. And the media is creating the fear that is making people anxious. So I’m responding to a fear that they’ve created by providing something that alleviates that fear.’”

Hall says he’s also empathetic to people who worry for their safety but can’t afford his condos, but he won’t let criticism that he’s serving only elites deter him.

“I’m not going to let them rain on my parade,” he says. “I really feel good about what we’ve built here, and I’m going to keep building them. It’s a good thing; it’s not a bad thing.”
Larry Hall’s Survival Condo facility, built within a former Atlas F missile silo constructed by the Army Corps of Engineers, has more than 54,000 square feet of protected space designed to sustain 75 people for more than five years.
It is indeed an honor to receive an award named after Dr. Keuper. He was not only a gifted visionary, but also possessed the tenacity and wherewithal to execute on his dreams, building the foundation of our incredible university.”

—HENRY “CHIP” HEFLICH ’73, JEROME P. KEUPER DISTINGUISHED ALUMNI AWARD RECIPIENT

ALUMNI AWARDS

1. Aeronautics: JASON TERRERI ’01
2. Business: MONIQUE PICOU ’93 MBA
3. Engineering: DON WOODRUFF ’86
4. Science: GRETCHEN KELLY ’94
5. Psychology: SHERRY ACANFORA-RUOHOMAKI ’93, ’00, ’05 M.S.

BY THE NUMBERS

4 Acts at Homecoming Fest
~15,000 Homecoming Fest attendees
>600 Runners in the Homecoming 5K (largest 5K to date)
1972 Year of the first homecoming
9TH Annual Homecoming Awards Gala hosted
6 Awards given at the Homecoming Awards Gala
3 Special presentations to alumni board members
It has been a very exciting and productive time at Florida Tech since our last issue.

Another successful Homecoming is in the books, and it was a wonderful four-day event. There was no lack of rain that weekend, but nothing could keep us from honoring outstanding alumni, welcoming visitors and celebrating in Downtown Melbourne. If you have never taken part in the festivities or attended the Homecoming Awards Gala, I highly recommend putting it on your bucket list.

In this issue, you’ll read about some awesome products being engineered and delivered by Florida Tech graduates. The watercraft from Mystic Powerboats (page 18), owned by John ’91 and Robin Cosker ’90, are second to none. I’ve been told by many that “thrilling” is not enough to describe the ride. As a former rocket scientist myself, I find the reuse of missile silos for luxury survivalist living spaces by Larry Hall ’79, ’80 MBA, ’83 M.S. (page 26) clever and interesting, indeed. When it comes to innovation to the extreme, Florida Tech alumni know how to deliver.

Our alumni are always on the move, and a few other highlights this season include October’s on-campus F. Alan Smith Distinguished Lecture featuring Tom Folliard ’89, former president and CEO and current nonexecutive board chair of CarMax (page 7), a summer reunion of Oxford study abroad program alumni (page 39) and 10th anniversary celebrations for the Ruth Funk Center for Textile Arts (page 22) and The Scott Center for Autism Treatment (page 10).

The finishing touches on the new Alumni Center are being completed, and we anxiously await its grand opening, scheduled for spring. The center will be a hub not only for alumni activities, but also for student and faculty events and networking opportunities. I thank all the contributors who have helped to make this vision a reality.

Lastly, I appreciate everyone who participated in our November Day of Giving. Your support in this single event results in better university rankings, which generate interest from top-level students, corporations and other alumni. Thank you.

Go Panthers!

News from the desk of Kim Bozik ’87 Florida Tech Alumni Association President
GATHERINGS

More reception photos: floridatech.edu/alumni
1970s

ROBERT RUFLI ’79, vice president of flight operations and director of operations for Pentastar Aviation at Oakland County International Airport, was elected vice chair-man of the Air Charter Safety Foundation.

1980s

1. FREDERICK BAUER ’81, a Westhampton Marine Corps veteran, was honored for his years of service and dedication to the community through the Westhampton Free Library’s new Hometown Heroes program.

2. PHIL KING ’82 M.S. received the Lifetime Achievement Award from the Engineers Club of St. Louis, Missouri. This honor recognizes an engineer who has made significant contributions in engineering. King has been involved in the design, development and production of mounted displays of military helmets worn by pilots in fighter/attack aircraft for McDonnell Douglas and Boeing.

3. STEVE SCHULZE ’85 recently retired after 34 years of service with the Naval Sea Systems Command. He has received the Navy Meritorious Civilian Service Award (2006), Navy Superior Civilian Service Award (2009, 2019), Navy Distinguished Civilian Service Award (2010, 2016), Naval Submarine League Distinguished Civilian Award (2019) and Presidential Rank Award—Meritorious Executive (2019). Schulze is senior vice president of Navy technical support services for Patrona Corp., supporting the Navy’s undersea warfare efforts.

4. BRUCE SELLARS ’85 Psy.D. has been elected to serve as president of the Virginia Academy of Clinical Psychologists. He lives in Roanoke, Virginia, with his wife Susanne, a former Florida Tech employee. He is the managing partner at Psychological Health Roanoke, an outpatient group practice.

5. SHEILA B. JORDAN ’89 MBA, senior vice president and chief information officer at Symantec, has been appointed to the board of directors of Slack. With expertise in enterprise transformation and strategic planning, Jordan has held leadership roles with Cisco Systems and Destination Disney.

6. DANA SCHULZE ’89 was appointed director of the National Transportation Safety Board (NTSB) aviation safety office. Schulze, who has been with the NTSB since 2002, has been a member of the senior executive service since 2012 and earned a 2017 Distinguished Presidential Rank Award. She began her career with the NTSB as an aircraft system safety engineer within the aviation engineering division and served as a group chair and investigator on major domestic and international airline accident investigations, including Alaska Airlines Flight 261, Pinnacle Airlines Flight 3701 and American Airlines Flight 587.
At 22 years old, recent ocean engineering graduate STEPHEN HAMMOND ’19 was selected from a pool of over 30 applicants to be St. Johns County’s coastal environment project manager in charge of multiple county projects, particularly those along the coastline and beaches.

“I plan, budget and document the projects while managing the consultants we hire to assist with the projects,” Hammond says. “Another big part of this job as a public servant is communicating with the public and making sure they know what we are doing for their county.”

Although most of the six projects Hammond and his team are currently working on are still in the design and permitting phases, his U. S. Army Corps of Engineers beach renourishment project is set to begin construction in early 2020. While the main goal is to restore the beaches of South Ponte Vedra and Vilano to their 2015, pre-hurricanes Matthew and Irma status, the project will also add a 60-foot berm extension, a fortification line preventing the dunes from being washed away in future storms.

An avid surfer, beachgoer and Florida native, Hammond has quickly adjusted to the new role, which he calls an ideal combination of his education and passion.
VIEW FROM MY DESK

MAT JORDAN ’11 has a unique view from his desk, which some days, can be found thousands of miles underwater.

As an electrical engineer for Triton Submarines, a private state-of-the-art submersible designer and manufacturer in Sebastian, Florida, Jordan designs electrical systems and conducts field troubleshooting, piloting work and sea trials for various submarines. One such sub is the Triton 36000/2 model, the world’s deepest-diving, currently operational submarine in which a man recently became the first human to make multiple solo dives in the Pacific Ocean to Challenger Deep, the deepest point on Earth. Jordan became involved with the project during its infancy, working on it from the early design stage to manufacturing to the initial sea trials in the Bahamas and off the coast of Newfoundland, Canada.

“It’s fun. I have been 1,000 meters underwater, which is by far, awesome,” Jordan says. “I know I’ve seen stuff that me and the two other people inside the sub are the only three people in the world to see.”

**OCCUPATION:** Engineer, submersible pilot

**PREOCCUPATION:** Blacksmithing, woodworking

**LAST ADVENTURE:** Hiking the Inca Trail in Peru

**CAN’T LIVE WITHOUT:** Sleep

**ALWAYS:** Have fun.
Iraq and conducting peacekeeping operations in Bosnia. She served on active duty for seven years, attaining the rank of captain.

25 SHALYN DEVER ’07 M.S., CEO and co-founder of Chatter Buzz Media, is an engineer turned entrepreneur. After earning a master’s degree in electrical engineering from Florida Tech, she went on to earn a second master’s degree in business management and to co-found Chatter Buzz, a technology, creative, digital marketing and advertising agency.

26 KATIE (NAUMOFF) SCOTT ’07 and her husband, Travis, welcomed Panther cub Taten James in 2019. She is the associate head softball coach at Angelo State University.

27 AMANDA BUIE ’08 and her husband, James Everett, Sept. 15. Amanda earned her degree in biological sciences and was a four-year member of the women’s basketball team. The Buies reside in Midlothian, Texas, where she is a clinical assistant professor at Texas A&M College of Dentistry.

28 PAMELA CHRISTIAN ’09 Ph.D., who teaches oceanography and geology at Eastern Florida State College, was recognized as the outstanding faculty adjunct for her work with students. Christian is a fellow in the American Society for Engineering Education (ASEE) Science, Mathematics and Research for Transformation (SMART) scholarship program.

29 ELIZABETH (SNAPE) COLUCCIO ’09, ’12 M.S., married Raffaele Coluccio Sept. 7. She earned a B.S. in astronomy and astrophysics and an M.S. in space sciences. She is a teacher at Notre Dame High School in Connecticut.

30 SCOTT DAVIS ’09 M.S. was appointed to lead JLL’s government integrated facilities management business. Davis joins JLL after 25 years in engineering, construction and facilities/installations services with the U.S. Department of Defense, other federal government agencies and the commercial sector.

31 KAY MALONEY ’09 M.S. was appointed vice president and general manager of the Cubic Transportation Systems (CTS) eastern North America region. She joins CTS from L3Harris Technologies Inc., where she held several leadership roles, including program director for its precision, navigation and timing and space systems and ranges programs.

32 PHIL STEVENS ’09 M.S. was appointed chief technology officer of Sportman’s Warehouse Holdings Inc. Stevens will oversee all technology aspects and develop policies and procedures to enhance the overall customer experience.

2010s

33 HAYLEY (DONNER) THOMAS ’11 and BENJAMIN THOMAS ’13 have a growing Panther pack. They recently welcomed their son, Whitman, who joined sister Adelaide.

34 COREN JONATHAN ALLEN ’12 M.S., a retired U.S. Army soldier and founder of the Kambimbi Academy, recently published a children’s book, What if It Just Started Raining? The book includes peace-building lessons for both children and adults. Allen, an Operation Iraqi Freedom veteran, served as a combat helicopter pilot and held assignments with the U.S. Department of State’s Bureau of African Affairs.

35 JOSEPH KALLIE ’12 recently joined Howard & Howard’s intellectual property practice group. He is also a member of the Michigan State Bar and a member of the Michigan Intellectual Property Inn of Court.

36 ROBERT TRUJILLO ’12 and MARY (VESTGARD) TRUJILLO ’16 welcomed their baby Panther, Emily, in July.

37 JULIE (NOBLE) MELITAS ’13 MBA and her husband, Nicolas, welcomed their son, Konmus Andrew, Aug. 8.

EDWARD FISHER ’16 MBA assumed a new role as the director of human resources for Hazel Park Public Schools. He is responsible for developing long-term strategies on staffing, from recruitment to development and education. Fisher retired as a colonel after 33 years of service in the U.S. Army and has served in various roles with BP.

38 2nd Lt. ALEXIA N. PEARAH ’19 was commissioned in the Army Medical Corps and will train to become a medevac pilot. Pearah has applied to medical school at the Uniformed Services University of Health Sciences.

TERESA SEDLAKOVA ’19 recently signed a professional basketball contract with the Nottingham Wildcats. Sedlakova was named the 2018–19 Florida Tech female scholar-athlete of the year and graduated with a 4.0 GPA and a degree in global business and finance.

39 The Belton family, including several current and alumni Panthers, gathered for a reunion in central New York in August. Front row: ALEX HOPKINS (current junior), JAMES M. BELTON ’19, ROBERT A. BELTON ’94 and JOHN F. BELTON JR. ’86. Back row: STEVE BELTON ’10, JACKIE (MARSH) BELTON ’89, JAMES T. BELTON ’88 and MICHAEL W. BELTON ’91.
GARRY MILLER ‘70, who studied space sciences and remained a lifelong Florida Tech supporter, passed away Aug. 8.

MARY ANNE FREY ‘84 MBA, an advocate for women and minorities in scientific careers who most recently served as professor emeritus for the aerospace medicine program at Wright State University, passed away Sept. 13.

GARY LINDSEY ‘84 MBA, who worked at L3Harris Technologies Inc. for almost 40 years, passed away Sept. 18.

RONALD MATTHEWS ‘84 Psy.D., who worked counseling children and families for more than 40 years, passed away Aug. 24 after a yearlong battle with cancer.

CHRISTOPHER MCADAMS ‘84, who served as a mechanical engineer with the U.S. Navy in Pensacola, Florida, after graduating from Florida Tech, passed away May 6.

Lt. Colonel KIM GAGE ‘98, who served in the Army Corps of Engineers upon graduating from Florida Tech, passed away July 27.

JUDY BROOKE, who for 15 years served the university as director of International Student and Scholar Services, passed away from cancer Oct. 12 at age 56.

JEFF MCGUIRE, 56, a member of Florida Tech’s groundskeeping team since 2014, unexpectedly passed away Sept. 18 while at work.

ROSARY PEDREIRA, who worked for 28 years in the Florida Tech Copy Center followed by about four years in the mailroom, passed away Oct. 10 at age 70.
OXFORD STUDY ABROAD ALUMNI REMINISCE

A pot of Darjeeling tea and a plate of golden fruit scones at Vaults & Garden café. A ramble past the Radcliffe Camera or along the Thames to Wolvercote. A G&D’s “Oxford Blue” cone followed by fish and chips, mushy peas and a pint. Blue skies, tolling bells and cobblestone streets.

“Thus describes a perfect English summer day. The stuff dreams are made of—my dreams, anyway,” says DEBRA THOMPSON, an alumna of Florida Tech’s Oxford study abroad program.

Since the program launched almost 16 years ago, University of Oxford’s Jesus and Exeter colleges have hosted more than 500 Florida Tech students, about 11 of whom reunited on the Jesus campus in July to reminisce and relive the expansive cultural experience.

From field trips to Bath, Stonehenge, Blenheim Palace and various shows and plays to weekends exploring Ireland and France, the program immerses students in European culture while they earn credit toward their degrees.

“Being part of the Oxford study opened my mind to all the possibilities,” says JIAPU LAING ’14, an Oxford program alumnus and graduate research assistant pursuing his Ph.D. in biomedical engineering at the University of Florida. “I met my best friend during the program. I was able to enhance my résumé for internships and graduate school applications.”

Conversation at the reunion made clear that every student’s Oxford experience was unique, punctuated by distinct adventures, personal growth and inimitable memories. But no matter the class, everyone agreed on one thing: It was life-changing.

“Oxford gets under your skin and burrows deeply in your soul,” says Thompson, a psychotherapist for Sheppard Pratt Health System. “The program was a culmination of a lifetime of dreams and the birthplace of new life goals. The acquiring of an identity and long-awaited liberation. … An embrace of self and strength, and the staring down of fears and doubts. I learned what I was capable of during my travels, and it left me quite gobsmacked.”

To learn more about the Oxford program and all of our study abroad options, visit FLORIDATECH.EDU/STUDY-ABROAD
Coming Soon: Health Sciences Research Center

In spring 2020, Florida Tech will break ground on a 61,000-square-foot Health Sciences Research Center. The $18 million facility will double the size of Florida Tech’s undergraduate biomedical engineering program to 300 full-time, on-campus students, increase the size of the undergraduate premedical program from 150 to 250 students, provide more than 20,000 square feet of classroom and training spaces and allow students access to teaching laboratories that use augmented and virtual reality tools and space for orthopedics, tissue studies and advanced computational simulations.

“The excellence of a Florida Tech education and our unparalleled success in producing highly desirable graduates make this evolution on our campus and in our educational offerings a natural, powerful step forward,” says Florida Tech President Dwayne McCay.